Thai and Indonesian English Students' Problems in Pronouncing English Fricative and Affricate Sounds: A Case Study in IAIN Kediri

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Abstract—**This study aims to see the phonological problem deviation of English fricative and affricate sound produced by Thai and Indonesian English learners. This sound is interesting to study since the fricative and affricate sounds system among English, Thai and Indonesian are different. Moreover, some English sounds do not exist in the Thai and Indonesian language system. Respondents of this study were Thai and Indonesian students of IAIN Kediri taken purposively since this study is a case study. The result of this study shows that the deviation of fricative and affricate sounds produced by respondents really varies. This study also found that the deviation of the sound was because phonological problem encountered by respondents was a mistake, not an error. Therefore, generalizing a rule of the phonological problem is impossible to do since the deviation is overlapped and irregular.**

Keywords—phonological problem; fricative; and affricate; English; Thai; Indonesian

I. INTRODUCTION

English as an International Language so far is still having difficulties in spreading. Data shows that the spreading of English is tied to some aspects, economy and trade, technology, innovation of life, and society (English First, 2017). They have a linear correlation with each other. The higher the aspects are, the faster English spreads, yet the lower the aspects are, the slower English spreads. The cases occur to Indonesia and Thailand. Based on research conducted by EF (2017) focusing on index level of English, Indonesia is at level 38 of 80 and Thailand is at level 53 of 80. Both two countries are counted at a low level of English proficiency index (English First, 2017).

When we talk about the spreading of English, besides we talk about above aspects, we also talk about how the phonological system of the language is constructed. It still has a problem for English to accept widely as a language that people all over the world use since the orthography data differ from phonetic data. Not only that, not all languages in the world do have exactly the same phonological system as English does. Some previous studies showed the phonological interference facing by learners of English. Some other studies also showed the phonological interference among L1 and L2.

II. LITERATURE REVIEW

Results of some studies indicate that there are such kinds of attitude done by language learners when the sound of target language does not exist in the native language. The in-existed sound itself made the difficulties of the L2 learner when producing the sounds which are different (Pallawa, 2013). One of which is changing or substituting the in-existed sound of target language into the sound of native language which is close to (Saha & Mandal, 2014). However, that is not the only one to happen. The language proficiency of language learner also plays a role really important. This case happens to Bengali English speaker. The more proficient Bengali English speakers are, the less mistake they made in terms of morphology, phonetics and phonology (Islam, 2004). Not only difference of phonological system and language proficiency of the language learner affect, Anjarsari (2015) adds some factors related to phonological interference. In her study, she concluded that 1) Malaysian, Turkish and English made phonic interference when learning Bahasa Indonesia; 2) the bigger the difference of the phonological system among languages, the more phonic interference is; 3) language family has a significant role in L2 interference; 4) the more sound of the language does not mean the less interference; 5) there is an identical allophone and its distribution between L1 and L2.

Some other studies are focusing on the sounds that do not exist in another language sound system, like study conducted by Tiono and Yostanto (2008. They tried to find out the kinds of phonological errors produced by English department students. The focus of their study was on sound [v], [θ], [ð], [ʒ], [dʒ], and [tʃ], which are included to fricative and affricate sound. Results of the study showed that there are three phonological errors found: replacement, deletion, and substitution when Indonesian English students pronounced those sounds. Other studies focus on the same topic, but their focus is broader to all sounds of fricative and affricate. Putri (2012) in her study concluded that the accuracy of respondents' pronunciation compared to a dictionary when pronouncing fricative and affricate sound does not reach 70% correct. This error could be because the phonological system of fricative and affricate between English and Indonesian is different. This, of course, makes some phonological problems

encountered by respondents. There are some processes of phonology done by learners in this case: error of omission, error of addition, error of sections and overgeneralization (Fauzi, 2014). Since the phonological system of fricative and affricate sound is interesting to study, this study will focus on those sounds and proposes two questions, first, whether the phonological errors are counted into error or mistake, second, what the phonological problems are produced by respondents.

