INTERNATIONAL PHONETIC ALPHABET (IPA) FRONT VOWEL SOUND RECOGNITION OF BEGINNER FOREIGN LEARNERS

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Abstract:

English, as a second language (L2) learning and teaching, is one of the booming global industries. The Philippines is recognised as a quality provider of English language learning where non-native English speakers student come to study. This paper investigated the front vowel sound recognition of beginner foreign learners based on the International Phonetic Alphabet (IPA). Front vowel recognition was assessed in terms of its influence on foreign learners' sound production and recognition. The study employed a survey research design to selected Taiwanese and Japanese respondents, identified their common errors as beginner foreign language learners and determined if their sound production is influenced by their sound recognition. This paper argues that sound recognition leads to good communication skills among beginner foreign language learners and sufficient knowledge in recognising the front vowel sound leads to better comprehensible conversation. Findings of the study revealed that vowel sounds are very difficult to recognise by beginner foreign language learners. Both foreign learner groups experienced hard time recognising front vowel sounds which, fundamentally influenced sound production. Sound recognitions vary between Taiwanese and Japanese learners. Foreign beginner learners undergo difficulties in recognising front vowel sounds thereby affect their word production. Only upon correct sound recognition can foreign learners attain correct word production. We recommend that appropriate teaching methods be employed to ensure correct sound recognition among foreign learners in the Philippine context. Teachers need to engage the learners in fun-filled and interactive instructions to develop the learners' ability in recognising sounds. Only when a learner recognises and produces the sound correctly that comprehensible communication is achieved.

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1. Introduction

English has become one of the most spoken languages in the world. It is used by people as the medium of communication with others. In recent years, several foreign students travel to the Philippines to learn better English at affordable cost (Stranathan, 2016). They have become aware that being able to speak English, which is the universal language at present, is a valuable asset in life. Secondary English language learning provides worldwide access and link beyond any other language afford (Marus, 2014). She added that the present day world large speak English which is the key to participating in a global conversation.

There are different ways of learning the English language. Foreigners, like Japanese and Taiwanese come to the Philippines to learn English through face to face instruction or connect with their computers at home (McGuire, 1995) to learn the English language from an online teacher who is based in the Philippines. In fact, the Philippines has been known as one of the world's best countries in English proficiency by Educational Testing Service [ETS] (Stranathan, 2016).

English as a Secondary Language (ESL) in the Philippines has become a profitable business and integral to the development of the country (Abocejo and Padua, 2010) that the government promoted English language learning as part of the tourism program promotion (Stranathan, 2016; Abocejo, 2015). For many years in a row, the Philippines is noted to be highly competitive in attracting both English and non-English speaking tourists from the world over (Abocejo, 2015). Effectively speaking English make foreigners more secure and safe while in the Philippines since they can communicate to the local people anywhere they go without danger of being suspected and misunderstood as human trafficker (Samarasinghe, 2003). It is noted that the Philippines is one of the countries in Asia that ever face the challenge of human trafficking especially among the younger generation who are in contact with foreign visitors (Abocejo and Gubalane, 2013).

Teaching English language to non-native speakers with beginner level or zero English is never easy (Wold, 2006) but witnessing the students improve, manifest self-satisfaction and express fulfilment for the teachers can be truly rewarding (Rodriguez and Abocejo, 2018). Moreover, English has four basic macro skills: *"Listening, Speaking, Reading and Writing"* (Delos Reyes, 2013). New learners need to devote their study time on the simplest basic aspect of English which is to learn and understand the use of phonemes. Delos Reyes (2013) stated that vowel sounds recognition is vital when someone gives a speech or converse with people. Uttered words are understood through the way they are pronounced. Accordingly, the speakers must pronounce the words properly for the listeners not to misunderstand nor misinterpret the message (Change, 2006).

