Pronunciation Competence and Impact of Phonetics and Phonology Instruction in the Vietnamese Tertiary Context

TON NU MY NHAT *
Faculty of Foreign Languages
Ho Chi Minh City University of Industry and Trade, Viet Nam
nhattnm@huit.edu.vn

HOANG THI THU HIEN
Department of Foreign Languages
Quy Nhon University, Viet Nam

ABSTRACT

A holistic approach to pronunciation instruction — encompassing both segmentals and suprasegmentals — is essential for enhancing the intelligibility and comprehensibility of second/foreign language learners. However, teachers often prioritise the accurate articulation of individual English consonants and vowels, neglecting the suprasegmental aspects of pronunciation. Therefore, a comprehensive examination of both segmental and suprasegmental aspects is imperative for evaluating the efficacy of pedagogical interventions and assessing the pronunciation proficiency of language learners. This study examines the pronunciation proficiency of Vietnamese EFL students at the tertiary level, an area with limited research. Additionally, it seeks to evaluate how theoretical knowledge of English phonetics and phonology influences their pronunciation performance. The quantitative data were obtained from a pre-and post-test involving 50 undergraduates majoring in English at a public university in Vietnam. The findings reveal that an overwhelming majority of the students displayed below-average pronunciation abilities. The study also documented the positive impact of participation in theoretical English phonetics and phonology on students. These findings have broader implications beyond the immediate context, offering valuable guidance to educators and learners in similar educational settings.

Keywords: pronunciation; phonetics and phonology; Vietnamese EFL learners; segmentals; suprasegmentals

INTRODUCTION

Pronunciation stands as a fundamental pillar of effective communication (Derwing & Munro, 2015; Jones, 2018). Extensive research highlights the critical role of proficient pronunciation skills in bolstering learners' confidence in spoken English. In the context of second language acquisition, learners with pronunciation difficulties often struggle to convey their intended messages despite possessing strong grammar and vocabulary skills (Celce-Murcia et al., 2010; Thomson & Derwing, 2015). Notably, inaccurate pronunciation has been indicated by Celce-Murcia et al. (2010) and Rogerson-Revell (2011) to significantly impede successful oral interactions.

Nevertheless, a body of research has exposed the variance in educators' perspectives concerning the aspects of pronunciation that merit emphasis in the classroom (Derwing & Munro, 2015). Esteemed scholars in this domain advocate for a comprehensive approach to pronunciation instruction, emphasising both segmentals and suprasegmentals to enhance the intelligibility and comprehensibility of L2 learners (Celce-Murcia et al., 2010; Derwing, 2018). However, despite recognising the significance of teaching intonation, stress patterns, and other prosodic features, educators often express a dearth of understanding on how to effectively teach these elements,

leading them to primarily focus on individual sound units (Couper, 2019; Foote et al., 2016; L. T. Nguyen & Newton, 2020). This discrepancy in the emphasis on different aspects of pronunciation also originates from two distinct viewpoints on pronunciation - a narrow perspective and a broad perspective. The narrow perspective views pronunciation as the articulation of individual consonants and vowels within a language's phonological system (Brown, 2000). Conversely, the broader perspective considers pronunciation to encompass all aspects of oral production, including segmentals such as consonant and vowel sounds, as well as suprasegmentals like stress, rhythm, and intonation (Derwing & Munro, 2015; Setter & Jenkins, 2005). This inclusive view emphasises the attainability of intelligibility and comprehensibility in L2 pronunciation instruction rather than focusing solely on accent reduction.

Drawing on this existing literature, it becomes apparent that a comprehensive examination of both segmental and suprasegmental aspects is imperative for evaluating the efficacy of pedagogical interventions and assessing the pronunciation proficiency of language learners. This study aims to fill these research gaps by focusing on EFL learners in Vietnam, a context that has received limited scholarly attention regarding the comprehensive evaluation of learners' pronunciation proficiency. Specifically, it seeks to evaluate the proficiency of students in both segmental and suprasegmental features of pronunciation and critically assess the influence of foundational theoretical knowledge in phonetics and phonology on the execution of English pronunciation skills among students. The findings of this study aim to contribute to our understanding of a crucial component within the English major degree program, shedding light on the prevalent pronunciation challenges faced by undergraduate students within the context of EFL education in a specific institution in Asia. The implications of these findings extend to educators and learners within the Vietnamese tertiary EFL context and beyond, providing valuable insights and pedagogical implications for the teaching and learning of L2 pronunciation in similar educational settings. The study seeks to answer the following research questions:

(1) What is the level of proficiency of Vietnamese tertiary-level EFL students in segmental and suprasegmental aspects of pronunciation?
(2) How does the theoretical knowledge of English phonetics and phonology impact the pronunciation competence of Vietnamese tertiary-level EFL students?

LITERATURE REVIEW

The educators maintain a firm conviction that "pronunciation instruction plays a very important or crucial role in the lives of their students across almost all contexts and situations" (Darcy, 2018, p. 16). This perspective finds unanimous support among ESL/EFL instructors, as evidenced in previous research (Couper, 2019; L. T. Nguyen, 2019a; Zielinski & Yates, 2014).

A substantial body of research has consistently highlighted a strong association between teacher experience, either through linguistic exposure or involvement in training programs, and their beliefs concerning L2 pronunciation instruction (Burri et al., 2017; Tsunemoto et al., 2023; Uchida & Sugimoto, 2020). This, in turn, shapes their instructional approaches. For example, while some educators adeptly implement newly acquired knowledge of instructional techniques (Burri et al., 2017), others demonstrate a higher inclination towards pronunciation teaching when they have received significant training in this area. Furthermore, instructors with prior experience in pronunciation instruction are more likely to address pronunciation-related issues within their

classrooms (Huensch, 2019), while those with international teaching experience exhibit varying levels of confidence in their own pronunciation abilities (Uchida & Sugimoto, 2020). The teaching of pronunciation in L2 settings is commonly perceived as one of the most formidable skills to impart (e.g., Couper, 2019), often due to insufficient training (Foote et al., 2016; J. Murphy, 2014) or inadequate familiarity with the subject matter. Bai and Yuan (2019) discovered that EFL teachers in Hong Kong encounter challenges in delivering pronunciation instruction in English classes, primarily attributable to their limited understanding of phonology and inadequate training in pronunciation teaching.

