THE ABILITY OF THAI STUDENTS FROM DIFFERENT ENGLISH PROFICIENCIES IN RECOGNIZING ENGLISH FINAL CONSONANT SOUNDS
ความสามารถของนักเรียนไทยจากสามระดับทักษะภาษาอังกฤษใน การรับรู้เสียงพยัญชนะท้ายคำภาษาอังกฤษ

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ABSTRACT

This study has two purposes: 1) To investigate Thai students' ability to recognize English final consonant sounds; 2) To see the difference of students' abilities to recognize English final consonant sounds based on their English proficiency levels including High, Middle and Low levels. The subjects of this study were 259 pre-intermediate level Thai students in the bachelor degree. They were classified into 3 English proficiency groups, including High, Middle and Low proficiency groups based on the placement test score. The research instrument is the test of minimal pair. The data from the test is then analyzed to find the mean score and ANOVA. From the study, Thai students can recognize English final consonant sounds quite well, as the average score is higher than 50%. Also, all the three groups have different ability to recognize English final consonant sounds. However of all three groups, English final consonant sounds seem to cause difficulty for students in the Low proficiency group to recognize. This suggests that students in this group need to be prepared more than the other groups before listening to the texts.

บทคัดย่อ

งานวิจัยนี้มีจุดมุ่งหมาย 1) ศึกษาระดับทักษะการรับรู้เสียงพยัญชนะท้ายคำภาษาอังกฤษของนักเรียนไทย 2) ศึกษา ความต่างของระดับทักษะการรับรู้เสียงพยัญชนะท้ายคำภาษาอังกฤษของนักเรียนไทยจากระดับทักษะภาษาอังกฤษ สูง กลาง และต่ำ กลุ่มประชากรที่ใช้ในการวิจัยนี้คือตัวอย่างนักศึกษาไทยระดับปริญญาตรีที่มีทักษะภาษาอังกฤษระดับกลางตอนต้น จำนวน 259 คน จัดกลุ่มระดับทักษะภาษาอังกฤษโดยใช้คะแนนสอบ เครื่องมือที่ใช้คือแบบทดสอบการฟังคู่คำ จากนั้นนำมา ผลการทดสอบมาวิเคราะห์ข้อมูลโดยใช้วิธีการหาคะแนนเฉลี่ยจากแต่ละกลุ่มและการหา ANOVA จากการศึกษาพบว่า นักเรียนไทยนั้นสามารถจำเสียงพยัญชนะท้ายภาษาอังกฤษได้ค่อนข้างดีเพราะคะแนนเฉลี่ยจากแบบทดสอบคู่คำสูงกว่า 50% นอกจากนี้มีการพบว่านักเรียนทั้งสามระดับมีความแตกต่างกันในการรับรู้เสียงพยัญชนะท้ายภาษาอังกฤษ และยังพบว่าเมื่อ เทียบกับทั้งสามกลุ่มแล้ว กลุ่มที่มีทักษะอ่อนนั้นมีคะแนนต่ำที่สุด ดังนั้นในการสอนฟังภาษาอังกฤษ ครูจึงควรมีการเตรียม นักเรียนกลุ่มนี้ในการฟังเสียงพยัญชนะท้ายภาษาอังกฤษก่อนที่นักเรียนจะฝึกทักษะการฟัง เพื่อให้นักเรียนเกิดความคุ้นเคย กับเสียงพยัญชนะท้ายคำในภาษาอังกฤษมากขึ้น

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Background of study

As English became the world language, people from all over the world need to learn it for communicating with each other. In order to be able to communicate, language leaning needs to focus on the four skills i.e. Listening, Speaking, Reading and Writing. Of all four skills, listening is the very necessary skill to focus as it is the skill of understanding language. It is the skill presented in most of activities we do throughout of our life such as listening to someone saying in conversation, face to face or on the telephone, announcement or give the information, etc. (Alonso. 2012).

