THE ROLE OF ARTICULATORY PHONETICS IN IMPROVING LISTENING FOR THE FIRST-YEAR STUDENTS OF ENGLISH AT STIBA SARASWATI DENPASAR

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Abstract

Listening is prerequisite for oral proficiency and is recognized as fundamental skills. Through listening, students can build an awareness of the language systems and establish more fluent productive skills. This research is generally aimed to help the students of English improve their listening skills and develop their awareness on distinctive sounds which are not native to their mother tongue, as well as to help language teachers in designing the effective lesson plans for the listening courses. This study on the role of phonetics in language teaching is highly expected to develop better understanding in the target language and encourage native-like English pronunciation for Indonesian students.

The findings showed that the students found difficulties in listening and pronouncing distinctive segments namely: /J/, /3/, /6/, /6/, long vowels /i:/, /a:/, /0:/, /u:/, /3:/; diphthongs /eI/, /au/, /Ia/, /ea/, /ua/; and final clusters. The use of articulatory phonetics was proven to be effective in raising the students' awareness in producing English sounds which differ in place and manner of articulation. It could be seen from the post-test results in which there were fewer students who made mistakes in listening and pronouncing distinctive sounds. The audio-lingual method was appropriate to the teaching of the aural skill as it employed listening-imitation-practice-production to teach English pronunciation.

Keywords: listening skills, pronunciation, articulatory phonetics.

1. INTRODUCTION

Language teaching can be defined as the activities which are intended to bring about language learning (Stern, 1991:21). It has taken many years to bring the language teachers to realize the importance of listening in second and foreign language learning. As observed by Rivers (in Celce-Murcia, 2001: 70), speaking does not of itself constitute communication unless what is said is comprehended by another person. Therefore, the early stages of a language course should be devoted to the teaching of the sounds of language. Another research by Jones, cited in Thompson and Gaddes (2005), shows that by teaching phonological rules, teachers can help students become better equipped to listen to their own speech and catch their own mistakes. Language teachers can improve their students' pronunciation by drawing their students' attention to segmental aspects and facilitating them to identify, understand, and overcome their own weaknesses.

Despite the current trend in TEFL, that is communicative language teaching and learning, which tends to promote fluency before accuracy, linguistics knowledge is still compulsory to be given to the students of foreign language in order to raise their awareness of the language being learnt. This is what being neglected by most language teachers when conducting listening course. It seems that they always focus on top-down listening, i.e. to get the main idea of spoken language, and never give attention to bottom-up listening, which introduces variety of linguistics components such as sounds, words, intonation, or grammatical structures. It is good to put fluency as our consideration, but it would be better if we could promote fluency and accuracy at the same time.

This present study was considered to be an experimental research since it investigated what actually happened in a classroom and gathered data directly from the informants. The research took place in STIBA Saraswati Denpasar. Since listening is the main skill that needs to be acquired in initial period of learning, the sampling was taken purposively from class 1 C consisting of 35 students. This study used four kinds of instruments to collect data, namely: questionnaire, printed listening tests, audio recordings, and tape recorder. The questionnaire was aimed to gain information about the students' profile and learning needs, while the listening tests were designed to diagnose the problems in listening, the recordings were used to give aural input during the treatment, and the tape recorder was used to record the students' pronunciation which was later evaluated to find the pronunciation

problem. The data were in the form of documents or printed out texts regarding certain phonemes that the students find difficult to listen to, and also in the form of recording of the students' pronunciation.

2. REVIEW OF LITERATURE

Kathleen and Kitao (1996), in their article *Testing Listening* in The Internet TESL Journal Volume II No. 7, affirm that testing listening involves a variety of skills. They clearly claim that listening at the lowest level involves discrimination among sounds, intonation and stress patterns, as well as comprehension of short and long listening texts. They believe that sounds are sometimes difficult to discriminate in a language other than one's native language, especially if the sounds are not distinguished in the native language. Additionally, Kathleen and Kitao explain that this type of discrimination item can be used for diagnostic purposes to see whether students have particular problems with distinguishing between phonemes. Their research on testing listening gives meaningful contribution to this study, that is on the use of diagnostic test to facilitate the process of collecting data.

