INDONESIAN EFL PRE-SERVICE TEACHERS AND PHONETIC NEGATIVE TRANSFER

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Abstract

Language transfer, especially in terms of phonetic level, may be positive or negative. Positive transfer happens when the native tongue (L1) can assist in the acquisition of the target language (TL). In the contrary negative transfer occurs when L1 does not facilitate, or even impedes the acquisition of the TL. This research strives to investigate the negative phonetic of Indonesian phonetic system onto English speech production performed by pre-service EFL teachers. By employing phonetic transfer analysis (Altenberg & Vago, 1983), the negative phonetic transfer includes transfer of [f], transfer of [t], transfer of non-aspirated [ph], [th], and [kh], and transfer of [s]. These results call for more attention of teacher educators to promote phonetic awareness of their students in English language classrooms.

Keywords: Phonetic; Negative Transfer; EFL Pre-Service Teachers

Abstrak

Fenomena transfer bahasa bisa menjadi positif atau negatif. Transfer positif terjadi ketika bahasa ibu (L1) dapat membantu dalam penguasaan bahasa sasaran atau target language (TL). Sebaliknya transfer negatif terjadi ketika L1 tidak memfasilitasi, atau bahkan menghambat penguasaan TL. Penelitian ini berusaha untuk menyelidiki fonetik negatif dari sistem fonetik bahasa Indonesia ke dalam produksi bahasa Inggris yang dilakukan oleh mahasiswa Pendidikan bahasa Inggris. Dengan menggunakan analisis transfer fonetik (Altenberg & Vago, 1983), penelitian ini menemukan bahwa responden sering melakukan transfer fonetik negatif meliputi transfer [f], transfer [t], transfer non-aspirated [ph], [th], dan [kh], dan transfer dari [s]. Hasil ini mendorong lebih banyak perhatian pendidik untuk mempromosikan kesadaran fonetik mahasiswa di kelas bahasa Inggris.

Kata Kunci: Fonetik; Transfer Negatif; Mahasiswa PBI

INTRODUCTION

If there is interaction of two or more languages and they influence each other, there is language transfer (Brice & Rivero, 2013). In the view point of target language acquisition, language transfer can be represented in all linguistics levels, namely phonology, morphology, syntax, semantic, and pragmatic (Lee, 2014; Montrul & Ionin, 2012). The first language (L1) takes a vital role in the target language (TL) acquisition as individuals tend to transfer the forms and meanings, and the distribution of the two aspects from their L1 to the TL – both when actively speaking

the TL, and receptively when attempting to comprehend the language as practiced by natives (Brice & Rivero, 2013). Language transfer may be positive or negative. Positive transfer happens when the L1 can assist in the acquisition of the TL, while negative transfer or interference happens when L1 does not facilitate, or even impedes the acquisition of the TL (Brice & Rivero, 2013).

In English as foreign language (EFL) context, the latter transfer frequently happened in the aspect of phonology (Altenberg & Vago, 1983; Grami & Alzughaibi, 2012). A recent report showed that adult learners frequently failed in producing appropriate pronunciation of English because there was high interference from L1 (Widagsa, 2017). It is in line with a theory proposed by Ellis (2008) who stated that learners structurally organized their speech in the sense that the speech constituted a system in its own right. For instance, foreigners consistently replace a sound in target language with a sound which is phonetically close to L1. Consequently, their speech production of the target language is far different from the similar speech articulated by native speakers.