In learning listening, it is important to focus on both bottom–up and top–down processing. However, in the first stage of learning to listen, the bottom–up processing are likely to play an important role as it focus on the small elements in the language like grammar, words, and even sounds (Habibi et al. 2013). To master in listening then, it is impossible to exclude teaching phonetics from listening. Phonetics is one of the bottom–up levels in listening that the students need to learn in order to interpret the input sounds. Students need to learn it in order to listen to texts of the target language more easily (Habibi et al. 2013). Habibi et al (2013) found that students who receive phonetics practice are likely to master in listening skill than the other who do not. Brown (2006 referred in Habibi et al. 2013) mentioned that the learners must hear the words from bottom–up processing, hold them in their short term memory to link them to each other, and then interpret the meaning before hearing a new input. In this stage, if students cannot differentiate the sounds and are not familiar with intonation or stress and pitch in the target language, they may not be able to convert the meaning of the input. For this reason, it is sounded enough to integrate phonetics into listening class. Kelly (2008) asserted. It is important that students need to learn to recognize the difference between phonemes, especially, so they can produce the sounds correctly. The more they learn to hear the sounds, the better they will produce them (Elmaksoud, 2013). From the researcher's experience in English language teaching, Thai students tend to have problems in recognizing and producing English sounds in both segmental and suprasegmental levels. Comparing between the two, segmental seems to be more basic than suprasegmental pronunciation in that segmental involves only the recognition and production of sounds while suprasegmental involves some intentional and cultural elements to produce. Segmental sounds or phonemes cannot be neglected from instruction; because they are the fundamental components of pronunciation and acquisition of the target language phonological system (Phan & Vo, 2012). It is necessary for a teacher to help students be aware of segmental sounds. Therefore, before turning teachers' attention to teaching suprasegmental things, ones need to make sure that Thai students can really receive and produce the segmental ones. Therefore, this current study only focuses on English segmental sounds and disregards the suprasegmentals. Segmental sounds are the smallest unit of the utterances. In English, sounds can be segmented into two main types: consonant and vowel sounds. Consonant sounds can occur either in the initial or final position of a word, with vowel sounds in the middle. From the observation and review of literatures, Thai students usually have lots of problem with English final consonants both in terms of reception and production (Samdangdej, 2007; Kruatrachue, 1960; Karnchanathat, 1985; Mano–im, 1999; Boonjumnong, 2010; Rongwiriyaphanich, 2008; Yercharoen, 2001; Khirin, 2011; and Sertthikul, 2004). In terms of production, Thai students are likely to substitute Thai final consonants in "Thai Matra (มาตรา)" to those of English final consonants: e.g. as in the word "bill /bil/" Thai students are likely to produce /bin/ or /biw/. In terms of recognition, Thai students have difficulties in hearing English final consonant sounds because they may not differentiate the English final sounds. One possible reason might be because when nonnative English speakers hear the sounds of the target language, they match the sound they hear to their native language. So, they cannot recognize it (Lado, 1957; and Kenworthy, 1992). Moreover, Thai final consonant sounds are quite limited

when comparing with those of English. Thai has just eight final sounds while English has twenty-one final consonant sounds. Kenworthy (1992) mentioned that if the sounds in the target language does not exist in the native language, problems in hearing the sounds of the target language may occur. Accordingly, it is possible that Thai students in all levels have difficulty in both production and recognition. On the account of problem in recognition, unfortunately, most relevant research studies that the researcher has reviewed focus only on production, not reception. Also, none of the study concentrates on the recognition of English sounds of students in each level. Therefore, it is interesting to look at the beginning process in acquiring the sounds. For this reason, production of the sounds is neglected in the present study. Moreover, the researcher has an assumption that Thai students in all levels of English language proficiency namely, high proficiency; middle proficiency; and low proficiency groups have the same ability in recognizing English final consonant sounds. This is because many English final consonant sounds do not exist in Thai language system. So, it is possible that Thai students in all levels of language proficiency have difficulty in recognizing English final consonant sounds.

