English Language & Literature Teaching, Vol. 18, No. 4 Winter 2012

An Experimental Study on Flapping in English Teaching

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You, Bok-Soon. (2012). An experimental study on flapping in English teaching. *English Language & Literature Teaching*, *18*(4), 195-210.

This study examines the feature of flap[1] occurring in word-level and phrase level in American English. The subjects are university students who are non-native speakers of English. 103 students participated. Sentences were made with flapping /t/, /d/. Results showed that experimental groups were improved significantly more than comparison group. Experimental group showed a higher score of mean at the post-test analysis. Moreover, results from each group also revealed that different mean score indicated a statistical significance. The results of the statistical analysis indicated that the two groups were significantly different in mean score at the post-test. These results showed that stylistic variation in flapping should be explicitly taught so that users are aware of it. In the absence of sufficient exposure to English, EFL learners can only acquire appropriate usage norms through instruction.

[flap/experimental group/comparison group/flapping/stress]

I. INTRODUCTION

There is no other phenomenon more widely studied than the flapping of alveolar stops in American English, which is transcribed [ɾ]. Despite the subsequent efforts made by various scholars to account for the flapping, there still seems to remain plenty of room for scrutiny. In particular, the appearance of flapped /t, d/ in phrase or sentence level as in "See you tomorrow" and "Go to school", is a thing to which only scanty attention was

[1] The term "flap" is often used as a synonym for the term "tap", but the two can be distinguished phonetically. A flap involves a rapid movement of the tongue tip from a retracted vertical position to a (more or less) horizontal position, during which the tongue tip brushes the alveolar ridge. A tap involves a rapid backwards and forwards movement of the tongue tip. The sound referred to here is the alveolar tap [ɾ], not the flap [ɽ], and hence "tapping" is the correct term from a phonetic point of view . However, no languages are known to contrast taps and flaps, and the term "flapping" is ingrained in much of the phonological literature,[1] so it is retained here.

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given in the past.

This paper examines flaps occurring in word-level and phrase or sentence level in American English. What is interesting here is that flaps occurring in these two environments differ in the way they are realized. Unlike the flap in the first context, which occur nearly categorically, flap occurs optionally between two unstressed vowels (Kahn 1976, Kreidler 1989). Further, this variation is affected by lexical usage frequency in such a way that /t, d/ in frequently used words are more likely to undergo flapping (Kreidler 1989).

The goal of this paper is to obtain statistic information about word-level flapping and phrase level or sentence level flapping. For this purpose, I will focus on the alveolar stop /t, d/ and examine word level and phrase level flapping occurring in given sentences. Through this examination, I will be able to acquire quantitative information about the occurrence of flapping and the influence of usage frequency on flapping.

With this goal in mind, this study intends to investigate flapping in American English. To this end, this study is organized as follows. In section 2, we will review some of the basic phonetic and phonological properties of flapping in American English. In section 3, I will give two tests and examine them to obtain statistic information about flapping. In section 4, I will present an analysis of word level and phrase level flapping. I will show that the statistics about word level and phrase level flapping can be acquired successfully by instructing explicitly. Finally, in section 5, I will summarize and conclude this paper.

II. THEORETICAL OVERVIEW

1. Definition of flap and its distribution

Flapping could be considered as a kind of lenition to make pronunciation conveniently. It has been regarded as one of the typical lenition processes (Inouye 1995, Kirchner 1998, Lavoie 2000). Firstly, let us see how flapping can be categorized as a process of lenition. Lenition can be defined as the process where strong segments change to weak segments, and ultimately zero. The characteristic of lenition is sensitive to the environment or position in a syllable or a word. Lenition is usually found in weaker position, such as unstressed position, intervocalic position, and syllable-final position (Hooper 1976, Lavoie 2000, Kirchner 1998).

Lenition can be seen in American English, where [t] and [d] soften to a flap [ɾ]. For example, both "rate" and "raid" plus the suffix -er are pronounced same, whereas in most British English dialects there is no such lenition.

Lenition is a kind of sound change that alters consonants, making them weaker in

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some way. The word lenition itself means "softening" or "weakening". (from Latin lenis = weak)

The definition of a flap by Bauer et al. (1980) and Ladefoged (1993) was as follows. Bauer et al. (1980) defines a flap as a voiced stop which is articulated by rapidly flapping the tip/blade of the tongue against the alveolar ridge. Ladefoged (1993) states that in American English the flap realization of [t], which occurs before an unstressed vowel as in 'pretty' or 'better', sounds like a very short [d]. Flaps, which occur as an allophone of /t/ or /d/ mostly in American English, are produced by a rapid movement of the tongue-tip making contact with the alveolar ridge, so that they stop the flow of air through the mouth for a brief period. This short duration is one of the features that distinguish flaps from other sounds.

