Influence of Vietnamese Pronunciation on the Production of English Final Consonant Sounds

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Abstract

This study focuses on six English final consonants which are not permitted in the syllable final position in Vietnamese. The influence of the native language is thought to affect the production of English final consonants among Vietnamese speakers, who have a much smaller range of permitted final syllable consonants. This research examines the production of final consonants of Vietnamese English language learners. The subjects, four students studying at Hanoi University in Vietnam, were provided a wordlist and reading passage to be read aloud and recorded. These recordings were sent via email to the researchers who then analyzed the recordings. When reading from the wordlist the subjects most often replaced the final consonant sound with another sound, whereas the most common error found in the reading of the passage was neglecting to pronounce a final consonant at all.

Keywords: Vietnamese language learners, final consonants, second language acquisition

Influence of Vietnamese Pronunciation on the Production of English Final Consonant

Many studies have looked influence of the native language (L1) on the learning of a second language (L2) as having both positive and negative effects on the learning of an L2. The L2 is affected by the L1 in various ways depending on the characteristics of both languages. This research investigates the effects and influences of native Vietnamese speakers in their production of syllable final consonants in English.

Literature Review

For many English language learners, L1-L2 transfer does not prevent the speaker from being easily understood. Unfortunately, this is often not the case for Vietnamese speakers. At times the reduction or deletion of final syllable clusters among native Vietnamese speakers can result in a "communication breakdown" (Ha, 2005, p. 1). Often learning a language means learning a completely "new way of using the speech organs" and this is especially true for Vietnamese speakers attempting to learn English (Ha, 2005, p. 1).

The Vietnamese language has only six consonants that appear at the end of words, all of which are shared with English (*p*, *t*, *k*, *m*, *n*, and *ng*). However, English has an almost endless list of final consonants and final consonant clusters. The chart (see Appendix A) by Tang (2007) lists over fifty, most of which can take derivational or inflectional morphemes to create new, different sounds. The focus of this study is on six English final consonant sounds (/s/, /z/, /l/, /ð/, /f/, /v/) which only occur in the initial position in the Vietnamese phonetic system and are foreign to Vietnamese speakers in the syllable final position (Ngo, 2005, p. 8). As a result, Vietnamese speakers of English often struggle with production of these sounds in the syllable final positions (Ha, 2005; Ngo, 2005; Nguyen, 2007; Osburne, 1996; Sato, 1984; Tang, 2007)

Sato (1984) studied two Vietnamese brothers who arrived in the United States as refugees at the ages of ten and twelve. These young men lived with foster parents in Philadelphia, PA. Though English and Vietnamese share many syllable initial consonants sounds, the lack of

common syllable final consonants in Vietnamese hindered Sato's participants' ability to produce these sounds in English (Sato, 1984).

Tang (2007) found that Vietnamese learners often simplify or omit the consonants in the final syllables of English words. He also noted that when simplifying these final sounds, Vietnamese learners of English have a tendency to replace the English endings with sounds that are common to both Vietnamese and English languages (Tang, 2007, p. 21).

Having noted the influence of the Vietnamese L1 on the production of English, it is also important to understand the final syllable sounds that pose the greatest struggle for Vietnamese English language learners (ELLs). Two sounds that are not shared between the two languages as final consonant sounds are the alveolar fricatives /s/ and /z/. While Vietnamese does have these sounds as syllable-initial consonants, they never appear at the end of words (Tang, 2007). Ha (2005) asserts that among Vietnamese speakers of English, the /z/ and /s/ sounds are most frequently omitted. Vietnamese speakers' also may pronounce /z/ as /s/. Another sound, which is known to pose struggles for Vietnamese speakers, is the alveolar lateral sound /l/ (Ha, 2005). Ha (2005) indicates us that the final consonant sound /l/ may be produced as the /n/. The last sound addressed in this research is the dental fricative /ð/, which may be replaced with the Vietnamese dental aspirated /t/ (Ha, 2005).

Based on prior research, it is believed that the Vietnamese students participating in this study would struggle with the pronunciation of the final consonant sounds. It was predicted that the students would likely omit or replace the final consonants more often than they would correctly produce the sound.

Method

Participants

The participants of this study were four Vietnamese ESL speakers: three females and one male, all aged 21. All of the participants were students pursuing academic degrees at Hanoi

University and started learning English at the age of 18. English is a core subject in the curriculum at Hanoi University. At the time of the data collection, the participants had studied English for more than two years.