Foreign learners such as Taiwanese and Japanese are usually demanding. They always want to improve and comprehend to be able to speak the language like native speakers (Bian, 2013). Often, they think that their teachers have mastered the English language (Rodriguez and Abocejo, 2018) which is not usually the case. They often demand from teachers who cannot fully deliver their lessons' expectation. Once they feel like not improving, they usually put the blame on the teachers (Cuñado and Abocejo, 2019). In essence, teachers should know how to handle their foreign students by letting them realise that learning is a process (Rodriguez and Abocejo, 2018). There are steps and procedures to follow along the learning process. Beginner foreign leaners must understand that a good English language skills has to be grounded on strong language learning foundation. To become better speaker, one should start from the first step, that is, to know how to recognise vowel sounds (Delos Reyes, 2013).

Oftentimes, foreign learners who are enrolled in an English class cannot recognise the difference between the vowel sounds which lead to misunderstanding and misinterpretation of the uttered words. In this regard, the study is mainly focused on beginner foreign learners' recognition of the international phonetic alphabet front vowel sound namely /i/, /I/, /e/, /ɛ/ and /æ/. There are various challenges in teaching vowel sounds and this study hopes to benefit beginner foreign language learners by letting them know the difficulties in recognising the front vowel recognition and improve from there (Wold, 2006; Bian, 2013; Heald, and Nusbaum, 2014). For English language teachers, knowing the challenges may provide them better understanding on how to prepare and plan teaching techniques which are most appropriate to be used in addressing such issues.

It is important for the people to pronounce the words correctly to prevent them from being misunderstood (Rvachew, Nowak and Cloutier, 2004). Motallebi and Pourgharib (2013) affirmed that the skills of pronunciation and listening comprehension are interdependent. Once the foreign learners cannot hear English well, chances are they are cut off from the language. When they cannot be understood, foreign learners tend not to converse with native speakers (Otlowski (1998). It becomes imperative for language teachers to incorporate pronunciation exercises with activities that facilitate the listening skills of foreign learners to simultaneously develop both speaking and listening skills.

There is a felt need to integrate pronunciation with oral communication (Morley, 1991) with emphasis changed to suprasegmentals from segmentals in order to address the needs of individual learner. Essentially implementing task-based practices, new teacher strategies can be developed with the introduction of peer correction and group interaction (Morley, 1991; Otlowski, 1998; Motallebi and Pourgharib, 2013; Rodriguez and Abocejo, 2018). In the learning process, it is indeed true that the teachers play a very important role (Rodriguez and Abocejo, 2018). They are the source of knowledge and the facilitator of the learners' development (Cuñado and Abocejo, 2019). So, it is only right that teachers know several methods, strategies and techniques to be able to use and apply the most appropriate during their discussion (Fernandez and Abocejo, 2014; Rodriguez and Abocejo, 2018).

Knowing the sounds which that are difficult for the learners' to recognise, the teachers will know the most appropriate techniques to be used. Castillo (as cited in Otlowski, 1998) noted that teaching phonemes may not be enough for communication's intelligibility. Including sound recognition in their pronunciation classes, it is easier for the teachers to know the sounds which the learners have difficulty in recognising (Motallebi and Pourgharib, 2013). Then, it is also easier for the teachers to know the most appropriate techniques to be used in remediating their sound problems (Lin, Fan and Mo, 2017). Adequate pronunciation skills and fitted teaching techniques by English language teachers enable students to recognise and produce the correct sounds.

Sound recognition is certainly one of the factors that affect people's speech production (Pisoni, 1993; Delos Reyes, 2013). Identifying the sounds which, are difficult for the learners to recognise (Lin, Fan and Mo. 2017), helps teachers to decide what appropriate teaching techniques they can use (Rodriguez and Abocejo, 2018). With the teachers' dedicated assistance, the English learners will not have any difficulty with sound recognition thereby converse with the other people the proper way. This paper contends that correct language learners' sound recognition leads to good communication skills. Having sufficient knowledge in recognising the vowel sound can result to clear and comprehensible conversation.

