

Detecting Mispronunciations of Non-Native (L2) Post-Graduate Students of English Language Education in Indonesia

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Abstract

Speaker's good pronunciation makes his/her listener comfortable, and confident to participate in the conversation and his/her mispronunciations bring implications to the listener's awareness and involvement with the message spoken. The research was aimed at detecting the mispronunciations produced by 70 non-native (L2) post-graduate students who were enrolled in the English department. They were given English texts to read, recorded, and a semi-structured interview was applied. Error analysis was employed to check mispronunciations. The results showed that 43 students (61%) made mispronunciations and 27 (39%) had good pronunciations. Mispronunciation was found on vowels by 4 students (5.71%), on consonants by 5 (7.14%), on diphthongs by 3 (4.28%), and on consonant clusters by 14 (20%). Most of the students did intralingual and global errors which can influence their pronunciation quality and their bad quality bring bad impacts to their school children.

Keywords: Vowels; consonants; diphthongs; consonant clusters

Introduction

Teachers having good communication including written and language signs would be able to provide a process of changing thoughts, ideas, opinions, knowledge so that the messages are accepted by listeners and understandable (Anca, 2021, pp. 87-95). In case of non-natives (L2) in Indonesia, correct pronunciation in English is a must for them in order misunderstanding does not occur during communication between a speaker and a listener in the various types of business or non-business affairs (Miller, 2019, p. 346). Researches (see Penington, and Richards, 1986; Celce-

Murcia et al., 1996) showed that pronunciation skills should be mastered by students and taught by teachers. In schools, English teachers play important roles in the transfer of knowledge related to pronunciation skills as it is argued that a teacher is someone who has experience in the field of his/her profession (Djamarah & Zain, 2015). How students correct their pronunciation depends so much on how teachers pronounce words correctly although pronunciation study is too difficult and monotonous for learners (Harmer, 2001). As one of the main aspects of speaking (Riggenbach, 1998) pronunciation always receives unawareness. Pronouncing English words, especially the English of the inner cycle (James, 1998), perfectly becomes struggles for Indonesians.

Cameron (2012) argued that people in ASEAN countries substitute a similar one from their native language, or try to pronounce a word according to the spelling patterns of their native tongue. Cameron also noted that Japanese ex-Prime Minister Hosakawa could not “pronounce English and learnt it carefully about the systematization of English and also a brilliant Chinese corporate executive for American Express learnt how to produce the sounds well because he was often misunderstood in meetings and on conference calls.” In this case, good pronunciation is more important than speaking speed in a foreign language as a second language. Therefore, English teachers should apply their roles in making students able to pronounce words based on the English pronunciation.

Gilakjani (2012) stated that clear pronunciation is important for learners’ competence and the students who became respondents in this research supported Gilakjani’s statement. Burns (2003) mentioned that learners must be able to distinguish sounds that are almost similar but different in meaning for effective communication and they also have to use good pronunciation and intonation, for example, the pronunciation of the English word *mountain* ‘[mauntin] can be deviated into [‘mɒntain]. The learners should pronounce words well in order they understand the meaning but do not misinterpret such words.

In the Indonesian context, several studies on language errors (or errors to follow) were carried out by several scholars (Kusuma, 2018; Nazara, 2011; Wardana, 2014; Tegrís, 2020). Kusuma argued that errors cannot be only imposed to students; Nazara argued there are two students’ problematic factors, such as they have insufficient time to practice and avoid speaking due to being scolded by teachers and being laughed by classmates. Wardana found the articulation of English phonemes is problematic and Tegrís argued that the teacher’s local accent when teaching English affects to pronunciation skills and such local accents appear when they speak English in the class. It was also found that local accents often carry problems in the pronunciation of certain sounds although all this does not happen in Indonesian. Teachers at the elementary, junior, and high schools as well as at universities should play an active role in providing English pronunciation to students. Therefore, it is important to conduct research on teachers whether they pronounce English words formally and to find solutions to overcome their bad pronunciations.

Literature review

Mispronunciations

Hornby (2008) stated that pronunciation is the way in which speakers articulate speech sounds. James (1998) argued that mispronunciations happen when encoder pronounces words in speaking a foreign language spontaneously, not reading aloud from a written text. He divides phonological errors into three types: segmental, supra segmental, and combinatorial. Segmental errors such as pronunciations deviate noticeably from the native speaker norm of the target varieties of our L2 speakers. Learners always make mistakes as a result of their ignorance of the sound system of the second language.