Accordingly, the majority of instructors have expressed a strong inclination for additional training opportunities in pronunciation pedagogy; a sentiment echoed even by those who exhibit confidence in their instructional prowess (Burns, 2006). As suggested by Baker (2011), a single course in pronunciation pedagogy can substantially enhance teachers' proficiency and confidence, thus enabling them to become more effective instructors in the domain of pronunciation. Buss (2017) demonstrated that a phonology and pronunciation pedagogy course offered in a Canadian undergraduate TESOL program had a positive impact on the attitudes of student teachers toward pronunciation instruction. The course also increased participants' awareness of their own pronunciation and bolstered their confidence in teaching this aspect of language. Burri et al. (2017) conducted a study that examined the cognitive development of five experienced and ten inexperienced teachers throughout a postgraduate course on pronunciation pedagogy at an Australian university. The results revealed that by the course's conclusion, experienced teachers exhibited more significant improvements in their beliefs and understanding of pronunciation pedagogy. Additionally, they reported increased confidence in their ability to teach pronunciation.

Concerning instructional practices, in stark contrast to the methodical and planned approach adopted for teaching grammar or vocabulary, research indicates that pronunciation teaching often takes on a reactive and improvised character, frequently relying on spontaneous error correction. Classroom strategies tend to be confined to listen-and-repeat exercises (Foote et al., 2016). For example, D. Murphy (2011) found that a significant proportion of the surveyed educators in four private schools in Ireland primarily employed listen-and-repeat exercises or provided corrective feedback during oral reading activities rather than dedicating class time to explicit pronunciation instruction. In addition, pronunciation guidance often lacks a systematic framework (Couper, 2019), with the emphasis typically placed on individual sounds to the detriment of prosody (Foote et al., 2016; L. T. Nguyen & Newton, 2020). Similarly, pronunciation oral correction practices appear to largely focus on rectifying errors at the word level. Various studies, such as those by Couper (2019), Foote et al. (2016), and Rahmati et al. (2023), highlight this pattern. These studies suggest that educators primarily utilise corrective feedback methods targeting segmental deviations, indicating a potential lack of familiarity with crucial elements of speech intelligibility, especially suprasegmentals. Instructors attribute this difficulty to various contextual and educational factors, emphasising the need for educational initiatives focusing on English suprasegmentals and effective corrective feedback methods targeting these specific errors.

Several scholars have also investigated the effectiveness of purposeful pronunciation instruction, both with and without the integration of communicative activities (Adams-Goertel, 2013; Foote & Trofimovich, 2018; Gordon et al., 2013; Levis & Sonsaat, 2018; Pardede, 2018; K. Saito, 2011, 2012). These studies collectively indicate that explicit pronunciation teaching can yield favourable outcomes in the speech of adult learners. For example, K. Saito's (2011, 2012) research demonstrates significant enhancements in the pronunciation of EFL students in both sentence-reading tasks and picture description tasks. Similarly, Gordon et al. (2013) found that

learners who received explicit instruction in suprasegmental features displayed notable improvements in their comprehensibility.

Research on students' knowledge of English phonetics and phonology highlights its vital role in enhancing pronunciation competence. Studies by Derwing and Munro (2015) and Celce-Murcia et al. (2010) emphasise that a strong grasp of phonetic and phonological concepts enables learners to better perceive and produce English sounds. These scholars argue that awareness of sound articulation and phonological rules allows students to recognise the differences between their native language and English, thus improving their ability to replicate accurate pronunciation. This knowledge is particularly important in distinguishing between minimal pairs and understanding suprasegmental features like stress, rhythm, and intonation, which are key to achieving intelligible speech.

The impact of phonetics and phonology courses on pronunciation competence is well-documented. For instance, Y. Saito and Saito (2017) found that explicit instruction in phonetics leads to significant improvements in learners' pronunciation accuracy, particularly in challenging aspects like vowel quality and consonant clusters. Similarly, Thomson and Derwing (2015) demonstrated that students who receive systematic training in phonology are more capable of self-monitoring and correcting their pronunciation errors. These findings suggest that incorporating phonetics and phonology into language curricula can result in more effective pronunciation teaching, ultimately leading to better communication skills among EFL learners.

Limited scholarly attention has been directed toward exploring learners' perspectives on pronunciation acquisition. Prior research has underscored students' acknowledgement of the significance of pronunciation in L2 acquisition (Kang, 2012; Levis, 2018; Pardede, 2018; Simon & Taverniers, 2011). Nevertheless, learners encounter challenges in both segmental and suprasegmental aspects of pronunciation (L. T. Nguyen, 2019b). For example, Derwing and Rossiter's (2002) study involving adult ESL learners in Canada revealed that more than half of the participants attributed communication breakdowns to pronunciation issues. L. T. Nguyen's (2019b) investigation similarly highlighted students' strong inclination towards explicit pronunciation instruction. Equally, Derwing and Rossiter's (2002) research emphasised that a majority of students in the Canadian adult ESL cohort were enthusiastic about enrolling in pronunciation courses.

Together, the existing literature emphasises the significant influence of teacher experience and training on their beliefs and instructional practices in L2 pronunciation teaching, highlighting the need for enhanced awareness of suprasegmental elements. It also highlights the prevalence of word-level error correction over suprasegmental aspects. Furthermore, the reviewed studies underscore the effectiveness of explicit pronunciation instruction for adult learners and the importance of considering learner perspectives and challenges in pronunciation acquisition.

Within Vietnam's EFL education, in recent years, the focus of pronunciation teaching research has largely centred on the concerns of educators. Notably, studies have delved into various aspects, such as teacher preparation, the integration of communicative methods, tertiary-level instruction, and the correlation between teachers' beliefs and their instructional approaches. A study by L. T. Nguyen and Burri (2022) highlighted the limited training of Vietnamese EFL teachers in English pronunciation instruction, leading to their perceived inadequacy in this area. Consequently, several initiatives were implemented to enhance the pedagogical practices of these educators, addressing their lack of preparation and the need for professional development programs. Furthermore, findings from research conducted by L. T. Nguyen and Hung (2021) underscored the effectiveness of communicative pronunciation teaching in promoting learners'

pronunciation knowledge and phonological ability while also fostering their listening and speaking skills. In a similar vein, studies by L. T. Nguyen and Newton (2020) revealed that the pedagogical practices of some EFL teachers primarily involved unplanned correction of learners' pronunciation errors, emphasising the teachers' preference for prioritising intelligibility over native-like proficiency in L2 pronunciation teaching. Conversely, a workshop based on Celce-Murcia et al.'s (2010) communicative framework was perceived by teachers, as demonstrated in the study by L. T. Nguyen and Newton (2021), to significantly contribute to the enhancement of their pronunciation pedagogical knowledge and teaching skills, effectively integrating the workshop's insights into their classroom instruction.