If we narrow the context into Indonesian, we can find several studies regarding to phonetic transfer or interference (Andi-Pallawa, 2013; Chaira, 2015; Tiono & Yostanto, 2008) A study conducted by Chaira (2015), found that most of secondary school students mispronounced English phonemes, both consonants and vowels sounds. After observing random conversational events in the school, the result showed that negative transfer can be seen in the production of the consonant sounds [ph], [th], [kh], [f] [v], $[\theta]$, $[\eth]$, [z], $[\int]$, [ks] and the vowel sounds [i:], [uː], [æ], and [e]., Muhyidin (2016), in his research dealing with segmental as well as stress features of pronunciation, discovered

nineteen types of interference spoken by elementary school students. The segmental aspects consisted of nine vowel substitutions, two vowel shortenings and four consonant substitutions, two deletions of consonants and two additions of consonants. Meanwhile, on the stress aspect there were twenty misplaced stresses. Furthermore, Ambalegin & Suryani (2018) focused on description of the influence of mother tongue towards Batak Toba adults' in pronouncing English vowel sounds. The result of this research showed that the participants were not able to pronounce /æ/, /3:/, /i:/, /o:/ correctly.

The notion of pronunciation is oftentimes a neglected part in language skills teaching as previous studies concentrated on the issues such as teachers' preferred styles in translation (Fransiska & Arifin, 2021), students' reading comprehension (Jannah & Munifah, 2021; Riamawati, 2021), grammatical error and mistakes in students' composition (Arifin et al., 2014; Suprapto, 2019; Wulandari & Harida, 2021). However, pronunciation takes an important role in communication (Putra & Rochsantiningsih, 2017). When a speaker makes errors in pronouncing English sounds, he greatly leads the hearer to have misunderstanding about he actually wants to convey. Many research have been discussing the importance of teaching pronunciation in English teaching (Celce-Murcia et al., 2010; Kelly, 2001). Teaching pronunciation is an aspect that teachers need to take it into account as Harmer (2001) stated that pronunciation teaching not only makes students aware of different sounds and some features, but can also improve their speaking immeasurably. Furthermore, (Celce-Murcia et al., 2010) argued that non-native speakers of English need to achieve a 'threshold level of pronunciation to be understood and to minimize oral communication problems.' In brief, pronunciation needs to be taught and deserves more concern in the English language education.

From the explanation above, it is clear that the literature lacks of studies focusing on phonetic transfer issues of pre-service EFL teachers in Indonesian context. Pre-service teachers have big responsibility to be a model of good pronunciation in their classroom. Students may be imitating the teachers' pronunciation. If the teachers make errors, it is easy to predict that their students will have the errors too and the worst consequence is that the errors will fossilize. Therefore, with this paper, I attempt to give a clear picture regarding to the transfer of Indonesian phonetic system onto English speech production performed by pre-service EFL teachers.

Phonemes that exist in English language system are considered to be complicated and relatively difficult for many Indonesian students to pronounce well (Chaira, 2015). It may happen due to the fact that phonemes in all language have distinctive features when compared one to another. The phonemes or sounds of the target language need to be articulated intelligibly and properly in order to accomplish the appropriate sound productions of the language. By doing so, the exact meanings can potentially be achieved.

Manner of		Place of articulation						
articulation	Voicing	Bilabial	Labio- dental	Inter- dental	Alveolar	Palatal	Velar	Glottal
Plosive	Voiceless	[p]			[t]		[k]	
Piosive	Voiced	[b]			[d]		[g]	
Prince	Voiceless		[f]	[θ]	[s]	[∫]		[h]
Fricative	Voiced		[v]	[ð]	[z]	[3]		
Affricate	Voiceless					[t∫]		
Afficate	Voiced					[dʒ]		
Nasal	Voiced	[m]			[n]		[ŋ]	
Liquid	Voiced				[1]	[r]		
Glide	Voiced	[w]				[j]		

Table 1. English Consonants (Yong, 2001)

As has mentioned earlier, all languages in the world consist of a variety of phonological elements (e.g., consonants and vowels). In relation to language learning, the difference phonological system between the native language and the target language will automatically cause some difficulties to the learners. Particularly, the difficulties will increase as the elements of the target language are completely contrasting and different from the native language phonological patterns.

