Visual techniques to teach Vietnamese sounds

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1. Introduction

Teaching native speakers of English to produce certain sounds correctly sometimes can be challenging. However, it is more challenging to help students to maintain the correct pronunciation. In many occasions the student could produce the sound correctly, but when asked again later, they forget how to make the correct sound, especially with tones.

Very often 'sounds' are used to teach sounds, e.g., pronouncing the sound over and over, students repeat it until they get the correct pronunciation. But how can students maintain the correct pronunciation the next time they have to produce the sound?

Assuming that we teach just Spoken Vietnamese (no writing or reading), in that case students still need to write down some "symbols" in their own way to remember the pronunciation. However, a typical classroom setting is the environment where all four skills are taught: listening, speaking, writing, and reading. In this context, it is important for students to be able to relate certain sounds with some visual cues.

2. Using visual techniques to teach Vietnamese sounds

2.1 What are visual aids?

According to the Collins Cobuild dictionary, "*Visual aids* are things that you can look at, such as a model, film, map or slides to help you to understand something or to remember information" (Sinclair et al. 1995). The Farlex Online dictionary gives the definition: A visual aid is an instructional aid, such as a poster, scale model, or videotape that presents information visually. Visual cues help to understand how a sound is made, and to remember the information in order to produce the sound later. This is the focus of the paper. I will mention only sounds that are difficult to acquire.

2.2 Difficult sounds for native speakers of English

Assuming students can hear the contrast, i.e., different sounds give different meanings, what is/are the most difficult sound(s) to learn in Vietnamese? Generally speaking, anything that does not exist in your native language is difficult to learn. "Generally" because sometimes some "strange" sound can be easily recognized and remembered, because it is so different in a special way! For native speakers of English sounds that are difficult to acquire are:

- Tones
- Certain vowels, vowel length
- Double articulation (found in all back vowels before velar consonants)
- Certain consonants, e.g., the initial consonants t-, k-, nh-, and ng-.

This paper focuses only on single vowels, not diphthongs.

2.3. Useful visual techniques

We have mentioned that writing down symbols is one way to help to remember the sounds. Let's look at the very first visual cue in learning a language: the writing system.

There is a huge advantage of learning Vietnamese in terms of writing. Compare with English where the same letters are used for different sounds, e.g., tough, though, through or different letters are used for the same sound, e.g., sew/sow/so; to/two/too; meet/meat, Vietnamese orthography is phonetic-based, i.e., one letter represents one sound. One sound is represented by one letter. There are very few exceptions and even for exceptions, they are rule-governed, which is shown in any textbook, e.g., /k/ is written as 'k' before front vowels, as 'q' before 'u', and as 'c' elsewhere.

Table 1 shows the vowel system in Vietnamese: there are single vowels and three diphthongs in Vietnamese orthography.

	front	central		back
		long	short	
high	i	ư		u
higher-mid	ê	ơ	â	ô
lower-mid	e			o
low		a	ă	
Diphthongs	iê	ươ		uô

Table 1. Vietnamese vowels

There are advantages to teach vowels in a chart like this: it shows certain relationships between vowels. Understanding these relationships helps pronunciation. The terms 'front', 'central' and 'back' to refer to the tongue positions for these vowels; 'high', 'higher-mid', 'lower-mid' and 'low' refer to the degree of openness of the mouth. This chart also helps with correct spelling, but not of our interest here.

The 'difficult vowels' for English speakers are in the shaded cells. We will look at each of them.

First, to help the learners to remember the pronunciation of individual sounds, similar English words can be put next to the Vietnamese letters as shown in Table 2. For example, Vietnamese 'i' sounds similar to the vowel in 'beat', 'ê' sounds like the vowel in 'bait' but no diphthongization, 'e' as in 'bet', etc. I give this table to students in the first lesson, later on they can use it as a reference when needed. Learners often pronounce a Vietnamese sound like an English sound which is written with the same alphabet, for example, the Vietnamese sound /i/ is pronounced 'ai' because it is written with the letter 'i'. Table 2 helps to correct this type of mistakes.

(beat) i	ư ☺		u (boot)
(bait) ê	(sof***a***) ơ	(***a***bove) â	ô (boat)
(bet) e			o (bought)
	(f***a***ther) a	ă	

Table 2. Similar English sounds are placed next to Vietnamese sounds.

Let's now look at some difficult vowels. One pair that is often confused by learners is 'ê' and 'e'. English learners tend to neutralize these two vowels, they pronounce the two as the lower one, 'e'. The difference between these two vowels is in the tongue height. For 'ê' the tongue is higher and for 'e' it is lower and a bit further back. We can show this difference with a picture like Figure 1.

