



## Use of Communication Strategies by Engineering Students in Relation to Exposure to Oral Communication in English at a Thai Private Higher Education Institution

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### Abstract

This study aims to identify which communication strategies (CSs) are most frequently used by Thai engineering students at Thai-Nichi Institute of Technology (TNI), Thailand and to investigate the relationship between CS use and exposure to oral communication in English. An adapted Metcalfe and Nook-Ura's Oral Communication Strategy Inventory (OCSI) (2013) was used to collect quantitative data from 382 first-year and second-year engineering students whose age ranged from 18 to 24 years during the first semester of 2015 academic year at TNI. Stratified random sampling technique was applied. Statistics used for analysing the data were frequency, percentage, mean, standard deviation, Pearson product-moment correlation, and Stepwise multiple regression. The results of this study showed that students most frequently employed message reduction and alteration strategies to overcome speaking difficulties and mostly reported negotiation of meaning while listening in order to cope with their listening problems. In addition, CS use was significantly correlated with exposure to oral communication in English at  $p < .01$ . Additionally, the findings revealed that social-affective and circumlocution strategies were strongly influenced when students experienced oral communication difficulties in English and overcame speaking difficulties inside the classroom whereas fluency-oriented, negotiation for meaning whilst speaking, and accuracy-oriented strategies were strongly influenced by exposure to oral communication when coping with speaking problems outside the classroom. Moreover, only word-oriented strategies were strongly influenced when students were exposed to oral communication and faced with listening difficulties inside the classroom whilst there were not any CS use influencing students when coping with listening problems outside the classroom. The practitioner proposes that this study will provide lecturers with insightful knowledge to find better and more effective communicative methods – CSs and encourage students to employ the strategies intentionally and skillfully in order to cope with difficulties in their future communication and finally be able to orally communicate with native and nonnative speakers confidently.

### Introduction

English is the world's dominant language in the age of globalisation and it has been selected as an official language in the ASEAN Economic Community (AEC). Proficient and effective oral communication has become a necessity for establishing connection with other ASEAN member countries and the rest of the world, in cooperating in international projects, conducting international trade, and the exchanging of new information technology.

According to AEC Free Flow of Skilled Labour (FFSL), qualified labourers are free to work in other member countries without a work permit and a visa, this

includes engineers (Joungtrakul, 2013). The study of Joungtrakul (2013) revealed that Thai engineers are not ready to supervise foreign engineers. The reason may be that they do not have sufficient language abilities which cause them to lose self confidence in communicating with foreign workforces (Pisarnvanich & Nukprach, 2012). In addition, their command of oral communication in English was reported to be the weakest skill whereas reading abilities were their strongest language skill (Joungtrakul, 2013; Parnglilars, 2012; Tuekla; 2011).

All these threats for some of the Thai engineering workforce may stem from lack of exposure to English native speakers for authentic and natural communication outside the classroom during their university studies (Kirkpatrick, 2012; Kumravadivelu, 1993). Consequently, they have little chance to practise what they have learned outside the classroom for communicating in real situations. Moreover, a number of Thai students study English for several years but their speaking ability is still at a poor level. Some researchers revealed that some students' speaking difficulties mainly results from insufficiency of linguistic competence and strategic knowledge in order to maintain a conversation with interlocutors (Kongsom, 2009; Weerarak, 2003). They also lacked self-confidence when interacting in English with foreign speakers (Jindathai, 2015; Kongsom, 2009; Toosiri, 2005; Weerarak, 2003).

Over the past decades, experts have suggested language learners to develop specific communication strategies which enable them to manage problems in expressing their intended meaning to interlocutors even though there is some linguistic deficiency in the target language. These CSs can enhance their effectiveness in interacting with speakers and finally develop communicative abilities. Examples of some experts contain, Faerch and Kasper, 1983; Bialystok, 1990, Dörnyei and Scott, 1997; Nakatani, 2005; Mariani, 2010.

Several Thai researchers, such as Chuanchaisit and Prapphal (2009); Somsai (2011); Malasit and Sarobol (2013); Metcalfe and Noom-Ura (2013) investigated different variables affecting the use of CSs, e.g. students' level of proficiency, task types, gender. After a review of the relevant literature there is very little investigation about the CS use by engineering students with regard to exposure to oral communication in English. In addition, there is very little research examining the relationship between the CSs and exposure to oral communication in English among this group. For this reason, the practitioner aims to examine the CS use of Thai engineering students and to investigate any relationship between the use of CSs and exposure to oral communication in English. This research could serve as a reference for instructors at this institution to identify useful CSs to enable students to overcome difficulties in communication and finally improve their communicative abilities.

With the objective of contributing to the existing knowledge of the CS use of Thai students and make an easier comparison with research used OCST (Nakatani, 2006) in other countries, this study seeks to investigate and answers the following questions.

1. What kinds of CSs are used by Thai engineering students at Thai-Nichi Institute of Technology?
2. Is there any relationship between the CS use and exposure to oral communication in English?
3. Are there relationships between nine speaking strategies of CSs (social-affective, fluency-oriented, negotiation for meaning whilst speaking, accuracy-oriented, message reduction and alteration, non-verbal strategies whilst speaking,



message abandonment, attempt to think in English, and circumlocution strategies) and exposure to oral communication in English (inside-classroom and outside-classroom)?