To answer the research questions, there are two theories used in this study, error analysis theory and distinctive theory. Two basic terms which need to consider in error analysis theory are error and mistake-all explanation below about Error Analysis theory was taken from Al-Khresheh (2016). To determine both two, there are two ways to analyze. First, the consistency of the learners' performance. If a learner uses a right form of structure or rule and wrong in later chance on the same structure, then it is a mistake, which can be corrected. However, if a learner always makes a wrong form on the same structure then it is an error. Second, asking an L2 learner to correct the wrong form. If the learners are able to do then it is a mistake and if not, then it is an error. These two terms will be used in present study to bridge whether the phonological problems produced by the respondent is an error or a mistake.

According to this theory, there are two sources contributing to L2 learners' error: first, interlingual. This kind of error is caused by native language interference. This is caused when the structure of L1 leads to an error of producing the L2 structure. Like a learner makes a wrong structure of a sentence when speaking or writing. Secondly, intralingual. This error is caused by target language interference and can reflect the characteristics of the way learner learn the target language. There are four categories of this interference: 1) overgeneralization, learners generalize one rule in a condition to other condition. 2) ignorance of rule restriction, applying the rule in a context which is totally different. 3) incomplete application of rules, learners fail to reach complete knowledge. 4) hypothesis of false concept, making a rule of what just studied to the different context which thought it is correct.

A distinctive feature is the next theory used in this study. This theory is utilized to analyze the phonological problem done by respondents. There are four allotments of features of what all Schane (1973) explains used in this study.

1. Binary. This feature is to show whether or not the attribute present. This feature uses two symbols, (+) if the feature is present, [+voiced] for example, and (-) if the feature is absent, [-voiced] for example.

2. Major class features. There are three sets of feature a) syllabic. It comprises all vowels, syllabic nasals, and liquids. b) sonorant, resonant sound quality, which consists of vowels, semivowels, syllabic nasals and liquids, nasals, and liquids. c) consonantal, related to narrow the oral cavity. It consists of all consonants.

3. Manner features a) continuant (fricative, approximant), b) delayed released (affricate), c) strident, to distinguish,

(fricative but [θ, ð], and affricate), d) nasal and e) lateral ([l]).

4. Place of articulation features a) anterior (from alveolar to bilabial) and b) coronal (from alveolar to palatal).

To support when analyzing data, it is noteworthy to provide the phonological system of three languages. Taken from Warotmesixemadit (1967) consonant and semi vowel sound in Thai comprise of /p/, /pʰ/, /t/, /tʰ/, /k/, /kʰ/, /b/, /d/, /c/, /cʰ/, /f/, /s/, /m/, /n/, /ŋ/, /r/, /l/, /w/, /y/, /h/, /ʔ/. Slayden (2017) adds /j/, /tɕ/, /tɕʰ/ in the system of Thai phonology. He also provides the syllable position of the sound: a) syllable-initial are /p/, /pʰ/, /t/, /tʰ/, /k/, /kʰ/, /b/, /d/, /tɕ/, /tɕʰ/, /m/, /n/, /ŋ/, /l/, /r/, /j/, /w/, /f/, /s/, /h/, /ʔ/. b) syllable-final are /p/, /t/, /k/, /m/, /n/, /ŋ/, /s/, /f/, /j/, /ʔ/, final voicing /k/ → [g] / /_#/, see table 1 for clear.

TABLE I.

	Bilabial	Labiodental	Alveolar	Post-Alveolar	Palatal	Velar	Glottal
Plosive	p pʰ b		t tʰ d			k kʰ	
Nasal	m		n			ŋ	
Trill			r				
Fricative		f	s				h
Affricate				tɕ tɕʰ			
Approximant					j		
Lateral Approximant			l				

w	Voiced labial-velar approximant

For the phonological system in English and Indonesia, as cited from Pallawa (2013, see table 2 below for clear! The table only shows consonant sound.

Since the fricative and affricate phonological system in English are different from both Indonesian and Thai language, moreover some sounds do not exist in the phonological system of both languages, conducting this study is need to do. Therefore, by conducting this research, we can better understand the phonological constraint of both languages to English and also, we can understand the attitude of the learners when pronouncing the fricative and affricate sounds. A teacher also can understand more the condition when having the kind of students from a different language system.