While a few of these investigations have acknowledged the involvement of students within the educational framework, their scope was limited to exploring the learners's perspectives on specific teaching methods' implementation or their requirements in pronunciation learning, in addition to the instructors' viewpoints (L.T. Nguyen, 2019b; L. T. Nguyen & Hung, 2021; L. T. Nguyen et al., 2021). L. T. Nguyen et al. (2021) documented how both educators and students perceive the significance of pronunciation instruction within tertiary-level EFL programs in Vietnam. The research highlights the consensus among both parties that pronunciation instruction warrants explicit and systematic integration, with a particular emphasis on the potential of communicative pronunciation teaching to enhance learners' pronunciation and overall communicative skills. Concerning the instructional needs for pronunciation, L. T. Nguyen's (2019b) study underscores the shared recognition of the importance of pronunciation in English learning, suggesting the explicit and systematic learning of pronunciation. They indicated that in Vietnamese secondary EFL classrooms, the primary emphasis was on teaching vocabulary and grammar, with a tendency to neglect pronunciation instruction. Furthermore, both teachers and students favoured a communicative pronunciation teaching approach that facilitates general communicative goals. The identified pronunciation difficulties encompassed both segmental (e.g., long/short vowels, non-native consonants, and final sounds) and suprasegmental elements (e.g., linking, sentence stress, and intonation). The teachers reported five distinct error categories, including consonants not present in Vietnamese, final sounds and linking, intonation, long and short vowels, and sentence stress.

Notwithstanding the clear deficiency in comprehensive training and professional development opportunities for educators, none of the conducted studies have probed the significance of theoretical knowledge, a mandatory component in pre-service degree programs for EFL majors, regarding its potential impact on undergraduates' learning outcomes. Moreover, the learners' prevalent errors have been perceived subjectively by the teachers rather than being systematically investigated. Given the scarcity of such inquiries, there exists a substantial demand for research evidence elucidating the value of theoretical knowledge in phonetics and phonology, which forms a part of the tertiary students' educational repertoire. This current study aims to address this gap by examining whether a grasp of theoretical principles positively influences the pronunciation abilities of tertiary learners, along with identifying the specific segmental and suprasegmental aspects that benefit most from such knowledge.

METHODOLOGY

RESEARCH CONTEXT AND PARTICIPANTS

This study was conducted within the framework of the English Phonetics and Phonology course offered at a public university in Ho Chi Minh City, Vietnam. The course is an obligatory linguistics module within the Bachelor of Arts program for English majors, encompassing additional modules such as morphology, syntax, and semantics. The primary objective of this theoretical course is to furnish prospective teachers, interpreters, and translators with a comprehensive understanding of English pronunciation principles, thereby fostering a deeper comprehension of sound utilisation in spoken English. The course primarily focuses on the identification and description of English sounds, as well as broader speech units like syllables and facets of connected speech, including stress, rhythm, intonation, elision, linking, and assimilation. The key reference text for this course was "English Phonetics and Phonology – A Practical Course" by Peter Roach, supplemented by other materials suitable for learners at an intermediate level of English proficiency. Spanning two months from April to May 2023, the 2-credit class comprised two weekly sessions, with one of the authors serving as the class instructor. The students were provided with guiding questions and required to read the key textbook and supplementary materials before class. During class, active participation was highly encouraged. Students could volunteer to present their understanding through PowerPoint slides or raise questions. The teacher lectured, facilitated discussions, and provided feedback on hands-on activities. After class, students were encouraged to write reflective essays on what they had learned, the usefulness of the theoretical concepts, and the differences and similarities between English and Vietnamese phonology.

Participants were chosen through convenience sampling, considering their availability and willingness to take part (Creswell, 2012). The class involved fifty-seven English majors, aged 20-23, constituting a naturally occurring, 'captive' group (Newton-Suter, 2006) within the structural organisation of the faculty. The group demonstrated relative homogeneity in English proficiency while presenting heterogeneity in terms of autonomy, initiative, and active participation during class sessions and post-class engagement. As part of their first-year curriculum, participants had previously undergone a speech training course to enhance their pronunciation skills.

During the final week of the course, participants were approached via email and asked for their consent to use their recordings and grades in a research study. It was explicitly communicated that participation was voluntary, with an assurance that their grades would remain unaffected by their decision to participate. Confidentiality was emphasised, and participants were informed that no risks were associated with their involvement. Seven students who did not respond with consent were subsequently excluded from the study, resulting in a final participant count of 50.

PRE-TEST AND POST-TEST

In the initial week and the concluding week of the course, pre-test and post-test assessments were administered, respectively. In both instances, students were instructed to audibly articulate a designated passage and record their reading. The pre-test functioned as a gauge of the participants' initial pronunciation proficiency, while the post-test aimed to discern the application of acquired theoretical knowledge and any improvements in scores. Notably, the same passage used in the pre-test was employed in the post-test to facilitate a direct comparison.

Evaluation of the oral assignments for both the pre-test and post-test was conducted using a consistent analytic rubric, which was meticulously designed to assess both segmental and suprasegmental aspects of pronunciation. Segmental evaluation focused on the accuracy of phoneme production. The suprasegmental evaluation involves assessing sentence stress, intonation, and aspects of connected speech, specifically rhythm, elision, and linking. These dimensions were chosen to align with the Phonetics and Phonology course content. It is pertinent to mention that assimilation was intentionally excluded from the assessment, as this phonological aspect tends to be more conspicuous in informal speech and fast-paced discourse rather than in loud reading scenarios. Each of the four dimensions was scored on a scale from 0 to 2.5, with the overall assessment culminating in a maximum possible score of 10.

A standardised assessment procedure was implemented to evaluate the pronunciation proficiency of the participants. The students independently recorded themselves reading a specified passage in English, using their own devices, such as recorders or smartphones and then submitted their recordings for evaluation. The selected passage for this assessment was a letter authored by Abraham Lincoln to his son's teacher. The choice of this passage was considered appropriate due to its linguistic suitability, moderate length, and the educational and moral content it inherently possesses.

