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Page Number: p. 70-81

Publication date:

2011, Dec. 20

Conference information for conference papers

(name, date and location of the conference) :

Name : International Conference on Computer Assisted Language Learning in 2011,

National Yunlin University of Science and Technology

Date: Nov. 5, 2011,

Location: Yunlin, Taiwan

# **Vowel and Consonant Lessening: A Study of Articulating Reductions and Their Relations to Genders**

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## **ABSTRACT**

Using English as a global communicating tool makes Taiwanese people have to speak in English in diverse international situations. However, consonants and vowels in English are not all effortless for them to articulate. This phonological reduction study explores concepts about phonological (articulating system) approximation. From Taiwanese folks' perspectives, it analyzes phonological type, rate, and their associations with 2 genders. This quantitative research discovers Taiwanese people's vocalization problems and their facilitating solutions by articulating lessening. In other words, this study explains how English emerging as a global language can be adapted and fluently articulated by Taiwanese. It was conducted at National Changhwa University of Education from 2010 fall to 2011 spring, investigating Taiwanese university students' phonological lessening systems. It reveals how they face the phonetics challenges during interactions and give speeches by ways of phonological lessening. Taiwanese folks' lessening patterns belong to simplified pronouncing methods, being evolved through Mandarin, Hakka, and Holo phonetic patterns. This genre of facilitated articulation can be also titled as transformed or approximate methods of articulating formula. In this investigation, 59 students according to their individual articulating experiences provided their perceptions, based on their observations in their own English articulation systems. Statistics graphs analyzed by Statistical Package for the Social Sciences (SPSS) display 4 consonants and 4 vowels that have been reduced and adapted. Moreover, the gender factor was taken into consideration, revealing male's and female's dissimilar difficulties in pronunciation.

More specifically, this empirical study investigated the correlation between elements of gender and phonological reduction. Through statistical analysis, 8 intricate vowels and consonants are compared and contrasted based on Taiwanese students' perfections and difficulty-confessions in articulating them. Simplified phonetic patterns with Taiwanese accents involved into the articulating lessening system in Taiwanese students' English utterances were provided by the instructor. Based on 2 variables of female gender and male gender, the study discovered the lessening sequences in 8 phonetics. The significance of this study is its contribution to

giving confidence to English speakers in Taiwan. Although they are non-native speakers, they still can resolve the pronunciation difficulty and talk with fluency by their created phonological reduction system.

**Keywords:** Vocalization, Approximation, Fossilized, Pidginized, Phonological Lessening

## INTRODUCTION

Despite Taiwanese folks' pronunciation difficulties of some English vowels and consonants might have not been revealed by any linguist so far, smooth and comprehensible articulation systems have actually been formed and applied in Taiwanese English-speaking communities. In fact, our young generations in Taiwan pronounce English via simplified ways of articulating. Hence, English communication can be successfully achieved by Taiwanese university students. Intelligible phonological systems for English oral interaction should be regarded as reasonable and tolerable under globalization trend of the 3<sup>rd</sup> millennium. Although English has become an obligatory subject matter in any primary school for more than 20 years, Taiwanese people's English proficiency and pronunciation accuracy might not yet approach native speakers' phonological effectiveness. To draw alongside the temple of communication as non-native speakers, adult English speakers in Taiwan should acknowledge their weaknesses in non-native like ways of articulation and adopt some phonological reduction system for speedily effective communication with native speakers or foreigners. Serious scholars might point out that full articulations via Standard English pronunciations should be more helpful for mutual understanding or reduced systems might be unclear to non-native listeners; however, developing Americanized or English-like accurate articulating system seems to be Utopian (e.g., McKay, 2002) learning objectives for non-native speakers.

In fact, lessened but intelligible phonological systems can be easily observed from Taiwanese language speakers' speeches, especially from Taiwanese elder scholars' flowing academic speeches. To orally converse with foreigners in a smoothly effective way, they do not slow down their speed of carrying out speeches. All what they can do is to lessen articulating accuracies in some difficult phonetics. This recommended reduction system of pronunciation had long time ago, been created from approximation phonological angle by numerous local Taiwanese scholars. As a matter of fact, some university lectures worldwide could be delivered by phonological lessening systems by foreign professors from Asia, Africa or Europe. As long as the contents are knowledgeable, the non-standard like pronunciations can be formally accepted. Therefore, this study not only promotes the concepts of phonological lessening to students, but also it analytically reveals 8 consonants, assumed to be

intricate.

