

**EFL PHONOLOGY:
A CASE STUDY OF ENGLISH FRICATIVE PRODUCTION
BY INDONESIAN LEARNERS**

**FONOLOGI BAHASA INGGRIS SEBAGAI BAHASA ASING: STUDI KASUS
PELAFALAN BUNYI GESER OLEH MAHASISWA INDONESIA**

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Abstract

This study reports the difficulties 40 first-year Indonesian college students, majoring in English, had in pronouncing the English fricatives. The aim of this paper is, first, to reveal how these Indonesian EFL learners produced English fricatives, the order of difficulties, and the pronunciation constraints they experienced. The second aim is to identify the possible causes of the pronunciation difficulties. In collecting the data, two types of tasks were administered: a word-list-reading task (Task 1) and a sentence-list-reading task (Task 2). By using Wilcoxon based T-Test, it was revealed that there was a significant difference in the number of errors in Task 1 and Task 2. There was also an increase in errors in Task 2. The results show that the order of difficulties Indonesian learners had in producing fricative sounds (from the most to the least problematic) were: /v/, /ʃ/, /ð/, /θ/, /z/, /ʒ/, /f/, and /s/. It is likely that the influence of the challenging English spelling system played the most important role in the students' errors. Other factors such as transfer of L1 and the developmental process also contributed to the errors. This research implies that teachers need to apply certain strategies to meet students' needs.

Keywords: English, fricative, Indonesian students, errors

Abstrak

Penelitian ini melaporkan kesulitan yang dialami mahasiswa tahun pertama Jurusan Pendidikan Bahasa Inggris dalam melafalkan bunyi geser, urutan kesulitan dan kendala dalam pelafalan bunyi tersebut. Tujuan kedua penelitian ini adalah mengidentifikasi kemungkinan sebab-sebab dari kesulitan ini. Dua jenis tugas diberikan kepada siswa untuk mengumpulkan data yaitu tugas membaca daftar kata (Tugas 1) dan tugas membaca daftar kalimat (Tugas 2). Berdasarkan hasil Uji T Wilcoxon terungkap bahwa terdapat perbedaan yang signifikan dari segi jumlah kesalahan dalam mengerjakan tugas 1 dan tugas 2. Juga terdapat peningkatan kesalahan dalam Tugas 2. Hasil-hasil ini memperlihatkan bahwa urutan kesulitan yang dialami mahasiswa Indonesia dalam melafalkan bunyi frikatif (dari yang paling bermasalah hingga yang kurang bermasalah) adalah: /v/, /ʃ/, /ð/, /θ/, /z/, /ʒ/, /f/, dan /s/. Ada kecenderungan bahwa sistem ejaan Bahasa Inggris yang rumit sangat besar pengaruhnya terhadap kesalahan-kesalahan yang dibuat oleh mahasiswa. Faktor-faktor lain seperti transfer dari BI dan proses perkembangan juga berkontribusi terhadap kesalahan-kesalahan tersebut. Implikasi penelitian ini adalah dosen atau guru dapat menerapkan strategi-strategi tertentu untuk memenuhi kebutuhan mahasiswa atau siswa.

Kata kunci: bahasa Inggris, bunyi geser, mahasiswa Indonesia, kesalahan

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INTRODUCTION

Pronunciation is a vital key to successful communication when learning English as a foreign language (EFL). It is fundamental to comprehensible communication (Jenkins, 2000). EFL students have to be able to produce sounds accurately to achieve communicative goals. Students are expected to be able to pronounce words well to avoid miscommunication and irritation. Yet, when people learn a new language, it is often observed that pronunciation problems occur. Pronunciation difficulties have been revealed by researchers in many countries, e.g. in Poland (Nowacka, 2016; Szyszka, 2016), in Arab regions (Alsadeqi, 2014), in Sudan (Pillai, Jayapalan, Hassan, & Rajadurai, 2014), in Bangladesh (Hoque & Begum, 2016), and in Thailand (Isarankura, 2018), (Sridhanyarat, 2017).

