

**Pidginised Articulations**  
**An Exploration into Taiwanese**  
**Problematic Pronunciations**

by

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ISBN: 978-957-436-4510

Completion Date: April, 20, 2019

**Phonology, Phonetics, Pronunciations, Applied Linguistics,**  
**Teaching English as a Second/Foreign Language**

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**Pidginised Articulations**  
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**Abstract**

Perhaps it is inevitable that non-native speakers' English articulations are displayed with their local accents, which are usually based on their mother tongues or dominant languages. However, fluency in English pronunciation and communication is still achievable by these groups of speakers in outer and expanding circles. In these two circles, English is applied as an official language or a language for education, instead of daily life.

Therefore, the sounds are not as natural or standard. Due to English is a global language, most elite in these two circles need to learn how to communicate fluently and comprehensibly by reducing complications that they naturally encounters due to the reason that they are non-native speakers.

This study introduces how the non-native speakers can talk by reducing their problematical sounds that do not included in their mother tongues, as well as their first languages. It asks: How people around the world can understandably communicate by simplifying sounds? Which phonetics are facilitated and replaced by pidginized sounds? Also, what are the characteristics that Taiwanese students achieve their fluency? That is, which sounds are usually localized by the

non-native speakers in Taiwan?

The strategy is to pidginise articulations by discriminating some challenging phonetics that cannot be found in mother tongues. In truth, numerous Phonology studies such Coarticulatory Reinterpretation of Allophonic Variation by Maekawa (360-374) suggested non-native speakers are able to eliminate or reduce their accent variables in their pronunciations.

In order to upgrade young Taiwanese speakers' English pronunciation to become more fluent, as well as to achieve higher semantic comprehensibility by international listeners, it is important to investigate common pronouncing problems in articulating standard and native-like English. This study points out five major nonconforming non-native types.

This research implies that in this contemporary globalised multi-cultural world, non-native likenesses can be appropriate for adult English speakers.

**Key words:** Pidginised Articulations, Phonetic Discriminations, Reparandi, Interlingua, Neurophysiology

## **1. Introduction: Phonetic discriminations**

Non-native speakers of English, especially speakers from peripheral cultural circles, can realise and articulate English phonetics in varying ways in order to communicate in academic settings. Articulatory plans can be flexible due to a series of individual reasons, such as language differences and pragmatic motivations,

informational quantity measurements, and/or physical structural diversities.

Therefore, ESL speakers might pronounce all vowels as full vowels, rather than employing the stress reduction to /ə/, characteristics of native American English speakers. Thus television may be produced as ['tɛləvɪ,ʒɪn] rather than ['tɛləvɪ,ʒɪn], suggested by Garn-Nunn (1-256) in Calvert's *Descriptive Phonetics*.

Torreira and Ernestus in the article: *Vowel Elision in Casual French* think "The reduced forms typical of casual connected speech such as English gonna, and wanna can be viewed as fossilized versions of extreme gradient reductions in frequent words. Numerous lexicalized reduced forms can be found in other languages as well (e.g. *tuurlijk* for

natuurlijk ‘of course’ in Dutch, pa for para ‘for’ in Spanish)” (51).

Denham and Lobeck in *Linguistics for Everyone* suggest in English, a clitic as a morpheme is grammatically independent but phonologically dependent on another word. They involve some phonological reduction, as the “not” of do not becoming /'ənt/ and the “to” of want to becoming /tə/, and the “have” of could have, would have and should have turns to /ə/, becoming coulda, woulda and shouda. (151) According to Kulikov’s *Voicing Contrast in Consonant Clusters*, speech tempo might also affect the production of voicing.

For example, variation in voicing duration in Russian obstruents in prepositions was found more often in fast speech (423-452). Moreover, in Sweden, stress alteration is also an active phonological processes in North Germanic



language. Riad (139) in *The Phonology of Swedish* mentions, for example, a name, ‘Karl ‘Olof turns into Karl ‘Olof, of which the first name: Karl’s stress as well as the first stress disappears and the second stress on title still exists. In Spain, Catalan has phonologised the difference between stressed and unstressed vowels in a system in which the seven phonemic vowels /u, o, ɔ/, /e, ε, a/ and /i/ reduce to the three vowels [u], [ə] and [i] respectively, in unstressed syllables, which is ever mentioned in *Reconsidering Erosion in Grammaticalization* by Schiering (89).

Spahr in *A Contrastive Hierarchical Account of Positional Neutralization* (551-556) argues for a model of neutralization in which segments in neutralised positions are represented with

non-terminal nodes of the contrastive hierarchy. This means that neutralization is accomplished by deleting all values (positive and negative) of the feature reflecting the contrast which is lost, rather than requiring segments in neutralising positions to have only the positive or negative value of a given feature.

In this way, neutralization is characterized by the under specification of contrastive features rather than a ban on one of the members of an opposition. In *A Contrastive Hierarchical Account of Positional Neutralization*, Spahr suggests: “Neutralized forms contain neither member of the neutralized opposition, but a third archiphonemic segment.

I show that this is possible if we assume that the phonology is able to interpret all nodes of the contrastive hierarchy as licit lexical

representations, so that they are phonemic alongside the terminal modes which reflect "phonemes" in the traditional sense." ...“In Russian, all unstressed positions involve a loss of contrast between /a/ and /o/ but the phonetic realization of the unstressed segments can vary in height from [a] to [ə]. Traditionally, Russian has been described as showing two degrees of vowel reduction, based on the realization of unstressed segments corresponding to underlying /a/ and /o/” (555-6).

Historically, native English speakers in New York vocalize /r/ in coda positions, following the pattern of the prestige dialects in England, suggested in *The Social Stratification of English in New York City* by Lobov. However, over the

past century, the prestigious norm in the United States, based on Midwestern American English, has favored rhoticity in all positions, gradually displacing traditional New York City pronunciations, mentioned by Mather in *The Social Stratification of /r/ in New York City* (338-9). Over the past fifty years, William Labov (1-485), the author of *The Social Stratification of English in New York City*, and other linguists have investigated language change and, in particular, the role of different social factors, including age, social class, and gender, on language change.

The decline of rhoticity in many British accents between the sixteenth and eighteenth centuries suggests that a deletion rule for word final /ɹ/ precipitated a chain of events that led to both intrusive and linking processes, mentioned by Cox (157) in *Hiatus Resolution*

and Linking 'r' in Australian English. Female speakers of New Zealand English used linking 'r' significantly less frequently than males. This is mentioned by Hay and Maclagan in /r/-sandhi in Early 20th Century New Zealand English.

As can be seen, the phonological reparandum (singular: reparandus) as well as alterations emerge based on individuals' needs due to diverse factors. In fact, the phonological reduction is not limited within field of Linguistics, since the term accent reduction is most commonly found in business settings, where individuals or companies offer to help ascend language users reduce or eliminate their foreign accent.

In contrast, accent modification is more commonly used by speech language

pathologist, who often follow a business model, but with a pseudo-medical bent. Above concept has been suggested by Derwing, Frasher, Kang and Thomson (71) in L2 Accent and Ethics: Issue That Merit Attention.

### **1.1 Simplified variations**

This article will discuss the idea that interlocutors consciously or subconsciously avoid significant information abandonment by adopting or creating simplified comprehensible formats.

In truth, the phenomena of phonological reduction not only exist in non-native speakers speaking foreign languages, but also within all languages and dialects themselves. Human beings tend to moderate problematic sounds into naturally pronounceable ones. The brain

and physical structures such as tongue and lips automatically apply and resort to some executable pronunciations.

In the English as a second language of immigrants' field in The United States, the word "*yesterday*" is a good example of an accent reduction, in which native speakers merge the vowels and delete or silence the burst sound, altering into [ 'jε,ʃe] in mid-sentence.

For example, going to [ 'go, ɪŋ, tuw] reducing to gonna [ 'gǎ, nǎ] or even further, as in I'm gonna reducing to [ 'ai, mǎ, ɾǎ], involves the following: (1) the reduction of full [o] to schwa; (2) change of the velar to alveolar nasal; (3) vowel nasalization and (4) flapping, all of which occur in other words as well. Above concept is mentioned by Bybee (350), in *Frequency of*

## Use and the Organization of Language.

In fact, facilitated sounds might spontaneously appear from time to time due to national characteristics of being free and democratic. Historically, in order to distinguish themselves from the counterparts in the United Kingdom (UK) and Europe, American English speakers are less formal and have also incorporated a variety of words and accents from Europe, Africa, Latin America and Asia.