In fact, this phonological lessening system indicates reducing quantity and decreasing accuracies of phonemes can establish a short cut to English smoothness for non-native speakers, implying that being an international scholar cannot be just a dream. It is emphasized that English articulating can be an adjustable process to manipulate verbalizations. The sound pronounced can involve Taiwanese, Mandarin, Holo, Hakka and even original tribe language accents.

## LITERATURE REVIEW

### **Phonological Accuracy under the Globalization Trend**

McKay (2002) argues teaching English as a universal language requires researchers and educators to thoroughly examine the learners' specific usages of learning English within their particular speech communities. This implies that native-like pronunciation is not an essential goal of English learning, as Englishes in non-native like ways can be formed within diverse international communities based on different needs. From a realistic viewpoint, this study emphasizes while teaching and learning English pronunciation in the 3<sup>rd</sup> millennium, pidginized variables in vowels and consonants can be accepted and integrated into English interactions by non-native speakers. In other words, facilitating English speaking to be more fluent, quick and comprehensible by articulation lessening can be a trend in different non-native speaking countries, although the accents from diverse languages could be very obvious and non-native like. In fact, while Taiwanese people interact in English with non-native speakers or native speakers for doing business, researches, and so on, non-native like English articulating by Taiwanese can be regarded as normal.

To investigate non-native speakers' communication strategies from perspectives of diverse phonological visions in different non-native speaking countries, articulating lessening Englishes have been evolved diversely in areas and multi-races. To achieve the effectiveness in English interaction in our global village, this research emphasizes that a Taiwanese framework of phonological reduction should be thoroughly discovered and analyzed. For example, Çelik (2008) offered a description of Turkish-English Phonology to this field.

Many phonological reduction studies were based on American Pronunciation (AP) and have evolved over time (Hartmann & Fosler-Lussier, 2009). Alptekin's (2002) study indicates the practical aspect of articulating lessening, considering intercultural differences in pronunciations of languages. Likewise, Yasukata (2001) suggests that lack of confusion and transparency could be accepted, since the major rationale in interaction is understanding meaning in the broadest sense, instead of the forms of utterances.

### **Perspectives from Taiwanese**

Although numerous international phonological studies have focused on phonetic reductions used by native English speakers (e.g., Flemmings, 2005), yet few are conducted from Taiwanese folks' aspects. Hence, this study is significant, proposing phonological vowel reductions by 8 sounds, according to Taiwanese folks' dialects and habits of articulations. It mainly contributes to finding out the challenging phonetics and the reduction system's correlations with 2 genders. From future teachers' view, as well as the freshmen at Changhwa University of Education, this study was conducted for a year. For Taiwanese, to achieve higher economic status, political materiality or academic goals, our popularity of 23.2 million should be familiar with this issue of articulating lessening.

Jenkins (2000, 2002) stresses the "lingua franca core", indicating pronunciation can actually function for non-native speakers of English to converse with each other in their own communities. It is implied that different non-native like pronunciation systems can be easily formed and accepted by people in the same language community and even by native-speakers. From a sympathetic viewpoint, Jenkins (2000, 2002) repeatedly argues in the publications that trying to articulate in a native-like way by non-native speakers is not a realistic and attainable goal for grown-up learners in non-native speaking areas. In parallel, the researcher of this paper argues that Taiwanese people should also evolve their own Taiwanese phonological reduction system for more realistic goals of English learning.

### **Lessenings and Pidginizations on Our Globe**

Take Singapore as an example, English has been developed into a particular system of Singlish. It has been pidginized into non-native like but fluent Englishes in Chinese communicates of Singapore. Singapore is not the only case on our globe. Grosjean (1982) has estimated that about half the world's population is bilingual, so in the future a great number of people speaking English will be with their strong accents which influence the "intelligibility" of their speeches. Being familiar with English accompanying with accents has become a world-wide trend. If learners are fluently using the articulating lessening systems, there should be no wonders.