English is also taught as a foreign language in Indonesia. However, pronunciation has seldom being the centre of EFL teaching in Indonesia (Mathew, 2005), nor has much attention been paid to the phonology of English. Thus only a handful of research studies have been conducted on Indonesian students' acquisition of English phonetics and phonology. Dardjowidjojo (2009) has described in a very general way the possible mispronunciations experienced by Indonesians without attempting to give plausible reasons for those pronunciation difficulties. A study conducted by Habibi (2016) to identify the segmental pronunciation problems experienced by Indonesian students does not discuss the sources of the students' pronunciation difficulties. Moreover, in collecting the data, Habibi only administered one single task design; the data were collected through

observation when the research participants were presenting their research proposals. In finding out the pronunciation problems of EFL learners, the design of the tasks can influence how variable the pronunciation of sounds are, as suggested by Tarone (1983). Different types of tasks have an effect on the production of English fricatives by second-language learners, which has been confirmed by Sridhanyarat (2017).

Using different types of tasks to explore pronunciation problems was applied by Mathew (2005), who explored errors in the pronunciation of English consonants by Indonesian, Gayo, and Acehese learners in EFL. In Mathew's study, the respondents were divided into three learning groups in which each group consisted of eight participants. They were given aural discrimination and repetition tests, reading passages, and interviews. In her study, Mathew (2005) claimed that the main reasons for the pronunciation errors were transfer and developmental processes and that orthography interference played a less important role. Later, Chaira (2015) claimed that pronunciation difficulties experienced by Indonesian students were mainly determined by L1 interference.

Even though the previous studies had identified the pronunciation problems faced by the Indonesian students, they did not focus on the most problematic sounds that were produced by Indonesian students. From Dardjowidjojo (2009), Habibi (2016), and Mathew (2005), it was confirmed that Indonesian students experienced considerable difficulties in producing the English fricatives. Therefore, this present study mainly concentrates on the problematic fricatives produced by Indonesian learners.

The reason that the current study mainly

focused on the production of the English fricatives compared to other English sounds such as stops, nasals and approximants is because English fricatives consist of sounds that do not exist in Indonesian phonemic systems. Those sounds are /v/, /θ/, /ð/, /ʃ/, and /ʒ/ as in the words ‘vase’ /vɑ:z/, ‘think’ /θɪnk/, ‘those’ /ðəʊz/, ‘she’ /ʃi/, ‘judge’ /dʒʌdʒ/. Other fricatives such as /f/, /s/, and /h/ exist in both languages. A phoneme in Indonesian is generally represented by a single letter, while in English a phoneme (particularly the fricative sounds) is very often represented graphically by more than one grapheme. In other words, one phoneme may be represented by one letter or a combination of letters. Therefore, we hypothesise that for Indonesian students the pronunciation of the English fricatives is greatly influenced by the different spelling systems. Nowacka (2016), in her study of Polish BA students majoring in English, proved that letter-to-sound relations played a major role in the mispronunciations experienced by the respondents. We assume in the case of the fricative pronunciation difficulties experienced by Indonesian learners that they are also strongly related to the tricky English spelling system. Moreover, other factors such as transfer and developmental process as well as situational context will also be considered.

Indonesian is a language where words are generally spelt the way they are articulated and in which a phoneme is usually represented by a single letter (Alwi, Dardjowidjojo, Lapoliwa, & Moeliono, 2003; Yong, 2001). For instance, in Indonesian, the word *bisa* is pronounced /bisa/, *rumah* /rumah/, and *garam* /garam/. In other words, there is a one-to-one correlation between the phoneme and the letters. In English, a phoneme can be represented with one letter or more. For example, a word that consists of three letters may only have two phonemes such as ‘she’ /ʃe:/ or a word with five letters can represent four phonemes, as in ‘think’ /θɪnk/ and

‘breath’ /brɛθ/. Therefore, English words that do not match the pronunciation cause problems (Yong, 2001).