In the 3<sup>rd</sup> millennium, non-native speakers of English frequently use phonetic alternations, usually by ways of mother-tongue fossilisation and/or pidginisation, in order to facilitate international communicative needs. In fact, some Interlingua can naturally be self-monitored and developed, based on balancing characteristics of the first languages and other dominant or official foreign languages.



On the other hand, in a Lingua Franca as well as common English in certain international communities, particular cultural terminologies are usually purely maintained, such as *Tai-chi* in Chinese customs, *Yoga* in Hindi sports, or *Kimchi* in Korean cuisine.

## 1.2 World phonological reductions

From the perspective of Japanese native speakers using Japanese, a significant linguist Maekawa in *Coarticulatory Reinterpretation of Allophonic Variation* (360) ever investigated /z/ some patterns in spontaneous Japanese, reporting that “...in Standard Japanese, the phoneme /z/

is realised variably either as an affricate or a fricative.” In a parallel study, Japanese linguistics: An introduction, Yamaguchi (19), found in a Japanese linguistics textbooks “/z/ can be variably realised and articulated as either [dʒ] or [z], as in sundries [ˈdʒɑ, kɑ] 各樣雜貨 and wind [ˈkɑ, zɛ] 風.”

### 1.2.1. English reduction by Japanese

In fact, if a linguist observes Japanese people’s ways of articulating /z/ while speaking in English, simplified sounds such as the above facilitated examples appear frequently.

Based on the personal experience of one of this study’s authors, Lin, who spent some time in the service of Japanese passengers as a China Airlines flight attendant on Japan routes between Tokyo, Fukoku, Nagoya and Osaka, the <orange> [ˈɔ, rɪndʒ] juice is often

facilitated into ['ɔ, rɪŋʒ]. The reason is the voiced palato-alveolar affricate, also described as voiced domed postalveolar affricate, is rarer in Japanese.

### 1.2.2. Examples of neutralisations

Similarly, <fish> [fɪʃ] can be voiced as ['hɪ,ʃə] フイツシユ, due to the labiodental fricative consonant [f] sound, which is not included in the Katakana カタカナ, a series of symbols for words borrowed from English languages. Although the sound [ʃ] exists in Japanese language, for example, ありがとうございます いました, amid which し is quite close to [ʃ]. Usually, し is lighter than [ʃ].

### 1.2.3. Loan word phonology

A linguist Kawahara in Testing Japanese Loanword Devoicing (1272) discusses the devoicing of obstruents in

the loan word phonology of Japanese. It is known that voiced obstruent geminates [bb, dd, gg] in Japanese loanwords can be devoiced, but exactly when such devoicing occurs remained unclear. For example: voiced obstruent geminates optionally devoice if they co-occur with another voiced obstruent; i.e., when they violate OCP (obligatory contour principle).

beddo-betto-reduction-bed

baggu-bakku-bag

biggu-bikku-big

#### 1.2.4. Reduction in Mandarin

Moreover, while Chinese speaks in Mandarin, their habits can be fossilized and integrate into other languages as accents in

foreign languages. In Mandarin, the first monosyllabic morpheme needs stress and the second one does not. As a result, the second one should apply phonological reduction. Classically, it ends with a weaker tone by neutralizing the first full vowel into shorter vowels like a schwa. For example, 謝謝 ['ʃe,ʃɛ] (ii) 婆婆 ['pwo,pɔ] (iii) 叔叔 ['ʃu,ʃu] (iv) 哥哥 ['kə,kə] (v) 好的 ['hau,də] (vi) 聽著 ['tiə,dʒə] (vii) 好了 ['hau,lə] (viii) 桌子 ['dʒo,zə] (ix) 亮亮地 ['liɑŋ'liɑŋ,dɪ]

### 1.2.5. German reduction

Also, German has lexical stress and has been described as stress-timed, while Mandarin Chinese has lexical tone and has been described as syllable-timed. Chinese learners of German have both a higher

proportion of vocalic intervals and higher standard deviation on some consonantal intervals, resulting from their vowel epenthesis and non-reduction of vowels, and their slow speaking rate, respectively.

Also, Chinese speakers produce a larger pitch range within the vocalic intervals and can hardly vary the intonation patterns to match different sentence types in German to express different intonational meanings. This is suggested by Ding and Hoffmann (221) in *An Investigation of Prosodic Features in the German Speech of Chinese Speakers*

#### 1.2.6. Study motivation for neutralisations

The above diverse characteristic discussions of non-native speakers' usages and foreign speakers' phonetic reduction habits, lead to further discussion about whether the above cases can either be regarded as tolerable

neutralisation types of Interlingua, Lingua Franca, or non-standard languages and Interlanguages.

Linguistics field workers expect the foreign accent to be parallel within regular diverse features. If differences between native and non-native speakers are due to differences in the effects of lexical features between a non-native's L1 and L2, we would expect non-native speakers with the same L1 to behave similarly, and speakers with different L1 to behave differently. In *Word Durations in Non-native English* by Baker (2), this elicits authors' incentive of investigating Taiwanese characteristics of English phonological reduction. The results could be valuable, contributing to identifying non-native likeness in Taiwanese styles.

### **1.3 Neutralisation**

This study investigates how peoples around the world weaken their own intricate English sounds based on their 1<sup>st</sup> languages in order to pidginise the languages, and utilise their own diverse fossilised habits in pursuit of fluent international communication. For reasons of convenience and effectiveness, interlocutors tend to phonate words in ways that deviate from their officially dominated languages or canonical mother tongues. For example, Jongman (9-15) in *Phonological and Phonetic Representations*, mentions that phonological neutralisation involves the elimination of a phonemic distinction in a particular phonological context. People can feel more intimate, while their approachable



ways of sounding are proximate.

Also, the reduction ways within an area should be systematic and similar. Besides Japanese speaking Japanese language, American English speakers often flap intervocalic /t/s while speaking English, such as <pretty> ['pɹɪ,tɪ], <gotta> ['gɑ,tə] to and <cotton> ['kʌ,təŋ], which is located between two vowels.

#### **1.4 Causes of reduction and elimination**

Phonological reduction could be based on mother tongue habits or historical backgrounds. Hence, although accent reduction is the term commonly used to refer to such work with ESL speakers, a better term might be accent expansion. Garn-Nunn in Calvert's

Descriptive Phonetics suggests (1-256) Language change is often demonstrated through the apparent time paradigm where differences determined between the speech patterns of different age groups are said to reflect change in the community.

This is suggested by Bailey (312-332) in Real and Apparent Time. Lower local speech rates can lead to stronger articulatory gestures and reduced articulatory overlap decreasing the probability of reduction. Ernestus in the article: Acoustic Reduction and the Roles of Abstractions and Exemplars in Speech Processing (33) argues this point. Speaking slower carefully is a path to native likeness.

#### 1.4.1 Age

From the view of Neurophysiology, phonemic discriminations are more easily formed by older or more senior speakers.

Phoneme discrimination aging can be associated with increased latencies and decreased amplitudes in the human brain and the attending and unattended processing to contrast phonemic differences, and also creates a large impact on language productions.

Semantic/meaning processes can be altered to leave lexical and pronunciation processes unharmed, and vice versa. Generally, phonological reductions not only appear frequently in elder speakers, but also in native speakers and non-native speakers. Phonological reductions are especially common in children. Williamson in *Phonological Process (1-2)* mentions that young children have insufficient ability to co-ordinate the movement of their vocal apparatus.

Therefore, they simplify the production of complex words.

These simplifications are not random but predictable, and can be described as deletion, metathesis and cluster reduction, and systemic simplifications, such as substitutions and assimilations. In contrast, while phonological reductions occur upon non-native speakers speaking English, the original rational is not because of age differences, or for relaxing in a casual situation as in the above cases of children or native English speakers.

#### 1.4.2 Linguistic accumulation

According to an important Neurophysiological Investigation of Phonological Input by Aerts et al. (253-263) and Speech Perception at the Interface of Neurobiology and Linguistics by Poeppel et al. (1071-1086), phonological stages comprise

detection, identification and discrimination of spoken phonemes, followed by the recognition of spoken word as being part of a person's mental lexicon.

A major question not being answered so far, is how the phonemes and words are represented in the brain. They have been linked to the activation of different long-term phoneme-memory traces, which are based on recognition patterns of phonemic contrast that mature throughout language development and are also influenced by one's native language.

Basically, phonemes are due to the formation of their first language, as well as the degree of difference between the first language and the target language. "When phoneme categories of a non-

native language do not correspond to those of the native language, non-native categories may be inaccurately perceived.” Based on *Phonetic Discrimination and Non-native Spoken-word Recognition* by Weber and Culter (2361) They obviously appear due to articulation differences in two language systems of mother tongues and English.