III. METHOD

The data were the fricative and affricate sound produced by Thai and Indonesian students of English Department of IAIN Kediri. The researcher used a purposive sampling of the respondents. The data were voice recording from a passage that the respondents read. There were 160 fricative and affricate sounds of words, 24 words of sound [f], 19 of [v], 11 of [θ], 15 of [ð], 37 of [s], 15 of [z], 10 of [ʃ], 5 of [ʒ], 9 of [h], 8 of [tʃ], 7 of [dʒ], and. The data can be more since one word of the data comes more than once.

The researcher collected the data from a dictionary, the internet and also from what came across in researcher's mind. The data were the words then the researcher created a passage comprising the data or target words. To make sure the data were understandable or had been learned, the researcher asked

TABLE II.

No	Consonant phoneme	Word					
		Initial		Middle		Final	
		Eng	Ind	Eng	Ind	Eng	Ind
1	[p]	+	+	+	+	+	+
2	[b]	+	+	+	+	+	-
3	[t]	+	+	+	+	+	+
4	[d]	+	+	+	+	+	-
5	[k]	+	+	+	+	+	+
6	[g]	+	+	+	+	+	-
7	[f]	+	+	+	+	+	+
8	[v]	+	-	+	-	+	-
9	[θ]	+	-	+	-	+	-
10	[ð]	+	-	+	-	+	-
11	[s]	+	+	+	+	+	+
12	[z]	+	+	+	+	+	-
13	[ʃ]	+	+	+	+	+	-
14	[ʒ]	Rare	+	+	-	Rare	-
15	[h]	+	+	+	+	-	+
16	[ʧ]	+	+	+	+	+	-
17	[dʒ]	+	+	+	+	+	-
18	[m]	+	+	+	+	+	+
19	[n]	+	+	+	+	+	+
20	[ŋ]	-	+	+	+	+	+
21	[l]	+	+	+	+	+	+
22	[r]	+	+	+	+	-	+
23	[j]	+	+	+	+	-	-
24	[w]	+	+	+	+	-	-

the respondent to read first before recording. If there was a new vocabulary, the researcher had the respondent look up only the meaning in the dictionary, not their pronunciation on a spoken dictionary. Since the respondents are far away, the researcher had them read the passage the researcher had administered and then sent the recording to the researcher.

In terms of analyzing data, the researcher listened to the respondent voice recording, then checked off of what they pronounced to what dictionary says. Then, the pronunciation data were grouped into their category. For example, the deviation of sound [θ] was grouped into the [θ] column. Since the target words come more than once in the passage, from this grouping, the researcher can see which the same words pronounced the same or different in different chance. From this grouping also, the distinctive feature was used to see the phonological problem produced by respondents.

IV. RESULT AND DISCUSSION

The findings are grouped based on the exact sound should be. There are eleven fricative and affricate sounds investigated. Below is the descriptive explanation. To support the understanding.

A. The Pronunciation of [f]

Sound [f] which has feature [-voiced], [-son], [+con], [+ant], [+cor] has four deviations produced by respondents, four deviations; [p] and [g] are produced only by Indonesian respondent (IR in hereafter) and [pʰ] and [f] are produced by Indonesian and Thai respondents (TR in hereafter). There are four words which come differently in pronunciation. First, Photo ['foʊtoʊ]. This word was pronounced differently by respondents. Of exact pronunciation in a dictionary, IR

pronounces it [pʰoto] and correct pronunciation for TR. Even though [f] sound exists in the initial position of Indonesian phonological language system, it seems that the orthography system affects the way the respondent pronounces. The same case happens to the second words, ELEPHANT ['elɪfənt] and DOLPHIN ['dɒlfɪn]. For IR, it is difficult to create aspirated sound in a middle position of the word but Thai is not. So, IR tried to substitute the sound [f] into sound [p] and [pʰ] for Thai respondent. Word number three is ROUGHLY ['rʌfli]. IR pronounced it [roʊgli] and correct pronunciation for TR. Again, it seems that IR was affected by the orthography system of the word. Other than what just mentioned, respondents succeeded to pronounce.