Yong (2001) also noted that the most problematic sounds for Indonesian students are the shaded fricative sounds, as can be seen in Table 1.

Table 1 The English Consonants

p	b	t	d	k	g
	f	v	θ	ð	s
				z	ʃ
				ʒ	h
				tʃ	dʒ
m			n		ŋ
			l		
			r		
w					j

Source: Yong (2001)

Problems with the production of fricative sounds by Indonesian students is also confirmed by Andi-pallawa (2013), particularly for the dental fricatives /θ/ and /ð/ when students had to either speak or read text. Dardjowidjojo (2009) noticed that Indonesian students are often confused between letters and sounds and that students need to be aware of the difference between phonemes and graphemes. A phoneme is the smallest unit of sound. While a grapheme is the smallest unit of a written language, regardless of whether it is meaningful or correlates to a single phoneme. For instance, the grapheme <x> represents the phoneme /k/s/. The tendency of learners to be unfamiliar with the correct pronunciation of lexical items (which shows the unawareness of some graphophonemic patterns in English) was also confirmed by Nowacka (2016), who studied English as a foreign language in Poland.

In the process of second-language acquisition, learners may produce utterances that can be seen as errors or ill formed. Selinker (1972) proposed the notion of interlanguage, which refers to the unique linguistic system developed by SLA (second language acquisition) learners who have not

yet reached language proficiency. This unique system is seen as an independent linguistic system that is different from the native language (NL) and the target language (TL). A learner's interlanguage keeps some linguistic features of the learner's native language or overgeneralises some target language rules. Factors in determining a learner's interlanguage include first-language transfer, previous learning strategies, and overgeneralisation of the target language's rules.

One of the characteristics of interlanguage is variability. Highly variable speech is found in the speech of second-language learners (Young, 1988). Interlanguage variability has become the concern of SLA researchers (Crookes, 1989; Tarone, 2006). The study by Chaira (2015) reveals variability in the pronunciation of English segmental sounds by Indonesian students and the tendency for L1 interference. In the study of Indonesian students' pronunciation of segmental sounds, it was found that learners tended to replace aspirated stops such as [ph], [th], and [kh] with the unaspirated sounds [p], [t], and [k]. In Indonesian, stop sounds are never aspirated. On the other hand, when learners noticed that words were written with <ph> or <th> such as in photo or anything, they tended to aspirate the sounds.

Sridhanyarat (2017) investigated how Thai SLA learners produced marked and unmarked fricatives. The study revealed that Thai students had serious difficulties in producing the marked fricatives /ʒ/, /v/, /z/, /θ/, and /ð/. The Thai students also substituted the fricative sounds when they had problems with pronunciation. For instance, the learners replaced the sound /v/ with [p] or [b] interchangeably. It was claimed that the factors contributing to the learners' difficulties in producing the English fricative sounds were related to transfer of the first language, occurrence of an individual sound, voicing, systematic variability, and the design of the research materials.

When Tiono and Yostanto (2008) studied phonological errors by Indonesian students, they found that the respondents tended to use a variety of sounds to replace certain sounds that they had difficulties with. For instance, the sound /ð/ was replaced with [d], [t], [t^h], and [θ] as in they *[deI], them*[təm], loathe *[lot^h], with *[wɪθ]; the sound /θ/ was replaced with [d], [t], [th], [ð] or sometimes it was deleted as in theme *[di:m], health *[helt], booth *[but^h], thigh *[ðai]. It was also concluded that the most difficult sound for the respondents was the voiceless palatal affricate. Despite observing all the difficulties faced by the respondents in producing the sounds, the possible causes of the problematic sounds were not discussed in detail.