Non-native speakers’ muscles and habits of utterance have been formed by their mother tongues, leading to their intricacy in second language differences. It is not possible for them to pronounce English as accurately as native-speakers, whose muscles and habits of articulation were formed originally and/or genetically to speak a standard form of English. Based on Faerch and Kasper’s (1-253) theory in their *Strategies in Interlanguage Communication*, the individual can resort to

formal reduction of avoid strategies and reduce phonological and morphological accuracies for fluencies.

This Interlanguage strategy as well as phonological lessening strategy is more frequently applied by non-native speakers due to their need of expressing intended meanings. Under the situation, their articulating habits were not formed in an English way; they imitate the native sound. Therefore, important semantic chunks with meanings in the mind can be expressed with higher possibilities, and without being abandoned.

#### 1.4.3 Casual situation in America and children

Native speakers of all nations also reduce some challenging phonetics in informal situations while speaking their first language. According to Viebahn and

Luce's Phonological Reduction in Spoken Word Recognition (2301), reduced phonological speech happens in casual environments.

Speakers' reduced phonological variants of the intended spoken words occur. For instance, nasal tapping is a common paradigm of an allophonic process in American English. During nasal tapping words, such as "center" in the inner circle can be pronounced as [ 'cɛ̃, nɛ̃ɹ].

## **2 Aims**

In order to develop and enlighten educational programs directed at Taiwan students who are encountering difficulties of coherent phonemes in English accurate patterns, this study was conducted at three universities in Taipei, Taichung and Changhua.



Two hundred and sixty-two participants were investigated for the levels at which they can articulate accurately and continuously in English; moreover, how they can relieve certain intricate words. Meanwhile, it is also important to know to what levels they might need in order to take no notice of the significance of phonemic discrepancies in real situation of oral communication, and pidginise their pronunciations.

This way, they can easier realize the neutralisation and release stress in the nerves and muscles of the brain and aperture and apply semantics accumulations in cognisant systems, while negotiating conflicts between two or amongst more languages.

## 2.1 Permissions of non-native likeness

To inform students reduction articulation is allowable, international English speakers in expanding circles, such as Taiwan or Russia, might not have a history of being English colonials. They can face the similar final devoicing difficulties, for example not being able to pronounce /p/, /t/, /k/ perfectly.

(i)<lollipop> [lɒ'li,pəp]

(ii)<minute> ['mɪ,nɪt]

(iii)<music> ['mju,zɪk]

However, it should still be emphasized that learners try to be more native-like in order to prevent misunderstanding in competitive situations. If they attend events such as scientific conferences or commercial

negotiation/cooperation meetings, closer to native-likeness would be more welcomed after they are trained to practice.

## **2.2 Information providing**

To suggest to language learners to investigate phonological reducing forms, numerous systems of localisations in phonetics reductions were introduced to students. For example, the French can perceive the /r/ sound of English challenging for them to articulate, since the alphabet <r> in French (Français) sounds more similar to /h/ of English phoneme.

In another example, the Japanese make less distinction between /t/ and /r/ sounds. In summary, non-native speakers

tend to carry the intonations, phonological processes and pronunciation rules from their mother tongues into their English speeches. In Chinese history, English in Taiwan has never been an official language, so approximations and imitations, and borrowing from native languages, especially from Mandarin or Hoklo are permissible. In this study, students were asked to consider simplified forms of English integrated by their mother tongues.

### **2.3 Differentiated governmental policies**

Although Taiwanese English is not systemized and characterized maturely like the pidginisations of Singaporeans or Hong Kongese, Taiwanese common localised ways indeed exist for a long time without sufficient literature reports. Because the English

obligatory education from primary school is very late (after 2001), most elders as well as the non-native speaking elders about 40-90 years old tend to speak by abandoning lots of intricate sounds due to the pressure and nervousness of speaking in a foreign language.

Hence, co-existing differences are difficult to be distinguished and reacted by their mouths and brains. In contrast, people of Hong Kong before 1997 had been more native-like, being governed by The United Kingdom after the First Opium War (1839–42) in Qing dynasty for almost a century. The differences between the two languages were earlier harmonised, integrated and fossilised in their speaking habits.

## **2.4 Origins of pidginisations by China accents**

Same language can be spoken with varies accents. For example, in Portuguese in Brazil phonotactics, there are striking varieties, based on Jesus et al. (1-11) in Is the Portuguese version of the passage ‘The North Wind and the Sun’ phonetically balanced?

To introduce the five major intricate articulations of Taiwan folks, the following statements are related to the different dialect pronunciation systems. They represent the Taiwanese folks’ English accents, impacted by: Hoklo/Hokkien of

Quánzhōu/Nánān/Tóngān/Xīnzhāng/Lǎozhān

泉州/南安/同安/新漳/老漳

Hakka of Dàpǔ/Sìxiàn/Shàoān/Hǎilù/Ráopíng

大埔/四線/紹安/海陸/饒平

Mandarin of Běijīng/Xiān/Chéngdū/Yángzhōu

北京/西安/成都/揚州

Based on authors' perceptions in observing local non-native speakers, there are five significant English issues of phonological reductions. The following non-standard variables in articulation were hypothesized. First, Taiwanese non-native speakers are used to the following articulation alterations.

First, they might ignore and drop silent consonants as well as voiceless consonants, like /p/, /t/, /k/ while they are at the end of a lexical item or a sentence.

Secondly, the voiced consonants, like /b/, the voiced bilabial implosive, /ɓ/, the voiced retroflex plosive, /g/, the voiced velar implosive can also be omitted, when appearing at the end of a suffix, a word or a sentence.

In other words, “word-final devoicing” mentioned by Charles-Luce in *Word-final Devoicing in German* (309-324), by Reetz and Jongman in *Phonetics* (1-336) and by Von Rooy et al. (49-66) in *Demystifying Incomplete Neutralization during Final Devoicing* is also a habit used by Taiwanese.

This phenomena are also common in Taiwan. It is often difficult for Taiwanese folks to clearly vocalise the above voiceless consonant sounds, if they are at the ends of words or sentences. Additionally, /m/, the labiodental nasal, and /ŋ/, the velar nasal also can merely be weakly and shortly overheard by



their interactants.

Secondly, International English speakers in expanding circles, such as Taiwan or Russia, might due to not having a history of being English colonials. They can stress-freely forget about the final devoicing difficulties and drop them, for example not pronouncing /p/, /t/, /k/ in the following:

(i)<lollipop> [lɒ 'lɪ,pəp]

(ii)<minute> ['mɪ,nɪt]

(iii)<music> ['mju,zɪk]

However, it still should be encouraged that they try to be more native-like in order to prevent meaning misunderstanding in competitive situations.

If they attend the events of scientific conferences, or commercial/ business negotiation/cooperation meetings, being

closer to native-likeness should be more welcomed.

In order to upgrade Taiwanese-like English to be more Americanised or English-like, the following Taiwan folks' difficulties can be introduced.

Furthermore, understanding these five pidginization factors can contribute to create a systematic taxonomy of Taiwanese phonological resolutions of intricate articulations and contribute to their understanding of linguistics diversities in the vocalic gestures:

1. Consonants being omitted
2. Consonant chain
3. Consonant and vowel continuous connections
4. Clear suffixes <ed> and <es> articulation
5. Word-final devoicing

Above problematic articulations are easily noticed in Taiwan English speakers'

pronunciations. This study suggests that if Taiwanese can face the phonology challenges and make compensations for inaccurate English caused by late English obligatory education, resolving the problems contributes to improving significantly in terms of globalised-likeness and closer to Standard English and native-likeness.

#### 2.4.1 Consonants not being omitted

When the people of Taiwan vocalize <didn't>, <cotton>, <button>, <sudden>, or <couldn't>, the unwanted voiced alveolar implosive /ɗ/ and voiceless retroflex plosive /ʈ/ between two syllables sometimes are not articulated in the Americanised way. Instead of sounding /ɗ/ and /ʈ/, /n/ need to replace /ɗ/ and /ʈ/. In other words, /ɗ/ and /ʈ/ have to be elided.

It is important to see whether above syllabic consonants are usually skipped, sometimes by a nasal sound, without clearly articulating.

In fact, in America, the consonant-omitting patterns are recognised as native-likeness, however, the above style is not the case adopted by native speakers in England.