TEST ASSESSMENT

Prior studies have highlighted the influence of various rater-related factors on the assessment of second/foreign language pronunciation, encompassing raters' language background (Winke et al., 2013), familiarity with the target language (Foote & Trofimovich, 2018), teaching experience (Kang, 2012; Tsunemoto et al., 2023), linguistic training (Isaacs & Thomson, 2013), and EFL learning experience (K. Saito et al., 2019). Two external Vietnamese EFL lecturers were invited to participate in the study to address the potential implications of these factors. Both lecturers, one male and one female, possessed similar academic backgrounds, holding doctoral degrees in Applied Linguistics and certification as speaking examiners by Cambridge English. The male assessor boasted seventeen years of teaching experience, while the female assessor possessed nine years of teaching experience.

The assessments were conducted independently for four specified dimensions, which encompass both segmental and suprasegmental aspects of pronunciation. Segmentally, accuracy was evaluated based on the correct articulation of individual phonemes. Suprasegmental features were assessed through sentence stress, intonation, and aspects of connected speech - rhythm, elision, and linking. The two assessors applied a consistent analytic rubric for each of these dimensions, with a score assigned on a scale from 0 to 2.5 for each dimension. To ensure reliability, the assessors' scores underwent internal consistency checks, and the analysis of Cronbach's α yielded satisfactory values for each dimension - accuracy ($\alpha = .83$), sentence stress ($\alpha = .87$), intonation ($\alpha = .81$), and aspects of connected speech ($\alpha = .79$). The pronunciation assessments were then averaged across the 50 students, individually for each participant, enabling criterion-based comparisons.

Scores from the pre-and post-test were collected, compared and subjected to analysis to evaluate students' pronunciation. Initially, a quantitative statistical analysis was employed to assess the students' pronunciation ability. Then, paired t-tests were calculated to analyse variations between pre-and post-test scores, determining the impact of the theoretical lectures on students' pronunciation proficiency.

FINDINGS

The pre-test results in Table 1, the overall score, and the Min and Max scores across four dimensions provide insights into the ability of pronunciation among undergraduates. They collectively paint a picture of a class with a generally low ability in pronunciation.

THE STUDENT'S PRONUNCIATION ABILITY

TABLE 1. Descriptive statistics of pre-test

Dimension	Min	Max	Median	Mean	SD	IQR (25%-75%)
Overall score	1.00	8.50	4.500	4.490	1.920	2.875 – 6.000
Accuracy	0.05	2.50	1.000	1.130	0.568	0.500 – 1.500
Sentence stress	0.05	2.50	1.000	1.100	0.495	0.500 – 1.500
Intonation	0.05	2.50	1.000	1.208	0.525	1.000 – 1.500
Aspects of Connected Speech	0.05	2.50	1.000	1.060	0.531	0.500 – 1.500

The overall pre-test score, which synthesises performance across all dimensions, emphasises the low ability in pronunciation among the students. With a minimum overall score of 1.00 and a maximum of 8.50, the class exhibits a wide spread of scores but tends to cluster towards the lower end. The mean overall pre-test score (Mean = 4.490) and median (Median = 4.500) are below average, reinforcing a low proficiency level in pronunciation. Furthermore, for all four aspects - accuracy, sentence stress, intonation, and aspects of connected speech, the Min scores are consistently low, at 0.05. This suggests that there are instances where students scored at a very low level in each dimension, indicating they struggle with these various aspects of pronunciation. Conversely, the Max scores in the pre-test demonstrate the upper bound, reaching 2.50 across all dimensions. The maximum scores imply that some students could achieve the highest scores significantly above the class average. The standard deviation of 1.920 of the Mean also indicates that there is considerable diversity in the pronunciation proficiency levels of individual students. This result suggests a uniformity in the challenges faced by students across different aspects of pronunciation and may indicate a general need for improvement.

IMPACT OF THEORETICAL KNOWLEDGE ON STUDENTS' PRONUNCIATION COMPETENCE

Tables 2 and 3 provide a robust picture of the commendable elevation in the pronunciation level of the class.

With a higher mean (Mean = 5.950) and median (Median = 6.000) in the post-test compared to the pre-test (Mean = 4.490, Median = 4.500), with the standard deviation in both tests indicating the spread of marks around the Mean at 2, the overall score indicates an improvement in the class's pronunciation skills. The minimum scores in the pre-and post-tests were 1.00 and 2.50, respectively. The maximum scores also increased from 8.50 in the pre-test to 9.50 in the post-test. At a significance level of $p < 0.05$ (95% confidence), indicating that an understanding of the phonetic and phonological principles led to statistically significant changes in students' pronunciation. The test scores of forty-three students improved after the introduction to general theory, while seven students' scores remained unchanged. It is noticeable that five out of these seven students' scores were consistently below average (2.5 – 5).

TABLE 2. Descriptive statistics of Independent Sample t-test

Dimension	Pre-test		Post-test		p-value
	Mean	*SD*	*Mean*	*SD*	
Accuracy	1.130	0.568	1.370	0.676	0.000
Sentence stress	1.100	0.495	1.430	0.495	0.000
Intonation	1.208	0.525	1.600	0.452	0.000
Aspect of connected speech	1.060	0.531	1.550	0.443	0.000
Overall score	4.490	1.920	5.950	1.855	0.000

TABLE 3. *Descriptive statistics of Pre-test and Post-test*

Dimension		Min	Max	Median	Mean	SD	IQR (25%-75%)
Accuracy	Pre-test	0.05	2.50	1.000	1.130	0.568	0.500 – 1.500
	Post-test	0.05	2.50	1.500	1.370	0.676	0.875 – 2.000
Sentence stress	Pre-test	0.05	2.50	1.000	1.100	0.495	0.500 – 1.500
	Post-test	0.05	2.50	1.500	1.430	0.495	1.000 – 2.000
Intonation	Pre-test	0.05	2.50	1.000	1.208	0.525	1.000 – 1.500
	Post-test	1.00	2.50	1.500	1.600	0.452	1.000 – 2.000
Aspects of Connected Speech	Pre-test	0.05	2.50	1.000	1.060	0.531	0.500 – 1.500
	Post-test	0.05	2.50	1.500	1.550	0.443	1.375 – 2.000
Overall score	Pre-test	1.00	8.50	4.500	4.490	1.920	2.875 – 6.000
	Post-test	2.50	9.50	6.000	5.950	1.855	4.375 – 7.635

The pronunciation level of the students has witnessed significant advancements across four key dimensions, as evidenced by the statistical findings in Table 3. Beginning with accuracy, the mean and median scores demonstrate a substantial improvement from the pre-test (Mean = 1.130, Median = 1.000) to the post-test (Mean = 1.370, Median = 1.500). This notable increase suggests the class's progress in articulating sounds and words more precisely. Similar positive trends are observed in the dimension of sentence stress. The pre-test mean and median scores (Mean = 1.100, Median = 1.000) rise to higher levels in the post-test (Mean = 1.430, Median = 1.500). This suggests that the students have successfully integrated stress patterns into their spoken language. Intonation also exhibits noteworthy improvement. The post-test Mean (Mean = 1.600) and median (Median = 1.500) scores surpass the pre-test values (Mean = 1.208, Median = 1.000). This signifies a more nuanced and expressive use of intonation in their spoken language. Aspects of connected speech, which encompass linking, elision, and rhythm, also display positive strides. The post-test scores for both Mean (Mean = 1.550) and median (Median = 1.500) values show an advancement from the pre-test scores (Mean = 1.060, Median = 1.000). This improvement indicates that students have refined their ability to connect words and phrases, resulting in smoother and more natural speech patterns.