In this study two research questions are being formulated. First, how do Indonesian EFL learners produce English fricatives and what are the patterns of the English fricative pronunciation difficulties in their interlanguage? In other words, what sounds do the respondents use in substituting the English fricatives and how variable are they? Second, what are the possible causes of the pronunciation difficulties? Based on the research questions, we hypothesise, first, that when English fricative sounds exist in Indonesian phonemic systems, the respondents will be able to pronounce them as expected by the TL (target language). Second, when sounds do not exist in the Indonesian phonemic system the respondents will substitute other sounds. Third, when the fricative sound is represented by a single letter and the sound and letter have a one-to-one sound-letter relationship, the respondents will not have difficulties in pronouncing the sound; but when the phoneme is represented by a combination of letters, the respondents will experience difficulties. The respondents will also experience difficulties when the sound is not represented by the same symbol in letters. For example, the sound /z/ is sometimes represented by the letter <s>.

It is crucial to explore the difficulties

Indonesian EFL students experience with the English fricatives, because the findings can help teachers map the students' difficulties and identify learning strategy preferences. In this way, EFL professionals can support students who demand better proficiency in English.

METHOD

This study set out to investigate the production of English fricatives by Indonesian students. The participants in the study were 40 Indonesian first-year university students majoring in English from a state university in Bali Indonesia. Before entering the university, the participants had studied English as a foreign language for six years at junior and senior high schools in Indonesia.

For the purpose of this study, two instruments were used: word-list reading and sentence reading. These two instruments were developed because the different types of tasks resulted in different fricative production. In other words, different types of tasks induced variability in the students' pronunciation, as suggested by Tarone (1983). The word-list reading task consisted of 48 lexical items. Each fricative sound was listed in initial, middle and final position. The word list also contained fricative sounds with various spellings. The corpus is provided in Table 1 (see Appendix 1). In this task, the participants were asked to read the word list.

The second task was a sentence-reading task (see Appendix 2). All the words that were presented in the word-list reading were put into sentences. The sentences were adapted from the Collins Cobuild dictionary. The reason for using the Collins Cobuild dictionary is that all lexicons or vocabulary listed in the dictionary are given contextual use in a sentence. In this task, the students were asked to read each sentence containing the words with fricative sounds.

The two tests were conducted using SONY Handy cam HDR-CX405. The fricative sounds

that were being tested occurred in the initial, middle, and final positions, except for the post-alveolar fricative [ʒ], which only occurred in middle and final positions. In the first test, the students were asked to read 48 words where each word contained an English fricative. The students were divided into two groups related to the capacity of the language laboratory where the test was conducted. The first group was tested on a Tuesday and the second group on a Friday. The reason for choosing those days was because the research would not disturb normal study schedules. Times were decided based on participants' availability. In the second test, the participants were asked to read sentences in which each sentence contained the words in the first test.

Two inter-raters and the researcher were involved in transcribing the data. They focused on the fricative sounds produced by the participants in each test. In transcribing each sound, at least two of them had to agree before the result was considered reliable. When this did not occur, the transcription was deemed not reliable. The reliability agreement of the raters was 90%. After the transcription and reliability check was conducted, the variable was tallied to measure the frequency and the Wilcoxon Signed Rank Test was used to find statistically the fricative sounds that were problematic for the learners and also the significance of the errors.

RESULTS AND DISCUSSION

In this part, the findings of the research questions are presented. The results showed that Indonesian students have problems with English fricatives and prefer to replace the sounds using different substitutes. The research indicates that the sequence of problems of fricative sounds for Indonesian learners (from the most to the least troublesome) are: /v/, /ʃ/, /ð/, /θ/, /z/, /ʒ/, /f/, and /s/. Table 2 presents the comparison of errors made by the respondents

in the word-list reading task (Task 1) and the sentence-reading task (Task 2).