#### 2.4.2 Consonant chains

When a Taiwanese says <last time>, <next day>, <good day> or <bad day>, it is common to hear them add a word after a word respectively. In fact, in above lexical items, /t/ and /d/ belong to “stop consonants”. In between the words, articulators should pronounce two consecutive consonants by a more obviously stop for just a second. American native speakers do not dully articulate the repeated consonants. When encountering /p/, /t/, /k/, /f/, /θ/, /s/, and /ʃ/ kinds of stop consonants,

articulators should form a transitory stopover, and then, release for the next sound. Sentences in Authentic American Pronunciation provided by Easton (2007) in the following clarify the above regulations.

Stop **p**ushing. (ii) She hit **t**wo balls. (iii) She has a **bl**ack **c**at. (iv) They had a **t**ough **f**ight. (v) I bought **bo**th **th**ings. (vi) I miss **S**ue. (vii) I **w**ish **s**he were here.

#### 2.4.3 Consonant and vowel continuous links

Elder Taiwanese without the experience of English obligatory education from primary schools frequently commit another link connection localisation. They do not connect a suffix consonant with a starting vowel, voicing them out more continuously.

For example, when saying <Take it>, voiceless velar plosive /k/ and the short vowel, /i/ might not be integratively connected by Taiwanese. Instead, they tend to separately say <Take> and <t>, with a stop in between. It is significant to notice consonants in the end of those words connected with vowels in prefix words. Continuously and unsurprisingly, to combine and connect them is a must.

#### 2.4.4 Grammatical suffix problems

In English grammatical rules about past tenses, verb suffix <-d/-ed> and plural noun suffix <s/es> must be followed; for example, <finished> or <roses>. However, in the informal dialogue format of Taiwanese, they sometimes forget to neatly vocalise the suffix changes /ɪd/, and /ɪz/. This research argues that the inter-language diversities balanced and neutralised by English and Taiwanese

grammars and pronunciations need to be paid adequate attention in order to intellectually and affectively display the grammatical details in English.

Nevertheless, the question is how can these grammatical detail sounds be established? This study suggests that by stressing and lengthening the previous vowel a bit longer, then /ɪt̪/, /ɪd̪/, or /ɪz̪/ sounds can be distinctly heard.

#### 2.4.5 Word final devoicing

From perspectives of native speakers of Hoklo (Hokkien), Manchu (Mandarin), Hakka, and aboriginal languages, this study reveals that Taiwanese languages rarely have lexical items finalised by a voiceless consonant. It is hard to find voiceless consonants amid are without vowels after them.

Following the prolong pronunciation fossilized habits; they unconsciously drop the final consonants in English. By imitating mother tongues to articulate English, conformist elder Taiwanese folks without being diagnosed can exaggerate the Taiwanese dialect characters while speaking English by effortlessly omitting the final voiceless consonants. Thus, pidginised Taiwanese style would be developed and created in a non-standard fashion with conjoint accent characteristics.

In truth, word-final devoicing has been thoroughly investigated in a great deal of languages, including Piroth and Janker's (91-109) studies, titled: *Speaker-dependent Differences in Voicing and Devoicing of German Obstruents, for German.*

Similar ones can be also found in



Incomplete Neutralization and Other Sub-phonemic Durational Differences in Production and Perception by Warner *et al.* (251-276) for Dutch. As a matter of fact, final devoicing can be called “Neutralisation”, according to Dmitrieva *et al.* (483) in Phonological Neutralization by Native and Non-native Speakers. It says “...the elimination of phonological contrast in certain phonetic environments.” In this case, neutralisation turns to be final devoicing, creating a merger of voiced and voiceless obstruent into voiceless obstruent in word-final position as well as making the voiceless consonant disappear amidst sentences.

### **3 Methodology**

This quantitative study investigated the above five intricate physiognomies of English phonetics, conducted at educational and medical universities, where participants were invited to sign consent forms and perceive their articulating habits over five weeks of training and practicing.

The above five points related to inaccuracies from English aspect were explained in the very beginning, and the participants later reflected on their individual patterns impacted by their mother tongues, the Taiwanese dialects and the official language Mandarin, and responded to the survey questionnaires, indicating what articulating problems they could have ever encountered.

Based on in-class oral assignments in conversational discussion activities and the instructors' presentations during training weeks, they observed their own articulating.

After being diagnosed by the instructors and practicing in groups and pairs the assumed items in diverse conversation activities, the medical majors and teacher-preparation university students can self-examine and perceive their diverse-levels of pronunciation challenges associated with the above five articulating features. After introspection, they filled in their reflections toward the discussed issues on survey sheets using twenty minutes, stored in the authors' office.

### **3.1 Research questions**

What is the frequency sequence of the above five pidginizations that Taiwanese university students perceive in their English pronunciations? Amongst five challenges to pronunciation, which one is the most bewildering? To what levels did the participants have obstacles in pronouncing them?

### **3.2 Research settings by 262 Taiwanese non-English majors' perspectives**

This semester-long empirical study was conducted in three cities, including Changhua, Taichung and Taipei. They were students in a Teacher-Preparation college, thirty-nine

majoring in Information Management, forty-three majoring in Business Administration, totaling eighty-two in National Changhua University of Education (NCUE).

Moreover, the study included participants from two Medical universities of therapeutic relative majors, one hundred and sixteen in three China Medical University (CMU) classes of freshman English and advanced writing, sixty-four in two Taipei Medical University (TMU) conversation classes, one hundred and eighty in total.

They cooperated with the three researchers, two of whom are involved in this research in general English courses for Non-English majors. In the seven classes with two hundreds and sixty-two

participants in this study, 49% (n=129) claimed their mother tongue is Mandarin, seventy-nine students' Hoklo/ Hokkien (30%), forty-two students Hakka (16%), and the remaining five percent were thirteen overseas Chinese whose first languages are Cantonese, Malay, Korean, French and tribal languages.

The subjects' physical residency has also been noted. For TMU, in two classes of conversation, the thirty-five students were from northern parts of Taiwan, such as Taipei, Taoyuan, and Hsinchu, thirteen students were from middle part of Taiwan, including Miaoli, Taichung, Changhua and Yunlin, and nine students were from southern Taiwan, including Chiayi, Tainan and Kaohsiung and the remaining four students were from the eastern parts of Taiwan.

There were also an overseas Chinese from Haiti, one from Malaysia and one from Macau. In addition, in the two classes at NCUE, twenty-one students were from northern Taiwan, forty-five from middle part, eight from southern parts and two from eastern parts. Furthermore, there are six overseas students from Burma (n=1), Macau (n=3), and Malaysia (n=2).

In CMU, amongst one hundred and sixteen students, thirty students were from the northern parts, forty-five students from the middle parts, thirty students from the southern parts, and five students from eastern parts. Also, six overseas students were from Hong Kong (n=2), Korea (n=1), Macau (n=1), Malaysia (n=1), and Singapore (n=1).

### **3.3 Data collection, intra-judge reliability and analyses**

At the end of the fifth learning week, two hundreds and sixty-two students were surveyed with yes/no questions, asking whether they perceived the challenges caused by articulating habits from mother tongues that might need more practice in order to make progress to be more native-English-like. This study has applied statistical XY in Word by Microsoft ware line figure to display the similarity and differences. Also, it uses another pentagon figure to show an overview of sequences in five problems perceived.

In order to establish intra-judge reliability, the student subjects were required to discuss with their teachers and peers, and then compare those examples with the standard pronunciation



by native speakers in textbooks and mass media. The variety of media used to verify standard pronunciation included the BBC, the textbook CD containing recordings by native speakers, and Shakespeare films and American TV shows displaying the interaction between doctor, nurses, medical staff, and patients.

The comparison with the standard pronunciation of native speakers in media will increase the intra-judge reliability. Students are also able to confirm by themselves while doing follow-up practice. The lexical application comes from the above materials as well as the handouts distributed to them.

## 4 Results

### 4.1 High frequencies in the assumed articulation items

Based on plausible phonetic challenges of

- (1) Consonants being omitted,
- (2) Consonant chains,
- (3) Consonants and vowel continuous connections,
- (4) Grammatical suffixes <ed> and <es> articulations, and
- (5) Word-final devoicing,

the reductions were perceived frequently.  
The following results were based on the two

groups of teacher-preparation and medical majors, who answered the survey questionnaires.

## **4.2 Teacher preparation school**

Amongst the NCUE thirty-nine students of Information Management Majors, twenty-four, eight, seventeen, twenty-three, and twenty-two students recognised the above five difficulties, respectively. In forty-three students of Business Administration Majors, twenty-two, seven, ten, twelve, and sixteen students perceived them, respectively. In brief, these two classes of teacher-preparation students perceived the (1) Consonant not being omitted (62%, 51%) and (5) Word final devoicing (56%, 37%)

as most likely to happen. <Figure 1> displays the challenging sequences.