Saricoban (1999), in his article entitled *The Teaching of Listening* in The Internet TESL Journal Volume V No. 12, states that listening is the ability to identify and understand what others are saying. Listening to and understanding speech involves a number of basic processes, which some of the processes depend upon linguistic competence. One's linguistic competence enables him to recognize the formatives of the heard utterance that is to break down the form of the morphemes, words, and other meaning-bearing elements of the utterance. Furthermore, Saricoban states that listening is as active as speaking, and in some ways even more difficult as it requires attention, thought, interpretation, and imagination. In order to teach listening skills, a teacher should firstly identify the difficulties. For students of a foreign language, accurate and intelligent listening is a necessity, and the teacher is responsible to help the students to acquire this skill which provides the very foundation for learning and functioning in a language. Helping the students to distinguish sounds, teaching to isolate significant content and informational items for concentration may be provided by controlled listening exercises.

3. Teaching the elements of language

Harmer (2007: 92) asserts that during the teaching of sounds, students are not only expected to speak correctly, but also to recognize sound and spelling correspondence, as well as to be able to discriminate between similar-sounding phonemes. He then suggests doing minimal pair exercises that can be used with any age and at any level, depending on what particular words, sentences and phrases are used, as in the following examples (referred to Oxford Dictionary):

In the example above, the students hear a sentence for each number and they have to circle the words they hear in each case (for example, 1. 'Yesterday I saw a large *sheep* in the field', and 2. 'Being in love is so *hard*'), the students can subsequently model the words and take notice of the lip position (i.e. for the vowels in [ʃiːp] (spread loosely) and [ʃIp] (stretched); while with the two consonants /t/ is said with the vocal chords open, and /d/ is said with the vocal chords closed. Students then say the words and their classmates have to decide which sound they were using.

According to Flowerdew and Miller (2005), phonological knowledge is required in listening comprehension to be able to segment the message into its component sounds. Phonological awareness is the ability to identify and mentally manipulate the sounds (phonemes), sound sequences, and sound structures in a syllable or word. Phonemes may be recorded with special symbols. In transcription, linguists conventionally place symbols for phonemes between slash marks: /p/.

4. Contrastive Analysis between Indonesian and English Phonemes

Contrastive analysis of two languages (L1 and L2) helps in the process of anticipation of possible difficulties with the L2 learners by pointing at the specific features of each language system. The contrastive analysis emphasizes the influence of the mother tongue in learning a second language in phonological, morphological and syntactic levels. Examination of the differences between the first and second languages helps to predict the possible errors that can be made by L2 learners. Since this study focuses on English as the language being learned by the Indonesian students, it is then necessary to briefly discuss the contrastive analysis between Indonesian (L1) and English (L2).

4.1 Indonesian language

Indonesian language is the official language of Indonesia which belongs to Austronesian language which has been used as a lingua franca in the Indonesian archipelago for centuries. Indonesian is an easy language to spell and pronounce since there is a correspondence between its spelling and pronunciation. Most Indonesian phonemes such as /p/, /b/, /t/, /d/, /k/, /g/, /m/, /n/, /l/, /s/, are pronounced the same as those of English. Indonesian /r/, unlike English, is trilled in all position. As phonemes /f/, /v/, and /z/ are not native to Indonesian, they only occur in borrowed words from Arabic or European languages. Below is the list of Indonesian consonants and vowels with the examples of Indonesian words written phonemically. All consonants with their place and manner of articulation are shown in table 1 below.

Table 1. Place and manner of articulation of Indonesian consonants							
Manner	Bilabial	Labio-	Dental	Alveolar	Palatal	Velar	Glottal
Place		dental					
Stop	p, b		t, d		С	k	3
Fricative		f	S, Z		j	g	h
Nasal	m		n		n	ŋ	
Trill				r			
Lateral				1			
Semi vowel	W				V		

Table 1 Disco and manner of articulation of Indonesian concenents

In Indonesian sound system, there are six vowel sounds: /i/, /e/, /ə/, /a/, /u/, and /o/. Indonesian language has two high vowels, three medium vowels, and one low vowel. Based on front-back parameter, two vowels are frontal, two are central, and the other two are back. There are three diphthongs in Indonesian such as /ai//ao//oi/ which can be found in the words "santai", "kerbau" and "koboi".