Phoneticians, Smith and Rafiqzad (1979) have defined "intelligibility" to be capacity for understanding a word or words when spoken/read in the context of a sentence being spoken/read at natural speed, implying the existence of a breakdown which makes the interaction stop due to the vagueness caused by obvious phonological errors. Hence, although the reduction is acceptable, it cannot be applied too frequently or too outlandishly. Within reasonable range of reductions, the created

lessening articulations need to be familiarized by community members first. Accordingly they can speak to people outside of the community.

Englises in Hong Kong and Macaw have been developed into fluent phonological reduction systems, with Cantonese/Mandarin accents. The trend of Cantonese/Mandarin English can be explained by Marinova-Todd, Marshall and Snow (2000). They mention that pronunciation is the only component of second/foreign language learning process in which adult learners are highly unlikely to achieve native-like accuracy. No matter how much effort can be placed on it. In parallel, Çelik (2008) also agrees with non-native like articulation systems and conducted a study to categorize the examples occurring in various strategies, creating Turkish-English phonology. It is not only a reduced system, but also a teachable form for Turkish English learners.

The strategies Çelik (2008) applies are: 1. utilizing across major varieties such as Received Pronunciation and General American, 2. collapsing similar sounds based on their perceptions of similarity between English and 3. resorting to the orthographic pronunciation of a written symbol in Turkish, when they have no idea as to the correct pronunciation. In fact, above 3 rules can be applied by all languages worldwide. By adopting similar strategies, non-native like English of Taiwan with Mandarin, Holo, Hakka and aboriginal tribe accents, may also be phonologically reduced and systemized.

### **Phonology Reduction Pattern**

Vocalization accuracy lessening from perspectives of Sociolinguistics and English as an International Language emphasizes numbers and accuracies of Standard English phonemes, including British and American English in general, can be reduced. For non-native speakers' needs of applying English in real communication of international situations, facilitating English can be adapted into their communication strategies. Phonological lessening system includes vowel reduction and consonant reductions, depending on individuals' diverse pronunciation needs and abilities.

### **Free Variations of UK and AP's**

Free variation in linguistics is the phenomenon of 2 or more sounds appearing in the same environment without a change in meaning and without being considered incorrect by native speakers (Wiki, 2011). In other words, if 2 sounds occur in the same setting of a lexical item, they do not create a diverse word form or meaning. They are merely a different articulation of the same word in different places. This can happen in pronunciation between British English (Received Pronunciation/Standard English) and American English. This concept can be applied to create a model of free

variation of Taiwanese phonological reduction systems. Differences in English pronunciation for same words, as well as variations closer to Taiwanese languages can be adopted and recommended to learners.

One way of phonological lessening closer to Standard English must be introduced to learners. Between United Kingdom Pronunciation (UK) and AP, the one closer to Taiwanese folks' habits of articulation needs to be recommended to learners to adapt in to their free variation articulating systems. For example, saying "tomato" as [to'mato], closer to UK, saying "war" as [wo], close to UK, saying "pure" as [pjə] closer to UK, and saying "often" as ['o,fən] closer to AP. In other words, between UK and AP, one closer to Taiwanese language should be adopted.

### **Disintegrating problematical phonemes**

While a learner encountering any tongue-tied phoneme, an approximate sound can be applied to surrogate and preserve a smooth communication. The bilingual phonology in its field of "Collapsing Close Sounds" recommends that tricky and complicated phonetics can be replaced with more trouble-free ones. For examples, [ʒ] can be replaced by [dʒ] or [ʃ].

### **Simplified Vowels**

To keep away from vowel obscurities, generalization strategy by simplifying difficult vowels can be applied. Some interchangeable and inflexible vowels found in Taiwanese adults' speeches can be used to enlighten this vowel reduction system. In other words, among diverse vowel pronunciations of UK and AP, some simpler sounds more frequently applied by Taiwanese should be found and revealed. Appendix B displays the examples of simplified vowels, adopting sounds from either UK or AP. Merely speaking with 5 major vowels spelled by "A, E, I, O, U," all vowels with micro articulating-position differences as well as the more difficult ones can be substituted and articulated. For example, [æ, ʌ, ə] sounds can be replaced by [ɑ] sound. The challenging [ɔ] sound can be alternated into [o] sound. Also, the Americanized [ɪ] sound should be changed into longer [i] sound, that Taiwanese are more familiar with.