1.1 Study Objectives
This study examined the International Phonetic Alphabet (IPA) front vowel sound recognition of beginner foreign learners. Specifically, it identified the front vowel sounds which can be recognised by foreign learners and the influence of those front vowels on the learners' sound production and sound recognition.

2. Literature Review

Sound recognition is the ability to discriminate the difference between two or more sounds (Lin, Fan and Mo. 2017). It is one of the most important skills that a language learner must acquire. Klatt and Pisoni (as cited in Chang and Fu, 2006) noted that understanding speech can be fairly robust to pronunciation variations. As a process, correct sound recognition prevents misunderstanding by the listeners. A normal listener has a poor understanding when he pays attention to two or more speakers rather than a single speaker (Heald and Nusbaum, 2014).

Zhang and McPherson (2008) emphasised that "*tonal recognition is one of the most crucial aspects of Mandarin speech perception*" (p. 179). Asian language learners like Taiwanese should never forget that the key to a successful communication is the correct recognition of sounds most specifically vowel sounds (Bian, 2013) where pitch play a major role in tonal perception (Foxton et al., 2004). In their study, Zhang and McPherson (2008) concluded that Mandarin tones are characterised through the frequency contour direction in the vowels. Tone 1 has a flat pattern, tone 2 has a rising pattern, tone 3 has a falling then rising pattern, and tone 4 has a falling contour (Zeng,

2012). With the four patterns, the learners really find it difficult in recognising the correct sound.

Alghamdi et al., (as cited in Tsukada, 2012) reported that Japanese has only five vowels /a e i o u/ and either short or long with phonemic length contrast language. In effect, 'short' and 'long' categories can be a familiar concept for Japanese learners. With this extension, the Japanese leaner may be expected to take advantage from his first language knowledge [L1] (Tsukada, 2012). He may be able to process vowel length contrasts in spite of the lack of knowledge of the language he is trying to learn (Robinson, 2005a). However, cross-language differences which are measurable through vowel length contrasts, can be phonetically comprehensible in Japanese such that L1 transfer may occur as expected (Tsukada, 2012).

Beginner foreign language learners face the challenge of learning the second language since it is very different from their native tongue (Wold, 2006). Japanese usually make some errors on their pronunciation and most English teachers don't know why (Tsukada, 2012). However, based on Best's (1995) Perceptual Assimilation Model, Gengo (2015) stated that it is not totally true that a person's first language affects the second language acquisition. The learners are just affected with some other factors like the gestures or the environment (Wold, 2006). Mispronounced words are usually common and inevitable due to the learners' inability and difficulty to recognise or perceive the correct sound.

Rvachew, Nowak and Cloutier (as cited in Ruscello, 2007) indicated that children exposed to erroneous sound system manifest phonemic perception deficit. They also noted that these children are the learners who also have difficulties in producing sounds. Moreover, the perceptual and production errors of children are a function of the difference between their "*underlying phonological knowledge" and the adult's system of "underlying phonological contrasts*" (Rvachew, Nowak, and Cloutier, 2004).

There are suggested remedies to learner's inability to recognise the sound for them produce the correct sound of the words (Dean, Howell and lder, 1998). Phonological awareness is an integral component of treating those children (Bowen and Cupples, 1999; Dean, Howell and Alder, 1998). Once a child cannot discriminate the sounds, it needs to be treated (Gierut, 1998). Clinicians recommend this kind of treatment only if child is enrolled in the elementary school. Awareness should be integrated in the activities or lessons that a teacher gives to the learners (Bowen and Cupples, 1999). Though Stackhouse, Wells and Rees (2002) added that phonological awareness is not independent to sound recognition and production, this still leaves an uncertainty when the client's sound system disorder is left untreated.

The improvement of computer technology has been a notable innovation. Now clinicians incorporate technology in treating their patients with communication disorders (McGuire, 1995). Computer applications are used as treatments for clients with sound system disorder (Gierut, 1998). Effectively, computer instruction is employed once a client acquired the specific contrast or sound. Computer instructions are integrated into the targeted client's sound system.