Intervocalic alveolar-flapping is a phonological process found in many dialects of English, especially North American English and Australian English, by which both prevocalic (preceding a vowel) /t/ and /d/ surface as the alveolar tap [ɾ] after sonorants other than /ŋ/, /m/, and (in some environments) /l/, as shown in (1).

(1) after vowel : butter
after r : barter
after n : internet, winter

The absence or incorrect placement of flapping is considered unnatural or an indicator to Americans of a foreign variety of English. For non-native speakers, flapping is almost certainly acquired unconsciously with a tendency for the overgeneralizaton of this rule in contexts where flapping does not occur for native speakers. Non-natives like Koreans are likely to undergo the absence of flapping.

Flapping is a pervasive feature of North American English. The subjects in the study are college students who are studying English courses as a requirement. Students showed an increase of flapping according to a decrease in formality. They showed a higher rate of flapping than who were not lectured about flapping. These result indicates that exposure and awareness affect the use of flapping. Stylistic variation in flapping is not explicitly taught to non-native English speakers. Thus, in the absence of sufficient exposure to English, EFL and ESL learners can only acquire appropriate usage norms through instruction. Flapping is often considered to be in the teaching realm of advanced learners of English rather than a communicative necessity that needs to be taught in the beginning stage. While deviant stylistic use does not cause miscommunication, it is indicative of the non-nativeness of a speaker or not American-like.

Along with this theoretical background, as the researcher of the current study, I

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conducted a survey to collect information from 103 undergraduates. I, an L2 reading teacher, was motivated by the importance of needs analysis to plan for more effective L2 reading instruction. I was sincerely eager to understand characteristics of my own students according to their developmental stages.

As we have seen above, the influence of stress on flapping seems obvious when flapping occurs within words. However, the role of stress reduces greatly when flapping occurs across-word level. On across-word level, /t/ and /d/ flapping occurs. In addition, sentence boundary or the breath group influences on the application of flapping, as shown in (2).

(2) Steven said [that late applications should be sent to the Dean's office]
→ ...la[ɾ]application...

In relation to flapping across-sentence level, we can find semantic factors influence the application of flapping. Flapping occurs because the two sentences are bound by positive semantic relation. However, flapping is blocked where the two sentences are not connected by positive semantic notion will be explained later.

Flapping is a specific type of lenition, specifically intervocalic weakening. For people with the merger these following utterances sound the same or almost the same.

Flapping[2] does not occur in most dialects when the /t/ or /d/ immediately precedes a stressed vowel, as in "retail", but can flap in this environment when it spans a word boundary, as in get Anne → [gɛɾæn], and when a word boundary is embedded within a word, as in "buttinsky".

In accents characterized by raising, such words as "riding" and "writing", both of which have an alveolar flap, continue to be distinguished by the preceding vowel: though the consonant distinction is neutralized, the underlying voice distinction continues to select the allophone of the /aɪ/ phoneme preceding it. Thus for many North Americans, "riding" is [raɪɾɪŋ] while "writing" is [rəɪɾɪŋ]. Vowel duration may also be different, with a longer vowel before flap realizations of /d/ than before flap realizations of /t/. At

[2] With most (but not all) speakers the merger does not occur when an intervocalic /t/ or /d/ is followed by a syllabic /n/, so "written" and "ridden" remain distinct. A non-negligible number of speakers lack the rule that glottalizes t and d before syllabic n, and therefore flap /t/ and /d/ in this environment. Pairs like "potent / impotent", with the former having a preglottalized unreleased [t]or a glottal stop (but not a flap) and the latter having either an aspirated [t^h]or a flap[ɾ], suggest that the level of stress on the preceding vowel may play a role in the applicability of glottalization and flapping before syllabic [n]. Some speakers in the Pacific Northwest turn /t/ into a flap but not /d/, so "writer" and "rider" remain distinct even though the long [i:] is pronounced the same in both words.

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the phonetic level, the contrast between /t/ and /d/ may be maintained by these non-local cues, though as the cues are quite subtle, they may not be acquired /perceived by others. A merger of /t, d/ can then be said to have occurred.