Overall, the statistics manifest the students' progress in refining various facets of pronunciation, contributing to their better pronunciation competence.

DISCUSSION

With respect to the first research question, it was found that the Vietnamese EFL undergraduates in this study exhibited suboptimal pronunciation ability. The result of the learners' low outcomes is consistent with those documented in previous studies on Vietnamese EFL undergraduates' pronunciation ability (L. T. Nguyen, 2019a; L. T. Nguyen et al., 2021). L. T. Nguyen et al. (2021)

found that both educators and students express concerns regarding the inadequate pronunciation and communication skills exhibited by university students when entering university. This result may be attributed to multiple factors, including the written exam-oriented instruction, heavy curriculum, and the teaching staff's limited expertise.

Firstly, in the context of Vietnamese EFL education, research highlights a prevalent examination-oriented environment that prioritises assessments focused on language knowledge over practical language skills (Dang et al., 2013; X. V. Ha & Murray, 2021; L. T. Nguyen et al., 2014). In Vietnamese secondary schools, instructional practices are heavily geared towards teaching vocabulary and grammar to ensure students perform well in national graduation and university entrance exams. This strong emphasis on linguistic form has contributed to significant challenges in developing oral communication skills among learners. Consequently, essential components of oral communication, such as pronunciation, often receive insufficient attention in the curriculum (L. T. Nguyen et al., 2021).

L. T. Nguyen and Newton (2020) have also observed the adverse impact of the mandated curriculum, which imposes a substantial teaching burden, particularly under the constraints of limited time, large class sizes, and students with low proficiency levels. The strict adherence to the mandated curriculum, wherein pronunciation was reported to be largely overlooked, provided minimal guidance to educators for the systematic instruction of pronunciation. Moreover, within this EFL context, the students have limited chances to utilise English for real-life communication beyond the confines of the classroom. Explicit pronunciation instruction became impractical due to time constraints, exacerbated by an overwhelming load of language content mandated in the curriculum and the large size of their classes. (L. T. Nguyen & Newton, 2020).

The teaching staff's limited teaching proficiency results from insufficient pre-service preparation and lack of in-service professional development opportunities. Their initial training in pronunciation pedagogy was limited to two three-hour classes about pronunciation teaching theory in their undergraduate programmes. Rarely were the staff offered chances to attend workshops or academic opportunities to sharpen their pronunciation teaching expertise (L. T. Nguyen & Newton, 2020; Nguyen & Burri, 2022). In alignment with earlier research discoveries across various settings, observed pronunciation teaching practices in intact Vietnamese classrooms were notably constrained, primarily revolving around the correction of students' pronunciation errors through recasts, either with or without International Phonetic Alphabet transcriptions and/or prompts. Explicit or premeditated instruction of pronunciation was minimal, if present at all (L. T. Nguyen & Newton, 2020). This manner of teaching practice was of limited value because, as argued by Foote et al. (2016), without explicit instruction that first helps students understand a target phonological feature, they are less inclined to derive benefits from corrective feedback.

Another important finding was that among the various features examined, accuracy demonstrated the lowest scores in both the pre-and post-tests. This observation aligns with Derwing and Rossiter's (2002) investigation into adult learners' pronunciation difficulties, which found that learners tend to struggle more with segmental features than suprasegmental ones. Derwing and Rossiter (2002) conducted a study involving 100 learners in an ESL program in Canada, where over half of the participants identified their pronunciation challenges as predominantly related to segmental errors. This result resonates with similar research on Vietnamese EFL learners' pronunciation errors. L. T. Nguyen's (2019a) study identified three accuracy-related issues among the five reported types of errors, specifically the pronunciation of consonants absent in Vietnamese phonology, the articulation of final sounds in words, and the differentiation between long and short vowels.

This issue can be attributed to differences in phonology between English and Vietnamese, as outlined by Lane (2010), who identified common pronunciation challenges faced by Vietnamese learners of English. According to these scholars, English final consonants pose a significant hurdle for Vietnamese students. Vietnamese permits a limited number of final consonants - /p, t, k/, but they are typically pronounced weakly. Final fricatives such as /f/ and /s/ are not allowed in Vietnamese. When speaking English, Vietnamese students often omit final consonants, resulting in phrases like 'bank card' sounding like 'bah kah'. Vietnamese do not permit final voiced stops - /b, d, g/, and the presence of sibilants /s, ʃ, tʃ/ in final positions creates pronunciation challenges, leading to substitutions such as pronouncing 'catch' as 'cash'. Furthermore, Vietnamese students frequently substitute /ʃ/ for final /tʃ/ or /s/ (e.g., 'kiss' sounds like 'kish'). Substitutions of /t/ or /d/ for /θ/ are common, and the absence of /p/ in initial positions in Vietnamese may cause words like 'pet' to sound like 'bet'. Consonant clusters, which are not allowed in Vietnamese, often result in omissions; for instance, 'green' may be pronounced as 'geen', and 'street' as 'seat' or 'steat'. The Vietnamese pronunciation of the letter x as /s/ contributes to the mispronunciation of English words like 'explain' as 'esplain' or 'espain', which indicate the challenges with both the transfer of Vietnamese letter-sound correspondences and consonant clusters. While not as numerous, English vowels also present challenges for Vietnamese learners due to differences in vowel tenseness. The Vietnamese system lacks a distinction based on tenseness, which makes it difficult for students to pronounce pairs like 'ship-sheep' and 'seat-sit'. Moreover, the absence of the English vowel /æ/ in Vietnamese leads to substitutions such as pronouncing 'bad' as 'bed'. Lastly, the predominantly monosyllabic nature of Vietnamese words creates difficulties for Vietnamese students in placing stress correctly within polysyllabic English words.