Purpose of the study

1) To investigate Thai students' ability to recognize English final consonant sounds

2) To see the difference of students' abilities to recognize English final consonant sounds based on their English proficiency levels including High, Middle and Low levels

Scope of the Study

Thai students may equate English final consonant sounds to their nearest sounds in Thai sound sections or the so-called 'Matra'. Also some English final consonant sounds is omitted such as; all consonants after /ai/. That means they transfer the rule in Thai to English; because Thai does not allow any sound after the diphthong /ai/. As a result, the way Thai speakers articulate English final consonants can be schematically described in the following table:

English Sounds	Thai Matra	Example of English final consonant sounds produced by Thai students
/t/, /d/, /tʃ/, /dʒ/, /ʃ/, /ʒ/, /θ/, /ð/, /s/, /z/	แม่กด Mae Kod /t⌐/	'wraith' /wreθ/ → /wret/, /wret⌐/, /wres/, /wred/, 'wreath''gate' /geit/ → /geit⌐/ /geid/, /geitɕʰ/
/p/, /b/, /v/, /f/	แม่กบ Mae Kob /p⌐/	'leaf' /li:f/ → /li:b/, 'graph' /græf/ → /græb/
/k/, /ks/, /g/	แม่กก Mae Kok /k⌐/	'sax' /sæks/ → /sæk/
/n/, /l/,	แม่กน Mae Kon /n/	'bill' /bil/ → /bin/
/l/, /w/	แม่เกอว Mae Kew /w/	'meal' /mi:l/ → /mi:w/
/t/, /d/, /s/, /z/, /k/, /n/, /l/, /p/, /v/ and /f/ after /ai/	Ø	'guide' /gaid/ → /gai/, 'pride' /praid/ →/prai/, 'side' /said/ → /sai/, 'ride' /raid/ →/rai/

To scope the study, English final consonant sounds which causes problem for students to produce in the table were selected in order to investigate the ability to recognize. The sounds were then categorized into the group of 'Matra', and paired to one another in the same group so as to create the 'minimal pair'. And then, the words of each sound were come up and paired with one another for example the pair 'bill-bin', 'hit-hid' etc. Additionally, the current

study also specially include the monograph 'x' which is a cluster '/ks/' to the test paper as it is the sound that Thai students are likely to substitute with the sounds /kˀ/ or '/ก/' and even /k/ to /ks/ as in 'sax' /saks/ can be /sæekˀ/ or /sæk/. Based on the table above, the present study scopes only the 29 sounds including18 English final consonant sounds; namely, /t/, /d/, /tʃ/, /dʒ/, /θ/, /ʃ/, /k/, /ks/, /g/, /n/, /l/, /b/, /p/, /f/, /v/, /–jʊ/ and 11 English final consonant sounds after vowel /ai/; such as /t/, /d/, /s/, /z/, /k/, /n/, /l/, /p/, /v/, /ai/ and /f/.

Minimal Pair Test

After selecting the sounds, minimal a pair test was constructed. As mentioned in chapter 2, *minimal pairs* are pairs of words that differ in meaning on the basis of a change in only one sound. In this study, they are used to establish the similarity and difference in final sounds in a pair of words. From the literature review, linguists tend to classify the productions of consonantal sounds into three features: 1) place of articulation; 2) manner of articulation; and 3) voiced or voiceless. Thus, minimal pairs can be constructed to contrast these three features of sounds, namely, to contrast the place of articulation, like the pair /p/–/t/ as in 'hip'–'hit'; to contrast the manner of articulation, like the pair /p/–/f/ as in 'pup'–'puff'; and voiced or voiceless features, like the pair /t/–/d/ as in 'hid'–'hit' (Burlow & Gierut, 2002).

Research methodology

Procedures of research are as follows:

Subjects

Subjects in the present study are 259 the first year undergraduate students from the faculties of Engineering, Sciences and Information Technology in the academic year of 2015. They were selected from the English placement test, and divided into three ability groups. The criteria to categorize students into three groups are from the university English placement test scores (TETET). Students can be categorized into three levels including: 60–100 High ability; 50–60 Middle ability; and 0–49 Low ability groups. In the three ability groups, it includes 95 students in the High ability; 92 students in the Middle ability; and 72 students in the Low ability group.

Research instrument

Research instrument involving in the present study is the test of recognition. It is used to investigate Thai learners' capability to recognize English final consonant sounds. It consists of two elements, namely a test paper of minimal pair and the audio recordings of English sounds of the minimal pairs derived from the final consonant sounds used to create the minimal pairs are the sounds that Thai students are likely to mispronounce as they are non–existent sounds in Thai final position. They are derived from the previous studies (Kruatrachue. 1960; Karnchanathat. 1985; and Sumdangdej. 2007). The test paper of minimal pair has 118 test items, and is divided into two series.

