

English Speaking Problems of Engineering Students: A Case Study of Rajamangala University of Technology Thanyaburi

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Abstracts

This study aimed to investigate the problems of English speaking of the first-year engineering students at Rajamangala University of Technology Thanyaburi (RMUTT). The sample group consisted of 250 first-year students studying in the faculty of Engineering in the first semester of 2020 academic year. They studied in different majors: electrical, electronics and telecommunication, industrial, materials, and mechanical engineering. Regarding sampling, they were selected through a simple random sampling method. The instrument used in the research was online questionnaire containing 5 parts and 22 items. The statistics used for data analysis were percentage (%), mean (\bar{X}) and standard deviation (S.D.). The reliability measured using Cronbach's Alpha was .93. The questionnaire showed a high level ($\bar{X} = 2.76$, S.D.= 0.33) of students' attitude towards speaking problems. The findings indicated that the overall problems occurring with the engineering students at RMUTT were at the high level. The most speaking problems the students faced were both concerned with knowledge like vocabulary limitation and applying grammar when forming utterances, and perception like being nervous or anxious and shy when speaking English.

Keywords: English Speaking Problems; Engineering Students; Rajamangala University of Technology Thanyaburi

Introduction

English is a global lingua franca and the first language for the majority of the population in several countries, including the United States, the United Kingdom, Ireland, Australia, Canada, a few Caribbean nations and New Zealand. Also, English is the acknowledgement as an international language of business, science, technology, and diplomacy. English has approximately 375 million native speakers, born in the United Kingdom, the United States, Canada, Australia and other countries and it has been estimated that there are over a billion non-native speakers of English (Gohil, 2013 : 1-7). Consequently, people in many countries speak English to communicate with people around the world. In communication, it is important to have a refined understanding of the nature and structure of English and how people communicate with each other so that they can form effective and productive working relationships. An understanding of the various dimensions of language and communication gives people the ability to communicate more effectively in this complex. Therefore, effective internal and external communication are essential to the success of any business. There are four skills of English, that is, listening, speaking, reading and writing. Speaking is the skill that is very essential since speaking plays an important role in making social interactions with other

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people to gain information. Therefore, it is necessary for people to have a good speaking skill (Febriyanti, 2012 : Online).

In Thailand, the sole official language is Thai, which is, a native language in Central (including the Bangkok Metropolitan Region), Southwestern and eastern Thailand. In schools, teaching and learning the English language in Thailand has developed continually. Although English has been taught in Thailand for many years, the problems of the English instruction are still recurring. English is taught as a compulsory foreign language subject across the nation starting in primary education. Many students have been learning English since the early stage of kindergarten until university; however, they could not use English skills effectively, especially listening and speaking. According to the speaking problems in Thailand, English grammar and writing skills are the main ones. Moreover, many Thai teachers speak Thai in English classrooms. Therefore, students do not have opportunities to use English in communication and lack of practicing in different situations as well. Although they can pass many tests on vocabulary, grammar, and pronunciation tests, they still cannot speak English effectively. As for other factors related, they lack confidence to speak English with their teacher and classmates because of the effect from their mother tongue, particular in pronunciation. They also lack opportunity to use English in their daily lives Ratanapinyowong (2007 : 6). Moreover, students may not be recognized for the importance of language and still focus on grammar and structure in order to pass exams provided by schools and universities. Richards and Renandya (2002 : 4) proposed that Thai's English language aptitudes are concerned with age or maturational oblige, aural medium, socio-cultural factor and full of feeling factor. Vacav (2009:44) and Panthito (2018 : 185-195) added that the characteristics such memory, age, gender, aptitude, background biases, motivation, confidence level and anxiety-producing experiences are related to speaking in any foreign language. Thus, the understanding of the problems in English speaking skills is useful to develop students' English communication skills so that this can really help them to have efficient and accurate to speak English with foreigners and gaining better opportunities in their future careers. As mentioned by Sasum and Weeks (2018 : online), English skills will be more competitive for a job; it is a good opportunity for candidates who have good English skills comparing with the ones who cannot speak English.

According to RMUTT's policies, one of the main objectives is to enhance and develop English speaking skills of undergraduate students, especially engineering students who have less opportunities when applying for a job because of their less proficiency in English speaking. In this research, six major problems related to speaking English were studied for engineering students at RMUTT. First, is the importance of English speaking, second is the problems of grammar, third is the problem of vocabulary when speaking English, fourth is the problem of English pronunciation, fifth is the problem of speaking English during conversation, and the last one is the problems of characteristics in speaking English.