4.2 English language

English language belongs to the Anglo-Frisian sub-group of the West Germanic branch of the Germanic family, a member of the Indo-European languages (Roach: 2009). The Standard or "Received" Pronunciation of British English has 44 phonemes, of which 24 are consonants and 20 are vowels (see table 2 for the English consonant articulation).

Vowel qualities are classified according to tongue position and rounding of the lips. British English is generally described as having short vowels, long vowels, and diphthongs (i.e. sounds in which there is a glide from one vowel quality to another). There are said to be seven short vowels /I, e, æ, Λ, p, ʊ, ə/, five long ones /i:,

a:, o:, u:, 3:/ and eight diphthongs /eI, aI, oI, ou, au, Io, eo, uo/.

Table 2. Place and manner of English consonant articulation

Pl	ace Bilabial	Labio	Dental	Alveolar	Post-	Palatal	Velar	Glottal
Manner		dental			alveolar			
Plosive	p b			t d			k g	
Fricative		f v	θð	s z	∫3			3
Affricate					t∫ dʒ			
Nasal	m			n			ŋ	
Lateral				1				
Approximant	W				J	j		

From the description of the two languages above, it can be concluded that there are some similar and distinctive features between Indonesian and English. There are twenty six English phonemes: eighteen consonants and eight vowels, considered to be having similar characteristics (only differ in phonetics symbol) as Indonesian, as presented in table 3 below. In spite of the similarities, there are four English phonemes that are not recognized in Indonesian sound system, i.e. $/\int/$, /3/, $/\theta/$, and $/\delta/$. From the discussion, it is clearly said that the similarities between the two languages will not cause any difficulties. Nevertheless, the different characteristics between them will definitely bring intricacy and problems in pronunciation during the learning process of the target language.

Table 3. Consonants and vowels of English that are similar to those of Indonesian

Consonants

English Indonesian: /p/, /b/, /m/, /t/, /d/, /n/, /k/, /g/, /c/, /j/, $/\eta/$, /f/, /v/, /s/, /z/, /l/, /w/, /y/, /r/.

Vowels

English : I/, e/, e/Indonesian: ii, ii,

Table 4 Consonants and vowels of English which are not recognized in Indonesian

Consonants: $/\int/$, /3/, $/\theta/$, and $/\delta/$

Vowels: /æ/, /i:/, /a:/, /o:/, /u:/, /3:/ and diphthongs /eI/, /ov/, /Io/, /eo/, /vo/.

As shown on table 4, there are four English consonants that do not exist in Indonesian sound system namely: $/\int/$, $\sqrt{3}$, θ , and δ . English short vowels $\frac{\pi}{2}$ and all English long vowels such as $\frac{\pi}{2}$, $\frac{\pi}{2}$, $\frac{\pi}{2}$, and $\frac{\pi}{3}$. recognized in Indonesian as well as diphthongs /eI/, /əʊ/, /Iə/, /eə/, /ʊə/. These English phonemes, both consonants and vowels, are predicted to bring difficulties for the Indonesian students when learning English as their foreign language. Further discussion on these distinctive English phonemes is presented on the next section.

5. Problematic Distinctive English Sounds

As there are several English sounds that do not exist in Indonesian sound system, the problem of pronunciation may occur frequently in the process of learning English language. Those typical consonant sounds that are likely initiating the errors are: $/ \int / \sqrt{3} / \theta / \sqrt{\delta} / dt$, and /f/ (since it is not native to Indonesian and students tend to substitute it into /p/). These sounds are assumed to be problematic for the learners and they often bring difficulty in pronouncing certain English words containing these sounds. To discover which of these phonemes are the most difficult for the beginning learners of English, some tests were performed. Diagnostic Test is the test designed to diagnose special aspects of a language on which the course needed to focus special attention. Diagnostic tests elicit information on what students need to work on in the future.

The first listening test was aimed to see whether or not the students found difficulties in listening to certain English phonemes. In listening test 1, the students were asked to distinguish pairs of words that sound similar (known as minimal pairs). Below is the items tested during listening test 1. The phonetics symbols presented here are based on those of the International Phonetic Alphabet (IPA) used in The Cambridge English Pronouncing Dictionary (2006).