Table 2 Comparison of Errors Between Word-List-Reading and Sentence-Reading Tasks

Fricative words	Error percentage		Error percentage		
	Task 1	Task 2	Task 1	Task 2	
four	5	5	sea	2.5	0
photo	35	30	city	0	2.5
refuse	7.5	5	basic	0	0
perform	12.5	5	tasty	0	0
loaf	7.5	0	class	0	0
rough	70	82.5	relax	12.5	2.5
vanilla	100	100	zero	20	25
vain	100	100	zest	22.5	35
behaviour	100	100	puzzle	22.5	35
never	95	100	deposit	95	97.5
love	95	100	has	100	100
save	95	100	wise	100	100
thank	80	87.5	sheep	87.5	100
three	80	97.5	she	80	100
author	85	95	issue	85	100
python	85	92.5	special	92.5	100
bath	80	87.5	con- vention	95	100
birth	80	90	ma- chine	95	100
this	87.5	92.5	rush	92.5	100
they	90	95	wish	92.5	100
brother	90	97.5	pleas- ure	92.5	97.5
neither	90	95	eligible	55	45
bathe	87.5	95	garage	37.5	37.5
clothe	85	95	rouge	72.5	60

Table 2 shows that in the word-list-reading task more than 85% of the students had no difficulties in producing /f/ when the phoneme and the grapheme had the same symbols. However, the respondents had difficulties when /f/ was represented by other symbols in letters such as <ph> and <gh>. At least 95% of the respondents had problems in producing /v/. At least 80% substituted the sound /θ/ and more than 85% had problems with the /ð/ sound. Less than 25% had difficulties with the sound

/z/ when the phoneme and the grapheme had the same symbols. However, the students failed to produce the sound correctly when it was represented in letters with the symbol <s>. They also had great difficulty in producing the sound /ʃ/. The production of the sound /z/ was a little bit unusual because in the word ‘pleasure’ more than 90% of the respondents failed to produce it correctly. However, in the word ‘garage’ only around 37% of them failed to do so. From all the fricative sounds existing in the English phonemic system, the only sound that the students did not have a problem with was the sound /s/.

Table 2 also shows the difficulties of English fricative production in the sentence-reading task. In this task, the students also had problems with the sound /f/ when the spelling was represented with the letters <ph> or <gh>. Around 30% of the respondents made errors with <ph> and around 82% with <gh>. All students failed to pronounce /v/ correctly. More than 87% had difficulties with the sound /θ/ and more than 92% had problems with the sound /ð/. The sound /s/ was the easiest sound for the respondents to pronounce; only 2.5% failed to pronounce it correctly when the sound was represented with the grapheme <c> or <x>. In the sentence-reading task, around 30% of the respondents had problems with production when the phoneme and the grapheme had the same symbols. However, all of them failed to do it when the grapheme was represented with the symbol <s>. Moreover, they also failed to do it with the sound /ð/. They also had a great problem with the sound /z/. Around 97% of the respondents mispronounced the word ‘pleasure’. They had the least problem with the word ‘garage’ (around 37%). The order of difficulties for each fricative sound produced by the Indonesian respondents can be seen in Figure 1.

Among the eight fricative sounds that exist in English, the only one that almost all respondents did not have any trouble with was the alveolar fricative /s/. The possible reason for this is that the sound is available in the Indonesian language phonetic system and is found in the initial, middle and final positions of syllables or words. The rest of the fricative sounds were generally mispronounced by the respondents. Each fricative sound is discussed in detail as follows.

The Voiceless Labiodental Fricative /f/

The English fricative /f/ was pronounced by the respondents as [f] when the words were spelled as <f>, as in the words four, refuse, and loaf. However, not when the sound was spelled as <ph> and <gh>, as in the words phone and rough. In the case of <ph>, the findings suggest that in Task 1, around 35% of the students made errors and 30% in Task 2. In the case of <gh>, errors were made by 70% of the respondents in Task 1 and increased to around 83% in Task 2. Respondents pronounced the words based on their orthographic forms. It was recorded that those respondents substituted the sound /f/ with [p] or [ph] when it was spelled with <ph> and with [g] when the spelling was <gh>.