Segmental and combinatorial elements

James (1998) stated that segmental elements of the unit in phonology which analyze different sound of word show the difference in each sound. The system of segmental feature includes vowel, consonant, diphthong, and consonant cluster. Relating to interdental sound of fricative [ð] and [θ] in English words *thing*, *them*, and *father*, Indonesian students pronounce them as [t], while the sound [θ] and [ð] becomes [s] and [d]. They also fail to pronounce segmental vowel [ʌ] spoken [ɔ] in the English words *come*, *problem* and *cup* because English is a language where speech and spelling are inconsistent since in this language a phoneme can be expressed by several kinds of allographs. For second language learners, they must learn the point and manner of articulation and the chart of vowel as well (Crystal, 1997). From our experience of teaching for Indonesian learners, we argued that they have to explore how to pronounce cluster, semi consonants, and semi vowels. In phonetics, a speech sound is produced by a relatively constricted or by a totally closed configuration of the vocal tract (James, 1998).

Error analysis

It is argued that “the major element in learning the target language is knowing the rules” (Corder, 1998). Since errors may occur due to source language interference, Weinreich (in Richards) noted interference occurs due to proximity to first language, to language transfer, or to inter-systemic interference” (Richard, 1978). In learning both mother tongue and foreign language, students always make errors and mistakes which can happen naturally because learning a language is a long process and mistakes can not be unavoidable. In case of errors James (1998) classified four diagnosis-based categories, such as, interlingual transfer, intralingual transfer, communication strategy, and induced errors.

Interlingual

Interlingual is one of significant causes of learners’ errors which are primarily caused by the influence of mother tongue due to the pronunciation and to the difference in the sound system and spelling symbols in the mother tongue during positive and negative transfers. Positive transfer may relocate the skill of parent language into target language and the negative one is due to linguistic differences. In order to comprehend the patterns of the target language, learners use their first language patterns. Native language patterns can support them to learn second language without errors, but they can not use that potential and the transfer of first to second language always produces errors. James (1998) stated that interlingual errors are caused by incorrect use of the first language phonographic rule that does not exist in the second language, and by incorrect use of the grapheme that does exist in the second language but has different sound value or distributional constraint.

Intralingual

Learners can make intralingual negative transfer or interference in their utterances and they always do over generalization. Over generalization is incorrect pronunciation of phoneme sounds due to knowledge of the phoneme system (Brown, 2000), for instance, the English word *push* [puʃ] is sometimes pronounced by [pus]. James (1998) initiated four sub types of intralingual errors, such as, over generalization, homophone confusion, incorrect choice, and letter naming.

Global and local errors

As understood pronunciation errors by learners affect to their listeners; Burton (1984) defined global errors might influence the communication in which the speaker's or writer's intentions can be misinterpreted by listeners or readers. Since local errors are tuning errors that have no effect on the message conveyed, global errors can cause language as unacceptable and, as the result, the message given by speakers is less understandable in a symbiotic relationship in the production of meaning. Local errors are related to the pronunciation of the phoneme of a word in a second language by speakers of the first language. Such errors are always influenced by the phoneme system of first language but do not affect the meaning of the text (Harris & Silva, 1993).

Research method

Research design

The data was collected from students in the second and third semesters from the English Education Study Program of the Postgraduate Faculty, Indraprasta PGRI University, Jakarta, Indonesia. The method used in this research is a qualitative and descriptive method supported by Krippendorff's (2004) content analysis technique. The method could provide an explanation of phoneme errors found in pronunciation, and such errors could be detected from phonemic errors in reading the given text through the process of identification, categorization, description, classification, tabulation, interpretation, and conclusion.

Participants

Seventy participants who were students of post-graduate program at Indraprasta PGRI University were involved. They lived in Jakarta, Bogor, Depok, Tangerang, and Bekasi (or Jabodetabek in short) and taught English in primary, secondary, and high schools. To know their English mispronunciation, they were asked to read loudly the English text entitled "The Practice of English Language Teaching" (Harmer, 2009) and while reading, they were video-taped.

Participants' recruitment

Participants were recruited from semester 2 who attended the psycholinguistics lecture and from semester 3 who took assessment and evaluation in language testing lecture. Fifty students of semester 2 were involved in the research held from March to July 2021 and 20 students from semester 3 joined the research carried out from September 2021 to January 2022.