In terms of consonant sounds as illustrated in Table 1, English language consists of 24 consonants consisting of [p], [b], [h], [v], [m], [t], [d], [n], $[\theta]$, $[\theta]$, $[\eta]$, [t], $[d\eta]$, [r], [s], [z], [l], [l], [3], [w], [k], [g], and [j]. Those sounds are categorized into three pronunciation features, namely place of articulation (e.g., bilabial, labiodental, interdental, alveolar), manner of articulation

(e.g., plosive, fricative, affricative, nasal), and voicing which relates to the vibration of the vocal chords (e.g., voiced and voiceless).

Table 2. English allophonic variation

Phoneme	Allophonic variation
	[p ^h]
[p]	[p]
	$[p^0]$
	[t ^h]
[t]	[t]
	$[t^0]$
	$[k^h]$
[k]	[k]
	$[k^0]$

In addition, English also has allophonic variation (Celce-Murcia et al., 2010). An allophone is a phonetic variation of a phoneme. This variation is not linguistically significant because it does not change the meaning of the word. For instance, /t/, has two variations in terms of aspiration. It is aspirated in the initial position and in the stressed syllable (e.g. thin [thin], table [theibəl]) and non-aspirated in medial or final positions (e.g. painting [peintin], bite [bait]). Although allophonic variation doesn't change meaning, it still has significant part in terms of native-like accent.

Table 3. Indonesian non-standard consonants

Manner of		Place of articulation						
articulation	Voicing	Labial	Dental Alveolar	Alveo Palatal	Velar	Glotal		
Plosive	Voiceless	[p]	[t]	[t∫]	[k]	[?]		
Piosive	Voiced	[b]	[d]	[dʒ]	[g]			
Fricative	Voiceless		[s]			[h]		
	Voiced							
Trill	Voiced		[r]					
Nasal	Voiced	[m]	[n]	[ɲ]	[ŋ]			
Liquid	Voiced		[1]					
Glide	Voiced	[w]		[j]				

Meanwhile, in Indonesian phonetic system, there are 19 native consonants and a few other loan-consonants such as f/, v/ and z/ (Yong, 2001). These loan-consonant sounds are often unused and do not commonly exist in conventional Indonesian communications. Table 4 shows the non-standard consonants in Indonesian language (Moeliono, 1985)

Table 4. Complementary consonants in Indonesian phonetic system

[p]	[b]	[f]	[v]	[θ]	[ð]	[t]	[d]
[s]	[z]	[∫]	[3]	[t∫]	[dʒ]	[k]	[g]
[m]	[n]	[Ŋ]	[l]	[r]	[j]	[w]	[h]

However, there are some loan-consonants in Indonesian phonetic system, which are now partly adjusted into Indonesian words. Table 4 shows the complementary sounds for Indonesian consonants. Consonants in the highlighted cell are not Indonesian genuine consonants. Thus, it often causes difficulty for Indonesian native speakers to pronounce these loan-consonants correctly.

METHOD

Our participants are two Indonesian native speakers who speak English as a foreign language. Participant A is 24-years-old male, and Participant B is 23, female. They are undergraduate students of English education. Both participants have studied English since in elementary school. Therefore, we can assume that much of their phonology has become fossilized.

Since this paper is to English language production, the goal is to discover a variety of sounds produced by the participants. Participants were asked to read a text (Altenberg & Vago, 1983) in which the text was modified based on the purposes of this research. Altenberg & Vago employed this text in an attempt to see a clear picture of Hungarian transfer to English, especially in phonological aspects. This text was considered as a text that has a wide variety of sounds in different phonological environments. Altenberg & Vago argued this method was chosen for two reasons, firstly the participants wouldn't be able to use avoidance as a strategy, and secondly the pronunciation of words would be elicited within the context of a series of related sentences, rather than in isolation. The participants' reading were, then, tape recorded, subsequently transcribed into phonetic transcription, and compared to Cambridge Advanced Learner's Dictionary. A

set of contrastive mapping English (E) onto Indonesian (I) was then written to present the phonetic transfer of the participants.