The test result (see table 5) shows that the English phoneme that most of the students (63%) incorrectly answered was phoneme $/\int$. Surprisingly, the students found difficulty in listening to the word *lashes* [$l \approx \int Iz$], which contain phoneme /J/. The next tricky phoneme was the /ð/, where 37% of the class made mistake in distinguishing [heðəɪ] and [hedəɪ]. Another phoneme that was found to be problematic was /θ/, in which 23% of the class could not differentiate it with the phoneme /t/ in [feIθ] and [feIt]. It could also be seen that English diphthongs were quite difficult for the students to listen. The test result showed that 23% of the class had trouble in listening and distinguishing [blhaIv] and [blheIv]. The result of listening test 1 is completely shown below.

No Test Items Transcription Frequency of Errors Class Percentage 1 **these** – tease [ði:s] 7 of 35 students 20 % 2 fate – faith 8 of 35 students 23 % [feI0] **heather** – header 13 of 35 students 3 37 % [heðə1] 4 7 of 35 students 20 % seashore – scissors [si:ʃɔ:ɹ] 5 features - feathers 7 of 35 students 20 % [feðə1z] 6 fit – **fifth** [fIf0] 6 of 35 students 17 % 7 14 % shivers – shippers 5 of 35 students [Sreal[]] 8 beehive – **behave** [bIheIv] 8 of 35 students 23 % 9 seizure – scissors 5 of 35 students 14 % [si:3ə1] 10 22 of 35 students 63 % lashes - laziest [læ][z]

Table 5. The result of listening test 1

Note:		
Frequency of errors:	the number of students who answered	incorrectly
Class percentage =	Frequency of errors	X 100 %
_	Total number of students in the class	

From the result of Listening Test 1, it then could be asserted that the most difficult English phonemes for the first-year students at STIBA Saraswati Denpasar were $/\int/$, $/\delta/$, $/\delta/$, $/\theta/$ and /f/, as well as diphthongs. All these segments would be discussed in the next section.

The Lesson Plans

Topic: Pronunciation of /ʃ/ and /s/

Learning objectives: notice the difference between the phonemes /s/ and /ʃ/; learn to sound natural when saying words with /s/ and /J/.

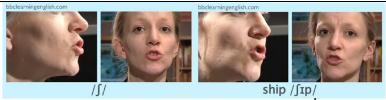
Source: Richards, Jack C. 2005. Interchange: Intro Students' Book. New York: Cambridge University Press.

Video: taken from bbclearningenglish.com

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	ag scenario: Teacher's activity		Students' activity
Pre	-activity: 15 minutes		Students uctivity
1.	Greet students and check students' presence	1.	Respond
2.	Write "Clothes for Work" and "Clothes for Leisure" on the board.		Pay attention
3.	Ask students to call out the clothes people wear for work and for		•
	leisure.	3.	Mention some clothes for
1.	Elicit students' answer (e.g. shirt, sweater, socks, etc.)		work and pleasure
		4.	Pay attention
Whi	le-activity: 60 minutes		
1.	Have students look at the pictures of clothes on their book. Play the		
	recording and ask students to listen and repeat after the recording.	1.	Listen and repeat
2.	Check the new vocabulary. Encourage students to ask anything		
	they do not understand.		
3.	Tell students they are going to listen to people describe their	2.	Learn new vocabulary,
	clothes. Explain the task. Play the recording twice then check	2	ask questions if any
1	students' answers.	3.	Listen to a description,
1.	Tell students to work in pairs and practice asking and answering		complete the task
	about the people on their book (e.g. <i>What colour is Peter's T-shirt? His T-shirt is yellow</i>).	1	Work in pairs practice
5.	Have students to look at the next exercise on their book.	4.	asking and answering
٠.	Listen and practice. Notice the pronunciation of $/s$ / and $/s$ /.		asking and answering
	a) suit socks scarf	5	Look at the exercise
	b) shirt shorts shoes		Look at the exercise
5 .	Tell students to notice how to pronounce the sounds /s/ and /ʃ/.		
	Play the recording, students read silently.		
7.	Play the audio program again. Students listen and repeat.	6.	Listen to pronunciation of
3.	Model to students how to pronounce the sound /j/ in the words		/s/ & /∫/
	shirt, shorts, shoes.	7.	Listen and repeat
€.	Ask students to practice pronouncing the words.	8.	Pay attention
10.	Elicit words that begin with $/\int$. Write them on the board (e.g. ship,		
	shy, shock, show).		Practice pronouncing
11.	Explain to students that these words begin with sound /J/. Tell them	10.	
	that to produce the hissing sound, the lips must be rounded.		with /∫/
_		11.	Pay attention
12.			
	Ask students to watch, listen, repeat and practice the words	10	XX7 (1 (1
	containing the sound.	12.	Watch the video. Listen and repeat the words