Thus, the findings answering the objective of this study that was to investigate the problems of English speaking of the first-year engineering students at RMUTT can be useful information for teachers to recognize the problems and to find out how to conduct effective English-speaking skills in order to improve the students' English proficiency in speaking. In addition, the fruitful information can be provided for the program to be developed for efficient curriculum in the future.

Research Objectives

- 1) To investigate the problems of English speaking of the first-year engineering students at RMUTT.
- 2) To find out how to conduct effective English-speaking skills in order to improve the students' English proficiency in speaking.

Research Methodology

Participants

The participants of this study were 250 from 672 students who were studying in the first year of engineering program, Faculty of Engineering at Rajamangala University of Technology Thanyaburi in the first semester of academic year 2020. The sample group was selected by using Krejcie and Morgan's table (Krejcie and Morgan, 1970 : 607-610). The sample size required to be representative of the opinions of 672 engineering students was 245; however, the researcher collected data from 250 participants to conduct the study. The majority of the participants were 152 males (76%) and 98 females (24%). Most of them were 19-20 years old with 62% while more than 23 up was the least (4.4%).

Instrument

The tool used in this study was questionnaire to investigate the problems of English speaking of the first-year engineering students. The questionnaire is a tool commonly used in collecting the data to get reactions, attitudes, or beliefs when a variety of different issues is shown. In this study, questionnaires were divided into 5 parts of 22 items using 4 Likert scales: highest, high, low, lowest. The reliability and construct validity of the scale are supported by Tasnimi, M. (2009 : 117-124). Moreover, the Index of Item-Objective Congruence (IOC) was used to find the content validity. During the process, the questionnaire was checked by three English teachers who are experts in a field of training and development. The Item-Objective Congruence (IOC) was applied to evaluate the items of the questionnaire based on the score range from -1 to +1 (Congruent = +1, Questionable = 0, and Incongruent = -1). The items that had scores lower than .5 were revised. The questionnaire was determined to certain that the responses collected were reliable and consistent. Then, the reliability value was calculated by using Cronbach's alpha if there was internal consistency within the items. The value of Coefficient Cronbach's Alpha was .93 meaning excellent. Therefore, the questionnaire was highly reliable.

Data Collection

After the validity and reliability of questionnaires had been checked thoroughly, the questionnaires using quantitative method were distributed to 250 first-year engineering students studying at RMUTT. Then they were collected back to analyzed and interpret the data.

Data Analysis

Descriptive statistics including frequency, mean and standard deviation were appropriate statistics for analyzing the quantitative data. After getting the questionnaires from the students, Statistical Program for Social Sciences (SPSS) was used to analyze and interpret the data obtained. To interpret the mean score for students' attitude towards speaking problems, the researcher adopted the interpreting criteria (Chang, 1994 : 6) as shown in Table 1.

Table 1 The interpretation of mean score of attitudes towards English speaking problems

Scale	Agreement	Level	Score Range
4	strongly agree	highest	3.26-4.00
3	Agree	high	2.51-3.25
2	Disagree	low	1.76-2.50
1	strongly disagree	lowest	1.00-1.75

The rating scale for each item indicated the level of students' attitude towards English speaking problems; the higher score indicated that students faced much trouble, while the lower score indicated less trouble.

Research Conceptual Framework

The present study is focused in examining the engineering students' problems when they speak English in classroom and also in their daily life. The diagram in Figure 1 shows the notion of the study as follows:

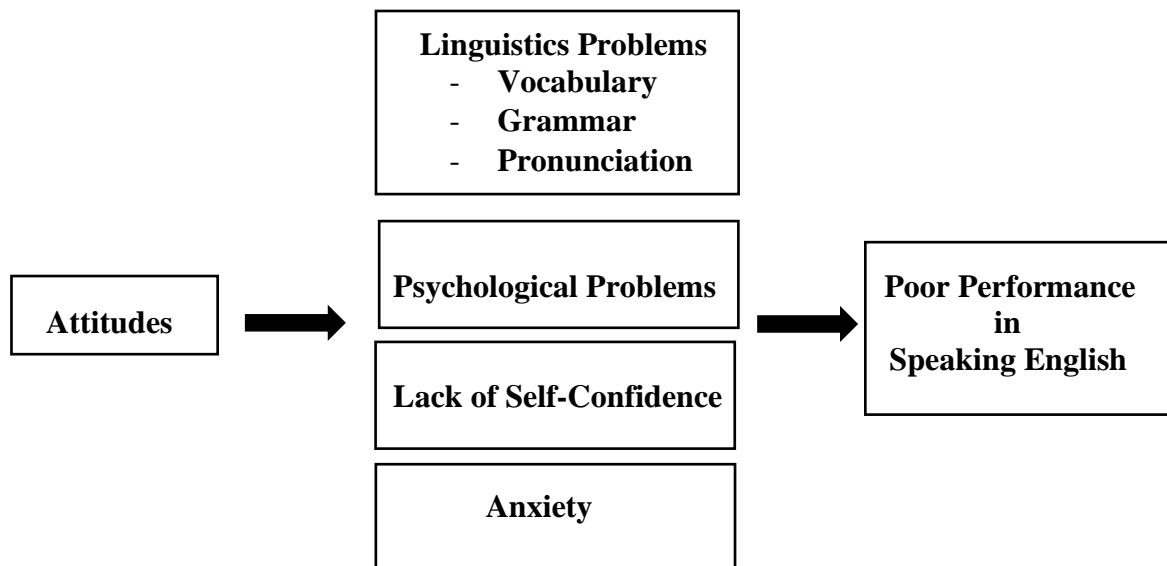


Figure 1. Conceptual Framework

Results

The results of the study presented the background information of the participants, including gender, age, and major field of study. Most of them (36.4%) were from the faculty of Electrical Engineering and the least number of students (2%) were from the faculty of Textile Engineering. The speaking problems were divided into 5 parts and their results were presented in the following tables.

Table 2 The level of attitudes on vocabulary's problems in speaking English

No	Vocabulary	\bar{X}	S.D.	Interpretation
1	I have limited vocabulary words.	3.27	0.75	Highest
2	I do not understand what I hear in English because of vocabulary which I have never heard before.	3.18	0.78	High
3	I cannot think of appropriate words to complete my thoughts while speaking.	3.12	0.84	High
4	I can communicate with people what I think	2.65	0.84	High
Total		3.05	0.55	High

Table 2 showed that the overall average level of students' problems towards the problem of vocabulary in speaking English was at a high level ($\bar{X} = 3.05$, S.D. = 0.55). The problem of vocabulary limitation had the highest mean average ($\bar{X} = 3.27$, S.D. = 0.75).

Table 3 The level of attitudes on grammar's problems in speaking English

No	Grammar	\bar{X}	S.D.	Interpretation
1	I give the importance on grammatical rules when I speak English.	3.07	0.90	High
2	I feel confused about English grammar.	3.03	0.87	High
3	I usually think in Thai before speaking English.	3.00	0.79	High
4	I can make sentences while speaking English.	2.33	0.85	Low
Total		2.92	0.51	High

From Table 3, it was found that the mean score of overall English grammar's problems was at a high level ($\bar{X} = 2.92$, S.D. = 0.51). The most problem that the students found was the importance of English grammar with a mean score of 3.07 (S.D. = 0.90).

Table 4 The level of attitudes on pronunciation's problems in speaking English

No.	Pronunciation	\bar{X}	S.D.	Interpretation
1	English words are difficult to pronounce.	2.72	0.83	High
2	It is difficult to set the right tone in English.	2.65	0.80	High
3	I like to practice English pronunciation.	2.56	0.92	High
4	I can pronounce English words correctly.	2.44	0.85	Low
5	I can stress the right syllables in English.	2.33	0.84	Low
Total		2.54	0.56	High

Table 4 presented that the mean score of overall English pronunciation's problems was at a high level ($\bar{X} = 2.54$, S.D. = 0.56). The most problem that the students found was difficulties in English pronunciation with a mean score of 2.72 (S.D. = 0.83).

Table 5 The level of attitudes on perception's problems in speaking English

No.	Perception	\bar{X}	S.D.	Interpretation
1	I feel nervous when I talk with foreigners.	3.19	0.79	High
2	I feel worried about my English-speaking ability.	2.96	0.85	High
3	I feel shy to speak English.	2.87	0.86	High
4	I feel confident to speak English.	2.43	0.85	Low
5	I can speak English fluently.	2.24	0.91	Low
Total		2.74	0.46	High

The results shown in Table 5 revealed that the mean score of overall English perception's problems was at a high level ($\bar{X} = 2.74$, S.D. = 0.46). The most problem that the students found was the feeling of nervousness when they talk with foreigners with a mean score of 3.19 (S.D. = 0.79).