B. The Pronunciation of [v]

Different with sound [f], sound with feature [+voiced], [-son], [+con], [+ant], [+cor] does not exist in Bahasa Indonesia, neither does Thai. It can be predicted that it has to be a phonological process which is done by the respondents. There are two deviations of the sound, [f] for IR and [f], [w] for TR. In all positions, initial, middle and final, IR changes the sound [v] into [f]. Meanwhile, TR produced two sounds differently, [f] at the initial, middle and final, sound [w] at the initial and middle. Like VERY ['veri] was pronounced [weri] and EVERY ['ewri] but not for LIVE [lɪv], it was pronounced [lɪf]. It is because sound [w] does not exist in the final position of Thai phonological system. This substitution might occur because there is no sound [v] in Indonesian and Thai phonological system then the respondents pull the sound into the closest sound, [f]. The different feature of these both sounds is on voicing.

C. The Pronunciation of [θ]

Same as sound [v], this sound [θ] also does not exist in both Indonesia and Thai languages. Sound with feature [-voiced], [-son], [+cont], [+ant], [+cor] has seven deviations of sound. [tʰ] and deleted [ø] sound [θ] for only IR, [ʧ], [ʃ], [θ] for Thai and [t], [ĉ] for IR and TR. There are three words to focus that they are differently pronounced. First, WITH [wɪθ]. This word was pronounced differently, [t] and [ĉ], by IR and TR. Either Indonesian or TR pronounced [t] in the initial like THURSDAY, middle like SOMETHING and final position like WITH but sound [ĉ] only in the last for Indonesian like WITH [wiĉ].

middle MONTHLY [mʌnĉli] for Thai.

Another word is MONTHLY. There are two pronunciations here, sound [tʰ], [mʌntʰli], for Indonesian and sound [ĉ], [mʌnĉli], for Thai. Sound [tʰ] comes in the initial like THINK and MONTHLY for Indonesian but it does not exist in Thai in this case. Also, word MONTH. IR deleted this sound then become [mʌn] and this only happens in the final position, however, this deletion does not exist in Thai. The word is also pronounced [mʌnĉ] for Thai. The last word which was pronounced differently is BREATH. It was pronounced [bret] by IR as sound [t] comes in the final position and was pronounced [breʧ] with sound [ʧ] which comes only in the final position.

D. The Pronunciation of [ð]

This sound also does not exist in both Indonesian and Thai language. There are five deviations of the sound, [t], [ðˁ] for only IR, [d], [ĉ] for only TR and [ð] for both Indonesian and TR. IR changed [ð] to [t] only one word BATHE which should be [beɪð] but it was pronounced [bɛt], the same word is also pronounced [bɛĉ] by TR. This substitution of sound [ð] to [t] or [ĉ] only occurs in the final sound. [ð] to [ðˁ] for IR if when the sounds come on the initial position, like THE [ðˁə], THAT [ðˁɛt] etc. However, when the sound comes on the initial position, TR pronounced two different sound [ð] and [d]. Only word THAN, initial position, that was pronounced with correct sound [ð] as [ðæn] the other words are pronounced [d] like THE [də] and THAT [dæt]. In the middle position, three sounds come up. Correct sound like FATHER [fa ðer]. However, there are two words which are pronounced differently between IR and TP. BROTHER and NORTHERN are pronounced with correct sound for IR but becomes [d] when TR pronounced them. [ˈbrʌðər] becomes [brʌdər] and [ˈnɔːrðərn] becomes [nɔdərn].

E. The Pronunciation of [s]

Sound [s] is the most common sound appear in the passage. There are three deviations. Correct sound [s], [ʃ] and deletion [Ø]. For both IR and TR had no any difficulties when sound [s] comes in the initial and in the middle position. They succeeded to create correct sound. This success is probably because the sound exists in both languages. However, sanitation comes when the sound comes in the final of the word. Word US for example, IR didn't have any problem to pronounce it, however, TR change the sound [s] becomes [ʃ], [ʌʃ] and also this word was pronounced correctly in another chance. Meanwhile, IR deleted the sound [s] when it comes in the final of the words like SCIENCE [ˈsaɪəns], BOX [bɑːks] and DISTANCE [ˈdɪstəns] become [sajən], [bɒk] and [distən].