Instruments

The participants were provided a wordlist (Appendix B) and a reading passage (Appendix C) adapted from Nguyen's (2007) study on the pronunciation difficulties faced by Vietnamese learners of English. The wordlist contained fourteen words which ended with six final consonant sounds that are foreign to Vietnamese speakers (/s/, /z/, /l/, /ð/, /f/, /v/). The reading passage was 150 words long and included the fourteen target words from the wordlist. Both the wordlist and reading passage were included in this study as it was anticipated that when reading from the wordlist, students would be aware of being evaluated on pronunciation and therefore slowly enunciate each syllable. The pronunciation in the context of the reading passage hoped to provide a more authentic representation of how the speakers produce the words with less time to focus on each syllable.

Data Collection

The passage and wordlist were sent to Hanoi University in Vietnam. There, the participants were individually audio-recorded in a classroom. The participants were first presented with the wordlist and were permitted to review the wordlist for 15 seconds before being recorded. However, they were not allowed to preview the reading passage beforehand, and were asked to read it at their normal reading speed after completing their recordings of the wordlist. After the recordings were completed, they were sent to the researchers via email.

The researchers rated each student's readings of the wordlist and reading passage and assigned numerical values to represent the level of accuracy with which they produced each sound. Final consonant sounds that were accurately produced received a score of 2, replaced or added sounds received a 1, and omitted sounds received a 0. The three researchers independently

evaluated the recordings and came to a consensus (based on a 2/3 agreement) as seen in Appendices D and E.

Results and Discussion

When reading from the passage with less time to focus on formulating the specific sounds, mistakes were made more frequently, as seen in the results from reading of the passage (see Appendix E). Except for the word *famous*, which elicited identical answers from each speaker on both the wordlist and the reading, the pronunciations of all the /s/ and /z/ words varied from the wordlist to the reading. All of the speakers, with exception of speaker 2, struggled to produce the /z/ sound in both the wordlist and passage. The word *his* appeared in the passage four times (one of these will not be analyzed, as it preceded the word *school*, confounding the determination of correct pronunciation). Speakers 1, 3, and 4 most frequently pronounced the /z/ of *his* as /t/; however, in some cases they pronounced /z/ as /s/, or omitted the final sound altogether.   Finally, *is* appeared in the text four times. Aside from Speaker 2, who consistently pronounced *is* correctly in both the wordlist and the reading; none of the other speakers were consistent in their pronunciation. For example, Speaker 3 omitted the ending sound on the first and last *is* but replaced the /z/ with a /t/ in the third and second (a word which only saw omissions during the wordlist pronunciations).

The syllable-final /l/ also exists in English but not in Vietnamese. When the participants in this study were asked to read the words *small, school* and *pool* from the wordlist they were able to produce these words correctly 25% of the time. The students replaced the final /l/ sound 25% of the time as well, and 50% of the occurrences from the wordlist resulted in complete omission of the final consonant sound.

The word *school* appeared in the reading three times. This provided the researchers with an interesting opportunity to see if the speakers would consistently pronounce the words throughout the reading. The researchers found that speakers 1, 2, and 3 all pronounced the word

just as they had in the reading of the wordlist and remained consistent throughout the reading of the passage. Speaker 4 omitted the /l/ sound in the reading of the wordlist; however, when reading the passage the speaker omitted the sound in only one of the three occurrences. When looking at words that end in /l/, the participants were found to omit the sound, pronounce the word correctly, or replace the sound with the alveolar consonant /n/, a final sound that is common to both Vietnamese and English.

When looking at the word *with* in the current study it was observed that /ð/ was replaced with either /t/ or was pronounced correctly; there were no instances where the ending sound was omitted. The /t/ is a final consonant that occurs in both Vietnamese and English. In this study two of the four participants replaced the /ð/ sound with /t/ in the reading of the passage. Speakers 2 and 3 were able to pronounce the word correctly in reading the wordlist. All of these speakers pronounced the word the same way in their reading of the wordlist and the reading of the passage.

