Exploring factors influencing phonological errors of Indonesian EFL students

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Keywords:	A B S T R A C T
EFL student, Phonological awareness. Phonological error, Phonetic system, Social condition	For non-native English speakers, phonological errors posed a serious problem, especially for those from Indonesia, where the local language's phonological structure is very different from English's. The goal of the study was to determine the elements that caused phonological errors in Indonesian EFL students' sound production. Using a descriptive qualitative approach with thematic analysis, the study examined the factors that caused the growing errors in English phonology by analyzing several article and process them into new idea. The researchers looked at a number of variables, such as the learners' exposure to English and linguistic background, that affect these errors. The study also looked at how these elements work together in affecting how Indonesian learners produce sounds. This study found several factors emerging phonological errors of Indonesian EFL students, they are phonetic system gap, social condition, and lack of phonological awareness. The study's emphasized how crucial it is to teach English phonological awareness since young age while taking the learners' native tongue and cultural background. EFL teachers and students should be aware of the important of the phonological awareness. Furthermore, the Indonesian curriculum should be improved in order to decrease the amount of phonological errors happened in Indonesian EFL students.

1. INTRODUCTION

The Indonesian EFL students found out that English skills are not easy to master, especially in relation to sound production. According to Robah & Anggrisia (2023), when learning a foreign language, students frequently use different strategies to achieve proficiency in the language. EFL students refer to students who learn English in a non-English-speaking country. Learning English in a non-English-speaking country is often less effective than in an English-speaking environment (Hibatullah, 2019). Even though phonology had already been introduced and explored in the advanced undergraduate program. However, phonology is not an easy subject to master. Even students who had attended phonology classes found phonological problems related to consonant sounds (Renaldi et al., 2016). In fact, many undergraduate EFL students were unable to produce sounds and use language correctly in their postgraduate careers (Alsalihi, 2020). In addition, the Indonesian EFL students had difficulty pronouncing phonemes because of the difference in sound systems between English and Indonesian, or the regional language of Indonesian, which was mastered first by Indonesian (Hafizha et al., 2023). Many problems related to phonological processes were still faced by Indonesian EFL students.

Some students made some errors in the process of producing oral sound, which are known as phonological errors. This aligns with a previous study by Nokas (2021), which states that many students commonly make errors while learning English. Errors are totally different from mistakes. Errors occur when the speakers do not know what the correct pronunciation is, while mistakes occur when the speakers know the correct pronunciation but fail to pronounce the sounds they know (Ellis, 1997). For instance, someone who never heard how to pronounce *"opposite"*, /'ɑp·ə·zɪt/, and somehow they are familiar with the pronunciation of *"site"*, /saɪt/, tend to pronounce the word *"opposite"* as /'ɑp·əsaɪt/. Phonological processes that can be error in the pronunciation include the relation between a phoneme and its (possibly several) realizations, the relation between the sounds, and if language is looked at diachronically (Wiese, 2006). Phonological errors are also experienced by various levels of students who study English as a foreign language in Indonesia. They often made phonological errors when they were delivering their presentation or in the middle of discussion in the class. It was not a guarantee that a higher education level of study could mean a fluent-speaking student, considering postgraduate students still faced some phonological errors.

Phonology is a branch of linguistics that studies the sound system in a language. The study of phonology includes the phoneme, the phonological features, the phonological processes, and the prosody (Wiese, 2006). Learning language sounds and production requires a lot of practice; otherwise, it would face a lot of errors. Studies on the ELT system in Indonesia have provided many kinds of teaching pronunciation approaches, such as ERT (Khoirida et al., 2021); oral application (Suryani et al., 2019); minimal pair technique (Nur & Rahman, 2018); and many more. However, the result varied for every student. This was a sign that phonology mastery is an individual skill that is somehow achieved by the individual student itself. Students' oral sound production achievement is also affected by their learning style (Arjulayana, 2016). Therefore, phonological production and errors vary among students.