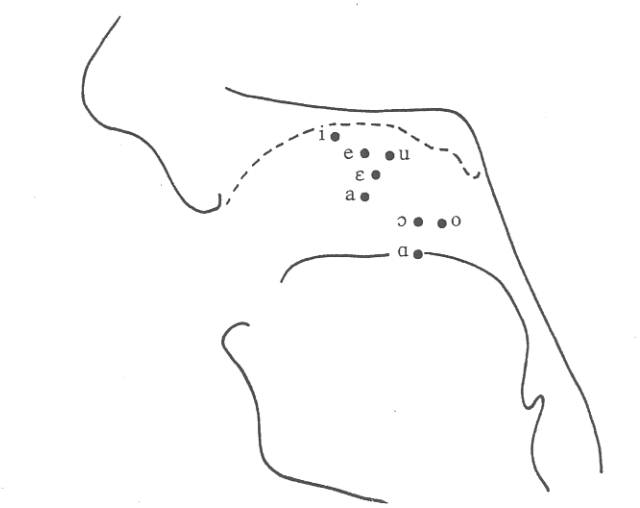

Figure 1. Highest positions of the tongue in these vowels (Catford 1988)

Figure 1 shows the tongue position for various vowels in the mouth. The dots show the highest position of the tongue. Let's look at the pair 'ê' and 'e', /e/ and /□/ in Figure 1, respectively. If the learner can see the difference in height between 'ê' and 'e', they can adjust their tongue's height to make the distinction between the two vowels, and would remember the contrast next time they see the vowels.

How to teach the high, central vowel 'ʉ'? Normally students are asked to produce 'u' then spread their lips wide for a big smile (therefore comes the name: smiling vowel). Sometimes I just need to remind 'smile', the resulting vowel often correct.

However, many times the result is something between 'ʉ' and 'ʊ'. This vowel is lower than the high central vowel *ʉ* but higher than the higher-mid vowel 'ʊ'. Figure 2 (modified from Catford 1988) is used to show the relative positions of the tongue for these vowels. In the vowel 'i', the highest tongue position is shown with the little triangle. For 'ʉ', the simple for this vowel is the upside down 'm', the tongue is further back. The tongue position for 'ʊ' is the darkest line. What is often produced for 'ʉ' is something that lies between 'ʉ' and 'ʊ'. This is a very common mistake in producing the smiling vowel 'ʉ'. In order to correct this mistake, the student is asked to raise the tongue higher and pull it further back. The result is often the correct vowel.

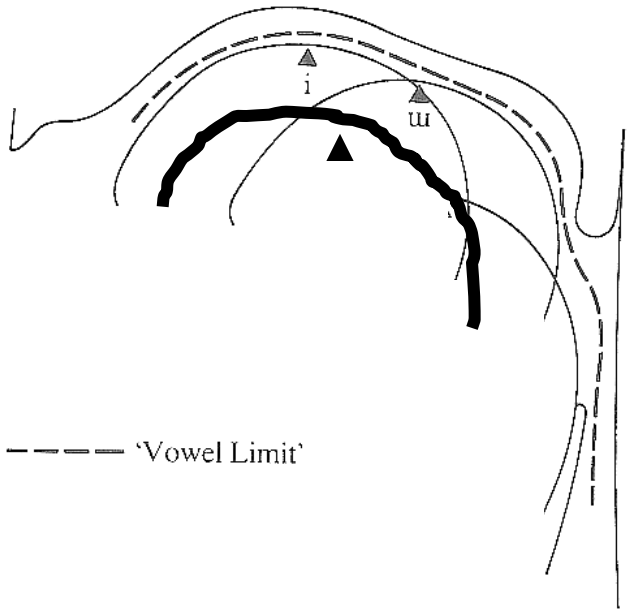

Figure 2. Tongue position for 'ɯ'

The diagram showing the tongue position is also useful in teaching difficult vowels, such as the palatal 'nh, ch' and velar 'ng'.

Now let's look at the vowel length. Two vowel pairs contrast in length in Vietnamese are long 'ơ' and short 'â', long 'a' and short 'ă'. The two short vowels always precede some final segment. These short vowels are among difficult vowels for learners, especially when students are asked to produce all these four together, e.g., *ơn* vs *ân* and *am* vs *ăm*.