Validating the Research Instrument

To make the test reliable, the test was validated to see problems by a linguist and a phonic teacher. Both specialists discussed on the criteria in selecting the sounds, and gave some advice to revise the test. After discussing, some pair of sounds are omitted as they are not true minimal pairs e.g. live–lie; like–lie; tribe–try; site–science. And then, the test was revised before recording the native speaker's sounds. After the test was revised, it was piloted with Thai students to find problems in order to inspect the problems before the real use. After the revision, the test was

piloted with Thai students and three problems were found: some sounds repeated with one another; and some sounds overlapped with each other; and, moreover, students needed some time to turn to another page. If the next pair in the next page is read immediately, students cannot catch up. Additionally, students lost concentration and were tired of testing, so this may affect the test's reliability. To revise the test, firstly, the repeated sounds were deleted, and secondly, pauses between each pair were provided to enable students to catch up with the articulated words. Thirdly, a longer pause was added after the word of the last pair from page one was read. This pause allowed students to turn to another page. Lastly, to allow students to listen to each pair of sounds twice, and to crosscheck that they could exactly recognize the sounds, each minimal pair was doubled. And 106 test items made the test very cognitively demanding for students. For this reason, the test was divided into series 1 and series 2. Series 1 includes 54 test items while series 2 includes 52 test items. In doing the test, a five minute break was provided after students finished the first series. And the total time to collect the data was around 17–19 minutes.

Data collection

1. 259 participants from the three ability groups were asked to do the test of recognition.

2. The test was set up in the silent room with audio supports. The test of recognition was divided into 2 series, namely: series 1 and series 2. To prevent students' tiredness, 5 minute–break time was provided before resuming another series.

3. To do the test, students listened to the audio recording from the native speakers, and put a tick to the word they heard in the test paper.

4. The test papers were collected for scoring.

5. After the test of recognition, their scores were calculated to find the correlation between levels of English proficiency and the ability to recognize.

6. After seeing the correlation between levels of English proficiency and the ability to recognize, ANOVA was employed to investigate the difference among three groups.

Data presentation and analysis

Findings from the test of recognition used for answering the research question one will be presented in accordance with the following aspects:

Receptive test result

Table 1 below describes the mean scores of the test of recognition among three groups; including mean scores and standard deviation. From the test of recognition, the total score from series 1 and series 2 is 116; the total score of the three groups is higher than 50%. The High ability group has the highest mean score (M = 95.62 or 82.43%); followed by the Middle ability group (M = 90.38 or 77.91%). The Low ability group has the lowest score (M = 80.08 or 69.03%).

Table 1 Mean scores among three groups

Score

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
High	95	95.62	82.43%	6.412	.658	94.31	96.93	74
Mid	92	90.38	77.91%	7.598	.792	88.81	91.95	73
Low	72	80.08	69.03%	8.667	1.021	78.05	82.12	61
Total	259	89.44	78.55%	9.738	.605	88.25	90.63	61

According to Table 1, roughly the mean scores among 3 groups seem to be unequal; therefore a one–way ANOVA was conducted to find out whether the difference is significant. Table 2 below presents the significant difference between the means:

Table 2 ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10014.280	2	5007.140	88.698	.000
Within Groups	14451.543	256	56.451		
Total	24465.822	258			

Table 2 presents the result of the ANOVA analysis showing that the mean scores of the three groups are significantly different [$F(2, 256) = 88.698$, $p = 0.000$]. To further identify how each specific group differs, a post–hoc test, Scheffe, was conducted. The result is shown in the following table.

Table 3 Post Hoc Test

(I) Group	(J) Group	Mean Difference (SD) (I-J)	Std. Error (SE)	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
High	Mid	5.241*	1.099	.000	2.53	7.95
	Low	15.538*	1.174	.000	12.65	18.43
Mid	High	-5.241*	1.099	.000	-7.95	-2.53
	Low	10.297*	1.182	.000	7.39	13.21
Low	High	-15.538*	1.174	.000	-18.43	-12.65
	Mid	-10.297*	1.182	.000	-13.21	-7.39

*. The mean difference is significant at the 0.05 level.