Another possible explanation for the observed low scores in the accuracy dimension within this study may be the characteristics of the raters. Both raters were Vietnamese individuals with substantial experience as educators of EFL to Vietnamese learners. Existing literature emphasises that rater attributes, such as being non-native speakers (e.g., Fayer & Krasinski, 1987), having a background in teaching English as a second or foreign language, and possessing proficiency in the language (Galloway, 1980; Tsunemoto et al., 2023), can contribute to increased scrutiny regarding linguistic accuracy. These raters may exhibit a tendency to be stringent in their evaluations of L2 learners' precise pronunciation of individual sounds as well as word stress.

This discovery regarding accuracy, however, seems to contradict the reported inclination among teachers who assert a greater emphasis on teaching segmental features than suprasegmental features. As revealed in the study conducted by L. T. Nguyen and Newton (2020), Vietnamese educators demonstrated a preference for prioritising segmentals over suprasegmentals in their instructional practices. This preference stems from the belief that the former carries greater importance and is relatively more straightforward to teach compared to the latter.

On the question of the role of explicit instruction in phonetics and phonology theory, the results of this study showed a significant increase in all dimensions of the student's pronunciation. The discovery of positive effects aligns with findings presented in Gordon et al.'s (2013) study, which emphasised the importance of explicit pronunciation instruction for improving the comprehensibility of L2 learners. Gordon et al. (2013) conducted a study involving a cohort of intermediate ESL students enrolled at an American university, demonstrating significant enhancements in comprehensibility after receiving four hours of explicit instruction focusing on stress, rhythm, linking, and reduction.

In our current study, the undergraduate participants attended extended classes with comprehensive theoretical teachings covering various essential dimensions of English

pronunciation, including both segmental and suprasegmental features. Beyond acquiring theoretical knowledge for a profound understanding of spoken English principles, students were directed to apply these principles in their pronunciation exercises and receive feedback from peers or instructors - a practice that has demonstrated efficacy in prior studies (e.g., Foote et al., 2016). The effectiveness of the theoretical course may also be attributed to exposure to audio recordings provided in conjunction with the reference 'English Phonetics and Phonology: A Coursebook', as well as viewing numerous demonstrations by English native speakers available on YouTube. Accuracy improvement was observed to be less discernable, which was consistent with Pennington's (1994) assertion that "the typical case in L2 acquisition seems to be that learners approach new values for phonological features gradually and piecemeal, rather than as the outcome of a rapid shift" (p. 95).

CONCLUSION AND IMPLICATIONS

In conclusion, this research provides the first systematic assessment of Vietnamese EFL undergraduates' pronunciation skills, exploring both segmental and suprasegmental aspects. Prior to this investigation, evaluations of Vietnamese learners' pronunciation relied solely on self-perception and/or the perceptions of teaching practitioners. This study has uncovered that generally, an overwhelming majority of the students displayed a below-average pronunciation ability, with accuracy emerging as the most formidable challenge among the assessed dimensions. Contributing factors include the exam-focused teaching approach in Vietnam, which emphasises language knowledge over practical skills like pronunciation. Teachers' reliance on error correction rather than explicit pronunciation instruction and their limited training and professional development further worsen the situation. Accuracy in segmental features is particularly problematic due to differences between English and Vietnamese phonology. This study has also documented the positive impact of participation in theoretical English phonetics and phonology on the students. This supports the idea that thorough, explicit theoretical instruction, combined with practical application and feedback, can improve pronunciation skills, though accuracy improvements may be gradual.

Our findings contribute some important insights for English major training programs and schoolteachers in Vietnam and similar EFL instructional contexts. These findings hold some implications specifically concerning the teaching practitioners' pre-service training and in-service expertise.

Studies indicate that the initial training of teachers significantly shapes their approach to teaching pronunciation in language classes (Derwing, 2018; Derwing & Munro, 2015; J. Murphy, 2014). Successful pronunciation instructors typically draw on their understanding of phonetics and phonology, coupled with expertise in instructional methods for teaching pronunciation (Celce-Murcia et al., 2010; Crystal, 2019; Levis, 2018). However, the teacher participants in previous research in the Vietnamese EFL education setting (L. T. Nguyen & Burri, 2022; L. T. Nguyen et al., 2021) reported being insufficiently trained in teaching pronunciation. This is also the case in other ESL educational settings, such as Canada (Derwing, 2010), New Zealand (Couper, 2019), and Hong Kong (Bai & Yuan, 2019). Therefore, the cultivation of teachers' preparedness at the tertiary level should include the integration of courses in English phonetics and phonology covering both theoretical knowledge and pronunciation pedagogy into undergraduate programs, as advocated by L. T. Nguyen and Burri (2022) and as evidenced by studies conducted by Buss

(2017) and Burri (2015). Studies have shown that such integration fosters positive attitudes and enhances educators' confidence in teaching pronunciation effectively.

The consistent findings regarding unsatisfactory accuracy imply the significance of this feature as a focal point for learners grappling with pronunciation challenges, a theme evident in both general ESL programs and specific studies on Vietnamese EFL learners. The apparent contradiction between this teaching emphasis and the observed challenges in learners' accuracy suggests a potential misalignment between instructional priorities and learners' proficiency outcomes. Further investigation into the impact of teaching methodologies on learners' pronunciation performance may provide valuable insights into addressing this discrepancy. The finding also indicates a greater need for targeted interventions or instructional strategies to address the varied proficiency levels among the learners. It highlights the importance of recognising and accommodating the diverse learning needs of individual students, enhancing their overall pronunciation proficiency.

Scholars unanimously stress the importance of addressing both segmental and suprasegmental features for intelligibility and comprehensibility (Celce-Murcia et al., 2010; Derwing & Munro, 2015; L. T. Nguyen & Newton, 2020; L. T. Nguyen et al., 2021). Instructors are urged to incorporate a diverse range of features into their teaching. Research has confirmed the effectiveness of the incorporation of communicative activities in conjunction with explicit phonetic guidance (K. Saito, 2011, 2012). K. Saito's (2011) research revealed the effectiveness of a combined approach involving pronunciation instruction and communicative activities, leading to substantial improvement among 20 ESL learners at an American university in both sentence-reading and picture description tasks. In K. Saito's (2012) study, Japanese EFL learners demonstrated more significant improvement when exposed to additional explicit phonetic instruction alongside immersion in communicative activities, compared to those who solely received form-focused instruction.

The results of this study also underline a compelling need for an increased emphasis on pronunciation instruction at the tertiary level, echoing the perspective that pronunciation carries greater significance in tertiary settings, especially as a remedy for deficiencies at the secondary level.