The flapping rule is dependent on stress and is formalized as follows:
Flapping rule (Kahn, 1976: 58)

(3) /t/ → [ɾ] /[-cons] ___ [+syllabic]
[-stress]

The generalization [-cons] includes / n , r /. The analysis of flapping is based on Kahn's generalizations concerning flapping (Kahn, 1976: 56-61). Flapping has been regarded as one of the typical lenition processes (Inouye 1995, Kirchner 1998, Lavoie 2000). Firstly, let us see how flapping can be categorized as a process of lenition. Lenition can be defined as the process where strong segments change to weak segments, and ultimately zero.

The characteristic of lenition is sensitive to the environment or position in a syllable or a word. Lenition is usually found in weaker position, such as unstressed position, intervocalic position, and syllable-final position (Hooper 1976, Lavoie 2001, Kirchner 1998).

2. Flapping at the word level

The sound t is identical in British and American English when it is initial in a syllable (as in tie, atomic, character, etc.) and when it is followed by another consonant sound (as in cats, atlas, atrocious, etc.). But flapping is a feature that distinguishes British English, in which it is not considered to occur (Gramley & Paxtold, 1992: 339; Stevens, 1972: 76; Trudgill & Hannah, 1994: 41), from most overseas varieties of English, in which it occurs to a variable degree. When it occurs between two vowel sounds there is a noticeable difference which can be illustrated by the following pairs of words (and others) which in British English are distinguished by having t and d sounds respectively:

(4)

Atom	Adam
Bitter	bidder
catty	caddy
coated	coded
conceited	conceded

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latter	ladder
petal	pedal
utter	udder
shutter	shudder
waiter	wader
waiting	wading
writer	rider
written	ridden

If a distinction is made, the difference is not in the medial consonants themselves but in the vowels which precede. Generally this means that the vowel is longer before the tap which represents /d/ and shorter before the tap that stands for /t/.

3. Flapping at the phrase level

Flapping data across-word level are below, which are the experiment results cited in Parker & Walsh(1982).

(5) a. Steven said that late application should be sent to the Dean's office
→...la[ɾ] application...
b. Even if they are late, applications should be sent to the Dean's office.
→...la [ɾ] application...

(6) a. If you like to knit a lot, the store downtown has yarn on sale.
→...kni[ɾ] a lot of ...
b. if you like to knit, a lot of stores downtown have yarn on sale
→...kni[ɾ]a lot of ...

In above sentences, the segmental environments of alveolar stops are the same. The difference is that, the alveolar stops in (5b) and (6b), which are in the final position of a sentence, do not undergo flapping. While those in (5a) and (6a) do. On the basis of the experimental results in these four sentences above, Parker & Walsh (1982) argue that the phonetic effects of Final Intonation Contour preceding the flapping site blocks the flapping in the case of (5b) and (6b).

Specifically, Final Intonation Contour is a phonetic characteristic found in final segments of breath groups, typically a sentence. One of the most significant traits of

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Final Intonation Contour is the lengthening of the final segment within its domain (breath group).

We may indicate this Intonation Contour by numbering the levels.
The Intonation Contours of tone groups are as follows:

(7) a. Steven said that late^{2} applications should be sent to the Dean's^{3} office.^{1} (231).

b. Even^{2} if they are late$^{3\ 2}$, (232).

In addition to the phonetic effects of Final Intonation Contour, flapping at across-word level, especially at sentence level, is influenced by semantic factors. Nespor & Vogel (1986) argue that, even though segmental environment is met, flapping is blocked if a negative semantic relation holds between the two sentences as in (8b). While it occurs when the two sentences are connected by positive semantic notions, such as "and", "therefore", and "because" as shown in (8a).

(8) a. You invited Charlotte. I'll invite Joan. →...Charl[ɾ] I'll...(and)
It's late. I'm leaving.→...la[ɾ] I'm ... (therefore)
Take your coat. It's cold outside. →...coa[ɾ] It's ...(because)
(Nespor & Vogel 1966:241-242)

b. They didn't wait. I'll be right back.→*...wai[ɾ] I'll...
Where's Scott? Open the window.→*...Sco[ɾ] Open...
Don't shout. Is Ed here? →*...shou[ɾ] Is... (Nesper & Vogel1986: 46-48)

Thus far, I have examined native speakers are not taught flapping through instruction. They are exposed to flapping and thus able to capture this feature. However, non -native speakers who are not exposed to an English environment a lot can not acquire this feature without lecturing explicitly. This study was carried out the purpose of examining whether students who are not given grammatical explanation would perform as efficiently as the ones with learning by comparing their pre test and post test scores.