Instruments validation

In the data collection, three methods were involved, such as, video recording, interviews, and reading. Video recordings were made to check competence in vowels, consonants, diphthongs, consonants cluster, causes of error, and impacts of errors while participants were reading the text.

Data analysis approach

Content analysis was applied in terms of phoneme errors in pronunciation. According to James (1998) this phonological error results in the learners when producing incorrect utterances through text. He added that errors in phonology could result in grammatical errors (phonological in cause but grammatical in effect).

Findings

From 70 participants, 43 (61%) made mispronunciations in phonological errors, such as, vowel, consonant, diphthong, and consonant cluster (see Tables 1, 2, 3, and 4 as well as Table 5 for the summary of the number and percentage of phonological errors due to the substitution, addition, and omission of phoneme sounds) and 27 (39%) made no errors in pronunciation. Table 5 shows that there are 8 participants making phonological errors in vowels, 18 in consonants, 15 in diphthongs, and 25 in consonant clusters. Table 6 shows that there are 26 doing phonological errors in intralingual and 40 in interlingual respectively.

Table 1. Vowel mispronunciations

Phoneme / Words	Mis-pronunciation / Serial no.	Kinds of error	Causes of error		Impacts of error	
			Intra-lingual	Inter-lingual	Global	Local
Results [ri'zʌlts], Construct [kən'strʌkt]	[ri'zʌlts]/4 [kon'struk]/13	letter naming letter naming	√		√	
Language ['læŋɡwɪd]	['lɪŋɡwɪdʒ]/54	mischoice	√		√	
Depend [dɪ'pend]	[dɪ'pɪnd]/10	mischoice	√		√	
Sustain [sə'steɪn].	[su'steɪn]/53	letter naming	√		√	
need [ni:d]	[nɪd]/11	mischoice	√		√	
push [puʃ]	[pʌʃ]/12	mischoice			√	

Table 2. Consonant mispronunciations

Phoneme / Words	Mispronunciation / Serial no.	Kind of error	Causes of error		Impact of error	
			Intra-lingual	Inter-lingual	Global	Local
things [θɪŋz]	[tɪŋz]/4, 22, 25, 33, 44, 49, 51, 58, 61, 62, 66, 67	misspelling		√	√	
known [nəʊn]	[knəʊn]/37	letter naming [kn]	√		√	
develop [dɪ'veləp]	[dɪ'peləp]/44	misspelling		√		√
motivation [mɒtɪveɪʃn]	[mɒtɪpeɪʃn]/63	misspelling		√		√
decision [dɪ'sɪʒn]	[dɪ'kɪʒn]/7	mischoice	√		√	
push [puʃ]	[pus]/4	mischoice	√		√	
enhancement [ɪn'hɑ:nsmənt]	[en'tʃɑ:nsmənt] /24, 31	mischoice	√		√	
sustain [sə'steɪn]	[sə'stjeɪn]/34	mischoice	√		√	
suggest [se'dʒest]	[se'gest]/37	mischoice	√		√	

Table 3. Mispronunciations in diphthong

Phoneme / Words	Mispronunciation / Serial no.	Kind of Error	Cause of Error		Impact of Error	
			Intra-lingual	Inter-lingual	Global	Local
state [steit]	[stɪt]/10 [stet]/9, 11, 13, 20, 24, 31, 63	mischoice	√		√	
change [tjeintj]	[tjentj]/55	mischoice	√		√	
sustain [sə'stein].	[su'stain]/53	letter naming	√		√	
montain [ˈmauntɪn]	[ˈmɒntaɪn]/23, 26	letter naming	-		-	
defining [dɪ'faɪnɪŋ]	[dɪfɪnɪŋ]/21	letter naming	√		√	
account [ə'kaʊnt]	[p'kɒnt]/11, 21, 31, 32, 38	mischoice	√		√	