- 13. Have students practice pronouncing the words with /ʃ/ sound.
- 14. Present the minimal pairs: "ship-sip", "show-so", "shy-sigh" "shock-sock", "short-sort".
- 15. Tell students to listen to the minimal pairs and choose the word they hear.
- 16. Play the recording and check students' answers.

Post-activity: 25 minutes

- Tell students to look at the next exercise. Read the sentences. Pay attention to the pronunciation of /s/ and $\sqrt{\ }$. a. This is Sandra's new shirt.

 - b. Where are my shoes and socks?
 - c. My shorts and T-shirts are blue.
- Have students to practice reading the sentences and notice the pronunciation of /s/ and /J/.
- Conclude the lesson and give chance to students to ask questions.
- Dismiss the class.

- 13. Practice pronouncing /ʃ/
- 14. Pay attention
- 15. Listen to the minimal pairs
- Check answers
- 1. Look at the exercise
- 2. Practice reading the sentences
- 3. Pay attention and ask questions
- 4. Parting

Evaluation

From the previous discussions, it can be obviously seen that the teaching of phonetics during listening course was indisputably successful in improving the students' skills in listening and refining the students' pronunciation.

The teaching scenario above focused on the teaching of sound /J/ and how to distinguish it from sound /s/. During the lesson, the teacher performed two tests: listening test in which the students work with minimal pairs to distinguish sound /s/ and /s/, and pronunciation test in which the students read sentences containing both sounds. The result of listening test after treatment is as shown on table 6.

Table 6. The result of listening post-test on $/\int/$

No	Test Items	Transcription	Frequency of Errors	Class Percentage
1	ship -sip	[sIp]	2 of 35 students	6 %
2	show – so	[∫əʊ]	1 of 35 students	3 %
3	shy – sigh	[∫aI]	3 of 35 students	9 %
4	shock – sock	[∫a:k]	3 of 35 students	9 %
5	short – sort	[sɔ:t]	2 of 35 students	6 %

The test result shows that the percentage of errors was less than 10 %. Compared to the previous listening test, in which the frequency of errors was very high (63%), there was a significant decline in the number of students who made mistake in distinguishing sound /]/ and /s/. In the previous diagnostic test (the listening test 1 on table 4.6) there were 22 of 35 students (63%) failed in recognizing sound /// in word pair "lashes – laziest". After having treated with articulatory phonetics in the listening course, there were still merely 1 to 3 students who incorrectly choose the answer.

The result of pronunciation test also indicates that the frequency of error decreased significantly. There were more students who pronounced the sentence correctly and the error which were made by only 1-3 students (3-9%) were not on phoneme /ʃ/. In the first sentence "This is Sandra's new shirt" [ðIs Iz sændɹəz nju: \(\)3:t], 3 students (9%) incorrectly pronounced δ and substituted it into /d/ but they succeeded in pronouncing the / \int in the word "shirt" as $[\int 3:t]$. Similarly, in the second sentence "Where are my shoes and socks?" [weə ə.i. maI $\int u:z$ ən sa:ks] only 3 students made a slight mistake by pronouncing "are" as [AI] instead of [9I] while they could correctly distinguish the pronunciation between $\int \int ds ds$ in "shoes and socks" as $\int ds$ as $\int ds$. In the last sentence, "My shorts and T-shirts are blue" [maI ∫o:ts ən ti:∫3:t əɹ blu:] only 1 student wrongly pronounced "and" as [em] in which it was supposed to be pronounced as [em], while he succeeded in pronouncing the $\int \int \int dt$ "shorts" and "shirt" as [$\int 0$:ts] and [$\int 3$:t]. These post-tests indicate that the articulatory phonetics was useful to help improve students' listening and pronunciation of phoneme /ʃ/.