Comparatively, the Taiwanese speakers in the teacher preparation school recognised more phonetic discriminations in articulating voiceless and grammatical suffix insufficiently consonants strong, being a significant accustom to discriminate and abandon the final consonant sounds.

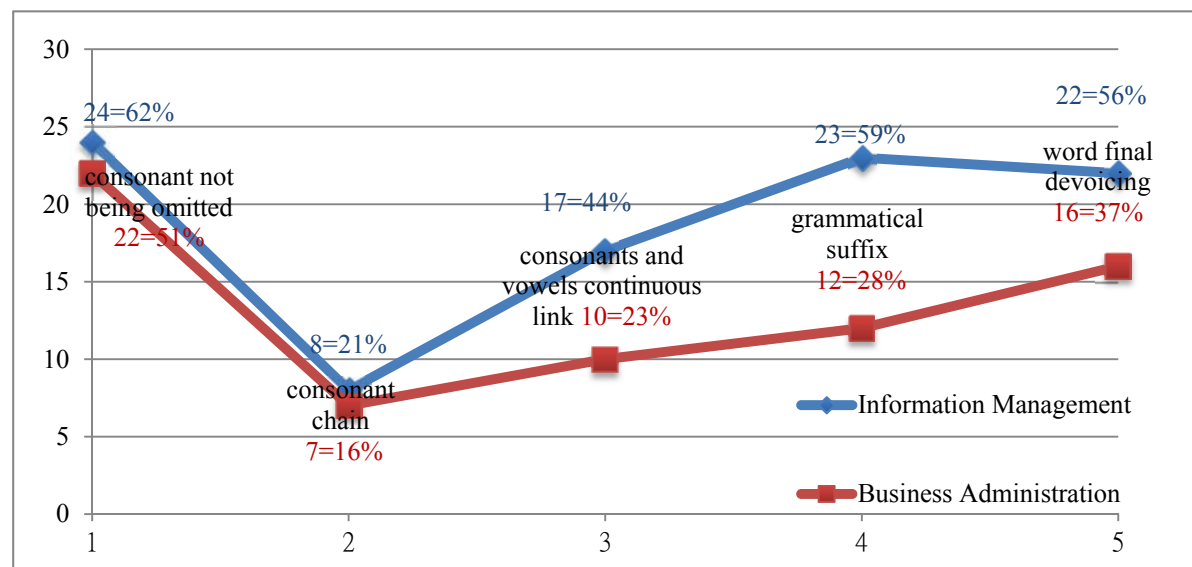
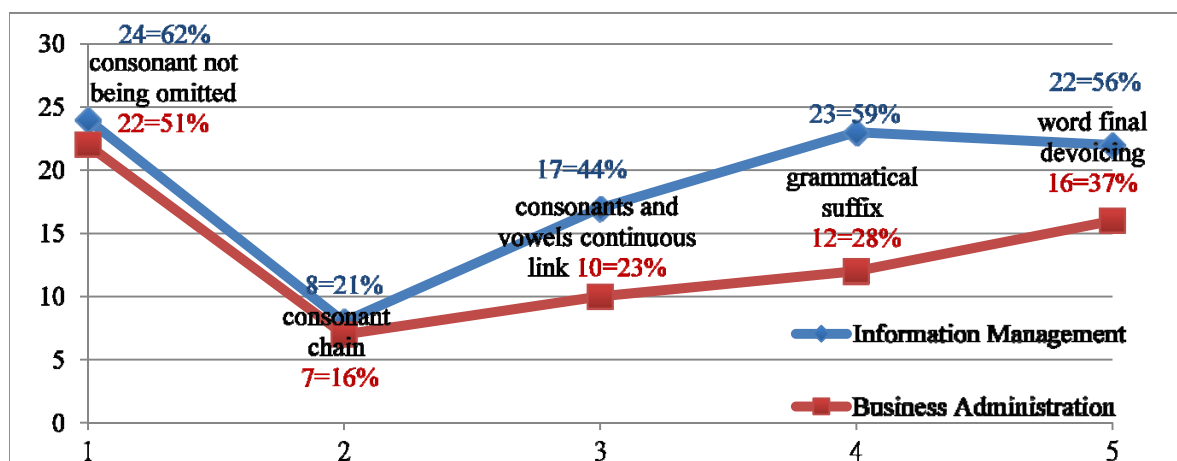


Figure 1 Normal college (n=82) (Average: 56%/18%/33%/43%/46%)



**Figure 1** Teacher preparation school (n=82) (56%/18%/33%/43%/46%)

### 4.3 Medical schools

<Figure 2> by the survey investigation results collected and measured in two medical universities, sixty-four TMU conversation courses, students recognised that eleven, eighteen,

twenty, twenty-four, and twelve students acknowledged the five problems and one hindered and sixteen CMU students in three classes, thirty-three, twenty-one, thirty, thirty-four, and thirty-four students mentioned the five challenges, respectively.

In common, the 4<sup>th</sup> grammatical suffix problems are mostly attentive neutralisations in four classes at three schools ( $23+12+34+24/262=35\%$ ). The averages for the rest four ones are: 34% (1<sup>st</sup>), 21% (2<sup>nd</sup>), 29% (3<sup>rd</sup>) and 32% (5<sup>th</sup>). From the perspective of CMU and NCUE, the 1<sup>st</sup> consonant slip (40%) tend to be generally admitted with the highest frequencies ( $24+22+33=79/198=40\%$ ) amongst the five. Moreover, the other averages for the four reductions in the two schools are 18% (2<sup>nd</sup>), 29% (3<sup>rd</sup>), 35% (4<sup>th</sup>), 36% (5<sup>th</sup>), respectively. The Figure 2 displays the above

interpretations.

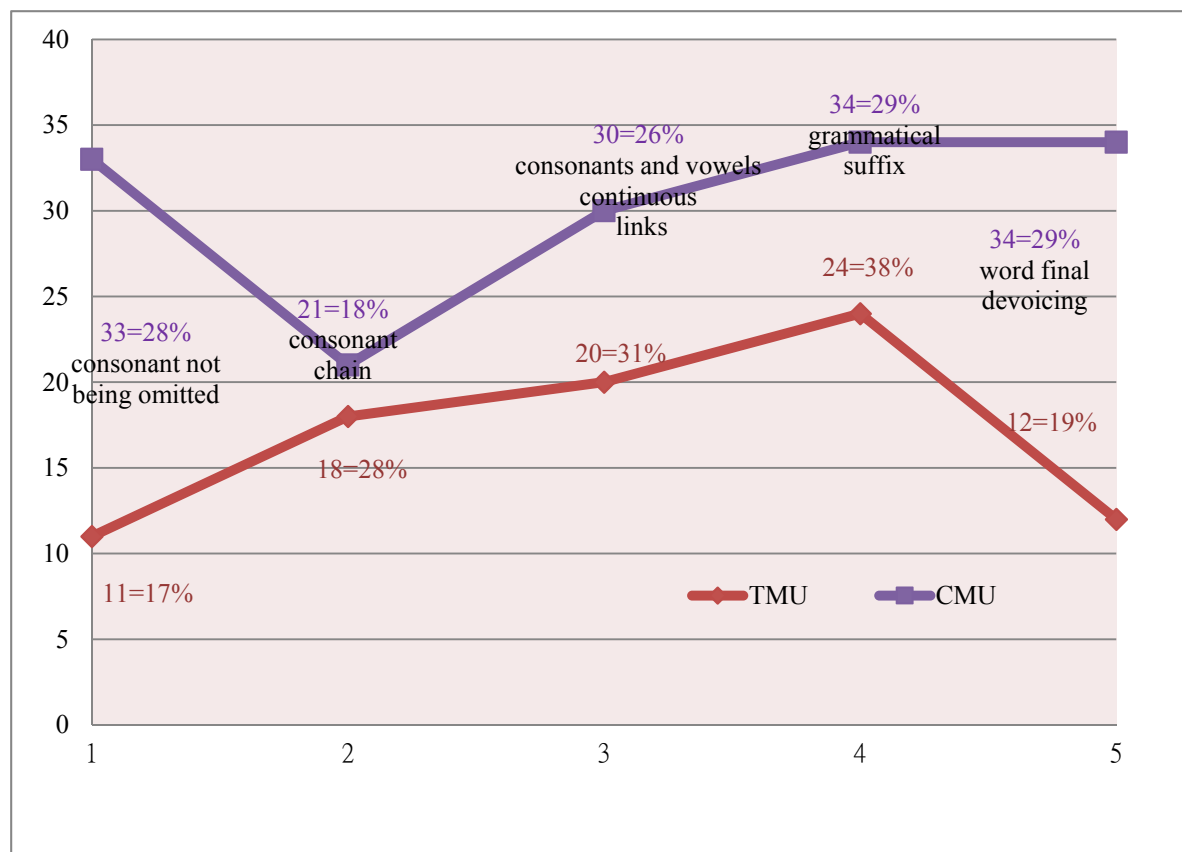


Figure 2 Medical school students (n=180) (Average: 24%/22%/28%/32%/26%)

#### 4.4 Different factors influencing the inter-reliability

<Based on Figure 1 and Figure 2>, we can see that teachers are more willing to admit to errors (113%: 45%

in the consonant not being omitted hypothesis, 87%: 67% in the grammatical suffix hypothesis & 93%: 48% in the word final devoicing hypothesis) and then correct their reductions. This might be due to the fact they will need to have the skills of pronouncing and self-inspection for upgrading in the future to teach to their students.