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III. METHODOLOGY

1. Research design

This study used a pretest-posttest comparison group research design. The pretest was used to control covert variables (Kim, 2007) that could be occurred by the initial difference between the experimental group and the comparison group. Given that the pretest controlled covert variables (instruction surroundings and atmosphere), the posttest would clarify the difference in change as the result of the explicit instruction between the groups.

In the present study, the participants were 103 undergraduates who enrolled in a course of reading at a university in Korea. The participants of the experimental group were 50 undergraduates (male: 36, female: 14), while the numbers of the comparison group were 53 freshmen (male: 32, female: 21). They were randomly placed (Yang, 2011) in two different classes and taught by one instructor (the present researcher) with the same material and content. The experimental group students were service majored and the comparison group students were service management majored. The participants' English levels were not taken into account for data analysis because gender and education environment were also not regarded as learner variables in this paper.[3] However, based on the analysis of the pretest study, the difference in the mean scores between the comparison group and the experimental group showed no significant differences. (t=-2.631, p= .010). Therefore, the results confirmed that the two groups were homogeneous and comparable. At the university, the course is a requirement for freshmen. It was opened for the second semester. The course has two hours per week. During the class the main activity was to guide the students to read sentences in English. To increase the participant's interest, I would utilize some other types of activities such as peer checking, group discussion, and the practice of English reading strategies (scanning and skimming). I collected the data from my own classes during the semester.

2. Data collection procedure

During the semester, I collected data from my classes two times: at the beginning (the first week), at the end of the term (the fifteenth week). The same survey with the same 13 questions was used for all the stages to gather information about the participants according to their developmental stages. At the beginning and the end, 103 students

[3] Gender and educational environment may operate as important factors in learning English. These are not dealt with in this paper and will be remained for further study.

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completed the same survey. To motivate my students to participate in the survey, I explained to them the importance of the survey that would generate useful information and guidance for the design of better reading instruction in the future.

For the study, thirteen sentences were chosen by the researcher of the present study. In those sentences, there are flappings over- word level (breath group), or phrase level. To assess the participants' application of flapping, I made 13 test sentences. Following a GoldVarb analysis(i.e. a statistical tool for multivariate analysis in quantitative sociolinguistics), the mean score , t , and p were used .

I made 13 sentences that contain a /t/ or /d/ in the 'vowel(r/n) _____ vowel ' context to acquire statistical information about the quantitative distribution in flapping. To examine how flapping is pronounced, the sentences were further divided into two types depending on word or phrase level.

The test sentences are as follows:

(9) word level
- a. She was writing this morning.
- b. Are you invited?
- c. I will go to a wedding ceremony this Saturday.
- d. An accordion player was performing on the street.
- e. Don't walk under a ladder, you may get hurt.
- f. The carter works very hard.
- g. This is too big. Please show me a medium size.

(10) phrase level
- a. See you tomorrow.
- b. Go to school.
- c. I have to finish this by Wednesday.
- d. I've got it.
- e. Hit and run fast.
- f. Take it off. It's warm.

3. Research procedure

The treatments were provided for the 50-minute sessions during curricular class hours. The participants were asked to take the pretest prior to the treatments, and the post-test right before the final exam. At the beginning of this study, I explained to the target students, as prospective participants, the goal of and the way to participate in this study.

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Each of the participants was required to read the sentences. Formal speech elicitation methods (Lee, 2004: 34) were utilized in the present study. As for the formal speech elicitation tasks, in the sentence list, there are 13 sentences which have a word medial /t/ or /d/. In the sentence list, the word "have to", was included in order to test whether L2 speakers would incorrectly flap the /t/. The reading sentences were designed in order to include as many words which had a word medial /t, d/ as possible. In those sentences, there are 13words which have a word medial /t/ or /d/.

I will provide the result of the analysis of flapping.

IV. RESULT AND DISCUSSION

The statistical results showed that the experimental group statistically outperformed the comparison group on the post-test. Given these observed differences, all the subsequent analysis was based on the gain scores between the pre-test and post-test scores.

