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# TEACHING ENGLISH TO JAPANESE EFL LEARNERS USING PHONETICS: A PEDAGOGICAL APPLICATION OF THE VOWEL TRIANGLE

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A Pedagogical Application of the Vowel Triangle**

**Synopsis:**

English Teaching in Japan is facing a reformation and changing its “Government Course Guideline”. In the new Guideline, teaching communicative English is one of the biggest goals and teaching pronunciation is a hot topic on the agenda. This paper tries to show the effectiveness of using the knowledge of phonetics, more specifically, the knowledge of Vowel Triangle, in teaching pronunciation to Japanese elementary students, especially focusing on the [æ] sound, which is one of the most difficult sounds for Japanese to produce, and aims to contribute to the better English pedagogy.

# Teaching English to Japanese EFL Learners Using Phonetics: A Pedagogical Application of the Vowel Triangle

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## 0. Introduction

English Teaching in Japan is facing a reformation and changing its “Government Course Guideline”. In the new Guideline, teaching communicative English is one of the biggest goals and teaching pronunciation is a hot topic on the agenda. Also, with the advent of Tokyo Olympics 2020, English education in Japan is facing a big challenge of making Japanese students competent in speaking English.

One of the big reformations in the new guideline is to start English education earlier at the 3rd grade, while, at present, English education is compulsory, starting from the 7<sup>th</sup> grade. Another big reformation is the introduction of pronunciation in English education. However, since most English teachers have not received enough education in phonetics or sound education, nor is there enough native speakers of English in English classes, English classes are in a desperate need of pedagogy for teaching pronunciation.

This paper focuses on the phonemes that are difficult to pronounce for Japanese EFL learners and seeks a way to utilize the findings of phonetics for the improvement of their pronunciation. Specifically, this paper focuses on the teaching of [æ] sound, which is one of the most difficult sounds to produce for the Japanese speakers.

The reason for choosing this specific sound is made clear in Table 1.

Japanese	English
あ a	ʌ æ ə ai au á ə a
い i	I i: ə
う u	u: u ə ju
え e	e ei ə
お o	ou oi ɔ: ə

**Table 1 Vowel Differences between English and Japanese  
(Makino 2008 [2005]: 29)**

Table 1 shows the Japanese vowels and their English counterparts according to Makino

(2008 [2005]) . As can be seen in the table, the English vowels are more varied compared to their Japanese counterparts, which can be one of the reasons why Japanese cannot make a clear distinction among the English vowels. Especially, making a clear distinction between the sounds in the first column is the hardest for the Japanese, for there are so many sounds that correspond to the /a/ sound in Japanese. Among the sounds that correspond to Japanese /a/, [æ] is one of the toughest sounds for Japanese EFL learners, for that sound requires the mouth to open the most, while producing Japanese sounds does not require the speakers to open up their mouths as much as this [æ] sound.

Summarizing, this paper tries to show the effectiveness of using the knowledge of phonetics, more specifically, the knowledge of Vowel Triangle, in teaching pronunciation to Japanese elementary students, especially focusing on the [æ] sound and aims to contribute to the better English pedagogy with the new Government Course Guideline to be published in 2017.

## **2. Previous Attempts**

The usual pedagogy taken in Japanese EFL classes is either Repeat-after-Me Method or a variant of the Repeat-after-Me Method of using minimal pairs. The textbooks used in Japanese English classes must be one of those that are approved by the government. However, there is no government-approved textbook devoted only for pronunciation used in middle/ high school EFL classrooms. Hence, each teacher has to come up with a way to teach English sounds effectively. One of the authors of this paper, who is a high school teacher, has tried to do pronunciation practice using a CD player in his classes. He collected the sounds of the words used in the textbook from the web dictionary or asked native speakers to read out the textbook, recorded it, and played the CD so that the students can repeat after the sounds. This is the pedagogy that many teachers usually take, i.e., Repeat-after-Me Method.

Many books are also published in Japan for better pronunciation, and most of them come with a CD which is intended to be used as the model for the learners to repeat after. The learners play the CD and make themselves “accustomed” to the sound.

The popularity of such Repeat-after-Me Method is probably because of the strong belief in Oral Method (cf. Palmer 1921), and Audio-Lingual Method (cf. Fries 1945), which is basically based on behaviorist theory.

Palmer can be referred to as one of the predecessors who advocates the “paradigm shift” in twentieth century linguistics away from studying written languages and towards research and teaching based on the everyday speech of ordinary people” (Smith 1999: vii-viii) as well as his method of “oral method”, i.e., “learning to

speak a foreign language by using what he called “spontaneous” language acquisition capacities” (ibid.: viii). In other words, his theory believes that putting the language learners in the shower of the target language makes the learners competent, hence, in sound education, the English classes should provide as much sound as possible, and the students will know the sound. His oral method had a great influence on English teaching in Japan.

Audio-Lingual Method, on the other hand, requires the instructor to present the correct model of a sentence or words and the students would have to repeat it. This approach is based on behaviorist psychology and students would be engaged in Repeat-after-Me practice in sound education

Both theories were systematically introduced in Japan in 1956 with the establishment of The English Language Education Council and ever since, these have been the central methods adopted in Japanese EFL (Terauchi 2013: 83). Terauchi (2013) even calls those two methods “the cherished treasure” (ibid.: 83) of the English education in Japan. Lying behind those theories is the belief that “practice makes perfect” or “experience is the best teacher”. (Shimizu et al. 2012 [2003])

However, these approaches are inadequate in, at least, the following two points. First of all, there being far fewer number of native speakers in English classrooms in Japan than needed, non-native teachers, who have not received proper education of phonetics and are not excellent speakers of English, have to take the role of the shower or model. This leads the students to mimic sounds that may not be accurate. Also, as the second point, as Saito (2012 [2003]:7) says, getting used to the sounds does not make the students competent to hear the different sounds or speak. If the students are not aware of the different sounds, using their knowledge of their native language sounds, the different sounds may sound the same to the learners. In other words, students must “learn before you practice” (Saito 2012 [2003])

### **3. Experiment and Its Results**

We have conducted an experiment to show the effectiveness of using the knowledge of phonetics, or in more concrete term, the Vowel Triangle, in teaching pronunciation to Japanese elementary students, focusing on the [æ] sound and aim to contribute to the better English pedagogy with the new Government Course Guideline to be published in 2017.