Scheffe multiple comparisons test shows that mean scores of the three groups are significantly different from one another; $p \leq 0.001$. According to the Post Hoc Tests, the score of High ability group is higher than that of the Middle group (MD = 5.241, SE = 1.099), and remarkably better than the score of the low ability group (MD = 15.538, SE = 1.174). Also, the score from the Middle ability group is lower than that of the High ability group (MD = –5.241, SE = 1.099), but better than the score from the low ability group (MD = 10.297, SE= 1.182). Moreover, the score from the Low ability group is noticeably lower than that of the High ability group (MD= –15.538, SE= 1.174), and lower than that of the Middle ability group (MD. = –10.297, SE= 1.182). As reported by Scheffe, we can conclude that students' level of English proficiency reflects the ability to recognize English final consonant sounds.

Discussion and conclusion

In the overall picture, Thai students can recognize English final consonant sounds quite well. That means English final consonant sounds do not cause serious difficulty for Thai students to recognize. This finding is opposite to the statement that that if the sounds in the target language does not exist in the native language, problems in hearing the sounds of the target language may occur (Kenworthy. 1992). As suggested by the results from table 1, the scores from the test of minimal pairs are higher than 50%. That means in the overall picture students have quite good ability to recognize English final consonant sounds. However, students have different abilities to recognize English final consonant sounds and the mean scores from the test of minimal pair conform to students' levels of proficiency. This can be the implication for teachers that when teaching students to listen to English final consonants, he/she can plan the lesson based on students' English proficiency: teachers can predict which group seems to have more difficulty than the others in recognizing English final consonant sounds, so that they can find the way to prepare them before listening to the text. From the finding of recognition, student in the High proficiency group tends to have the least difficulty in recognizing English final consonant sounds. This may be because students in this group are likely to have language exposure in English listening. Kenworthy (1992) mentioned that students who are likely to have the exposure in listening to the target language are likely to have less difficulty in comprehending the text in that particular language. However the recognition score of the Middle proficiency and the Low proficiency groups is lower than that of the High proficiency group. This means that students in these two groups need some training. On the other hand, students in the Low ability group to recognize seem to have the most difficulty in recognizing English final consonant sounds. This suggests that they need a lot of training to recognize the sounds. Habibi et al (2013) asserted that if students receive phonetic training, they will increasingly be familiar to the sound features in of the target language. Therefore, teachers should focus on students' recognition of English final consonant sounds in listening so that finally students will master in listening skill.

Recommendation

Recommendations can be given into two aspects as follows:

Recommendation for teaching

As the result of the study revealed that students from the three English ability groups have different abilities to recognize English final consonant sounds, the recommendation to teaching can be described as follows:

1. Using CA. (Contrastive Analysis) in Listening class

Contrastive analysis (CA) aims to compare and contrast the differences between the two languages. Teachers may use CA to teach students as it will enable them to be able to show the students clearly the differences between English and Thai sounds, especially the final consonant sounds. This does not mean that they have to input the concept of CA to their students, but rather to add an activity like minimal pair, which shows the differences of sound to their lesson.

2. Using Minimal Pairs in Listening class

This is linked to the application of CA. After students know how Thai and English sound systems are different from each other, teachers may use 'minimal pair' to focus on the differences among English sounds. They may come up with a pair of word with identical initial consonants and vowels, but different final consonants such as in 'bin'

and 'bill'. Then, let students listen and identify the word they hear (Celce-Murcia et al, 1996). From this practice, students will notice the difference in English final consonant sounds, and finally will have less difficulty in hearing English final consonant sounds.

Recommendation for the future study

1. The present study does not concentrate on recognition of the initial consonant sounds. This is the great opportunity for the future study to focus on this issue.

2. There may be the focus on recognition of English initial and final clusters as well for the future study.

3. The present study neglected the study on production. It is important to know as well how will Thai students articulate English sounds especially the non-existent sounds in the Thai language system.

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