The experimental group showed greater improvement than another group. The experimental group achieved higher scores than another group. The data was analyzed quantitatively by examining the frequency rates of the occurrence of word medial /t/ flapping among the subjects. Regarding the results for the phrase or sentence level, as can be seen from Table 3, patterns similar to the one seen in the word level are found. It is clear that flapping as well as other features should be acquired because it gives a speaker not only a native-like quality to their speech but identifies them as a North American English speaker.

1. Pre-test inspection result of study group

TABLE 1

Pre-test (all) analysis result of study group

Area	group	N	Mean	SD	t	p
pre-test(all)	comparison group	53	4.92	1.47	-2.631	.010
	experimental group	50	5.80	1.87		

The scores and the results of the investigation were analyzed using SPSS0.18. The test results of the students assessed at the beginning respectively are shown in Table 1.

Based on analysis of the pre-test of study group, the difference in the mean scores

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between the comparison group and the experimental group revealed no significant differences (t=-2.631, p=.010). Therefore, results in Table 1 confirmed that the two groups were homogeneous and were comparable.

TABLE 2

Pre-test (word-level) analysis result of study group

Area	group	N	Mean	SD	t	p
pre-test (word level)	comparison group	53	1.60	1.15	-2.011	.047
	experimental group	50	2.14	1.54		

Considering that the results of the pre-test (word-level) of study group, there was no significant difference between two groups. (t=-2.011, p=.047). Therefore, the two groups were homogeneous.

TABLE 3

Pre-test (phrase or sentence level) analysis result of study group

Area	group	N	Mean	SD	t	p
pre-test (phrase level)	comparison group	53	3.32	0.75	-2.529	.013
	experimental group	50	3.66	0.59		

As shown in table 3, the mean scores gap of pre-test(phrase level) between comparison and experimental group illustrated that they did not reveal a significant differences. (t= -2.529, p=.013). It means the statistics results strongly verify that those two groups are homogeneous.

2. Post-test results of study group

TABLE 4

Post-test (all) analysis result of study group

Area	group	N	Mean	SD	t	p
post-test(all)	comparison group	53	5.55	1.49	-3.970	.000***
	experimental group	50	6.96	2.06		

***p<.001

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As shown in Table 4, strong statistical significances were found by post-test (all), (t=-3.970, p<.001). The result of the mean score of the experimental group (Mean=6.96) presented higher than the comparison group (Mean=5.55). The mean of the comparison group and the experimental group were 5.55 (SD 1.49) and 6.96 (SD 2.06), respectively, and the difference was statistically significant. (t=-3.970, p<.001).

FIGURE 1

Comparative graph between Pre-test and Post-test of all

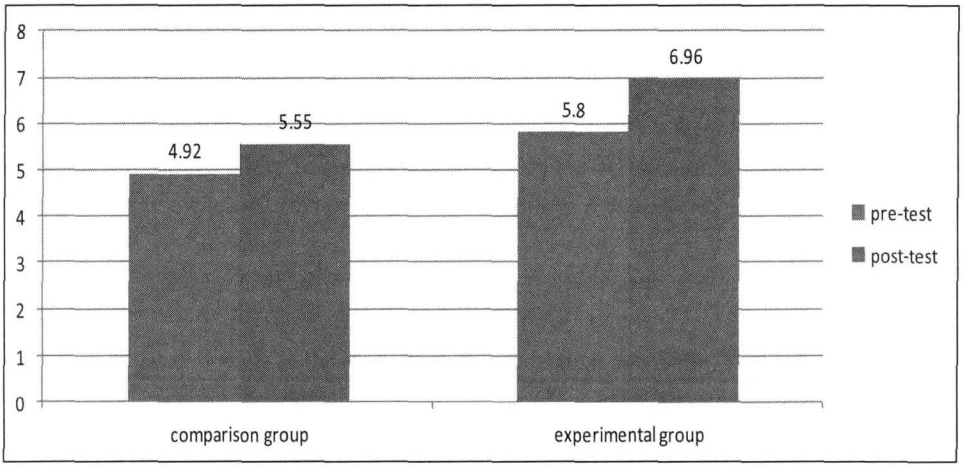


TABLE 5

Post-test (word-level) analysis result of study group

Area	group	N	Mean	SD	t	p
post-test (word level)	comparison group	53	1.72	1.36	-3.824	.000***
	experimental group	50	2.90	1.74		

***p<.001

As shown in Table 5, the results indicated a significant difference. The mean score of the experimental group (M=2.90) presented higher than comparison group (M=1.72). Strong statistical significance were found (t=-3.824, p<.001). The results in this table show that the difference in flapping is significantly related.