Table 4. Mispronunciations in consonant cluster

Phoneme / Words	Mispronunciation / Serial no.	Kind of Error	Cause of Error		Impact of Error	
			Intra-lingual	Inter-lingual	Global	Local
text [teks]	[tek]/4	mischoice	√		√	
act [ækt]	[æk]/6	mischoice	√		√	
causes [kəʊsɪs]	[kɒs]/5	mischoice	√		√	
individuals [ɪndɪ'vɪdʒuəls]	[ɪndɪvɪdʒuəl]/10	mischoice	√			√
contrast [ˈkɒntrɑːst]	[kə'ntrɑːs]/59	mischoice	√			√
goals [gəʊls]	[gəʊl]/62	mischoice	√			√
includes [ɪn'klʊdʒ]	[ɪn'klʊd]/32	mischoice	√			√
results [rɪ'zʌltz]	[rɪsʌlt]/4	mischoice	√			√
strength [streŋθ]	[streŋθ]/16, 21, 24, 30, 35, 46	mischoice	√			√

Table 5. Quantity of phonological errors and percentage

Phoneme	No. of mischoice & %	No. of letter naming & %	No. of misspelling & %
Vowel	4 (5.71)	3 (4.28)	-
Consonant	5 (7.14)	1 (1.43)	3 (4.28)
Diphthong	3 (4.28)	3 (4.28)	-
Consonant Cluster	14 (20)	-	-

Table 6. Intralingual and interlingual error and percentage

Phoneme	No. of intralingual & (%)	No. of interlingual & (%)
Vowel	7 (10)	-
Consonant	20 (28.57)	2 (2.86)
Diphthong	18 (25.71)	-
Consonant Cluster	19 (27.14)	-

Table 7. Global and local error and percentage

Phoneme	No. of global (%)	No. of local (%)
Vowel	7 (10)	-
Consonant	20 (28.57)	2 (2.86)
Diphthong	16 (22.86)	2 (2.86)
Consonant	3 (4.28)	16 (22.86)
Cluster		

Discussion

In case of mischoice as seen in Table 5, there are four mischoice for intralingual errors in vowels. Two respondents with serial number 54 and 10 change [æ] and [e] into high vowel [i] in word when mispronouncing the words ['læŋgwɪd] for 54 and [dɪ'pend] for 10, respondent with serial number 11 change [i:] into [ɪ] in word [ni:d] for 11 and respondent with serial number 12 change [ʊ] into [ʌ] in word [pʊʃ]. For these words, the impacts of error are global error.

There are 3 letter of naming for intralingual errors in vowels. Two respondents with serial number 4 and 13 change the [ʌ] and [ə] into back vowel [ʊ] when mispronouncing the words [rɪ'zʌlt] for 4 and [kən'strʌk] for 13. Letter of naming is also has in respondent 53, he did pronounce a letter to present a sound which is identical to the sound of the name of the letter, he/she mispronounced the [ə] as high back vowel [ʊ] for word *sustain* [sə'staɪn].

Table 2 shows mispronunciation by 21 respondents who mispronounced consonants for interlingual errors. For instance, [θ], [n], [dʒ], [v], [s], [dʒ], [v], [s], [ʃ], [h], and [t]. In case of misspelling, respondents with serial numbers 4, 22, 25, 33, 44, 49, 51, 58, 61, 62, 66, and 67, mispronounced dental fricative [θ] as alveolar plosive [t] in word *things* [θɪŋz]. Respondents with serial number 44 made misspelling for labiodental fricative [v] by changing it into bilabial plosive [p] in word *develop* [develɒp] and respondent with serial number 63 in word *motivation* [mɒtɪ'veɪʃn]. Letter naming is found in respondent with serial number 37. The respondent did mispronounce by doing letter of naming for alveolar nasal [n] as kn in word *known* [nəʊn] which was pronounced [knəʊn]. Other errors were also made by number 7, 4, 24, 31, 34, and 37. They mischoice in pronouncing some words. Respondent number 7 mischoice the alveolar fricative [s] that was pronounced as velar plosive [k] in word *decision* [de'sɪʒn]. Respondent number 4 mischoice the palate alveolar fricative [ʃ] as [s] in word *push* [puʃ]. Mischoice glottal fricative [h] as palate alveolar affricate [tʃ] was found from respondents number 24 and 31 in word *enhancement* [enha:nsmənt]. Respondent number 34 mischoice the veolar plosive [t] as palate alveolar fricative [tʃ] in word *sustain* [sə'steɪn]. Mischoice was also successfully recorded from respondent with serial number 37 who pronounced the palato alveolar affricative [dʒ] as velar plosive [g] in word *suggest* [se'dʒest]. All these consonants mispronunciation led to the global error as the impact and cause misinterpretation to the listeners except respondents 44 and 63 which include local errors.