The article drew on the theories of Lanteigne (2006) to emphasize that phonological production is important in language learning. According to these theories, the goal of language learning is to communicate effectively, and pronunciation accuracy is crucial to achieving the goal of communication. The article also referenced Wiese (2006) to highlight the complexity of English phonological processes, which involve a phoneme and its (possibly several) realizations, relation between phonemes of several connected word forms, and phonological processes can also be observed if language is looked at diachronically.

Every student was different in their errors in phonological processes. Thus, the article focused on the factors that Indonesian students have when studying English as a foreign language (EFL), especially when it comes to phonology. The issue was that students often mispronounce some words, which lead to misunderstandings and impair their ability to speak English fluently. The study focused on factors which affected errors in speech as well as the challenges students had in learning and using the English language's sound system. This article was also conducted to identify research gaps and limitations in the current body of knowledge, to propose a conceptual framework on the phonological errors of EFL students in Indonesia, and to provide sources for future research on the phonological errors of EFL students in Indonesia.

Some previous studies were conducted to analyse the phonological errors. These study were focused on four aspects: 1) phonological errors on English consonantal sounds that do not exist in Indonesian phonetics system – [v], [θ], [ð], [ʒ], [dʒ], and [tʃ] – and the patterns of those errors (Tiono & Yostanto, 2008), 2) phonological errors in performing self-introduction (Purnami & Junipisa, 2023), 3) phonological errors in consonant /-t/ and /-d/ at the final position (Shaphitri

et al., 2022), 4) phonological errors in the pronunciation of similarly spelled words (Dangin & Wijayanti, 2018). These studies were different on the subjects, instrument, research method, and the results. Thus, the current study explored on the phonological errors made by Indonesian EFL students in different level and different way of test and also different result of the study. The scope of current study was the subjects of the reference articles were advanced English learners, college students and teachers. Additionally, limitation of the study was focus on any phonological errors errors which occur when the speakers do not know the correct pronunciation in article from the past 10 years.

2. METHOD

Since the goal of the study was to investigate and characterize the phonological errors made by Indonesian EFL students, this paper used a descriptive-qualitative approach. In a descriptive qualitative study, the researcher collected and analysed data to gain a deeper understanding of the phenomenon being studied. In order to get deeper information about the phonological errors made by English learners in Indonesian, a survey of the literature related to the theme was done. The criteria of the article chosen was any article that discussed about the factors that caused Indonesian phonological error for the last 10 years. The researcher found 4 article that suitable in this criteria. Then, relevant information was extracted from the chosen articles through thematic analysis. This literature review aimed to give a thorough overview of the phonological errors made by Indonesian learners of English.

3. RESULTS AND DISCUSSION

3.1 Phonetic System Gap

This study discovered that the phonetic system gap is one of the biggest aspects of phonological errors. The study of speech sounds is known as phonetics. It includes the study of how speech sounds are formed in the vocal tract (articulatory phonetics), how they are transmitted and their physical characteristics (acoustic phonetics), and how they are perceived (auditory phonetics, (Hamka, 2016). The study of phonetics focuses on the characteristics of spoken sounds. It is a branch of linguistics that studies speech sound description. This means that the Indonesian and English phonetic systems have some gaps that affect the EFL students face difficulty in English phonological production.

According to Tiono & Yostanto (2008), there were consonantal sounds that do not exist in Indonesian phonetics system, they are [v], [θ], [ð], [ʒ], [dʒ], and [tʃ]. From the study, phonological errors which done by EFL students are the replacement [v] with [f], the replacements of [ð] with [d], [t], [θ] and [th], the replacement of [θ] with [t], [d], [th], [ð] and [s] and the deletion of [θ], the substitution of [tʃ] with [c], [h], [s], [ʃ] and [kh], the replacement of [dʒ] with [g], [j], [d], [tʃ], [ʃ], [k], [s] and [f], and the replacement of [ʒ] with [d], [z], [s], [j], [tʃ], [ʃ], [dʒ], [g] and [k] and the deletion of [ʒ]. In addition, [ʒ], created many difficulties for the students if compared to the other five English consonantal sounds observed.