Based on the facts that students studying to be teachers, should be more willing to admit errors for improving and admit the language native-likeness. This seems true regardless of their proposed teaching subject is not English and differentiated English proficiency levels, there might be a difference in answering behaviors, decisions and results from the other field workers.

Nevertheless, the medical students, on the other hand, might be less willing to admit errors



in language and might therefore be less willing to correct reduction in order to become more native-like in the speaking ability. It is possible hospital field workers need to be more serious and cannot easily take any responsibility by admitting errors, due to the serious relations between doctors, nurses and patients. Hence, the different results can possibly be explained by these factors, such as the generous personality of teachers' and conservative personality of medical workers' differences. The assorted individual characteristic types of students would apply to enter diverse professional universities.

## **4.5 General evaluations**

All in all, 90, 54, 77, 93, and 84 students perceived their five non-native like pronunciations were impacted by their first languages, giving them numerous articulation areas that they need to pay more attentions in the future. In other words, the five specific phonetic discriminations evoked their awareness in standard-like English needs.

The average distributions at three schools of Taiwan universities, indicating these five problems are as the radar pentagon Figure C. It shows that Taiwanese students tend to have more problems in the Americanised consonant omitting (1<sup>st</sup>,  $90/262=34\%$ ) and (4<sup>th</sup>,  $93/262=35\%$ ). From Americanism and Briticism perspective, the Taiwanese phonetic discrimination could be the 4<sup>th</sup> one, grammatical suffix ignorance, due to the fact they do not omit the syllabic consonants.

The reasons for the above problems could belong to three reasons Lacy (2010) mentions: (a) pressure to preserve marked sounds (b) pressure to turn marked sounds into reduction, and (c) a mechanism allowing the distinction between marked and unmarked sounds to be collapsed. (Lacy 2010) In Chinese society, the reduction and suffix collapsed are admissible and noticeable.

Although, English is an outer-circle official language, in Hong Kong and Singapore, the common communicative tool is spoken with Canton and Hokkien accents. The “markedness reductions” (Lacy 2010) related to the grammatical competence actually is also a common characteristic in the pidginization of Canteens’ English and Singlish.

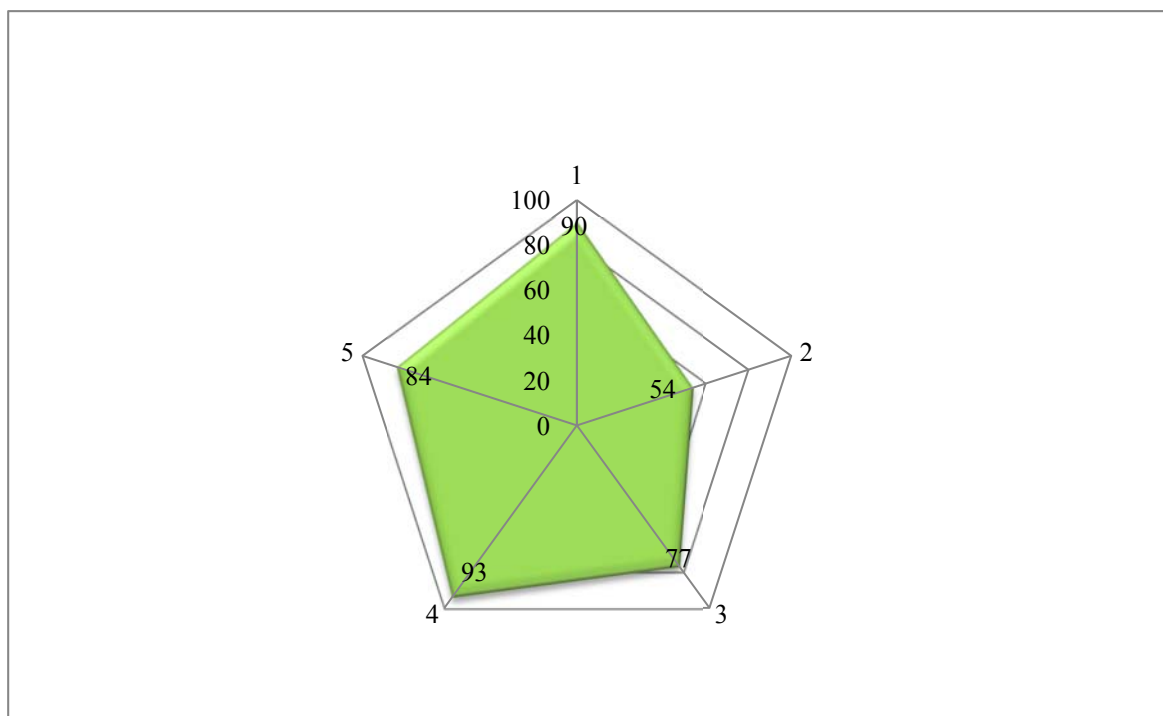


Figure 3 Distribution of five Localised Pronunciations in Taiwan Universities N=262

## 5 Discussion

<Based on Figure 3>, in sum, one of the most conjoint problems of Taiwanese intricate articulations is the 4<sup>th</sup> one, the grammatical suffix dropping. Ninety three students out of 262 students (35%) admitted to these five intricate phonetic rules.

This is not only due to the grammatical

structure differences between English and Taiwanese, but also the intricacy in more multifarious articulation alternations in the English grammar suffix rules.

## 5.1 Suffix deletion

Usually after a voiced consonant, the suffix <-ed> or <-es> should be pronounced by adding voice, but after the voiceless consonant, the suffix <-ed> or <-es> adding needs to be parallel voiceless. Moreover, in the multifaceted plural noun rules, after <-ch>, <-sh>, <-s>, <-x>, or <-z> the <-s> needs to alter into <-es> <box, boxes; bus, buses; prize, prizes>, and nouns that end in a consonant and <-y>, the <-ys> needs to be altered into <-ies>.

For example, <baby, babies;

country, countries; spy, spies>. If the nouns that end in <-f> or <-fe>, <-f> or <-fe>, they become <-ves>. For instance, <elf, elves; loaf, loaves; thief, thieves>.

In Taiwanese articulations, there is none word ends by a voiceless consonant. Nor is there such a detailed suffix rule in Taiwanese plural nouns or verbs.

Therefore, the grammatical regulations and the altered sound changes in diverse suffixes in English cause them to feel troubled, being significantly different from the speaking habits they established. Unsurprisingly, they are not able to make standard and detailed reflections based on English suffix rules in speaking if they are not trained. It may take another decade in their 20s~30s to establish and fossilise the complicated English grammatical regulations in mind and mouth.

## **5.2 Students in Taichung and Taipei as an international city**

Additionally, the general pidginisations in two medical schools turned out to have lower average percentages of 26% (28%, 18%, 26%, 29%, 29%) and 27% (17%, 28%, 31%, 38%, 19%), respectively. The average percentile turned out to be significantly lower than the teacher-preparation school, 48% in Information Management Department, and 31% in Business Management Department.

Especially for medical students in Taipei, in the 5<sup>th</sup> consonant omitting, it is admittedly a demanding phonetic task in the three upper-levels of middle Taiwan

schools ( $22+16+34/39+43+116=36\%$ ), but they have not singled it out as an intricacy ( $12/64=19\%$ ).