### **Consonant Variation**

To cast away limitations from complicated English consonants, non-native Taiwanese articulators are allowed to resort to generalization strategy and replace formal standard phonemes with the sounds closer to their native languages. After confirming individuals' characteristics of difficulties with the phonetic alphabet list, the phonology consultants should discover an easier phoneme in place of the

speaker's as well as the language learners' problematic ones. Consonant limitations could be more multifarious, due to each individual's various types of oral proficiencies and diverse language backgrounds. The variables for replacing phonemes not existing in Taiwanese phonetics can be [v] being replaced by [b], [θ] by [s], [ð] by [z], [r] by [l], and [ʒ] by [s] or [dʒ]. It could be assumed that [r] by [l] might be less frequently applied and the others could more often appear in Taiwanese phonological reduction systems.

## METHODOLOGY

The study quantitatively measured the frequencies of 8 phonetic alphabets (phonetics symbols) being reduced. Based on 2 classes of participants at National Chungwa University of Education, most complicated consonants and vowels were compared, investigated and revealed. At the beginning of the study, the instructor invited the students to discover if they had reduced accuracies of certain phonetics symbols, due to their continuous considerations in English speaking. At the end of the study, the students responded the survey questionnaires in Appendix A. This study mainly focused on gender differences in pronunciation difficulties, which evaluated the sequences of lessened sounds.

### Research Questions

The research questions were investigated based on 8 phonetics symbols, including 4 consonants [ð], [ʃ], [θ], [ʒ], and 4 vowels [æ], [ɜ], [ɛ], [ə]. The participants decided which one might be accuracy-reduced and which phonetics alphabets can stand-in them? The questionnaires in the survey were designed by the researchers based on their Taiwanese backgrounds.

### Participants

The participants were 2 classes of non-English majors in the intermediate and advanced English language level. The placement criteria were based on students' entrance examination scores. The freshmen included 37 intermediate-level and 22 advanced-level students were from Departments of Chinese, Chemistry, and Mathematics. There were 17 females and 42 males. In response to which phonetics alphabets were in their own phonological reduction system, they answered based on their daily-life communication observations. After a simple lecture about the discussing issues at the first week of this research, respondents waited for a year to answer the questions at the end of the course year. The long-term observations by students would enhance the accuracy and reliability of the collected data.



### An Instrument via Survey

A survey with 8 assumed phonetics symbols were provided, but the probable replaced ones were not. In order to achieve the study’s confidentiality and reliability, participants’ names and ID numbers were not requested and consent forms were signed by each. With students’ neutral attitudes, without worrying answers or perceptions might impact their grades, the data collected were more accurate closer to the real situations. Two options of “yes” or “no” were examined for percentile accounting. Furthermore, the surrogated phonemes for problematic ones were analyzed and inspected.

### Results and Discussions

The results of this study reveal that both males and females applied the phonological reduction system in their daily-life English speeches frequently. The mostly reduced consonants are [ð] and [ʒ] for females (47%, 47%) and [θ] for males (65%). From perspectives of vowels, for both males (40%) and females (41%), [æ] is the most difficult vowel to articulate. The second intricate one for females is [ɚ] (35%) and for male [ɜ] (24%). The following table shows the replaced items and the rates of accuracy-reduced symbols. Then, the sequences of articulating lessening show in the graphs below the table.

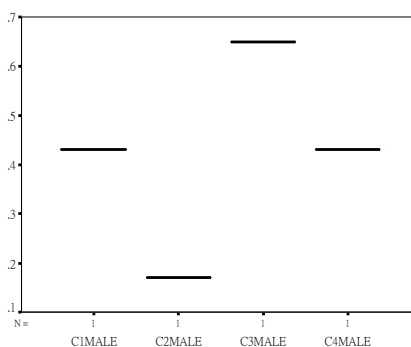
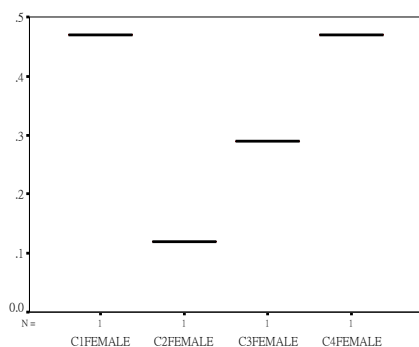
**Table 1. Percentages of females and males’ phonological systems**

