

English Sound System: A Phonological Perspective Understanding Pronunciation Challenges and Teaching Strategies for Non-Native Speakers

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Abstract. This study looks at the English sound system from a phonological standpoint, emphasizing successful teaching strategies and the difficulties non-native speakers have pronouncing words correctly. This study examines the effects of native language interference, identifies particular phonological challenges, and assesses instructional methods for improving pronunciation using qualitative research with fourth-semester English education students. The results show that although explicit phonetic teaching greatly helps pupils, they still struggle to manage spelling-pronunciation inconsistencies and discern vowel lengths. By offering insights into phonological learning processes and suggesting evidence-based teaching strategies, the research advances the field of applied linguistics. Although individual sound distinctions require tailored treatments, the results show that systematic pronunciation education improves student confidence and communicative skills.

Keywords: Phonology, English Sound System, Pronunciation, Second Language Acquisition, Teaching Methodology

1. INTRODUCTION

The intricate phonological structure of the English language makes it difficult for nonnative speakers to pronounce words correctly. English exhibits significant phonetic variation that differs among dialects and regional accents, with roughly 44 phonemes—24 consonants and 20 vowels. Beyond individual sound generation, English phonology is complex, encompassing suprasegmental elements like stress patterns, intonation contours, and rhythmic structures that all work together to enhance communication competence.

Because of centuries of phonological development and cross-linguistic influence, the English language in particular has a rich and intricate sound system. The sound patterns of English, a lingua franca spoken by more than 1.5 billion people globally, vary greatly among dialects and sociolects. Yet, despite such variation, there exists a rather stable core phonological system that facilitates mutual intelligibility among its speakers. Along with a wide range of vowels and consonants, this system also includes suprasegmental elements like rhythm, intonation, and stress.

Phonological awareness plays a crucial role in second language acquisition, according to recent applied linguistics research. Listening comprehension, general language proficiency, and oral communication are all directly impacted by the capacity to recognize, differentiate, and create target language sounds. However, learners often face systemic challenges that come Received: April 30, 2025; Revised: May 30, 2025; Accepted: June 05, 2025; Published: June 07, 2025;

from the phonological systems of their original language, resulting in predictable interference patterns that show up as pronunciation errors.

Addressing pronunciation issues is important for social and professional communication demands in addition to academic ones. Effective oral English communication is a key to international understanding, professional growth, and educational opportunities in today's increasingly globalized world. Despite this significance, traditional language programs sometimes pay little attention to pronunciation education. Instead of receiving structured training, learners are left to acquire oral abilities by incidental exposure.

This study looks at particular difficulties faced by Indonesian English language learners in an effort to close the gap between theoretical phonological knowledge and effective speech instruction. This study intends to determine patterns of phonological difficulties, evaluate the efficacy of current teaching methods, and suggest evidence-based techniques for pronunciation improvement through qualitative analysis of student experiences and views.

2. THEORETICAL STUDY

The English Phonological System

A complex network of segmental and suprasegmental components makes up the English sound system, which interacts to provide meaningful communication. Individual vowels, consonants, and diphthongs are all included in segmental phonology. Each of these sounds is distinguished from the others by particular articulatory characteristics. The vowel system includes approximately 20 distinct sounds, categorized into short vowels (/I/, /o/, /ə/, /e/, /o/, / α /, /ae/), long vowels (/i:/, /u:/, /a:/, /3:/), and complex diphthongs (/eI/, /aI/, /oI/, / α /, /au/, /Ia/, /e/, /ua/, /Ia/, /au/).

The consonant inventory exhibits equally intricate organizational principles, classifying sounds based on voicing characteristics, style of articulation (plosive, fricative, nasal, etc.), and place of articulation (bilabial, alveolar, velar, etc.). A framework for comprehending the contrastive functions and production mechanisms of English consonants is established by this methodical arrangement.

English phonology is made much more difficult by suprasegmental elements. English rhythm is characterized by stress timing, which calls on speakers to compress unstressed elements while maintaining roughly equal spacing between stressed syllables. Through changes in pitch movement, intonation patterns indicate attitudes, emotions, and discourse functions, conveying pragmatic information beyond lexical meaning.

Cross-Linguistic Phonological Interference

The phonological acquisition of second languages takes place in the framework of the native language's sound systems, which presents both facilitation and interference opportunities. According to the Contrastive Analysis Hypothesis, learning difficulties are predicted by the phonological systems of the target and native languages. However, recent studies acknowledge that interference patterns include suprasegmental transfer effects, phonotactic limitations, and syllable structure preferences in addition to simple sound substitution.

Vowel system variations and consonant cluster restrictions present unique difficulties for Indonesian speakers learning English. With its five-vowel structure, the Indonesian vowel system lacks several of the English-language differences, especially the contrasts between tense and lax that define pairs such as /i:/-/i/ and /u:/-/o/. Similarly, when Indonesian speakers come across English cluster sequences, their phonotactics limit the possibilities for consonant clusters, resulting in epenthesis or deletion techniques.