Notwithstanding the suggested treatments, it is still not easy for teachers who are teaching beginner foreign learners to have their students do the right thing (Lin, Fan and Mo, 2017). The fact is that most learners are adults and that they already reached the age of maturity (Alvarez, Ong and Abocejo, 2017). Adult learners possess greater cognitive level, higher linguistic capabilities and conceptual complexity as compared to younger learners (Robinson, 2005b, Abocejo and Padua, 2010), yet they have the tendency to forget everything right after they learn something.

2.1 Conceptual Framework

In this study, we involved Taiwanese and Japanese English language learners who purposely came to Cebu City to enrol in the English language learning program. The front vowel sounds to which the learners were being assessed are /i/, /I/, /e/, /ɛ/, /æ/. These front vowels were considered as indicators as to how they were produced and recognised by the study respondents whose levels of difficulty were measured by employing the vowel sound recognition test.
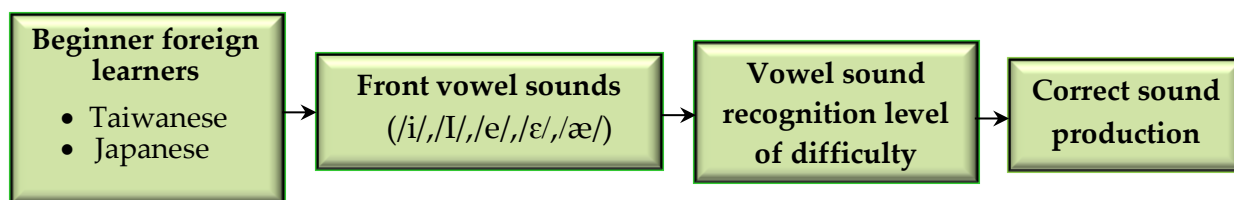

Figure 1: Conceptual Framework of the Study

Measuring the level of vowel sound recognition difficulty exhibited by foreign language learners enable us to assess where the language learners can be best assisted for them to attain correct sound production. In this study we consider the Taiwanese and Japanese English language learners' front vowel sounds recognition ability, the way they are able to recognise these sounds with manifested level of recognition difficulty.

3. Research Methodology

This study employed a descriptive research design to generate the needed data on the current and existing status of front vowel sound recognition among beginner foreign learners (Key, 1997). The research was conducted to beginner foreign learners of the Target Global English Academy, a language school teaching intensive English courses to Japanese and Taiwanese L2 learners in Cebu City, Central Philippines. The respondents were literate in their first language but with little or no exposure to English as a foreign language, the level where learners start learning the language like recognising the sounds.

Since the language school has mixed nationality of learners, we randomly chose 15 Taiwanese and 15 Japanese beginner foreign learners to constitute the sample of the study. A Vowel Sound Recognition Test was used to obtain the data from 30 respondents who were classified into two: the Japanese beginner learners and the

Taiwanese beginner learners. The test identifies the vowel sounds that are difficult to recognise by most foreign learners. The front vowel sounds that are to be recognised are /**i**/, /**ɪ**/, /**e**/, /**ɛ**/ and /**æ**/. Four words from each sound were given as question for recognition by the research participants summing a total of twenty (20) items.

We gathered primary data through a survey questionnaire substantiated by follow-up interviews with the identified research participants. A Vowel Sound Recognition Test was administered within 20 minutes time allotment as convenience for the research respondents. In obtaining the primary data, we sought the approval of the school with duly signed letter of request from the researchers. Permission to conduct the survey to identified respondents was secured from the foreign language school administrators. Respondents were requested to fill in the questionnaire which was retrieved on specified time and date. Collected data were validated, processed and organised into tables and graph for analysis, discussion of interpretation and implications.