How do we teach this length contrast? We can show vowel length within a syllable. A syllable has an initial consonant and a rhyme. E.g. '*mèo'* (cat), the initial consonant is 'm', 'eo' is the rhyme. A rhyme can have just a vowel, as in '*ba'* (three), or can have a vowel and a final consonant, e.g., '*bàn'* (table). Research shows that Vietnamese rhymes have relatively constant length, which means they are more or less equal in length (Gordina and Bystrov 1970). Table 3 illustrates the rhymal length of a long vowel and a short vowel before 'm'. The long vowel 'a' is represented with two dots. We see that if the vowel is long, the nasal 'm' is short, and vice versa.

a:	m

a	m

Table 3. Vowel length in Vietnamese rhyme

Figure 3 from Pham 2003 shows the spectrogram of two syllables with vowel 'a' and the final 'ng': '*tàng'* has a long 'a' and '*tắng'* has a short 'a'. Both syllables are measured for

270ms. The dark portion shows the voicing of the vowel (what you can hear), the stronger the sound, the darker the color. For the ‘ng’, voicing is weaker, therefore, it is not very dark. For the long syllable, ‘*tàng’*, the portion of the vowel is long, ‘ng’ is short. For ‘*tằng’*, the vowel ends much earlier. The ‘ng’ is longer.

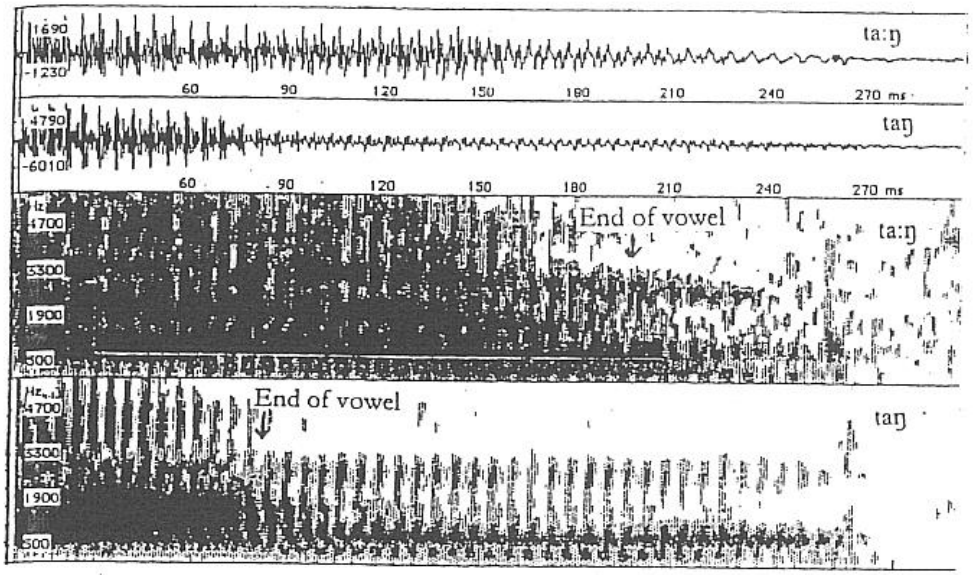

Figure 3. Spectrograms of ‘*tàng’*and ‘*tằng’*

Figures 4a and 4b show another example: ‘*tãm’* has a long ‘a’ and ‘*t̃ắm’* has a short ‘a’.

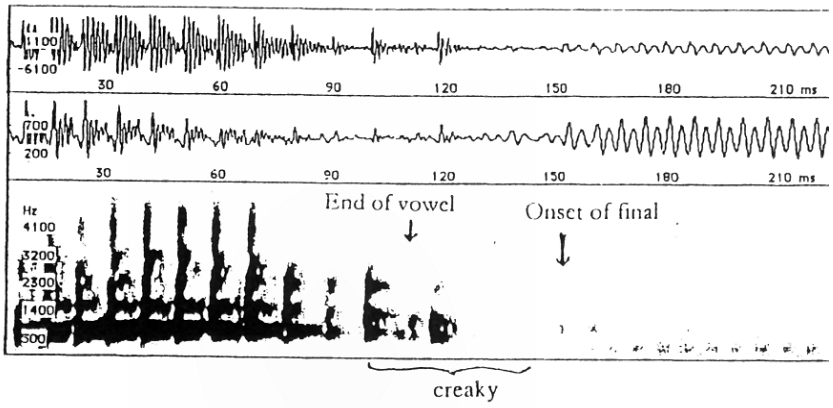

Figure 4a. ‘*tãm’* with a long ‘a’