Pronunciation Teaching Methodologies

Systematic attention to both perceptual and productive components of phonological learning¹⁹ is necessary for effective speech instruction. Studies show that focused listening practice coupled with explicit articulatory mechanics teaching yields better results than merely communicative methods. Important methodological techniques include of:

- Minimal Pairs Training: Perceptual discrimination and productive accuracy are improved with systematic practice with word pairs that differ by only one phonetic feature. This method increases students' understanding of contrastive sound functions while focusing on certain phonological problem regions.
- Articulatory Instruction: Students are given tangible methods for producing sounds through the explicit teaching of lip shape, tongue placement, and airflow patterns. Diagrams and video demonstrations are examples of visual aids that promote kinesthetic learning and selfcorrection skills.
- Suprasegmental Focus: Paying attention to intonation, rhythm, and stress focuses on more general qualities of pronunciation that have a big influence on comprehensibility. Carolyn Graham's jazz chants are a prime example of rhythm-based methods that combine natural language patterns with pronunciation practice.
- Technology-Enhanced Learning: Digital resources that provide auditory analysis, visual feedback, and interactive practice opportunities increase the potential of conventional pronunciation instruction.

3. RESEARCH METHOD

This study uses a descriptive qualitative research methodology to investigate Indonesian university students' learning experiences and difficulties pronouncing words correctly in English. The qualitative approach offers suitable structures for investigating the subjective experiences, perceptions, and processes of meaning-making that define language acquisition phenomena.

To guarantee a thorough grasp of participant experiences, the research design integrates a number of data collection techniques. Structured questionnaire responses are one type of primary data source, and supplementary analysis is based on well-established applied linguistics and second language acquisition research literature.

4. RESULTS AND DISCUSSION

Result

Participants and Setting

During the 2024–2025 academic year, six English education fourth-semester students from the State Islamic University of North Sumatra took part in the study. Participants shared common educational experiences in English language learning programs, although they represented a variety of linguistic backgrounds within the Indonesian environment.

Data Collection Procedures

On May 30, 2025, an online survey administered using the Google Forms platform was used to collect data. The survey instrument focused on particular facets of the phonological learning process, such as:

- The ability to discriminate vowel length
- The impacts of native language interference
- The efficacy of pronunciation learning techniques
- Problems with the link between spelling and pronunciation
- Developing confidence through teaching pronunciation

Likert-scale response forms (Agree, Neutral, and Disagree) were used in the questions to help with quantitative analysis of qualitative experiences.

Data Analysys Framework

To find trends and patterns in participant experiences, descriptive statistical analysis was performed on response patterns. The frequency of particular phonological difficulties and the efficacy of different teaching strategies were revealed by percentage distributions. By relating observable events to more general concepts of cross-linguistic influence and pedagogical efficacy, the qualitative interpretation of quantitative patterns relies on wellestablished theoretical frameworks in second language phonological acquisition.

Discussion

Vowel Length Discrimination Challenges

Significant difficulties with English vowel length perception and production are revealed by an analysis of participant responses. 83.3% of participants chose neutral answers when asked if they had trouble identifying short vowel sounds from long ones, while 16.7% of people specifically acknowledged this difficulty. This pattern implies that learners might not completely understand vowel length discrimination as a subtle but persistent area of difficulty.

Instead of indicating confident mastery, the majority of indifferent responses suggest possible gaps in phonological awareness. Perceptual issues frequently precede and predict productive challenges, according to research on the phonological acquisition of second languages. The lack of vowel length as a contrastive element in the Indonesian phonological system may be the cause of the incapacity to consistently discern vowel length contrasts.

These results are consistent with well-established trends in cross-linguistic phonological studies that suggest learners will struggle with contrasts in the target language that are not present in their home language systems. Vowel length errors can hinder word identification and comprehension in fast-paced speech situations, therefore the ramifications go beyond individual sound production to include lexical recognition.

Native Language Interference Effects

Responses from participants show a clear understanding of how the Indonesian language influences English pronunciation patterns. While 50% of respondents chose neutral viewpoints, 50% stated that their pronunciation matched the features of Indonesian speech. This distribution implies that both conscious and unconscious levels of native language interference are at play.

Half of the participants' explicit acknowledgment of L1 effect suggests that they are becoming more metalinguistically aware, which is a sign that their pronunciation may improve. The remaining participants' neutral answers, however, might indicate a lack of understanding regarding transfer effects or apprehension regarding the degree of interference affect.

- The following phonetic traits of Indonesian usually translate to English pronunciation: English stress timing is in contradiction with rhythm patterns that are syllable-timed.
- Constraints of the five-vowel system influencing the production of English vowels.
- Strategies for concordant cluster simplification.
- English intonation patterns are influenced by tone.

By comprehending these transfer patterns, tailored pedagogical interventions that target particular regions of phonological disagreement between Indonesian and English are made possible.

Effectiveness of Explicit Phonetic Instruction

The findings provide compelling evidence in favor of methods of specific pronunciation instruction. Just 16.7% of participants expressed neutrality, while an overwhelming 83.3% agreed that mastering sound creation mechanisms improved their speaking skills. This pattern offers articulatory-based teaching approaches empirical backing.