Regarding the labiodental fricatives /f/ and /v/, it can be seen from the table that while speakers 2 and 3 have almost no problems with these sounds, speakers 1 and 4 struggle with the production resulting in omission and replacement. Although /f/ from the word *life* is correctly pronounced by the fourth speaker in the wordlist, it is replaced with unaspirated bilabial /p/ sound in other cases so that /ɪf/ becomes /ɪp/ in both wordlist and reading passage and /laɪf/ becomes /laɪp/ in the reading passage only. Regarding the /v/ sound, this speaker pronounced the English /v/ as /p/ sound, except when producing the word *have*. There is also an inconsistency in the first speaker's way of producing these phonemes, omitting /f/ in the word *life* but still using /p/ in the word *if*. Interestingly, her production of the /v/ phoneme also varied, replacing /v/ with /p/ in many cases, having correct pronunciation with the word *have* in the wordlist, and adding the vowel /ə/, after the final consonant. The sound addition and omission phenomena can also be explained by the fact that Vietnamese labiodentals /f, v/ occur word-initially, while the

English labiodental equivalents can occur freely in all positions. The Vietnamese consequently fail to pronounce English /f, v/ in the final position, or sometimes insert the epenthetic vowel sound /ə/ after the final consonant to match Vietnamese segmental phoneme structure, making it easier for them to produce these sounds.

The most common error found in pronunciation of words on the wordlist was the replacement of the final consonant sound, whereas the most common error found in the reading of the passage was neglecting to pronounce a final consonant at all. This is most likely explained by the unfamiliarity of Vietnamese speakers of these sounds at the ends of words. In addition, because of the tendency to "swallow" the ending sound in Vietnamese, Vietnamese speakers often tend to transfer this habit to English, hindering their correct pronunciation (Ha, 2005, p. 8).

Limitations

In addition to the small number of participants in this study, other struggles were faced in conducting the research. While analyzing the data, it was clear there were problems with the administration of the instruments. The data was collected via audio recordings, of which the quality was lacking; while determining the participants' pronunciation was not impossible, both the inconsistency of the volume and the presence of background noise made this task difficult and time-consuming. Using a video camera or witnessing the speakers as they read the wordlist and reading passage could have provided an opportunity to analyze the speakers' mouth movements to aid in evaluating their pronunciations, limiting these problems.

In addition, there were challenges with interpreting the data. It was often difficult to come to a consensus on our opinions of the pronunciations (partially due to the quality of the audio). Because one member of our research group taught these students and knows how they are taught to pronounce these sounds, she often had different expectations for their pronunciations and believed that what may have sounded similar to native-like pronunciations to the other researchers did not sound correct or native-like to her. Another obstacle we faced was with our

standards of evaluation. Our intention was to give the speakers a numerical rating based on the accuracy of the pronunciation to native-like standards. Pronunciations with a replacement were given a higher score (1) than those with omissions (0). However, what sounded most comprehensible or similar to native pronunciation was often subjective. In some instances, the pronunciation sounded more correct if the speaker omitted the final consonant sound completely rather than replace it with a sound common to both languages. For example, *school* sounded more native-like when speakers omitted the final consonant and pronounced *schoo* than when the /l/ was replaced with /n/ to making *schoon*. This could have potentially skewed the results of this study, as the percentage of "correctness" would have been different if we had evaluated their pronunciation based on native-like sounds and not on whether or not they replaced or omitted the sounds. Future studies would benefit from perhaps different evaluation criteria, such as which mouth movements are closest to the target movement or which replacement sounds are most phonologically similar to native speech, to evaluate the speakers' pronunciations.

Conclusion

This research demonstrates that the aforementioned final syllable consonants in English, which are not permitted in the syllable final position in Vietnamese, are difficult for native Vietnamese speakers to produce. The participants in this study demonstrated a greater ability to produce the words correctly when reading from the wordlist rather than the reading passage. Furthermore, the results support previous research (Ha, 2005; Nguyen, 2007; Sato, 1984; Tang, 2007) that the L1 influence affects Vietnamese speakers production of syllable final consonant sounds.

In this research, our attention was drawn to many linguistic variables that could serve as future studies or an expansion of this current study. For example, although the overall tendency was for the speakers to mispronounce *school*, in the passage when school appeared at the end of the sentence the general accuracy improved by 25%. *Is* also saw a 12.5% increase in accuracy

three out of the four times speakers were to pronounce it in the passage. What role do the vowels or consonants which precede or follow the target consonant sound play in correct pronunciation of the sound? What role might location in the sentence play? Why are words pronounced correctly in some areas of the passage and inaccurately in other parts? If we had more time to execute this project to more deeply analyze the sounds, how they are formed, and the Vietnamese sound system, these would be questions we would attempt to explain.