4. Results and Discussion

Taiwanese respondents were unfamiliar the IPA. They had a difficult time in recognising some vowel sounds especially the front vowels. Respondents got a mean of 8.53 or 42.65 percent mistakes in the recognition test. It was noted that out of the five front vowels, they made a few mistakes in recognising the /**æ**/ sound indicating that this sound was not difficult to recognise (Figure 2). In English, the meaning of the word depends on the length and tenseness of the vowel, like "feet" and "fit", but not in the case of the Taiwanese. It is evident that for English language, the pitch or tone is a big factor in changing the meaning of a certain syllable. So while to native English speaker sheep and ship sound quite differently, they are the same for the Taiwanese.
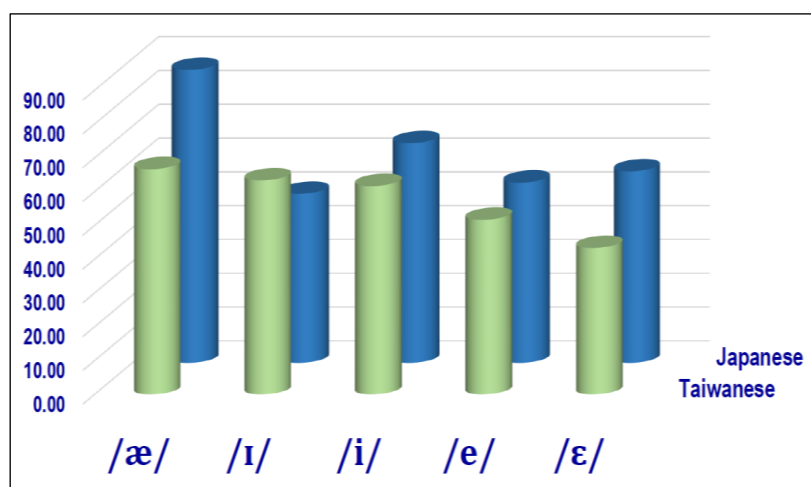

Figure 2: Test performance on vowel sound recognition
by foreign beginner learners

However, /ɪ/ and /i/ are found out to be the 2nd and 3rd sounds whom the learners perceived correctly, which indicate that Taiwanese learners don't have much difficulty recognising the two front vowels (Figure 2). Having only 48.33 percent of correctly recognised sound, /e/ is the front vowel sound which is slightly difficult for the learners to perceive. Based on our observation and experience, this sound is usually interchanged with the front vowel sound /ɛ/.

Registering the least of just 43.33 percent correct answer, the front vowel sound /ɛ/ is the most difficult sound for the Taiwanese learners to recognise (Table 1). In view of the fact that the /ɛ/ sound is the most difficult for Taiwanese learners, it is also the front vowel sound which is difficult for them to produce. In essence, the beginner foreign language learners need ample time to practice more to ensure correct vowel sound recognition, obviously much better if done with the help and guidance of their teachers.

In the case of Japanese leaners, they experienced difficulties on certain English sounds than others. Aside from their common mistake which is the /l/ and the /r/ sound, it is evident that the Japanese learners' experienced problems in getting a grip with the vowel sounds. It is difficult for them to recognise the sounds since their vowels only have five positions - /a, e i, o u/ while English contains eleven, /i ɪ e æ ɜ ʌ ɑ u ʊ ɔ ɒ/.

Figure 2 also reflects the Japanese beginner learners' vowel sound recognition test with a grand mean of 7.53 or 37.65 percent mistakes. The learners find recognising /æ/ sound not difficult as manifested by committing only 8 errors. Meanwhile, /i/ is the front vowel sound which is the second easy front vowels whom a Japanese learner can recognise registering just 21 mistakes. Meanwhile, /ɛ/, /e/ and /ɪ/ front vowel sound recognition resulted to 34, 32, 30 errors, respectively. These indicated a challenging recognition results by beginner Japanese learners.