Mispronunciations in diphthong were shown in Table 3. Respondents with serial number 53, 23, 26, 21, 11, 31, 32, and 38 pronounced letter of naming, for instance, in [eɪ], [aɪ], and [aʊ], while respondents' serial number of 10,9,11,13,20,24, 31, 63, and 53 pronounced mischoice. The [eɪ] was mispronounced as front high vowel [ɪ] by 10 for word *state* [steɪt], and as middle vowel [e] by 9, 11, 13, 20, 24, 31, 55, and 63 for word *state* [steɪt].

The letter of naming as middle vowel [e] by 23 and 26 in the word *mountain* ['maʊntɪn], eventhough their pronunciation was wrong but the listeners remained understand. The

mispronunciation of [aɪ] to become front high vowel [ɪ] was carried out by 21 when saying the word *defining* [di'fainɪŋ]. Meanwhile, respondents with serial numbers 11, 21, 31, 32, and 38 also include letter of naming when uttering the [aʊ] as back middle vowel [ɒ] for word *account* [ə'kaunt]. Hence, eight respondents made mischoice the diphthong [eɪ] as middle vowel [e] and five respondents made letter of naming in [aʊ] which was pronounced as back middle vowel [ɒ].

What all respondents did concerning mispronunciations was related to errors in consonant clusters as shown in Table 4. They failed to pronounce the clusters appearing in word-final positions and omitted (0) the second consonant, for example, the words *once* [wɒns] ==> *[wɒn0] and *named* [neɪmd] ==>*[neɪm0]. All this is called combinatorial errors and caused by mischoice. Specific data showed that respondents 4, 5, and 6 were found to make mischoice in words, such as, *text*, *act* and *causes*. The first word was mischoice *[tek] but not [teks] by 4 but listener cannot understand the word. The second was mischoice *[kɒz0] but not [kɒzɪs] by 5. The third was uttered mistakenly by 6 who pronounced *[æk0] instead of [ækt]; as a result, listener could not understand at all. From the three of respondents above, they made intralingual errors by omitting (0) the word-final position and the words are not understandable. Relating to the fourth word, respondent 10 omitted (0) the word-final position and as a result she pronounced *[individual0] instead of [ɪndɪvɪ'dʒuəls] for the word *individuals*. Respondents 1, 25, 41, 51, and 59 made intralingual error by omitting (0) the word-final position in *pushes* [puʃəs] ==> *[puʃ0]. The word *contrast* ['kɒntrɑːst] was mispronounced as *[kɒntrɑːs0] by 59. It is intralingual error and listeners could understand them. In case of respondent 62, she omitted (0) the word-final position for word *goals* [gəʊls] and mispronounced it as *[gəʊl0] but listener remained understood the word. In relation to respondents 32 and 4, they made intralingual errors by omitting (0) the word-final position in the word *includes* [ɪn'kludz] ==> *[ɪn'klud0] for 32 and in the word *result* [rɪ'zʌlt] which was mischoice in *[rɪsɪl0] by 4. Generally, respondents 16, 30, 21,24, 35, and 46 made mispronunciations when they omitted (0) the word-final position in the word *strength* [streŋθ] ==>*[streŋ0] although such mispronunciations were understood by listeners. All the causes of error in pronouncing the consonants cluster are intralingual.

Conclusion

Of the 70 research participants, 43 (61%) respondents make mispronunciations and 27 (39%) of them did not. Specifically, of the 43, only 8 (11.4%) participants are noted to make errors on vowels, 18 (25.7%) on consonants, 15 (21.4%) on diphthongs, and 25 (35.7%) on consonant clusters. Some participants mispronounce more than one different phonemes, for instance, the [θ] ==> [t] as in word *things* [θɪŋz] ==> *[tɪŋz]. Also, diphthong [eɪ] is mispronounced into [i] or [e] for word *state* [steɪt] ==> *[stɪt] or *[stet]. From the above findings the teachers should (1) improve their knowledge in word pronunciation according to the English sound system; (2) be aware of mispronunciation and of desire to learn word transcription as well as their pronunciation continuously; and (3) be motivated as a driving force for students in learning English.

Declaration of conflicting interest

The authors declare that there is no conflict of interest in this work.

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