Pedagogical Implications

An awareness of the phenomenon of L1 transfer plays a crucial role in sound pedagogical practice. Knowledge of the phonological system of an ELL's L1 informs a teacher's approach to pronunciation practice and to giving corrective feedback in the classroom. It also potentially provides both the teacher and student with the ability to modify their productions so as to increase mutual understanding. Teachers could also provide students with lists of phonemes common to both the target language and the student's L1 that are the most intelligible replacements to native speakers.

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Appendix A

Comparison of Vietnamese and English Consonant Sounds in Syllable Initial and Final Positions

	Vietnamese Only	Shared Sounds	English Only
Syllable Initial	t̪ (to), t̪ʰ (thỏ) t̪ˡ (trời), c (chơi), ʔ, ʐ (rắn), ʂ (sáng)[1] ɣ (gà), x (không) ŋ (ngủ), ɲ (nhỏ)	p (pin or pie), b (bà or bear), d (đen or doll), k (kéo or kite), m (má or me) n (năm or note), f (phở or fire), v (và[2] or very) s (xin or send), z (rồi[2] or zebra), h (hết or hair), l (làm or love) j (dì[1] or yard) ɾ (rắn[3] or utter)	t (time), g (go), Ɵ (thing), ð (then), ʃ (shoe), ʒ (measure), ʧ (chain), ʤ (june), ɹ (rope), w (water), s-clusters (sk, scr, sm, sn, str…) r-clusters (br, cr, scr, dr, gr), l-clusters (bl, cl, fl, gl), w-clusters (dw, sw, tw, qu)
Syllable Final		p (lớp or hop) t (ít or bat), k (gác or luck), m (làm or lamb), n (sơn or sun), ŋ (sông or song)	b (lab), d (sod), g (bag), Ɵ (bath), ð (bathe), f (laugh), v (love), s (kiss), z (buzz), ʃ (ash), ʒ (rouge), ʧ (itch), ʤ (bridge), l (ball) -pt (slept), -ps (oops), -kt (walked), -ks (licks) , -ft (laughed), -sp (lisp), -st (list), -sk (brisk) –lp (help), -lb (bulb), -lt (wilt), -ld (wild), -lk (bulk), -lf (elf), -lv (delve), -lƟ (wealth), -lʧ (belch), -lʤ (bulge), -lm (balm), -mp (bump), -mf (triumph), -mƟ (warmth), -nt (mint), -nd (wand), -nƟ (tenth), -nz (lens), -nʧ (wrench), -nʤ (binge), - ŋk (bank), -ksƟ (sixth), -kst (whisked), -lpt (helped), -mpt (bumped), -mps (bump)

From: *Tang, Giang . (2007) Cross-linguistic analysis of Vietnamese and English with implications for Vietnamese language acquisition and maintenance in the United States. Journal of Southeast Asian American Education and Advancement. 2, 9.*

Appendix B
Word list

Small	School
Pool	His
Has	Is
Have	House
Famous	With
Life	If
Love	Of

Adapted from Nguyen, Thu Thao (2007:35). *Difficulties for Vietnamese when pronouncing English final consonants.*

Appendix C
Reading Passage

John is living in a small house in the countryside with his mother. He has no brothers and sisters. From the window of his own room, he could see his school through the green leaves of the trees if he wants to pull them to one side.

He doesn't have any friends, so he feels very unhappy. However, he believes that if he could become adult quickly he wouldn't have to go to school. If he could choose, he would love to become a famous man during his life. But he is not yet a man and he must still shut up and do what he is told.

Although he might run away from school and make his way to another country in a ship, it is not long until he will no longer be a boy. He starts to grin and goes down to the pool for a swim.

Adapted from Nguyen, Thu Thao (2007:35). *Difficulties for Vietnamese when pronouncing English final consonants.*