While according to Anwar & Kalisa (2020), there were five English diphthongs which do not exist in Indonesian phonetic system, they are [eɪ], [ʊə], [eɪ], [eə], and [əʊ]. There were three level of diphthong phonological error which made by Indonesian EFL students, poor, fair, and good. The poor category was made by the students when pronouncing the English sound [ïə]. Category fair was filled by [ɪə], [eə], and [əʊ] sounds. Furthermore, students' pronunciation of English diphthong sounds was found to have the lowest amount of errors was in the sound [eɪ].

Moreover, Indonesian phonetic system does not have [æ], [ʌ], [iː], [ɑː], [ɔː], [ɜː], and [uː] (Andi-Pallawa & Fiptar Abdi Alam, 2013). Although, [iː] sounds almost similar to [i] in Indonesian phonetic system but the pronunciation of sheep /ʃiːp/ is different to Indonesian [i] which is more similar to the pronunciation of ship /ʃɪp/ in English. The letter 'a' have only one kind of sound [a], while letter 'a' sometimes pronounced as [æ], [ə], [e] in English. Indonesian phonetic system [o] is sometimes pronounce as [ɑː] or [ɔː]. However, English phonetic system has [o] sound which different to [ɑː] or [ɔː].

In conclusion, Indonesian students were lack in the ability to phonological production due to phonetic system gap. In order to increase Indonesian phonological production, introduce English phonemic system to the young learner will bridge the gap of English-Indonesia phonetic system. Reading comprehension and phonemic awareness instruction should begin early since word reading was predicated on phonemic awareness (Zahira & Andreani, 2023). In early reading instruction, phonemic awareness helped students in remembering word spelling. Moreover, phonological awareness lesson effectively influenced students' pronunciation performance with better phonemes articulation, more appropriate stress determination, and more sufficient intonation that directly inspired their speaking motivation (Wardana et al., 2022). Since phonemic and phonological awareness helped students' reading proficiency, pronunciation, stress determination and intonation in speaking, teaching phonemic and phonological awareness must be consider as important.

3.2 Social Influence

This study discovered that the second aspect that affects Indonesian EFL students' phonological errors is their social condition, both sociolinguistic and socioeconomic. According to its definition, sociolinguistics is the study of the interaction between language and its environment (Fauzan, 2019). Stated differently, it investigates the connection between language and society. Indonesian EFL students were not learning English in an English-speaking country, which caused them to suffer from phonological processes. Other than that, socioeconomics also played a role in the phonological errors of Indonesian EFL students. Socioeconomics is defined as the distinctions in social class and financial status between groups of individuals (Hellmich, 2017).

First, the sociolinguistics of the students. Sociolinguistic, including the mother tongue of the students. This affected English phonological processes. As we know, Indonesia is not an English-speaking country, which means that English is not the mother tongue of Indonesia. This led to an unfamiliarity with English sounds. Moreover, Indonesia has regional languages, which sometimes become the first language, and Indonesian as the second language (Hafizha et al., 2023). It means that English may be the third language being learned. The language that they practice in everyday life is not English. Moreover, English is seldom inserted into everyday conversation.

Second, the socioeconomic condition of the students. Students with higher socioeconomic status are likely to have higher motivation for learning English (Sapta Nadilla et al., 2023). The students from a wealthy family tended to focus on learning processes. They were not interrupted by house chores. They got more facilities like an English course, coaching, and tutoring. An English-speaking family figure became a big aspect of acquiring phonological production. The stimulus from the family and the surrounding environment affected the students' pronunciation (Purnami & Junipisa, 2023). The majority of pupils who were learning English as a foreign language come from households with low socioeconomic levels and had little to no English competence when they first started school. Due to the requirement for additional

resources and opportunities in addition to learning a new language, this places them at a much increased risk of experiencing academic difficulties (Ashcraft, 2023).