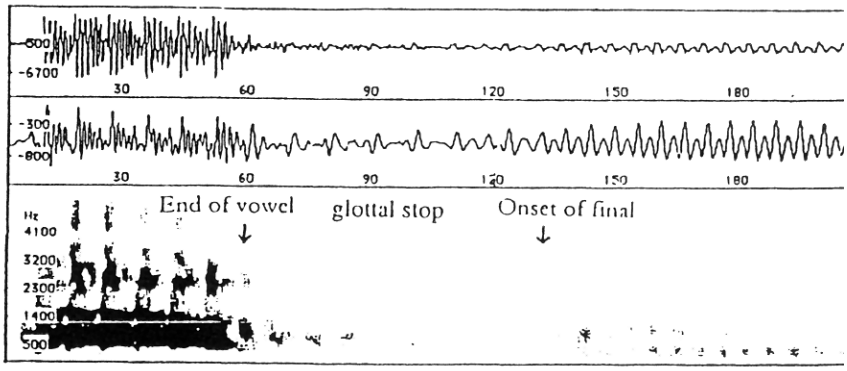

Figure 4b. '*tẵm'* with a short 'a'

A couple of years ago, there was a question on the linguist list asking that in languages with length contrast in vowels, how do those vowels "behave" in singing? In other words, how is a short vowel sang to a long musical note? This interesting question comes up from time to time in my first year language classes.

The long musical notes in Vietnamese are often sang by the natives as follows. If the vowel is long, the vowel part is lenthengthed: e.g, *tham* 'greedy' for 'Do not be greedy' would sound like *Em ơi đừng thaaam*. But if the vowel is short, e.g., *thăm* 'to visit', you can only make a short vowel and drag on the 'm'. 'Please do not visit' would sound like *Em ơi đừng thămmm*. If you drag on the vowel, it does not mean 'visit' anymore.

What if the syllable ends in a voiceless stop consonant, either 'p, t, or c'? In Vietnamese we know that unlike English, the stops are unreleased, e.g. *mát* 'cool'. The airflow is blocked with the consonant 't'. If the vowel is long, you can drag the vowel portion: e.g., *tháp* 'tower', *hát* 'to sing'. If the vowel is short, how can we 'drag' the rhyme at the first place, when we are supposed to just block the air flow? For example in *thắp* 'to light', *sắt* 'steel'. In these cases, while you still can drag the vowel, but more often the vowel stays short, and the dragging falls onto a homorganic nasal. The homorganic nasal of 'p' is 'm', of 't' is 'n', and of 'k' is 'ng', which has the same tongue position with the stop. For instance, *thắp* 'to light' in a long musical note would sound like 'thắpm'; or *nhắc* 'to remind' would sound like 'nhắkng', as in *Xin em đừng nhắkng*. 'Please do not remind (me)'.

In short we can use long musical note to emphasize the difference between long and short vowels in teaching pronunciation.

Finally let's ook at the double articulation with three back vowels 'u, ô, o'. In Vietnamese all back vowels are rounded. We know that before the final velar consonants 'k' and 'ng', 'u, ô, and o' have different quality, e.g., *ung, ông, ong*. Here two 'actions' happen at the same time: one, we have to make the sound 'ng'; two, we have to close the lips completely. To teach this, students are asked to create and hold some air in their mouths during the process and after lip closure. Asking students to hold some air in the mouth helps to prevent them from saying 'uung', a long vowel without lip closure . This also helps to prevent mistakes such as instead of saying 'ông', they produce 'âm', i.e. a central unrounded vowel with lip closure but without velic closure.

Another kind of mistakes with back vowels before velar consonants is that students often round their lips right from the beginning. For example, for ‘ong’, they produce something like ‘ông’, a higher vowel. But if we point out that the vowel does not start with lip rounding, the mistake can be avoided: to produce ‘ong’, you need to start with the position for ‘a’. The result is a correct form: ‘ong’. For ‘ô’, students should start with an unrounded vowel on the same row on the vowel chart. For ‘ung’ it is less of ‘ư’ going into ‘ung’, because at this level the vowel already has the highest degree of rounding.

3. Conclusion

In order to improve students’ pronunciation, we can use various visual cues to help students to first understand how a sound is made, then to remember the correct pronunciation for reproducing the sound later. This includes presenting the information in a systematic way, sometimes with a very simple chart.

REFERENCES

Catford, J.C. 1988 *A Practical introduction to Phonetics.* New York: Oxford University Press.

Sinclair, John et al. 1995. The Cobuild series – English dictionary. London: HarperCollins.

Gordina, M.V. and I.S. Bystrov. 1970. Một số tiêu chuẩn âm vị học để phân vùng các phương ngữ tiếng Việt (Some phonological criteria in classification of Vietnamese dialects). In *Languages in Southeast Asia*. Moscow, 203-211.

Phạm, Andrea Hoà. 2003. *Vietnamese tones – a new analysis.* Routledge.