Consonants		Vowels	
ð	can be replaced (by s, z, ʃ) 8 (F) 0.47 / 18 (M) 0.43	æ	can be replaced (by ɑ, e, ε, ʌ ) 7 (F) 0.41/ 17 (M) 0.40
ʒ	can be replaced (by s, tʃ) 2(F) 0.12/ 7 (M) 0.17	ɚ	can be replaced (by ə, ɑ, ʌ ) 6 (F) 0.35/ 7 (M) 0.17
θ	can be replaced (by s, z, ð) 5 (F) 0.29/ 11 (M) 0.65	ɜ	can be replaced (by ə, ɚ, ɑ ) 3(F) 0.18/ 10 (M) 0.24
ʒ	can be replaced (by dʒ, tʃ, ʃ) 8 (F) 0.47/ 18 (M) 0.43	ə	can be replaced (by ɑ, ʌ) 2(F) 0.18 / 6 (M) 0.14

**Graph 1. Frequencies of consonant lessening**

Female

Male (Higher Frequency)



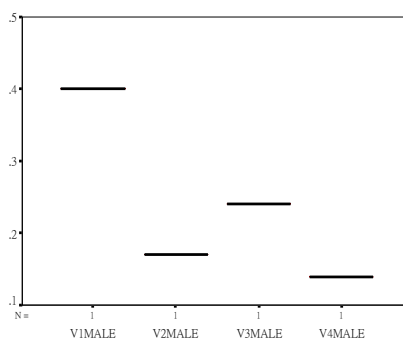
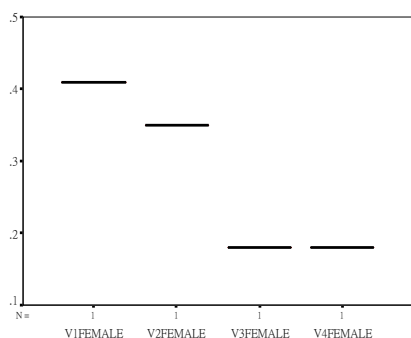
ð    ʃ    θ    ʒ  
1<sup>st</sup>   3<sup>rd</sup>   2<sup>nd</sup>   1<sup>st</sup>

ð    ʃ    θ    ʒ  
2<sup>nd</sup>   3<sup>rd</sup>   1<sup>st</sup>   2<sup>nd</sup>

**Graph 2 Frequencies of vowel lessening**

Female

Male



æ    ø    ɜ    ə  
1<sup>st</sup>   2<sup>nd</sup>   3<sup>rd</sup>   3<sup>rd</sup>

æ    ø    ɜ    ə  
1<sup>st</sup>   3<sup>rd</sup>   2<sup>nd</sup>   4<sup>th</sup>

**CONCLUSION**

To sum up, this paper reveals how the difficult phonemes can be facilitated by Taiwanese. This study via comparing and contrasting phonological systems of UK and AP, some phonemes has been introduced as phonological facilitating examples. It is suggested that English teachers and learners, especially elder adult language learners, need to adopt a closer UK's or AP's system, and transformed them into a simplified pidginized system, to make obvious progresses in oral communication. In addition, Taiwanese phonological lessening system can be observed in the participants' experiences and perceptions of articulating English phonemes. This is in

parallel with a trend, which foreign scholars have been being accepted to give knowledgeable lectures with their non-native like Englishes. Since English communication is commonly accepted in Taiwanese academic seminars, as non-native speakers, we need to examine our own articulating systems and try to achieve an appropriate balance among accuracy, fluency, continuousness, and understandability. This study, therefore, suggests that vocalizing imperfectly with phonological reduction systems of phonetics symbols can be a tolerable and adaptable articulating method for Taiwanese interlocutors who use English to communicate with both their peers and foreigners.