RESULT AND DISCUSSION

This section presents the findings of the research. Considering the limitation of this study, the discussion is only in the area of phoneme level without touching upon the suprasegmental one (i.e. intonation, stress, vocalic length, and similar precise phonetic detail). The analysis only focused in segmental feature which is phonetic transfer —a sound which occurs in Indonesian is substituted for an English sound which does not occur in Indonesia. The analysis is presented into four parts according to the most frequent negative transfer the participants made, namely Transfer of [f]; transfer of [t]; transfer of nonaspirated [p], [t], [k]; and transfer of [s].

Transfer of [f]



The difficulties of articulating sound [v] by Indonesian speakers appeared in the most of previous studies (Chaira, 2015; Fauzi, 2014; Mathew, 1998). In present study, both participants did negative transfer in articulating the English sound [v] consistently and extensively. The participants seemed struggle to produce sound /v/ in the initial, middle, and last position of the word.

The English sound [v] is classified as a voiced labiodental fricative (Yong, 2001), meaning that a speaker produces this kind of sound only if he fulfills those three main features of [v] sound. However sound [v] doesn't exist in Indonesian phonetic system

(Moeliono, 1985). Since Indonesians hear [v] and [f] as identical and also [f] shares the same place (labiodental) and manner (fricative) of articulation, they tend to replace [v] with [f]. The distinction of those two sounds is only on the state of the vocal cords, where [v] is a voiced while [f] is a voiceless.

The replacement of the sound [v] for [f] might happened mainly due to the fact that Indonesian phonetic system does not include any voiced sounds in its labiodental fricative. Therefore, the participants frequently replaced sound [v] with sound [f], and it seemed to be fossilized.

Transfer of [t]

$E [\theta] \longrightarrow I [t]$	
thought [tɔːt]	
throughout [trɔaʊt]/[tru:aʊt]	

The findings above show that the participants consistently replaced $[\theta]$ with [t], especially in the initial positions. It occurred since both $[\theta]$ and [t] share one thing in common, that is, both of them are voiceless. However, when the participants replaced $[\theta]$ with [t], they deviated two important features of this sound. Firstly, they changed its place of articulation from dental into alveolar. Secondly, they changed its manner of articulation; they completely blocked the air stream for a short-term of time and then released it in a burst, creating plosive instead of fricative. Since $[\theta]$ is not known and exerted in Indonesian phonetic system as well as written system (Moeliono, 1985), participants in this study tended to replace or substitue this sound with [t] that is considered as the most identical sound with $[\theta]$.

As implied by previous scholars, most of Indonesian students often got confused when they are trying to articulate sound $[\theta]$ which is usually represented by grapheme th in English

words (Chaira, 2015; Mu'in, 2017; Muhyidin, 2016). The results showed that Indonesian native speakers tended to not only transfer [t] into $[\theta]$, but also [d]. However, in this study, I found that the participants only transferred Indonesian [t] into English $[\theta]$.

Transfer of non-aspirated $[p^h]$, $[t^h]$, and $[k^h]$

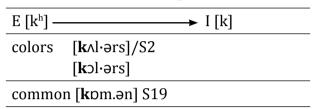
Phonetic transfer of Indonesia to English can be found in the state of aspiration (Chaira, 2015). Aspiration is a process of adding an extra puff of air to a sound. Both participants did not seem aware that there are phonological rules regarding to aspiration of certain sounds in English, namely [ph], [th], and [kh].