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FIGURE 2

Comparative graph between pre-test and post-test (word level)

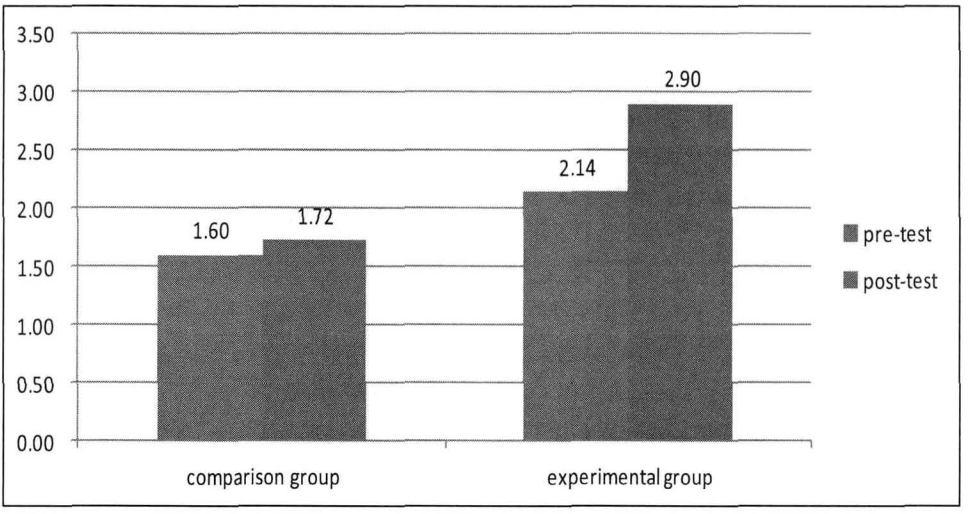


TABLE 6

Post-test (phrase or sentence level) analysis result of study group

Area	group	N	Mean	SD	t	p
post test (phrase level)	comparison group	53	3.83	0.47	-2.202	.030*
	experimental group	50	4.06	0.59		

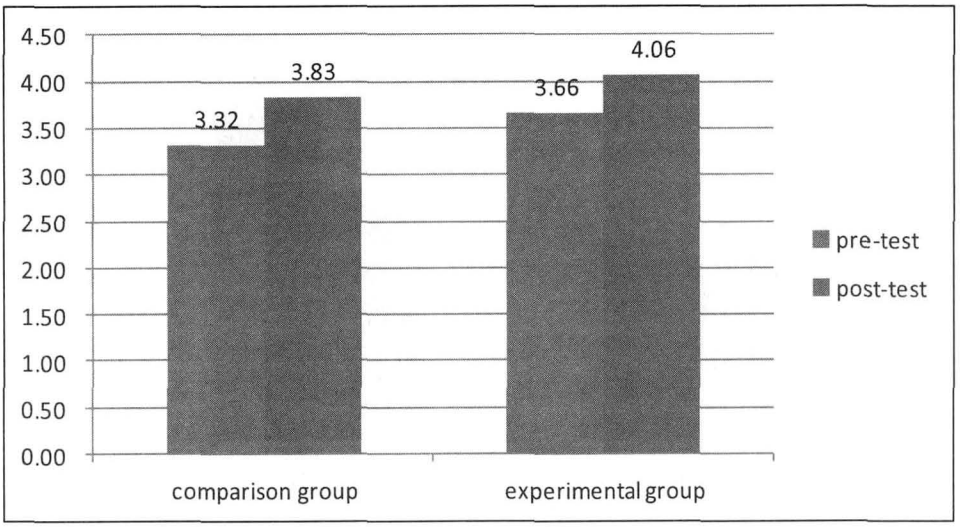
*p<.05

As summarized in table 6, the results indicated a significant difference. The mean score of experimental group (M=4.06) presented higher than comparison group (M=3.83). Strong statistical significance was found (t=-2.202, p<.05). The difference turned out to be statistically significant.

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FIGURE 3

Comparative graph between pre-test and post-test (phrase or sentence level)



I found that the /t, d/ in high frequency words are much more likely to be pronounced as a flap than those in low frequency words as in (9c). I also found that flapping is more likely to take place in frequently used words like Saturday.