All in all, the results show the medical students in big cities, have fewer problems than the teacher-preparation students in the smaller city, Changhua. The reasons could be the potential teachers tend to have stronger willingness in confessing the phenomena of pidginisation and try to find more humanized methods or to upgrade to be more standard. Moreover, students in the larger cities of Taichung and Taipei, as international cities, might have more access of international contacts that guide students' articulation habits to be more accurate. In fact, it is easier to find more native speakers in Taichung and Taipei.

Additionally, cultural resources of English learning materials and language institutes are



adequate in the two cities. Above reasons can explain why they are more confident to build their standard articulations.

### **5.3 Students of native speaker teachers vs. students of non-native speaker teachers**

Another future investigation focus can be exploring the different results of teaching and learning between native and non-native speaker teachers. The assumption that students immerse in the atmosphere the native speaker teachers created might be more effective and effectively improve in native-like standard pronunciations.

Price (57-60) in *Review of Teaching and Researching English Accents in Native and Non-native Speakers*, also

suggests English teachers can compare English accents in native and non-native speakers', while teaching pronunciations.

The level of effectiveness differences and the different phonetic items can be found by the T-test, and an open ended question, such as "Which phonetic can (cannot) you learn and articulate in a standard way from this teacher?" The results can provide to language centre department administrator while making decision of distributing different courses to local or foreign teachers.

#### **5.4 Further Phonetic investigation**

From a deeper investigation of the data collected within five weeks, some of the results remained to be problematic and need to be triangulated. Following two facets can be taken

into considerations. First, the measuring equipment of this research is only students' own perceptions and reflections, instead of through scientific phonological instruments or acoustic files showing spectrogram and waveform illustrating reduction articulation intricate pronunciations.

Second, the students in bigger cities receive more English acquisition environment, stimulating them to be more English-like, interculturalised and causally Americanised. Therefore, they can accurately pronounce the final voiceless consonants (The 5<sup>th</sup>) and omit the unnecessary consonants (The 1<sup>st</sup>) easier and more nature in the post-contemporary internationalized and globalised environment.

In regard to the significant difference in the first pidginisation, although it in average is an important issue ( $90/262=34\%$ ), the TMU students (17%) in Taipei did not confess to have the significantly same perceptions as the other three classes (62%, 51%, 28%). Why did the TMU students tend not to omit the middle consonant like American English speakers is an interesting question to further investigate. The reason could be that the TMU instructor is a graduate from a British university and did not have sufficient motivation to emphasise the differentiated native-likeness in the conversation class.

In fact, the middle consonant elimination belongs to Americanised English instead of British English, so this actually can be excluded from the pidginisation classification. In former British colonies such as Canada or Australia,

for example, the word, <often> is still pronounced as [ˈɔf, tən] instead of [ˈɔf, ən]. Similarly, the “cotton” remains to be [ˈkɑ, tən] instead of [ˈkɑ, ən]. In contrast, the instructor of the other two schools had stayed in the United States for seven years, naturally leading students’ pronunciation to be Americanised.

Accordingly, this research points out that the teachers’ scholarship background and implications in phonetic training procedures can greatly impact the students’ attitudes in their pronunciation evolutions.

To reconfirm the above points, further studies focusing on diverse characteristics in differentiated backgrounds are recommended. The parameters of school locations, teachers’ backgrounds, and students’ majors should

be taken into serious consideration when analysing the cases. Also as mentioned above, in order to raise the data reliability for higher accuracy, the corporal measuring instruments for collecting the recorded acoustic data should be supported by developing a certain fund that can be applied to purchase the equipment for casting away subjective reflections from students' own perceptions or misleading by the teachers' survey questionnaires distributed to them.

For avoiding research bias from the unguaranteed results analysed, as well as from narrower perspectives of students their own perceptions, the schools should find the measurement instruments that can generate the data more accurately closer to the facts.

Moreover, there are more phonetic discrimination genres which should be

included in this study, increasing the precision and study value by sufficient pidginisation items. They can be collected by a qualitative study with open-ended questions to investigate the complexities existing in the issue. For example, what phonetic localization have you perceived in your English articulation? What might be the causes?

How will you develop your pronunciation? Will you find native-speaker consultants to develop it more native-like?

Another future direction is to find out the sub-classifications and micro-differences of the five mentioned classifications, and relate them to some other researches. For example, there are historical and social concepts that

influence language. According to Gordon et al. in *New Zealand English* (25), New Zealand English and Australian English have a similar historical relationship and background. Based on that idea we can do a further study about the historical, social, and geographical, etc., relationships amongst four Taiwanese language groups, including, Hokklo, Hakka, Mandarin and the thirteen aboriginal tribe languages. It is hypothesized that the Hakka and Hokklo could articulate using more similar methods, due to the locations and social factors of the similar Han people.

Mandarin originated from the Northeast of China is closer to Korean which became a standard, official language rather recently during the Qing Dynasty. The aboriginal tribe languages (Austronesian languages) can be classified to languages, impacted by the



Hesperonesian.

Diverse characteristics do exist in different genders. In Asian languages, for example, “the voice onset time of the aspirated stops in Korean was longer for the males than for the females.” In *Effects of Speaker Gender on Voice onset Time in Korean Stops*, Oh (64) argues this point. Besides the gender, historical and cultural background group, the age group, and the language accentual context variables, what are other reasons causing their intricate pronunciation can be further explored. Perhaps physical and neuropsychological scales could be applied to examine the significant differences in all groups.

Medical images of vocalic gestures and brain activity differences would

clearly show their differences, then the reasons why the different difficulties occurred can be explored ameliorate and relieve. The factors of testing can be speakers' first language, location and also their teeth/bone/tongue shapes and race differences. Anthropology could be involved into the study of this field.

## **6 Conclusions**

Lexical variations can respond to phonological constraints, which is suggested by Linzen et al. (453-515), in *Lexical and Phonological Variation in Russian Prepositions*. While lexical accumulations are not sufficient, phonological reduction is an appropriate technique to attain the semantic goals.

The above-mentioned five types of phonetics problems should be considered noteworthy not only for Taiwanese people, but also for all the people in the English outer circle

and expanding circle, such as Indonesia, Thailand, Vietnam, Korea or Japan. By paying sufficient attention to the above titled pidginised English articulations in this research, Taiwanese can find approaches to pronounce more fluently and comprehensibly for culturally diplomatic or economic reasons. For international communication needs, understandable articulations and native-like oriented interactions can be anticipated and achieved.

Moreover, the allowable non-native like pidginisation phenomena under the globalisation trend should also be reported to fill exist literature gaps and design appropriate pedagogies.

The results indicating at least the above four (2<sup>nd</sup>~5<sup>th</sup>) Taiwanese

pidginisation characteristics evolved under the globalisation trend should be included in curricula associated with courses of English pronunciations. Therefore, the teacher can access a professional tone when correcting the students' non-native likenesses. Although fluency and meaningfulness is more important than accuracy in pronunciations, it is perfect if the non-native speakers can articulate in an intelligible way closer to native speakers in England or in America.

In the globalised world, it is important to follow global trends: “Some Koreans even support the proposal that English be a second official language in South Korea, arguing that South Koreans' ability to speak English will improve dramatically by speaking English every day.” This is mentioned in *Teaching How to Discriminate: Globalization, Prejudice, and*

Textbooks by Lee (49) Based on the premise stated earlier, the learners can raise their English pronunciation proficiency in order to interact more confidently in international situations.

In order to achieve a goal of universal communication by a more ordinary English, the above four problematic pronunciations are vital considerations for both teachers and students. The teachers should develop phonetic pedagogies, indicating the above phonetic discriminations by specific terminologies.

For example, a pronunciation program of an eighteen week course can be suggested, exposing students to the differentiated standard-like and pidginisation by watching films, listening to native-speaker and non-native professors' lectures or recording their

imitations and observe the improvement speeds, for making decisions of their own pronunciation developments to be more meaningful but pidginised, or to be native-like in their future.

To sum up, Taiwan students should deliberate if they will develop English in a British like format, like Hong Kongnese. At this moment, no matter if speakers are in outer or expanding circles, they need to decide how to develop their articulations, in a fluently and comprehensibly non-native like way of pidginisation, or in a way closer to a native-likeness without too much meanings but perhaps saving faces.

This study attempts to fill a research gap about Taiwanese pidginisation and phonetic neutralisation and discrimination that it has never been systemised and termed by specific

terminologies, such as Chinglish, Hinglish, Konglish or Singlish. The four intricate sounds are found and proved to be significant phonetic issues which need to be discussed in English conversation, speaking and pronunciation classes.