E [p ^h] —	→ I [p]
passage	[p æs.idʒ] S0
	[p es.ɪdʒ]
people	[p i:pəl] S5
pot	[p ɒt] S4, S6
primary	[p raɪməri] S17

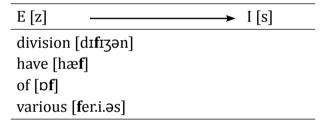
The English [p] can come in initial, medial and also final positions and so does the Indonesian [p]. However, it is very important to explain that the English [p] is aspirated when it comes in the initial position and in a stress syllable (Celce-Murcia et al., 2010). The sound [p] in the word passage should be aspirated to become its allophonic form which is [phæs.idz] as the sound occurs in the initial position and is in a stressed syllable. Meanwhile, the /p/ is not aspirated if it appears in the final position as in the words rope, wipe, and etc. This aspiration rule also applies in sound /t/ in token [thəʊkən] and /k/ in common [khom.ən].

E [th] —		→ I [t]
token	[t əʊkən]/S9	
	[t ɔkən]	
two	[t u] S3	

Therefore, the allophonic forms of aspiration occurring in [p], [t], [k] are phonologically conditioned, that is in stressed syllables. They become phonetically [ph], [th] and [kh]. In contrast, the Indonesian [p] is completely not aspirated wherever it situates in the word (Chaira, 2015). Consequently, the participants articulated these sounds with no any aspiration as they think these sounds are the same with the non-aspirated ones.



Transfer of [s]



The English sound [z] is conditioned through three phonetic aspects: voiced, alveolar, fricative. This sound has the same characteristics in terms of place and manner of articulation with sound [s]. What makes them different is only on the vibration of the vocal cords. The sound [z] is categorized as voiced, while [s] is categorized as voiceless. Furthermore, in English phonetic system, [z] doesn't always represent in grapheme 'z', it occasionally present in grapheme 's', like in the words does, these, result.

The findings showed that both participants pronounced these with [s] as the final sound, whereas it should be pronounced with [z] as the final one. In addition, for the word result, participant 1 pronounced it as [rɪˈsʌlt] and participant 2 did it as [rɪˈsəlt]. Both participants did not realize that the most acceptable pronunciation for this word is [rɪˈzʌlt] with [z] instead of [s]. Although [z] is represented in grapheme 'z' in the word size, both participants still couldn't pronounce it correctly. In this case, this error might occur due to the fact that Indonesian does not have this sound appearing in the final position (Andi-Pallawa, 2013). As a result, they simply pronounced size as [sais] with a [s] in the final position. In a research conducted by Tiono & Yostanto (2008), the transfer of [s] also can be found when Indonesians encountered the English sound [t]. The participants of Tiono & Yostanto's research frequently replaced the English sound [t∫] into [s]. This transfer only occurred in the medial position of a word, when [t∫] situated between a consonant and a vowel as in marching [marsin].

The implication of this research can be drawn firstly upon pedagogical process. Theoretical and practical implications of pronunciation teaching strategies should be included in EFL pre-service teacher education. Kelly (2001) proposed various strategies that are recommended for pronunciation instruction, from highly focused techniques (i.e. drilling) to more broad-reaching activities (i.e. noticing certain pronunciation features). By concerning more on teaching pronunciation, learners are expected to learn to hear the difference between phonemes, so they can carry such knowledge into their speech production. Secondly, upon learning process in which the pre-service teachers are encouraged to make reflection and evaluation related to their pronunciation ability. In addition, they are supposed to be more aware about Indonesian phonetic transfer in pronouncing English words.

CONCLUSION

Based on the findings revealed by this study, some conclusions can be drawn. Firstly,

transfer from Indonesian phonetic system appeared in the pronunciation of English segmental sounds produced by the preservice EFL teacher. Transfer of [f], transfer of [t], transfer of non-aspirated [p], [t], [k]; and transfer of [s]. Such transfer can cause phonological errors in the spoken English. In countries where a target language is a foreign language, the L1 will negatively influence the pronunciation of the target language. Secondly, since the present study only investigated phonetic transfer in the aspect of segmental features, future studies are supposed to focus on suprasegmental dimension or musical aspect in speech.

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