Table 1: The Foreign Beginner Learners' Front Vowel Sound Correct Recognition

Front Vowel	Foreign Respondents		Total	Mean	Description
	Taiwanese	Japanese			
/ɛ/	6.50	8.50	15.00	7.50	Difficult
/e/	7.75	8.00	15.75	7.88	Difficult
/ɪ/	9.50	7.50	17.00	8.50	Slightly Difficult
/i/	9.25	9.75	19.00	9.50	Slightly Difficult
/æ/	10.00	13.00	23.00	11.50	Not Difficult

Ranges for the weighted mean		Description
11.50 - 15.00	-	Not Difficult
08.00 - 11.49	-	Slightly Difficult
04.50 - 07.99	-	Difficult
01.00 - 04.49	-	Very Difficult

These three sounds are almost similar and are the difficult front vowels, Japanese learners also have difficulties producing the words with these sounds. So, English language teachers need to focus on exposing the foreign learners, especially among

Japanese language learners, in giving activities which integrate the front vowels to ensure a correct recognition and production of the sounds.

Table 1 shows the result of the foreign beginner learners' International Phonetic Alphabet front vowel sound recognition test for both Taiwanese and Japanese learners. The fourth front vowel sound /ɛ/ registered a mean of 7.50 which is given a remark of difficult. This sound is proven to be the most difficult to recognise for the foreign language learners especially among Chinese and Taiwanese nationals. Front vowel /e/ having a mean of 7.88 is also remarked as a difficult sound to recognise next to /ɛ/. With a mean of 8.50 and 9.50, front vowels /ɪ/ and /i/ are assessed as slightly difficult. These two sounds are also confusing front vowels due to their spelling. Words with these sounds usually have similar spelling whom the leaners found difficult to recognise. Based on the result, /ɪ/ is the sound with the lowest mean of 7.50 for Japanese and /ɛ/ for Taiwanese with the mean of 6.50. They really have a hard time recognising these sounds. Though the learners can't produce the /æ/ sound properly, it got the highest mean of 11.50 which indicate it not a difficult sound to recognise.

Foreign learners like Taiwanese and Japanese have really difficulties recognising the front vowels due to language barrier. It is imperative that deliver best to teach and let foreign learners practice English especially in the pronunciation to achieve good conversation. Practically, the meaning of the words in English depends mostly on the way a speaker produces the sounds.

5. Conclusion and Recommendations

The study identified the International Phonetic Alphabet front vowel sounds which are difficult to recognise by language learners especially for Taiwanese and Japanese beginners. Most learners who can't recognise the sounds are those who can't produce or pronounce the words correctly, such that being able to recognise the sound leads to the correct production of the words. In essence, it becomes imperative for the learners to be able to recognise the sounds so that mispronounced words and misunderstanding or misconception are avoided. Arguably, foreign beginner learners experience difficulties in recognising the front vowels which eventually affect their ability to produce words. Beginner foreign learners who are unable to recognise the vowel sounds exhibit difficulties in producing the words. These become a crucial problem where many English teachers of foreign leaners encounter in the actual setting.

Grounded on the foregoing findings and conclusion, the following recommendations are offered. Articulation - the teacher must explain the correct way of producing the sound. The parts of the mouth and where the teeth, tongue or palate will touch. Positions - the students should be given example words which the sound is an initial, medial and final. Spelling Tracker - the teacher must show the students the possible words with same spellings. They should be reminded that not all the times the sound depends on the spelling so they should know the possibility that words may have similar spelling but different pronunciation. Word Drill - the students must be given with the sample words of the sounds being discussed. Let them read and repeat

the words until pronounced correctly. Contrast – to be able to recognise the different sounds, the teachers must use the main enemy sound to show contrast of the sounds. This is the most important part of teaching pronunciation to ensure sound recognition.

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Sherwin P. Trazo is an Elementary School Teacher of the Department of Education connected with the Danao District of Bohol. He obtained his Bachelor of Elementary Education major in General Content from the Holy Name University, Bohol, Philippines. Mr. Trazo previously taught English to all levels to Koreans, Japanese, Taiwanese and Vietnamese foreign learners. Currently, he is a school-based English Coordinator where he conducts studies on improving the teaching–learning language. His present research focuses on the importance of parents' supports to children's performance in school while pursuing his doctorate studies in education major in English Language Teaching.

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