More significantly, the results might stimulate English teachers and learners in the world to consider about: How their pedagogies should be designed, and articulations be developed? How a perfect balance between meaningfulness and fluency can be found in each nations?

## References

Aerts, Annelies et al. “Neurophysiological Investigation of Phonological Input: Aging Effects and Development of Normative Data.” *Brain and Language* 125.3 (2013): 253-263.

Bailey, Guy. “Real and Apparent Time.” *The Handbook of Language Variation and Change*. Ed. Chambers J. K., Peter Trudgill and Natalie Schilling-Estes. Oxford: Blackwell, 2001. 312-332.

Baker, Rachel E, Melissa Baese-Berk, Laurent Bonnasse-Gahot, Midam Kim, Jrustub H, Van Engen and Ann R. Bradlow. “Word Durations in Non-native English.” *Journal of*



Phonetics 39 (2011): 1-17.

Bybee, Joan. *Frequency of Use and the Organization of Language*. Oxford: Oxford University Press, 2007.

Charles-Luce, Jan. "Word-final Devoicing in German: Effects of Phonetic and Sentential Contexts." *Journal of Phonetics* 13.4 (1985): 309-324.

Cox, Felicity et al. "Hiatus Resolution and Linking 'r' in Australian English." *Journal of the International Phonetic Association* 44.2 (2014):155-178.

Denham, Kristin and Anne Lobeck. *Linguistics for Everyone: An Introduction*. US: Cengage Learning, 2012.

Derwing, Tracey M., Helen Frasher, Okim Kang and Ron I. Thomson. "L2 Accent and Ethics: Issue That Merit Attention." *English in Multilingual Contexts: Language Variation and Education*. Ed. Leslie Barratt and Mahboob Ahmar. New York: Springer, 2014, 63-80.

Ding, Hongwei and Hoffmann, Rüdiger. "An Investigation of Prosodic Features in the German Speech of Chinese Speakers." *Prosody and Language in Contact*. Ed. Elisabeth Delais-Roussarie, Mathieu Avanzi and Sophie Herment Prosody. London: Springer, 2015, 221-242.

Dmitrieva, Olga et al. *Phonological Neutralization by Native and Non-native*

Speakers: The Case of Russian Final Devoicing. *Journal of Phonetics* 38 (2010):483-492.

Easton, Eva L. “Authentic American Pronunciation.” Eva Easton’s, *Eva L Easton* 8<sup>th</sup>, Nov., 2018, <http://evaeaston.com/linking-pat-cc.html>  
<https://www.evaeaston.com/pronunciation/linking-pat-cc.html>

Ernestus, Mirjam. “Acoustic Reduction and the Roles of Abstractions and Exemplars in Speech Processing.” *Lingua* 142 (2014): 27-41.

Faerch, Claus and Gabriele Kasper. *Strategies in Interlanguage Communication*. London, UK: Longman, 1983.

Garn-Nunn, Pamela G. and James M. Lynn.  
Calvert's Descriptive Phonetics:  
Introduction and Transcription Workbook.  
New York: Thieme Medical Publishers,  
2014.

Gordon, Elizabeth et al. New Zealand English:  
Its Origins and Evolution. Cambridge and  
New York: Cambridge University Press,  
2004.

Hay, Jennifer and Margaret Maclagan. “/r/-  
sandhi in Early 20<sup>th</sup> Century New Zealand  
English.” *Linguistics* 50 (2012): 745-763.

Jongman, Allard. “Phonological and Phonetic  
Representations: The Case of Neutralization.”  
8<sup>th</sup>, Nov., 2018,

<http://www.lingref.com/cpp/tls/2003/paper1063.pdf>

Jongman, Allard, Wendy Herd, Mohammad Al-Masri, Joan Sereno and Sonja Combest. “Acoustics and Perception of Emphasis in Urban Jordanian Arabic.” *Journal of Phonetics* 39 (2011): 85-95.

Kawahara, Shigeto. “Testing Japanese Loanword Devoicing: Addressing Task Effects, Linguistics.” *An Interdisciplinary Journal of the Language Sciences* 51.6 (2013): 1271-1299.

Kulikov, Vladimir. “Voicing Contrast in Consonant Clusters: Evidence against Sonorant Transparency to Voice

Assimilation in Russian.” *Phonology* 30.3 (2013): 423-452.

Jesus, L. M. T. et al. “Is the Portuguese Version of Passage: ‘The North Wind and the Sun’ Phonetic Balanced?” *Journal of the International Phonetic Association* 45.1 (2015): 1-11.

Labov, William. *The Social Stratification of English in New York City*. Cambridge, UK: Cambridge University Press, 1966, 2006.

Lacy, De Paul. *Markedness: Reduction and Preservation in Phonology*. UK: Cambridge University Press, 2010.

Lee, Incho. “Teaching How to Discriminate: Globalization, Prejudice, and Textbooks.”

Teacher Education Quarterly 38.1 (2011):  
47-63.

Linzen, Tal et al. “Lexical and Phonological  
Variation in Russian Prepositions.”  
Phonology 30.3(2013): 453–515.

Maekawa, Kikuo. “Coarticulatory  
Reinterpretation of Allophonic Variation:  
Corpus-based Analysis of /z/ in Spontaneous  
Japanese.” Journal of Phonetics 38.3 (2010):  
360-374.

Mather, Patrick-Andre. “The Social  
Stratification of /r/ in New York City:  
Labov’s Department Store Study Revisited.”  
Journal of English Linguistics 40.4 (2012):  
338-356.

Oh, Eunjin. Effects of Speaker Gender on Voice onset Time in Korean Stops. *Journal of Phonetics* 39(2011): 59-67.

Piroth, Han G., and Peter M. Janker. “Speaker-dependent Differences in Voicing and Devoicing of German Obstruents.” *Journal of Phonetics* 32.1 (2004): 81-109.

Poeppl, David et al. “Speech Perception at the Interface of Neurobiology and Linguistics.” *Philosophical Transactions of the Royal Society of London, B: Biological Sciences* 363. 1493(2008): 1071-1086.

Price, Patti. “Review of Teaching and Researching English Accents in Native and Non-native Speakers” *Journal of the International Phonetic Association* 45 (2015):



57-60.

Reetz, Henning, and Allard Jongman. Phonetics: Transcription, Acoustics, production, and perception. Malden, MA: Wiley-Blackwell, 2009.

Riad, Tomas. The Phonology of Swedish. Oxford: Oxford University Press, 2014.

Schiering, Rene. "Reconsidering Erosion in Grammaticalization: Evidence from Cliticization." Grammaticalization: Current views and issues. Ed. Katerina Stathi, Elke Gehweiler and Ekkehard König. Philadelphia: John Benjamins Publishing Co., 2010. 73-100.

Spahr, Christopher. "A Contrastive

Hierarchical Account of Positional Neutralization.” *The Linguistic Review* 31.3/4 (2014): 551-585.

Torreira, Francisco, and Mirjam Ernestus.  
“Vowel Elision in Casual French: The Case of Vowel /e/ in the Word C’était.” *Journal of Phonetics* 39 (2011): 50-67.

Viebahn, Malte C., and Paul A. Luce.  
“Phonological Reduction in Spoken Word Recognition.” *JASA* 26.4 (2009): 2301.

Von Rooy et al. “Demystifying Incomplete Neutralization during Final Devoicing.” *Southern African Linguistics and Applied Language Studies* 21.1/2 (2003): 49-66.

Warner, Natasha et al. “Incomplete

Neutralization and Other Sub-phonemic Durational Differences in Production and Perception: Evidence from Dutch.” *Journal of Phonetics* 32.2 (2004): 251-276.

Weber, Andrea and Ann Culter. “Phonetic Discrimination and Non-native Spoken-word Recognition.” *Acoustical Society of America Journal* 111.5 (2002): 2361. 8th, Nov., 2018, <http://pubman.mpdl.mpg.de/pubman/item/escidoc:67135:4/component/escidoc:67136/Phonetic%20discrimination...pdf>

Williamson, Graham. “Phonological Process.” 8th, Nov., 2018, from <http://www.sltinfo.com/phonological-processes/>

Yamaguchi, Toshiko. Japanese linguistics: An introduction. New York: Continuum, 2007.

國家圖書館編目資料

**Pidginised Articulations 語音學中的發音簡化**

彰化市：林慧菁

**ISBN: 978-957-436-4510**

**1 語言學    2 語音學    3 音韻學    4 音標**

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出版者: 林慧菁 (Grace Lin)

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定價: 200

版次: 2019 年第一刷 (中華民國 108 年三月)