Table 6 The level of attitudes on problems in speaking English during conversations

No	During conversations	\bar{X}	S.D.	Interpretation
1	I don't understand the content during conversation.	3.00	0.84	High
2	I think interaction speed makes me miscommunicate.	2.96	0.77	High
3	I make eye contact while making conversation.	2.45	0.87	Low
4	Speakers understand what I converse.	2.35	0.80	Low
Total		2.78	0.52	High

According to Table 6, it was found that the mean score of overall problems in speaking English during conversations was at a high level ($\bar{X} = 2.78$, S.D. = 0.52). The most problem found was the students did not understand the content while conversing with a mean score of 3.00 (S.D. = 0.84).

All in all, regarding the five parts of speaking problems, the mean score for the engineering students' attitudes was at the high level ($\bar{X} = 2.76$, S.D. = 0.33).

Discussion

Based on the research objective, the two main areas of problem about English speaking of the first-year engineering students at RMUTT were presented as follows:

Problem of knowledge

Among all the problems found in the study, the students ranked the problem of limitation of vocabulary words as the most difficult, followed by unfamiliar vocabulary and getting stuck of words, respectively. These three problems were all related to vocabulary. In consistent with previous studies reported by Ritthirat and Chiramanee (2014 : 9), the speaking problem was students' anxiety in vocabulary learning. For the study of Akkakoson (2016 : 63-82), limited vocabulary was viewed as the most important reason for speaking anxiety. When students do not know word meanings, this interrupts them from being able to communicate, hence uncommunicative. The result in this study also asserted that students did not understand the content while conversing in English. Students do not understand vocabulary; therefore, this makes them stumble over words or think of the right word to use in a sentence while speaking. Moreover, students cannot understand others and express their own ideas without sufficient vocabulary. Hence, vocabulary learning helps them master English for their purposes; vocabulary helps them understand and communicate with others.

Besides vocabulary, grammar problem was mentioned as the second part occurring most in this study. The students gave the importance on grammar or language accuracy while speaking. This is similar to a study of ÖztÜrk and GÜrbÜz (2014 : 1-17) which showed that inaccurate use of language was considered as a frequent factor of producing English utterances. Similarly, Khamprated (2012 : 6) conducted a study on the problems with the English speaking and listening of Thai students and found that a limited understanding of grammar is another significant problem for Thai students. They place lots of emphasis on producing grammatically correct speech. Moreover, they are sometimes unable to convey messages to others because of grammatical errors: tenses, subject-verb agreement, modifiers, and the active and the passive voice. Thus, this can be considered one of major barriers to efficient communication. Furthermore, Thai and English language have structural grammar differences. It is most obvious that the tense in English is changed over time. This is the reason why many Thai people communicate in English incorrectly. They confuse or are not familiar with English grammar that is different from Thai. Zaigham (2011 : 26-27) insisted that spoken form of a language should be taught first in order to employ its grammatical structure.

Problem of emotion

In this study, the three major problems occurring were nervousness while talking with foreigners, followed by a worry about their English speaking ability, and shyness to speak English. The participants were excited when speaking to foreigners. This is consistent with Brown's study in 1994 stating that agitation is a type of anxiety that may make students forget what they are studying. This has a big impact on their speaking skills. Hoonnoi (2018 : online)

studied and found that when speaking to foreigners, students feel nervous, shy or embarrassed. These kinds of feeling are caused by the inability to speak aloud or have accent like a westerner or native speaker. If words are pronounced or spoken incorrectly, they may be blamed or make fun of embarrassment. Consequently, most Thai people lack the courage and confidence to speak English or may feel uncomfortable when having to talk with foreigners. This is similar to the studies conducted by Chinpakdee (2015 : 61-90) and Panthito (2018 : 185-195) supported that teachers should play a role of a facilitator to help students feel supportive and comfortable to speak English. Teachers should become more extroverted by trying to get students involved activities that students can use English in real context inside and outside the classroom, providing information sources for them so that they have more confidence and opportunity in practicing speaking skills. Since Thailand is a monolingual country, students have less exposure to communicate in English; therefore, they are likely to be nervous and shy when having oral production in English.

Conclusion

The results in the study revealed variations in problems of English speaking. Among attitudes on problems in speaking English, vocabulary limitation was the biggest problem. This happens because students have limitation of English vocabulary; therefore, they are unable to communicate in English since words are the currency of communication and without sufficient vocabulary, students cannot understand others or express their own ideas. According to the problem related to emotion, the feeling of nervousness when talking with foreigners was found the most. This can happen when students learn a new foreign language as they feel worried and anxious of making mistakes. Thus, the results of this study will be useful for students to improve their speaking skills since they recognize the causes occurring. Having more opportunities in practicing English speaking via daily conversations and finding ways or techniques to help motivate them in speaking are recommended so that they become more capable and proficient in English speaking.

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