### REFERNCES

- Alptekin, C. (2002). Towards intercultural communicative competence in ELT. *English Language Teaching Journal*, 56(1). 57-64.
- Celik, M. (2008). A Description of Turkish-English Phonology for Teaching English in Turkey. *Journal of Theory and Practice in Education*, 4 (1).
- Crystal, D. (1998). *English as a global language*. Cambridge: Cambridge University Press.
- Flemming, E. (2005). A phonetically-based model of phonological vowel reduction, Master Thesis Paper, MIT. Retrieved on Jan, 28, 2011, from <http://web.mit.edu/~flemming/www/paper/vowelred.pdf>
- Grosjean, F. (1982). *Life with two languages: An introduction to Bilingualism*. Cambridge, MA: Harvard University Press.
- Hartmann, W. & Fosler-Lussier, E. (2009). Investigating phonetic information reduction and lexical confusability, Proceedings of Interspeech, Brighton, UK.
- Jenkins, J. (2000). *The phonology of English as an International language: New models, new norms, new goals*. Oxford: Oxford University Press.
- Jenkins, J. (2002). A sociolinguistic based, empirically researched pronunciation syllabus for English as an international language. *Applied Linguistics*, Vol. 23(1): 83-103.
- Marinova-Todd, S. H., Marshall, D. B. & Snow, C. E. (2000) Three misconceptions about age and L2 learning. *TESOL Quarterly*, 34(1). 10-34.
- McKay, S. L. (2002). *Teaching English as an international language: Rethinking goals and approaches*. Oxford: Oxford University Press.
- Smith, L. E. & Rafiqzad, K. (1979). English for cross-cultural communication: The question of intelligibility. *TESOL Quarterly*, 13, 371-380.
- Wiki-Pedia (2011). Free Variation retried on Oct. 3, 2011 from [http://en.wikipedia.org/wiki/Free\\_variation](http://en.wikipedia.org/wiki/Free_variation)

Yasukata, Y. (2001). World Englishes in 2000 and beyond. *World Englishes*, 20(2): 119-131.

### Appendix A: Survey (Instrument)

Your Gender: Female \_\_\_ Male \_\_\_

Please refer to the following IPA system to see if you replace some English phonemes with others in your English utterances.

1. Consonant: [ð] [ʃ] [θ] [ʒ] Example: [ð] can be replaced by [z].	2. Vowel [æ] [ɜ] [ɜ̃] [ə] Example: [æ] can be replaced by [ɑ]
[ð] can be replaced (by ____,) Yes__ No__ [ʃ] can be replaced (by ____,) Yes__ No__ [θ] can be replaced (by ____,) Yes__ No__ [ʒ] can be replaced (by ____,) Yes__ No__	[æ] can be replaced (by ____,) Yes__ No__ [ɜ] can be replaced (by ____,) Yes__ No__ [ɜ̃] can be replaced (by ____,) Yes__ No__ [ə] can be replaced (by ____,) Yes__ No__

### Appendix B: Vowel diversities

	RP(received Pronunciation /standard English)	NY/NJ, Philadelphia, And the Carolinas	GA (General American )	Canadian	Taiwanese
orange	'ɒrɪndʒ	'ɑrɪndʒ	'ɔrɪndʒ		'ɔrɪndʒ
origin	'ɔrɪndʒɪn	'ɑrɪndʒɪn	'ɔrɪndʒɪn		'ɔrɪndʒɪn
Florida	'flɒrɪdə	'flɑrɪdə	'flɔrɪdə		'flɑrɪdə
horrible	'hɒrɪbəl	'hɑrɪbəl	'hɔrɪbəl		'hɑrɪbəl

quarrel	'kwɔɹəl	'kwɔɹəl	'kwɔɹəl	'kwɔɹəl
warren	'wɔɹən	'wɔɹən	'wɔɹən	'wɔɹən
borrow	'bɔɹəʊ	'bɔɹəʊ	'bɔɹəʊ	'bɔɹəʊ
tomorrow	tə'mɔɹəʊ	tə'mɔɹəʊ	tə'mɔɹəʊ	tə'mɔɹəʊ

Reference Retrieved on Dec. 20, 2011,  
from: [http://en.wikipedia.org/wiki/General\\_American](http://en.wikipedia.org/wiki/General_American)