V. CONCLUSION

We have examined flaps occurring in word level and phrase or sentence level. Style was examined in the use of word medial /t/ flapping by participants. The formal style elicitation tasks included the reading of word level and phrase level. Learners pronounced words correctly in isolation but mispronounced them in context.

Previous studies of style in second language acquisition where the stylistic shift is "often between a native and nonnative variant rather than two native ones" (Beebe, 1988: 49) accounted for learners pronouncing words correctly in isolation but mispronouncing them in context.

The issue of how to teach stylistic variation warrants further investigation. The fact that stylistic variation exists in such features and that speakers embody this variation has not been a central concern in the teaching of English as a second or foreign language. As flapping is a highly noticeable and definitive characteristic of the variety of North

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American English, non-native speakers must acquire this feature if they choose to speak this certain variety. Flapping, a phonological rule that may be manifested below the level of consciousness, is a feature that cannot be properly acquired in EFL settings without explicit instructions. Native speakers, while not taught flapping through instruction, are exposed to flapping and thus able to capture the subtleties in terms of use vs. misuse. In EFL settings where such exposure is not readily available, instruction can be the solution. Whether explicit rule learning of flapping is effective and how learners can become aware of flapping needs to be examined.

Knowledge of stylistic variation could assist advanced learners of English in stepping over the threshold of non-native proficiency to near-native like proficiency. Style is a very definitive aspect of using a language. Unfortunately, style is often overlooked in EFL and ESL instruction. While perhaps the basic components of style can be acquired implicitly without intention, for the non-native English speaker, style should be taught explicitly to achieve native-like proficiency.

However, the present study has some limitations. The size of the data was not large enough to make any generalization from the study. Further research on a larger pool of data in word level and phrase level and even to expand the study to the sentence level may render more generalized conclusions.

REFERENCES

김성중. (2007). 한국대학생의 영어 의사소통 긴장감 연구. *영어어문교육*.13(4), 211-231.

Bauer, L., Dienhart, J. M., Hartvigson, H.H., & Jakobsen, L.K.. (1980). *American Enlgish Pronunciation*. Copenhagen: Gyldendal.

Beebe, L.M. (1988). Five sociolinguistic approaches to second language acquisition. In L.M. Beebe(Ed.), *Issues in second language acquisition: Multiple perspectives* (pp.41-78). New York: Newbury House Publishers.

Gramley, S. & Paxtold, K.M. (1992). *A Survey of modern English*, London: Routledge.

Hooper, J. (1976). *An Introduction to Natural Generative Phonology*. New York: Academic Press.

Inouye, S. B. (1995). *Trills, Taps and Stops in Contrast and Variation*. Doctoral dissertation, University of California, Los Angeles, [Ann Arbor, UMI, 2002]

Kahn, D. (1976). *Syllable-based generalizations in English phonology*. Bloomington: Indiana University Linguistics Club.

Kirchner, R. (1998). *An Effort-based Approach to Consonantal Lenition*. Doctoral dissertation, University of California, Los Angeles, [New York & London:

교보문고 KYOBO Book Centre

Routledge, 2001].

Kreidler, C.W. (1989). *The pronunciation of English*. Oxford: Blackwell Publishers.

Ladefoged, P. (1993). *A course in phonetics* (3rd ed.). Fort Worth: Harcourt Brace Jovanovich, Inc.

Lavoie, L. M. (2000). *Consonant Strength: Phonological patterns and phonetic manifestation.* Doctoral dissertation, Cornell University, Ithaca. [New York & London:Routledge, 2001] .

Lee, H.K. (2004). Variable Speech Styles in the Production of English Speaking. *English Teaching*. 59(1),

Nespor, M., & Vogel. I. (1986). *Prosodic Phonology*. Dordrecht: Foris.

Parker, Frank, & Walsh, T. (1982). Blocking Alveolar Flapping:A Linguistic Analysis. *Journal of Phonetics* 10:301-324.

Stevens, P. (1972). *British and American English*. London: Collier-Macmillan Publishers.

Trudgill, P., & Hannah, J. (1994). *International English: A guide to the varieties of standard English* (3rd ed.). Great Britain: Edward Arnold.

Yang, Eun-Mi. (2011). Korean College Students English Learning Motivation. *English Language & Literature Teaching* . 17(2). 93-114.

Examples in: English
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Received in October, 2012
Reviewed in November, 2012
Revised version received in December, 2012

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