Appendix D
Data Collected from Wordlist

Word	Speaker 1	Speaker 2	Speaker 3	Speaker 4
Small smɑːl	No ending sound	Correct	/l/ is pronounced as /n/	No ending sound
School skuːl	No ending sound	Correct	/l/ is pronounced as /n/	No ending sound
Pool puːl	No ending sound	Correct	/l/ is pronounced as /n/	No ending sound
His hɪz	/z/ is pronounced as /t/	/z/ is pronounced as /s/	No ending sound	/z/ is pronounced as /t/
Has həz	/z/ is pronounced as /v/	/z/ is pronounced as /v/	/z/ is pronounced as /t/	/z/ is pronounced as /t/
Is ɪz	No ending sound	Correct	No ending sound	No ending sound
Have həv	Correct	Correct	Correct	Correct
House haʊs	No ending sound	Correct	No ending sound	Correct
Famous ˈfeɪ.məs	/s/ is pronounced as /t/	Correct	/s/ is pronounced as /t/	/s/ is pronounced as /t/
With wɪð	/ð/ is pronounced as /t/	Correct	Correct	/ð/ is pronounced as /t/
Life laɪf	No ending sound	Correct	Correct	Correct
If ɪf	/f/ is pronounced as /p/	Correct	Correct	/f/ is pronounced as /p/
Love lʌv	/f/ is pronounced as /p/	Correct	Correct	/f/ is pronounced as /p/
Of ɒv	/f/ is pronounced as /p/	Correct	Correct	/f/ is pronounced as /p/
Average Accuracy	**32.14%**	**92.85%**	**57.14%**	**46.42%**

Correct–2
Replaced-1
Omitted- 0

Appendix E
Data Collected from Reading Passage

Word	Speaker 1	Speaker 2	Speaker 3	Speaker 4	% Change from Wordlist
Is ɪz	/z/ is pronounced as /s/	Correct	No ending sound	No ending sound	12.50%
Small smɑːl	Correct	Correct	No ending sound	No ending sound	+12.5%
House haʊs	No ending sound	Correct	No ending sound	No ending sound	-25%
With wɪð	/ð/ is pronounced as /t/	/ð/ is pronounced as /t/	/ð/ is pronounced as /t/	/ð/ is pronounced as /t/	-25%
His hɪz	/z/ is pronounced as /s/	Correct	No ending sound	No ending sound	No change
Has həz	No ending sound	Correct	No ending sound	/s/ is pronounced as /t/	-12.5%
Of ɒv	/v/ is pronounced as /p/	Correct	Correct	/v/ is pronounced as /p/	No change
His hɪz	/z/ is pronounced as /t/	Correct	/z/ is pronounced as /t/	No ending sound	-12.5%
School skuːl	No ending	/l/ is pronounced as /n/	/l/ is pronounced as /n/	/l/ is pronounced as /n/	No change
Of ɒv	/v/ is pronounced as /p/	Correct	Correct	/v/ is pronounced as /p/	No change
If ɪf	/f/ is pronounced as /p/	Correct	Correct	/f/ is pronounced as /p/	No change
Have həv	/v/ is pronounced as /və/	Correct	Correct	Correct	-12.5%
If ɪf	/f/ is pronounced as /p/	Correct	Correct	/f/ is pronounced as /p/	No change
Have həv	Correct	Correct	Correct	No ending sound	-25%
School skuːl	No ending sound	Correct	/l/ is pronounced as /n/	Correct	+25%
If ɪf	/f/ is pronounced as /p/	Correct	Correct	/f/ is pronounced as /p/	No change
Love lʌv	/v/ is pronounced as /p/	Correct	Correct	/v/ is pronounced as /p/	No change
Famous ˈfeɪ.məs	/s/ is pronounced as /t/	Correct	/s/ is pronounced as /t/	/s/ is pronounced as /t/	No change
His hɪz	/z/ is pronounced as /t/	Correct	/z is pronounced as /t/	/z/ is pronounced as /t/	+25%
Life laɪf	Correct	Correct	Correct	No ending sound	No change
Is ɪz	No ending sound	Correct	No ending sound	No ending sound	No change
Is ɪz	No ending sound	Correct	No ending sound	/z/ is pronounced as /s/	+12.5%
School skuːl	No ending sound	/l/ is pronounced as /n/	/l/ is pronounced as /n/	/l/ is pronounced as /n/	No change
His hɪz	/z/ is pronounced as /t/	Correct	/z is pronounced as /t/	No ending sound	+12.5%
Is	No ending sound	Correct	/s/ as /t/	No ending sound	+12.5%
Pool puːl	No ending sound	Correct	/l/ is pronounced as /n/	No ending sound	No change
Average Accuracy	18/52 = 34.62%	49/52 = 94.23%	25/52= 48.08%	15/52=28.85%	

Overall accuracy for all participants: 51.44%
Overall difference in accuracy compared to Wordlist: -5.7%