F. The Pronunciation of [z]

The phonological problem encountered by IR and TR, in this case, is exactly the same. There are two deviations of the sound, [s], and correct sound [z]. respondents succeeded to pronoun sound [z] when it comes on the initial position like ZOO [zuː] and ZOOM [zuːm]. However, the substitution occurs when the sound comes on the middle and final position. The sound [z] becomes [s] like PLEASANT [ˈplezənt] was pronounced [plisən] however for word BUSY [ˈbɪzi], they pronounced with correct sound [bizi]. This substitution also occurs when the sound comes on the final position. For example, HAS [hæz], It was pronounced [hæs]. This all occurs probably the respondents were affected by orthography system and also the sound [z] which does not exist in the final sound of both philological language system make respondent create the sound which is close to. The feature differing from both of them is only voicing state. And we can infer from the data, even no sound [z] the initial position for Thai language system, the Thai respondent made it well.

G. The Pronunciation of [ʃ]

The same happen like in the case of sound [z], in this case between IR and TR are almost exactly the same. The difference is the pronunciation of word SHE [ʃiː] by TR happens into two different sound [s] becoming [si] and correct sound [ʃ] becoming [ʃi]. The rest is the same where there are two deviations of sound [s] and [ʃ]. Like TR, IR also substituted sound [ʃ] into [s] on the same word SHE and FRESH [freʃ] becoming [fres]. For middle position, there is no problem for all respondents. They succeeded to create the correct sound. For example, FICTION [fikʃən] becomes [fikʃen] and also in the final position like FISH [fɪʃ] becomes [fiʃ]. Even though this sound does not exist in both phonological language system, respondents succeeded to make the sound in all position of the sound.

H. The Pronunciation of [ʒ]

Sound which has feature [+voiced], [-son], [+con], [-del.rel], [+cor], [-ant] has five deviations of sounds, [s], [ʃ], [ĵ], [g] and [k]. There two words which have the different sound when pronounced. USUALLY [ˈjuʒəli] was pronounced in a different way. IR substituted the correct sound [ʒ] into [s] and pronounced it [jusuəli]. However, TR pronounced differently. It was pronounced [juʃuəli]. The sound is changed from [ʒ] into [ʃ]. The word GENRE [ˈʒɑːnrə], which comes in the middle position, was pronounced the same by both respondents as [ĵɛnrɪ]. On the middle position, there is word LEISURE [ˈliːʒər] which was pronounced [liʃər] by IR, [ʒ] becomes [ʃ] and [liʃər] by TR, [ʒ] becomes [s]. And word PRESTIGE [preˈstiːʒ], which the sound comes on the final, was pronounced [prestɪg] for IR where it is changed from [ʒ] into [g] and was pronounced [prestɪk] for TR where it is changed from [ʒ] into [k]. what we can imply from these data, the respondent apparently is affected the orthography system. Like pronouncing [g] or [k] on the final sound of PRESTIGE where it should be [ʒ].

I. The Pronunciation of [h]

For this word [h], there is no any significant problem encountered by respondent. This sound has only two deviation which deletion [Ø] and also the correct sound [h]. The deletion is only happen to word HUMAN [ˈhjuːmən]. However, IR deleted the sound and pronounced it [jumən]. This is apparently because majority students pronounced this word [jumən] and it becomes habit for almost all students. For the rest words wherever the position IR can make them perfect. For TR, no problem was faced either sound [h] in the initial, and middle. Since in English there is sound [h] on the end of the word, no available word provided in the data.

J. The Pronunciation of [ʧ]

The next sound is [ʧ]. this sound has 3 deviations, [ĉ] which is only by IR, [ʧ] only by TR and [k] which is by IR and TR. Let's see the word CHORES [ʧɔːr] and CHEAP [ʧiːp] both sounds are pronounced differently by IR, [ʧɔːr] becomes [kors] and [ʧiːp] becomes [ĉip]. It is apparent that tried to pronounce orthography CH which is in English come with two sounds either [k] or [ʧ]. However, both two words were pronounced [ʃors] and [ʃip]. Not only on the middle position, all data which has CH in its word are pronounced [ʃ]like [waʃiŋ] for WATCHING [waʧiŋ] and [tʌʃ] for TOUCH [tʌːʧ]. It appears that TR generalize orthography CH with sound [ʃ].