6. Conclusion

The contrastive analysis between the Indonesian and English indicated that the students would have trouble with the listening and pronunciation of certain English phonemes. The diagnostic test proved that the students found difficulties in listening and pronouncing distinctive segments namely: $/\int/$, /3/, /0/,

To help the students improve their listening and pronunciation skills, articulatory phonetics was applied during the listening courses. This innovation in teaching listening was proven to be effective in helping the first-year students at STIBA Saraswati Denpasar improve their listening and pronunciation skills at the same time. This improvement could be seen from the post-test results in which the percentage of errors, in both listening and pronunciation tests, significantly declined. It means that there were fewer students who made mistakes in listening to distinctive sounds as well as in pronouncing them. The use of articulatory phonetics could raise the students' awareness in producing English sounds which differ in place and manner of articulation. When the students could listen clearly to the sounds and understood how to produce them, they would be able to pronounce English words correctly. For this reason, the articulatory phonetics was affirmed to be successful in enhancing the students' skills in listening and pronunciation.

Language learning obviously depends on listening since it provides the aural input that serves as the basis for language acquisition. The method which is considered to be appropriate to the teaching of the aural skill is the audio-lingual method as it believes that language is basically aural-oral. This method adopts the principles of the intuitive-imitative approach which employs listening-imitation-practice-production to teach English pronunciation. In audio-lingual method teachers provide students with a good model, either a teacher or recorded material. Learners then use the input for repeated practice, and to finally produce the correct target output. By listening to how it is supposed to sounds, students should be able to mimic the model. As language learning is a process of habit formation, the more often something is repeated the stronger the habit and the greater the learning.

BIBLIOGRAPHY

- [1] Brown, H. Douglas. 2001. Principles of Language Learning and Teaching. San Francisco: Longman.
- [2] Brown, H. Douglas. 2004. Language Assessment: Principles and Classroom Practices. San Francisco: Longman.
- [3] Harmer, Jeremy. 1983. The Practice of English Language Teaching. Cambridge: Longman.
- [4] Harmer, Jeremy. 2007. How to Teach English. Cambridge: Longman.
- [5] Jones, Daniel. 2006. Cambridge English Pronouncing Dictionary. Singapore: Cambridge University Press.
- [6] Kathleen , S. and Kitao , Kenji. 1996. *Testing Listening*. The Internet TESL Journal Volume II No. 7, July 1996. [cited 2010 August 5]. Available from: URL: http://www.iteslj.org/Articles/Kitao-TestingListening.html
- [7] Ladefoged, Peter. 1993. A Course in Phonetics (3rd edition). Orlando: Harcourt Brace.
- [8] Ladefoged, Peter. 2001. *Vowels and Consonants: An Introduction to the Sounds of Languages*. Los Angeles: Blackwell Publishers.
- [9] Ohata, Kota. 2004. Phonological Differences between Japanese and English: Several Potentially Problematic Areas of Pronunciation for Japanese ESL/EFL Learners. The Asian EFL Journal Volume 6, December 2004. [cited 12 August 2010]. Available from: URL: http://www.Asianeflj.org/Articles/Ohata.html
- [10] Richards, Jack C. 2005. Interchange Intro. New York: Cambridge University Press.
- [11] Richards, Jack C. and Renandya, Willy A. 2002. *Methodology in Language Teaching*: An Anthology of Current Practice. New York: Cambridge University Press.
- [12] Richards, Jack C. 2001. Curriculum Development in Language Teaching. USA: Cambridge University Press.
- [13] Richards, Jack C., et al. 1993. *Interchange 1*. New York: Cambridge University Press.
- [14] Roach, Peter. 2009. English Phonetics and Phonology. New York: Cambridge University Press.
- [15] Saricoban, Arif. 1999. *The Teaching of Listening*. The Internet TESL Journal Volume V No. 12, December 1999. [cited 2010 August 10]. Available from URL: http://www.iteslj.org/Articles/Saricoban-Listening.html
- [16] Stern, H.H. 1991. Fundamental Concepts of Language Teaching. Oxford: Oxford University Press
- [17] Thompson, Tim and Gaddes, Matt. 2005. *The Importance of Teaching Pronunciation to Adult Learners*. The Asian EFL Journal Volume 2, February 2005. [cited 2010 August 10]. Available from URL: http://www.asianeflj.org/Articles/Thompson-Teaching Pronunciation.