The sociolinguistic and socioeconomic were difficult aspect to be equate. Since every student has the desire to be the better or even the best amongst students in their level. Moreover, students with privilege has broader option to improve their English skill, especially in phonological production. In order to fill the gap of those with high sociolinguistic and high socioeconomic, those with low sociolinguistic and low socioeconomic should improve their ability at least by self-teaching. According to Buana & Irawan (2021) self-teaching to improve pronunciation had three categories. The first was the low category which involves looking up the challenging term in a dictionary, asking the lecturer how to pronounce it, and practicing reading the word out again. The second was the middle category which involves repeating each phrase, listening to the pronunciation of each word with a u-dictionary, and constantly practicing how to pronounce each word. The third was the high category which involves speculating based on their pronunciation knowledge and establishing a connection with words that share similar sounds. Other than that, the use of internet to improved phonological production is easy to access, such as Elsa Speak. Elsa Speak consider as an effective web base application to improve pronunciation (Adawiah & Muliati, 2024; Rineapi et al., 2022).

3.3 Lack of phonological awareness

The phonological errors and a lack of phonological awareness had a complicated and multidimensional interaction. The capacity to distinguish and work with the individual sounds that make up words, such as a word's starting, middle, and ending sounds, is known as phonological awareness (Chard & Dickson, 1999). Students with poor phonological awareness found it difficult to acquire precise phonemic awareness—the capacity to recognize and manipulate specific phonemes, or sounds, inside words.

According to research, trouble reading words fluently can be a result of a lack of phonological awareness, which can also lead to comprehension issues (Listyarini et al., 2022). This is due to the fact that accurate word decoding and reading depend on phonological awareness. Students who lack phonological awareness found it challenging to identify and manipulate the sounds that make up words, which caused problems with spelling and reading.

Additionally, studies have demonstrated that children with significant segmental variability have unstable phonological representations, which likely contributes to their poor phonological awareness (Roepke & Brosseau-Lapré, 2023). When children speak, segmental variability describes how consistently or inconsistently their speech sounds occur. Phonologically aware children may find it challenging to access the segmental features of phonological representations due to high levels of segmental variability.

The lack of phonological awareness became a factor in phonological errors and led to overgeneralization and simplification. Dangin & Wijayanti (2018) conducted a study on phonological errors in pronouncing similarly spelled words to find out that the factors that affect phonological errors are overgeneralization and simplification. Overgeneralization occurs when the speaker applies one word pronunciation to another word pronunciation with the same spelled words. While simplification occurs when the speaker rather makes up pronunciation with their own knowledge than looks for the correct pronunciation from the dictionaries. These factors occurred due to a lack of phonological awareness.

In conclusion, poor phonological awareness contributed to phonological errors by impeding children's ability to acquire precise phonemic awareness, which caused problems with

spelling and reading. Due to their low phonological awareness, children who exhibit high levels of segmental variability or persistent atypical speech problems may be more susceptible to literacy issues. In order to solve this problem, phonological awareness teaching from early age should be attempted in Indonesian curriculum. For instance, in Ariati's (2020) study, the phonological awareness that applied to young learner in National Plus School's Curriculum was effectively influenced students' bilingual education. Simply, students easily predicted the words they are reading if they had solid understanding of phonological awareness. However, students will not be able to read the word with the correct pronunciation if they do not know how to alter it.

4 CONCLUSION

The article concluded that phonological errors are a common phenomenon in the learning process of Indonesian EFL students and that these errors can be attributed to various factors, including the complexity of the phonetic system gap, social influence, and a lack of phonological awareness. The article suggested that overcoming these errors requires phonology awareness teaching from early age, self-awareness by self-teaching, and Indonesian curriculum development.

According to the article, young learners should be introduced to phonological awareness thus students will have motivation to practice oral word production on a regular basis and teachers should focus more on teaching phonological awareness. Moreover, learners also need to be encouraged to have self-teaching way to obtain the better phonological production. Additionally, the paper recommends that more pronunciation-focused activities, like speaking and listening drills, be incorporated into the curriculum.

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