K. The Pronunciation of [ʤ]

There are five deviations of this sound [ĵ], [g], [ĉ], pronounced by IR and TR, [t] by IR and [ʃ] by TR. There is a word which was pronounced differently by IR and TR that is BRIDGE [brɪʤ]. IR pronounced it [brɪt] and TR pronounced it

[brɪʃ]. For IR, it apparently happened because the word has final letter DGE which it is difficult to create sound [g] after [d]. Since the sound [d] on the final word does not exist in Bahasa Indonesia, the respondent pull the sound which is close to [d], which is [t]. Again, Orthography has a role here. Meanwhile, TR substitute the sound [ʤ] into [ʃ] which are in the same place of articulation [+cor], [-ant] but different manner of articulation and voicing [ʤ] features [+del rel], [+voiced] meanwhile [ʃ] features [+con], [-son] and [+voiced].

For the rest, sounds were pronounced the same by IR and TR. Sound [ĵ] happens on the initial like JUST [ʤʌst] which was pronounced [ĵʌs], on the middle like DANGEROUS [ˈdɪnʤərəs] which was pronounced [dɛnĵəros] and on the final like VILLAGE [ˈvɪlɪʤ] which was pronounced [filɪĵ]. Sound [g] happened on the middle position like LARGER [lɑːrʤər] which pronounced [lɑrgər] and VIRGIN [ˈvˑrʤɪn] which was pronounced [vɪrgɪn]. In addition, sound [ĉ] only happen in the final position like ORANGE [ˈɑːrɪnʤ] which was pronounced [orɪnĉ].

To answer whether those phonological problems an error or a mistake, I am interested to assume that if a learner succeeds to produce the sound even the sound does not exist in his/her language phonological system, regardless the position of the sound whether it is on the initial, middle or plural, then it is a mistake which the phonological problem is caused from internal of the learner, not from outside of learner, phonological language system for example. This problem is caused, at least, by the lack of knowledge of the leaner to pronounce from orthography data. Let's start with sound [f], of the data got, IR and TR succeeded to produce the sound. Even they also make some deviations of the sounds like [p], [pʰ]and [k]. Both respondents succeed to produce the sound on the initial, middle and final. The same as sound [v], even from the data we do not find finding showing the sound [v], it does not mean that this is an error. Since Indonesian people can produce the sound in a completive position, it is probably the lack knowledge of the respondent. The rest sounds are [ð], [s], [z] and [h]. Like pronouncing sound [f], IR also succeeded to produce those kinds of sound. However, TR also succeeded to produce sound [ð], [ʃ], [s], [z], [ʧ] and [h]. How about the rest sound? it should be there is more analysis to gain the information deeper.

Of all data above, there are two phonological problems done by the respondent, deletion, and substitution; and since the deviation result of sound is a mistake which respondent can fix, not an error, creating a general rule to generalize a phenomenon using distinctive feature is not appropriate to do. However, researcher provides the phonological process with the distinctive feature to see the environment, but not to generalize.

1) *Voicing State*

[z] → [s] / [v_v] / [v_#]

[ʒ] → [s] / [v_v]

[ʒ] → [ʃ] / [vv_vc]
       [v_vv]

[v] → [f] / [#_v] / [v_c] / [v_#]
       [v_v]

[ð] → [t] / [v_#]

2) *Manner of articulation*

[f] → [p] / [v_v]
       [c_v]

[f] → [pʰ] / [#_o]

[θ] → [t] / [#_v] / [v_v] / [v_#]
       [vv_v]

[θ] → [tʰ] / [#_v] / [v_c] / [v_#]

[θ] → [ĉ] / [v_c] / [v_#]

[θ] → [ʧ] / [v_#]

[θ] → [d] / [#_v] / [v_v]
       [vv_v]

[ð] → [t] / [v_#]

[ð] → [ðˤ] / [#_v] / [c_vv]
       [vv_v]

[ʒ] → [ĵ] / [#_v]

[ʒ] → [k] / [vc_#]

[ʒ] → [g] / [vc_#]

[ʧ] → [k] / [#_v] / [v_v]
       [c_v]

[ʧ] → [ʃ] / [#_v] / [v_v] / [v_#]