Moreover, the study supports the pivotal role of self-regulated learning in language development, as advocated in previous studies (L. T. Nguyen, 2019b; Schunk & Zimmerman, 2008;). The advantages of promoting awareness in pronunciation learning have been firmly established (Ducate & Lomicka, 2009; Kennedy et al., 2014). In this EFL context, fostering students' awareness and independence in enhancing their pronunciation is deemed crucial for effective learning.

However, it is important to acknowledge the study's limitations, primarily the reliance on delayed passage reading tasks rather than spontaneous speech for evaluation. Additionally, the objective evaluation of speech samples without error analysis presents a limitation. Future research should consider including error analysis in all dimensions and assess the long-term effects of theoretical knowledge on spontaneous oral performance for a comprehensive understanding of learners' pronunciation abilities.

REFERENCES

Adams-Goertel, R. (2013). Prosodic elements to improve pronunciation in English language learners: A short report. *Applied Research on English Language*, *2*(2), 117–128.

Bai, B., & Yuan, R. (2019). EFL teachers' beliefs and practices about pronunciation teaching. *ELT Journal*, *73*(2), 134–143. https://doi.org/10.1093/elt/ccy040

Baker, A. (2011). *ESL teachers and pronunciation pedagogy: Exploring the development of teachers' cognitions and classroom practices* [Paper presentation]. The Second Pronunciation in Second Language Learning and Teaching Conference, Iowa State University.

Brown, H. D. (2000). *Principles of language learning and teaching - 4th edition*. Pearson Education.

Burns, A. (2006). Integrating research and professional development on pronunciation teaching in a national adult ESL program. *TESL Reporter*, *39*(2), 34–41.

Burri, M. (2015). Student teachers' cognition about L2 pronunciation instruction: A case study. *The Australian Journal of Teacher Education*, *40*(10), 66–87. https://doi.org/10.14221/ajte.2015v40n10.5

Burri, M., Baker, A., & Chen, H. (2017). I feel like having a nervous breakdown. *Journal of Second Language Pronunciation*, *3*(1), 109–135. https://doi.org/10.1075/jslp.3.1.05bur

Buss, L. (2017). The role of training in shaping pre-service teacher cognition related to L2 pronunciation. *Ilha Do Desterro*, *70*(3), 201–226. https://doi.org/10.5007/2175-8026.2017v70n3p201

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (2010). *Teaching pronunciation: A course book and reference guide*. Cambridge University Press.

Couper, G. (2019). Teachers' cognitions of corrective feedback on pronunciation: Their beliefs, perceptions and practices. *System*, *84*, 41–52. https://doi.org/10.1016/j.system.2019.04.003

Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research - 4th edition*. Pearson.

Crystal, D. (2019). *Sounds appealing: The passionate story of English pronunciation*. Profile Books.

Dang, T. K. A., Nguyen, H. T. M., & Le, T. T. T. (2013). The impacts of globalisation on EFL teacher education through English as a medium of instruction: An example from Vietnam. *Current Issues in Language Planning*, *14*(1), 52–72. https://doi.org/10.1080/14664208.2013.780321

Darcy, I. (2018). Powerful and effective pronunciation instruction: How can we achieve it? *Catesol Journal, 30*(1), 13-45.

Derwing, T. M. (2010). *Utopian goals for pronunciation teaching* [Paper presentation]. 1st Pronunciation in Second Language Learning and Teaching Conference, Iowa State University.

Derwing, T. M. (2018). The efficacy of pronunciation instruction. In O. Kang, R. I. Thomson, & J. Murphy (Eds.), *The Routledge handbook of contemporary English pronunciation* (pp. 320-334). Routledge.

Derwing, T. M., & Munro, M. J. (2015). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research* (Vol. 42). John Benjamins Publishing Company.

Derwing, T. M., & Rossiter, M. J. (2002). ESL learners' perceptions of their pronunciation needs and strategies. *System*, *30*(2), 155–166. https://doi.org/10.1016/S0346-251X(02)00012-X

Ducate, L., & Lomicka, L. (2009). Podcasting: An effective tool for honing language students' pronunciation? *Language Learning & Technology, 13*(3), 66-86.

Fayer, J. M., & Krasinski, E. (1987). Native and non-native judgments of intelligibility and irritation. *Language Learning*, *37*(3), 313–326. https://doi.org/10.1111/j.1467-1770.1987.tb00573

Foote, J. A., & Trofimovich, P. (2018). Second language pronunciation learning: An overview of theoretical perspectives. In O. Kang, R. I. Thomson, & J. Murphy (Eds.), *The Routledge handbook of contemporary English pronunciation* (pp. 75–90). Routledge.

Foote, J. A., Trofimovich, P., Collins, L., & Soler Urzua, F. (2016). Pronunciation teaching practices in communicative second language classes. *Language Learning Journal, 44*, 181-196. https://doi:10.1080/09571736.2013.784345

Galloway, V. B. (1980). Perceptions of the communicative efforts of American students of Spanish. *The Modern Language Journal*, *64*(4), 428–433. https://doi.org/10.1111/j.1540-4781.1980.tb05218.x

Gordon, J., Darcy, I., & Ewert, D. (2013). *Pronunciation teaching and learning: Effects of explicit phonetic instruction in the L2 classroom* [Paper presentation]. 4th Pronunciation in Second Language Learning and Teaching Conference. Iowa State University.

Ha, X. V., & Murray, J. C. (2021). The impact of a professional development program on EFL teachers' beliefs about corrective feedback. *System*, *96*, 102405. https://doi.org/10.1016/j.system.2020.102405

Huensch, A. (2019). The pronunciation teaching practices of university-level graduate teaching assistants of French and Spanish introductory language courses. *Foreign Language Annals*, *52*(1), 13–31. https://doi.org/10.1111/flan.12372

Isaacs, T., & Thomson, R. I. (2013). Rater experience, rating scale length, and judgments of L2 pronunciation: Revisiting research conventions. *Language Assessment Quarterly*, *10*(2), 135–159. https://doi.org/10.1080/15434303.2013.769545

Jones, T. (2018). Pronunciation with other areas of language. In O. Kang, R. I. Thomson, & J. Murphy (Eds.), *The Routledge handbook of contemporary English pronunciation* (pp. 370- 384). Routledge.