In the case of the English fricative /f/, it was found that the errors in pronunciation experienced by the respondents were related to the English spelling system. It was proven that they produced the words assuming that the sounds were the same as the orthographic symbols found in the Indonesian language. In the Indonesian language, one phoneme is represented by a single letter of the alphabet, apart from a few exceptions such as /ñ/ for <ny> and /ŋ/ for <ng>. Therefore, the one phoneme, one orthographic system is patterned in their mind. When replacing the /f/ sound with [ph] in the case of the word photo, the grapheme <h> for them was indicating aspiration. That grapheme <h> indicates aspiration for

Indonesian students is also supported by Chaira (2015).

The Voiced Labiodental Fricative /v/

Most of the respondents experienced difficulties in producing the labiodental fricative /v/ in all positions whether it was in the initial, middle, or final position. The finding showed that around 97% of the respondents replaced the voiced labiodental /v/ sound with the voiceless pair /f/ in Task 1 and 100% of the respondents experienced difficulties in Task 2. For instance, the words vanilla, vain, never, love, and save were pronounced as [fanila], [fein], [lof], [seif], or [seip].

Where the respondents substituted /v/ with the [f] sound, it was related to the characteristics of the Indonesian phonemic system. In the Indonesian phonological system, there are no voiced labiodental fricatives, as pointed out by Chaira (2015), Dardjowidjojo (2009), and Tiono and Yostanto (2008). Thus, it can be claimed that the substitution of voiced labiodental fricative with the voiceless labiodental fricative is triggered by L1 interference. Dardjowidjojo (2009) explained that the phoneme /v/ does not exist in Indonesian even though the letter <v> is found in the orthographic system. However, this letter is pronounced as /f/. Lantaigne (2006) points out that the problems with English pronunciation faced by students were related to the fact that some English sounds do not exist in the students' native language.

The Voiced Alveolar Fricative /z/

When producing the voiced alveolar fricative /z/, the respondents experienced few difficulties if the sound was spelled with the letter <z>. Less than 25% of the students mispronounced the sound in Task 1 and around 32% in Task 2. However, more than 75% of the respondents mispronounced the sound /z/ in Task 1 and more than 65% in Task 2 when it was represented with the letter <s> in spelling. They replaced /z/

with the voiceless pair [s] when the spelling was with <s>, as in the words deposit, has, and wise.

It was also found that the errors made by the respondents were related to the English spelling system. The respondents did not consider that <s> would be pronounced as [z]. In other words, it did not occur to them that the letter <s> could be pronounced [z]. For them, the letter <s> is pronounced /s/, as found in the Indonesian phonemic system.

The Voiceless Dental Fricative /θ/ and /ð/

The voiceless dental fricative /θ/ was mispronounced by 81% of the respondents in Task 1 and around 91% in Task 2. They tended to replace the voiceless dental fricative with variable sounds such as the voiceless alveolar stop [t], aspirated t [th] or [ts]. In this case, stopping process was experienced by the respondents where a fricative sound is substituted with a stop sound [t]. Stopping is one type of phonological process or developmental process that can be experienced by foreign language learners. The /θ/ sound does not exist in the Indonesian phonetic system; therefore, the students who did not know how to produce the sound correctly tended to replace it with other sounds. They often replaced it with the closest sound they were familiar with. Some respondents also substituted the voiceless dental fricative with [th], for they considered the spelling <th> as an aspirated sound, while the sound [ts] sometimes occurred in final position only. Adnyani and Pastika (2016) mentioned that substitution is a common process when learning two languages.

Therefore, when the students had to pronounce the words thank, three, author, python, bath, and birth they produced them as, for example, [tan], [tri], [author], [piton], [bat] and [birts]. Stopping process and aspiration were also experienced by the respondents when they had to pronounce the voiced dental fricative /ð/. They also tended to replace the

voiced fricative with the voiced alveolar stop [d]. Again, the students experienced this type of phonological process when they did not know how to produce the sound correctly. Thus, they tended to substitute it with the stop sound that was closest phonetically. Aspiration [th] was also used to substitute the sound /ð/, mostly in final position such as in the words bathe and clothe.