[ʤ] → [g] / [vc_vc]

[ʤ] → [ĵ] / [vc_vc] / [v_#]

[ʤ] → [t] / [ccv_#]

[ʤ] → [ʃ] / [cc#]

[ʤ] → [ĉ] / [vcv_#]

3) *Place of articulation*

[v] → [w] / [#_v] / [v_v]
       [c_vc]

[ʃ] → [s] / [#_v] / [v_#]

[ʒ] → [ĵ] / [#_v]

[ʒ] → [k] / [v_#]

[ʒ] → [s] / [v_#] / / [v_v]

[ʧ] → [ĉ] / [#_v] / [v_v] /[v_#]

[ʧ] → [k] / [#_v] / [v_v]
       [c_v]

[ʤ] → [t] / [ccv_#]

[ʤ] → [ĉ] / [vcv_#]

V. CONCLUSION

It is too early to say that phonological problem encountered by L2/foreign language learner is an error. When assuming that all phonological problems are errors which comes from L1 interference, then we should know that not all phonological problems are not an error, therefore it needs to use an error analysis theory. Researcher assumes that if what respondents encountered is an error, which is really hard to fix, it must be there is a general rule constructing the errors and if it is just a mistake, we cannot make a rule to generalize the mistake because mistake will be irregular and it is impossible to make a rule. Of the data explained above, this study shows that a phonological problem encountered by the respondents is a mistake so that there are many deviations of

sounds made by IR and TR. Some of the deviations are the same even within the same words and some others are different. As a result, an environment which comes to the sound really varies. This environment is casuistic and depends on the case.

References

Al-Khresheh, M. H. (2016). A review study of error analysis theory. *International Journal of Humanities and Social Science Research*, 49-59.

Anjarsari, N. (2015). *Phonic interference of first language into second language: a case study of non-indonesian native speakers.* retrieved from http://www.eprints.undip.ac.id: http://www.eprints.undip.ac.id/47146

English First. (2017). *EF EPI.* Retrieved from www.ef.co.id: www.ef.co.id/epi/

Fauzi, F. (2014). Error analysis of Sundanese English pronunciation on fricative sound. *Al-Turas*, 199-217.

Islam, S. A. (2004). Retrieved from www.diva-portal.org: http://www.diva-portal.org/smash/get/diva2:517729/fulltext01

Katamba, F. (1989). *An introduction to phonology.* New York: Addison Wesley Longman Pubishing.

Odden, D. (2005). *Introducing phonology.* New York: Cambridge University Press.

Pallawa, B. A. (2013). A Comparative analysis between English and Indonesian phonological systems. *International Journal of English Language Education*, 103-129.

Putri, D. R. (2012). *Pelafalan bunyi frikatif dan afrikat oleh mahasiswa sastra sunda angkatan 2010 Universitas Padjadjaran.* Retrieved from http://www.jurnal.unpad.ac.id: https://www.google.co.id/url?sa=t&source=web&rct=j&url=http://jurnal.unpad.ac.id/ejournal/article/download/1107/1099&ved=0ahUKEwiHopb9k9_XAhVCvo8KHZv7CugQFghYMAY&usg=AOvVaw3UPSwwBqsZ2W4Bt27yMrNJ

Richards, J. (1967). Pronunciation feature of Thai speakers of English. *Linguistic Society of New Zeland* (pp. 67-75). Aukland: University of Aukland.

Saha, S. N., & Mandal, S. D. (2014). Phonetic and phonological intererence of English pronunciation by native Bengali (L1-Bengali, L2-English) Speakers. *Co-ordination and standarization of speech database and assessment technique COCOSDA.* Phuket: IEEE.

Schane, S. (1973). *Generative phonology.* New Jersey: Prentice-Hall, Inc.

Slayden, G. (2017, November 24). *Survey of central Thai phonology.* Retrieved from www.thai-language.com: http://www.thai-language.com/resources/slayden-thai-phonology.pdf

Tiono, N. I., & Yostanto, A. M. (2008). A study of English phonological error produced by English department students. *Kata*, 79-112.

Warotmesixemadit, U. (1967). Some phonological rules in Thai. *Journal of the American Oriental Society*, 541-574. DOI: 10.2307/597595