Kang, O. (2012). Impact of rater characteristics and prosodic features of speaker accentedness on ratings of international teaching assistants' oral performance. *Language Assessment Quarterly*, *9*(3), 249–269. https://doi.org/10.1080/15434303.2011.642631

Kennedy, S., Blanchet, J., & Trofimovich, P. (2014). Learner pronunciation, awareness, and instruction in French as a second language. *Foreign Language Annals, 47*(1), 79-96. https://doi.org/10.1111/flan.12066

Lane, L. (2010). *Tips for teaching pronunciation: A practical approach*. Pearson Longman.

Levis, J. M. (2018). *Intelligibility, oral communication, and the teaching of pronunciation*. Cambridge University Press.

Levis, J. M., & Sonsaat, S. (2018). Pronunciation teaching in the early CLT era. In O. Kang, R. I. Thomson, & J. M. Murphy (Eds.), *The Routledge handbook of contemporary English pronunciation* (pp. 267–283). Routledge.

Murphy, D. (2011). An investigation of English pronunciation teaching in Ireland. *English Today*, *27*(4), 10–18. https://doi.org/10.1017/S0266078411000484

Murphy, J. (2014). Teacher training programs provide adequate preparation in how to teach pronunciation. In L. Grant (Ed.), *Pronunciation myths: Applying second language research to classroom teaching* (pp. 188-224). University of Michigan Press.

Newton-Suter, W. (2006). *Introduction to educational research: A critical thinking approach*. SAGE.

Nguyen, H. T., Fehring, H., & Warren, W. (2014). EFL teaching and learning at a Vietnamese university: What do teachers say? *English Language Teaching (Toronto)*, *8*(1), 31–43. https://doi.org/10.5539/elt.v8n1p31

Nguyen, L. T. (2019a). *Enhancing pronunciation teaching in the tertiary EFL classroom: A Vietnamese case study* [Doctoral dissertation, Victoria University]. Victoria University Research Repository.

Nguyen, L. T. (2019b). Vietnamese EFL learners' pronunciation needs: a teaching and learning perspective. *TESOLANZ Journal*, *27*, 16-31.

Nguyen, L. T., & Burri, M. (2022). Pronunciation pedagogy in English as a foreign language teacher education program in Vietnam. *International Review of Applied Linguistics in Language Teaching*. https://doi.org/10.1515/iral-2022-0126

Nguyen, L. T., & Hung, B. P. (2021). Communicative pronunciation teaching: Insights from the Vietnamese tertiary EFL classroom. *System (Linköping)*, *101*, 102573. https://doi.org/10.1016/j.system.2021.102573

Nguyen, L. T., Hung, B. P., Duong, U. T. T., & Le, T. T. (2021). Teachers' and learners' beliefs about pronunciation instruction in tertiary English as a foreign language education. *Frontiers in Psychology*, *12*, 739842–739842. https://doi.org/10.3389/fpsyg.2021.739842

Nguyen, L. T., & Newton, J. (2020). Pronunciation teaching in tertiary EFL classes: Vietnamese Teachers' beliefs and practices. *TESL-EJ (Berkeley, Calif.)*, *24*(1), 1.

Nguyen, L. T., & Newton, J. (2021). Enhancing EFL teachers' pronunciation pedagogy through professional learning: A Vietnamese case study. *RELC Journal*, *52*(1), 77–93. https://doi.org/10.1177/0033688220952476

Pardede, P. (2018). Improving EFL students' English pronunciation by using the explicit teaching approach. *Journal of English Teaching*, *4*(3), 143. https://doi.org/10.33541/jet.v4i3.852

Pennington, M. C. (1994). Recent research in L2 phonology: Implications for practice. In J. Morley (Ed.) *Pronunciation pedagogy and theory: New views, new directions* (pp. 92-108). TESOL Publications.

Rahmati, P., Dalman, M., & Saeli, H. (2023). Oral corrective feedback on pronunciation errors: Implications for teacher trainers. *The Journal of Asia TEFL*, *20*(1), 197–206. https://doi.org/10.18823/asiatefl.2023.20.1.16.197

Rogerson-Revell, P. (2011). *English phonology and pronunciation teaching*. International Publishing Group.

Saito, K. (2011). Examining the role of explicit phonetic instruction in native-like and comprehensible pronunciation development: an instructed SLA approach to L2 phonology. *Language Awareness*, *20*(1), 45–59. https://doi.org/10.1080/09658416.2010.540326

Saito, K. (2012). Effects of instruction on L2 pronunciation development: A synthesis of 15 quasi-experimental intervention studies. *TESOL Quarterly*, *46*(4), 842–854. https://doi.org/10.1002/tesq.67

Saito, K., Suzukida, Y., & Sun, H. (2019). Aptitude, experience, and second language pronunciation proficiency development in classroom settings: A longitudinal study. Studies in Second Language Acquisition, 41(1), 201-225.

Saito, Y., & Saito, K. (2017). Differential effects of instruction on the development of second language comprehensibility, word stress, rhythm, and intonation: The case of inexperienced Japanese EFL learners. *Language Teaching Research*, *21*(5), 589–608. https://doi.org/10.1177/1362168816643111

Schunk, D. H., & Zimmerman, B. J. (2008). *Motivation and self-regulated learning: Theory, research, and applications*. Routledge.

Setter, J., & Jenkins, J. (2005). State-of-the-art review article. *Language Teaching, 38*(1), 1-17. https://doi: 10.1017/S026144480500251X

Simon, E., & Taverniers, M. (2011). Advanced EFL learners' beliefs about language learning and teaching: A comparison between grammar, pronunciation, and vocabulary. *English Studies*, *92*(8), 896–922. https://doi.org/10.1080/0013838X.2011.604578

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

Tsunemoto, A., Trofimovich, P., & Kennedy, S. (2023). Pre-service teachers' beliefs about second language pronunciation teaching, their experience, and speech assessments. *Language Teaching Research*, *27*(1), 115–136. https://doi.org/10.1177/1362168820937273

Uchida, Y., & Sugimoto, J. (2020). Non-native English teachers' confidence in their own pronunciation and attitudes towards teaching: A questionnaire survey in Japan. *International Journal of Applied Linguistics*, *30*(1), 19–34. https://doi.org/10.1111/ijal.12253

Winke, P., Gass, S., & Myford, C. (2013). Raters' L2 background as a potential source of bias in rating oral performance. *Language Testing*, *30*(2), 231–252. https://doi.org/10.1177/0265532212456968

Zielinski, B., & Yates, L. (2014). Pronunciation instruction is not appropriate for beginning-level learners. In L. Grant (Ed.), *Pronunciation myths: applying second language research to classroom teaching* (pp. 56-79). University of Michigan Press.