In the case of the production of the sounds /θ/ and /ð/, it can be claimed that the students' pronunciation difficulties were mainly related to developmental process even though the spelling system or the orthographic symbols may also have contributed to the errors related to the grapheme <h>. On the other hand, if it was solely a spelling-pronunciation related problem, the respondents would pronounce /ð/ merely with [th]. In fact, they replaced the sound /ð/ with /d/, which can be stated as the stopping process where the students replaced fricative sounds that they did not know how to pronounce with the closest sound in the phonetic system.

The Voiceless Post-Alveolar Fricative /ʃ/

The voiceless post-alveolar fricative /ʃ/ was also one of the main errors in pronunciation made by the respondents — 90% in Task 1 and about 100% in Task 2. The post-alveolar fricative /ʃ/ is also a fricative sound that does not exist in the Indonesian phonemic system. In this study, the respondents, for instance, pronounced the words shell, she, issue, rush and wish with [sel], [si], [isu], [ras], and [wis].

The respondents who mispronounced the sound had in mind that when there is a letter <s> the pronunciation should be /s/, particularly in words such as issue. It did not cross their mind that it would have a pronunciation other than /s/. The non-occurrence of phoneme /ʃ/ in Indonesian and the similarity of grapheme <sh> with <s> led the respondents to pronounce it with [s]. In the case of the pronunciation of the words convention and machine, some

of the respondents also pronounced them the same way that they are spelled where <sh> is pronounced as [t] or [ch]. In this case, it can be claimed that the spelling of the words influenced the respondents in producing the fricative sounds.

The Voiced Post-Alveolar Fricative /ʒ/

These findings suggest that the voiced post-alveolar fricative /ʒ/ was also mispronounced by the respondents. The sound /ʒ/ is not available in the Indonesian phonemic system. From four words tested, the word *rouge* was the most difficult word for the students to pronounce. Generally, they replaced the /ʒ/ with [g] in the word *rouge* and with [s] in the word *pleasure*. There was also some variability of sounds produced by the respondents in replacing /ʒ/. The sound was also realised with [d] or [j]. When they made errors in pronouncing the words containing the sound, very often the respondents replaced the sound based on the orthographic symbol, as in the case of *rouge* and *pleasure*.

Another variability that was found in the pronunciation of /ʒ/ was when the respondents realised the sound with [j]. The sound [j] is a sound that exists in the Indonesian phonemic system as a voiced palatal stop. So, when replacing /ʒ/ with [j], the respondents maintained the place of articulation, yet they changed the manner of articulation. It can be said that in this case, the students experienced some developmental process, where they tried to replace the non-existing sound with the closest sound in their native language.

CONCLUSION

The findings revealed that Indonesian students have difficulties with English fricatives and tend to substitute the sounds using various substitutions. The study shows that the order of difficulties of fricative sounds for Indonesian learners (from the most to the least problematic)

are: /v/, /ʃ/, /ð/, /θ/, /z/, /ʒ/, /f/, and /s/. Mathew (2005) found that transfer and developmental processes play the most important role in the students' interlanguage and that spelling interference does not play as big a role. Chaira (2015) merely claimed that Indonesian students' phonological errors are caused by L1 interference. The findings of this research show that the most likely cause of errors is the tricky English spelling system, even though other factors such as transfer of L1 and developmental processes contribute.

The findings of this research imply that teachers need to apply a certain strategy to meet students' needs. By knowing the difficulties faced by the students and the causes of the problems, teachers can design tasks that can help them solve their problems and achieve better English proficiency, particularly in oral communication. The students need to be exposed more to correct pronunciation, both through formal teaching and native speaking contexts. This can be done through songs or learning English through movies. Moreover, as suggested by Szyszka (2016), the teaching of pronunciation needs to be considered in various teacher training programs to build teachers' confidence in developing and using pronunciation-teaching techniques. As Krzysik and Lewandowska (2017) confirmed, graduate students positively assess pronunciation courses in terms of implementation and materials. The conclusions in this study were attributed merely for the students under study and not intended for generalization.

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