The efficacy of explicit training is consistent with theoretical frameworks that highlight the significance of conscious attention in the phonological acquisition of second languages. Learners get improved self-monitoring and self-correction skills when they comprehend the physical mechanisms that underlie sound generation, such as lip arrangement, tongue placement, and airflow control.

These results lend credence to instructional strategies that include:

- Visual representations of articulatory positions.
- Training in kinesthetic awareness.
- Methodical practice with difficult sound combinations.
- Development of metalinguistic understanding regarding phonetic principles

The favorable reaction to explicit instruction indicates that when combined with communicative techniques, traditional pronunciation training strategies that emphasize mechanical drill practice still have significance.

Spelling- Pronunciation Relationship Challenges

Participants face a variety of difficulties when it comes to the link between English pronunciation and orthography. Merely 16.7% of respondents expressly agreed that spelling-pronunciation errors lead to misunderstandings, whereas 33.3% disagreed and 50% were ambivalent. This distribution suggests that depending on each learner's unique literacy development patterns and learning preferences, orthographic interference may have varying effects.

The comparatively low explicit agreement rate is in contrast to well-established studies that show pervasive spelling-pronunciation issues in English. There could be a number of reasons for this disparity:

• Effects of Educational Background: The participants' exposure to English education programs may have reduced orthographic confusion by offering systematic instruction in phonetic transcription and spelling patterns.

- Developmental Factors: Although they may not have attained total mastery, fourthsemester pupils may have advanced past the early phases of orthographic interference.
- Awareness Limitations: Pupils may struggle with spelling and pronunciation without being aware of the cause of their mistakes.

Instead of conclusive mastery or total confusion, the neutral replies point to continuous negotiation between orthographic and phonological knowledge systems.

Pronunciation Instruction and Learner Confidence

The findings show that learners' confidence and comprehension are positively impacted by pronunciation teaching, with 100% of respondents agreeing. Every participant concurred that knowing how to pronounce words correctly improved their confidence while speaking and their general comprehension of English.

Given that confidence is a critical affective component of oral communication in second languages, this discovery has important pedagogical ramifications. The connection between A positive feedback cycle is produced by speaking confidence and pronunciation accuracy: better pronunciation lowers oral communication anxiety, which in turn leads to more practice opportunities that improve pronunciation skills.

The reciprocal aspect of phonological learning is shown in the relationship between comprehension skills and pronunciation knowledge. Accurate sound production helps students become more perceptually sensitive, which enhances listening comprehension. Instead of encouraging the learning of discrete skills, this integrated development promotes comprehensive language proficiency.

Persistent Areas of Phonological Challenge

Even though pronunciation education has received generally excellent feedback, several areas still provide challenges. Vowel length discrimination issues emerge repeatedly on several survey items, indicating that this is a particularly persistent problem that needs specific treatment.

Furthermore, rather than exhibiting confident mastery, the frequency of indifferent replies on a variety of tasks suggests that many individuals are still unsure about their phonological skills. This pattern of uncertainty points to a number of educational needs:

- Improved Methods of Assessment: Teachers and students may be able to pinpoint certain areas of strength and weakness with the use of more advanced assessment methods.
- Targeted Intervention Programs: General pronunciation training should be enhanced by specialized modules that address enduring issues like vowel length discrimination.

Development of Metalinguistic Awareness: Learners may have a better understanding of their own pronunciation needs and abilities by explicit instruction in phonological selfassessment.

5. CONCLUSIONS AND SUGGESTIONS

This study sheds important light on the intricate connection between Indonesian university students' phonological acquisition of English and their instructional practices. The results show that although learners' confidence and perceived ability are much increased by explicit pronunciation teaching, certain difficulties still exist in areas like as vowel length discrimination and orthographic-phonological integration. By recording learner opinions on pronunciation difficulties and confirming the efficacy of systematic phonetic education, the study advances our understanding of applied linguistics. The unanimity in favor of explicit teaching strategies encourages the inclusion of articulatory-based approaches in English language curriculum going forward, while enduring challenges in particular domains underscore the necessity of focused treatments.

These results highlight the value of methodical pronunciation training that covers both segmental and suprasegmental facets of English phonology for language teachers. The study backs instructional methodologies that integrate communicative practice and explicit phonetic knowledge, bolstered by technology and continuous evaluation techniques. The limitations of the study provide important avenues for further research, especially the requirement for longer-term, more extensive studies that combine subjective learner experiences with objective pronunciation measurements. Such studies would add to the body of evidence supporting successful pronunciation instruction.

In the end, this study highlights the intricacy of phonological learning processes while reaffirming the crucial role that pronunciation training plays in second language education. Understanding and resolving pronunciation issues is crucial for promoting efficient international communication and access to educational opportunities as English continues to be a universal language. The results imply that learners can acquire the confidence required for effective oral communication as well as the correctness of pronunciation training in modern English language education is represented by this dual development: technical proficiency and communicative confidence.

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