#### **3.1. Methods**

We have asked 7 elementary students, whose ages vary from 7 to 9 years old,

and divide them into 2 groups, one of which practiced their pronunciation by following the Audio-Lingual Method of Repeat-after-Me Practice, and the other group practiced their pronunciation after learning the vowel triangle.

The method took the following 7 steps. (1) We asked them to pronounce three words, i.e., *giraffe*, *animal*, and *apple*, all of which consist of the sound [æ], and recorded their pronunciations; (2) secondly, we conducted a minimal pair test. We have recorded 10 sets of 3 minimal pair sounds, of which the two are the same word and the other is a minimal pair word, and played the recording and asked them to mark the word that are different from the others. For example, for the first question, the recording went, *cat*, *caught*, *cat*, and the correct answer would be the second one. And after analyzing the test results, we have divided the 7 subjects into two groups based on their different levels of the recognition of the different sounds; (3) Thirdly we taught the sounds in two different ways, one group practiced their pronunciation by following the Repeat-after-Me Method, the usual method taken in Japanese English classrooms, while the other group listened to the explanation based on the knowledge of Vowel Triangle and then practiced their pronunciation. (4) Fourthly, we conducted the minimal pair test again, the test that they did in the second step. (5) Also, we recorded their pronunciation of *giraffe*, *animal* and *apple* again. (6) Next, for ethical reason, we taught the Vowel Triangle to the group that was taught the sounds in the Repeat-after-Me method. And lastly, (7) did a minimal pair test again after teaching the vowel triangle to everybody.

Teaching the vowel triangle to the 7 to 9 year-old students may be too boring.

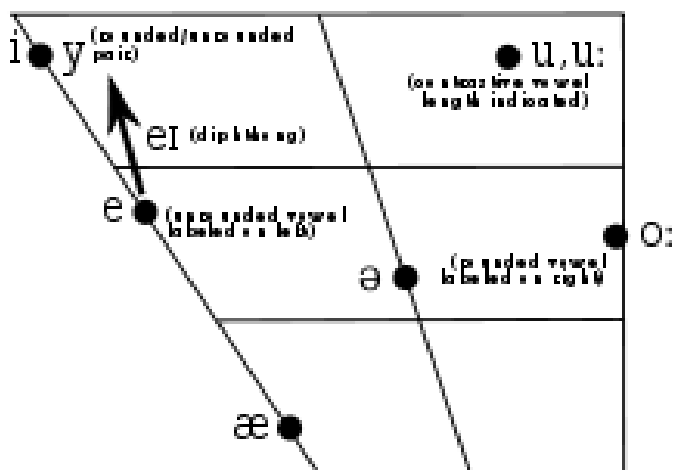


Figure 1 Vowel Triangle

What we did was to ask the subjects to make the sound [i], which may not be as difficult

for the Japanese English learners as sound [æ], for Japanese has a similar sound to [i], and asked them to drop their tongue as they drop their jaws, to the very bottom. In this way, the subjects were able to learn the sounds from [i] to [e] and [æ], and also, to open their mouths as much as they could to make the sound [æ].

### 3.2. Results

Due to the fact that this paper is a written material, we regret that we cannot provide the sound data, which shows great progress in the subjects' pronunciation. The improvements in the pronunciation were so obvious that all the participants present at the 2017 HUIC conference presentation agreed that the subjects have made a great progress in the pronunciation. (comparison of method (1) and (5))

The results of the minimal pair tests have also made a great progress. (comparison of method (2) and (4)) The results are summarized in Table 2.

	Pre-test	Post-test	t-test on the difference of the results of pre- and post-test	After method (7)
Group A (Repeat-after-Me method)	8.0	8.0	p=0.211 >0.1 ns	10
Group B (vowel triangle)	8.0	8.97	p=0.001187 <0.05 significant	10

**Table 2 Results of the Experiment**

As Table 2 shows, Group 2, the group that had lessons using the vowel triangle, improved in their ability to distinguish sounds (p=0.001187 <0.05), while Group 1, those that practiced their pronunciation in the usual pedagogy of Repeat-after-Me Method did not show any improvement in their distinguishing of the sounds. (p= 0.211 > 0.1 n.s.)

### 4. Conclusion

This paper has tried to show the effectiveness of using the Vowel Triangle in teaching pronunciation to Japanese elementary students especially focusing on the [æ] sound by conducting a research experiment on children whose ages range from 7 to 9 years old and aims to contribute to the better English pedagogy with the new Government Course Guideline to be published in 2017. The English classrooms in

Japan have always followed the oral method or audio-lingual method, in which the instructors play the role of a model and the students spontaneously repeat the sounds.

The experiment conducted in this paper shows that teaching in such a Repeat-after-Me Method does not improve their skills in pronunciation, probably due to the fact that the learners cannot distinguish the sounds, which leads to their failure to pronounce the correct pronunciation. Also, this method often does not work so effectively in English classrooms in Japan because the instructor has not often received education in phonetics, hence cannot play a good model of pronunciation. In other words, this paper has shown that teaching pronunciation using the knowledge of phonetics, or in more concrete term, using the Vowel Triangle is very effective in learning proper pronunciation.

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