4. Are there relationships between six listening strategies of CSs (negotiation of meaning whilst listening, fluency-maintaining, getting the gist, non-verbal strategies whilst listening, less active listener, and word-oriented strategies) and exposure to oral communication in English (inside-classroom and outside-classroom)?

## Literature Review

### Concepts and Definitions of Communication Strategies

Over the past decades researchers such as Tarone, Cohen, and Dumas (1976); Canale (1983); Faerch and Kasper (1983); Dörnyei and Scott (1997); Nakatani, (2005) have proposed various definitions for CSs of second language learners and foreign language learners based on their personal perceptions, beliefs, and the context of their research. Tarone et al. (1976) define an early definition of CSs as “a systematic attempt by the learner to express or decode meaning in the target language, in situations where the appropriate systematic target language rules have not been formed (p.78)”. Tarone (1980) further defines CSs as “a mutual attempt of two interlocutors to agree on a meaning in situations where requisite meaning structures do not seem to be shared, (p. 420)”. Other experts for example Canale (1983); Long (1983); Pica (2002); Nakatani (2005); Nakatani and Goh (2007) agree and support an interactional process. According to this view, learners attempt to get messages across but due to their deficiency of language knowledge CSs are utilised in order to overcome their difficulties and communication breakdown. In addition, learners also employ CSs to enhance the effectiveness of communication with their interlocutors. On the contrary, researchers like Faerch and Kasper (1983); Bialystok (1990), Poulisse (1993) support an intraindividual, or a psycholinguistic view. The psycholinguistic view considers CSs as a cognitive process of speakers and focuses on their comprehension and speech production. Faerch and Kasper (1983) view CSs as “potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal (p.36)”. They define the definition of CSs in terms of a learner’s response to problems experienced by learners during speech production without any support from the interlocutor for resolution.

Bialystok (1990) points out that these definitions of CSs seem to share three main criteria: problematicity, consciousness, and intentionality. According to Bialystok (1990), problematicity refers to “the idea that strategies are used only when a speaker perceives that there is a problem which may interrupt communication” (p.3). This criterion of problematicity has been included in definitions in most CS studies.

Consciousness is another major feature appearing in many definitions of CSs. It refers to learner’s awareness to choose a strategy in order to convey messages. Experts such as Faerch and Kasper (1980); Dörnyei and Scott (1997) include this criterion in their definition. However, Bialystok (1990) claims that consciousness is implicit in the proposed definitions of CSs and finds no supported evidence to show that learners have an awareness of what kinds of strategy they have employed. She suggested the third criterion “intentionality”.

According to Bialystok (1990), intentionality refers to “the learner’s control over a repertoire of strategies so that particular ones may be selected from the range of the options and deliberately applied to achieve certain results” (p.5). This criterion shows the evidence that learners have control over the strategy use and make a choice from the range of strategies in order to overcome their communication difficulties.

## Classification of CS

Over the past four decades, various taxonomies of CSs have been developed and proposed by several researchers in this field of CSs. Most literature on CSs provide taxonomies which are similar and overlap these may be divided into reduction or avoidance strategies, and achievement or compensation ones, such as Tarone, 1980; Faerch and Kasper, 1983; Dörnyei and Scott, 1997; Nakatani, 2005; Nakatani, 2006.

According to Dörnyei and Scott (1997) CSs classification, reduction strategies are identified as topic avoidance (or message reduction), message abandonment, and message replacement. Achievement strategies comprise circumlocution, approximation, word coinage, restructuring, literal translation, foreignising, code switching, paralinguistic, direct appeal for help and indirect appeal for help.

Nakatani (2006) combines these features and develops the Oral Communication Strategy Inventory (OCSI) for EFL Japanese university students. The questionnaire comprises two parts. The first part refers to speaking strategies or strategies for dealing with speaking difficulties. There are eight strategies containing 32 detailed strategies: social affective (involving learners' affective factors in social context), fluency-oriented (relating to fluency of communication), negotiation for meaning whilst speaking (being relevant to learners' attempt to negotiate with interlocutors), accuracy-oriented (concerning with desire to speak English accurately), message reduction and alteration (involving avoiding a communication breakdown by reducing an original message or using a similar expression), nonverbal strategies whilst speaking (using eye contact, gestures, or facial expressions to help listeners), message abandonment (associating with message abandonment), and attempt to think in English (involving thinking as much as possible in the target language during actual communication). The second part contains listening strategies or strategies for coping with listening strategies containing 26 specific strategies: negotiation for meaning whilst listening (involving negotiating behaviour whilst listening), fluency-maintaining (paying attention to the fluency of conversational flow), scanning (focusing on specific points of speech, such as subject and verb), getting the gist (paying attention to general information contained in speech rather than specific utterance), nonverbal strategies whilst listening (making use of nonverbal information, such as speakers' eye contact and gestures), less active listeners (translating the message into their native language little by little and depending on familiar words), and word-oriented (paying attention to individual words).

Metcalf and Noom-Ura (2013) combined Nakatani's (2006), Chuanchaisit and Prapphal's (2009), and Chiang's (2011) inventories, and came up with a new adapted questionnaire in English and Thai version for EFL undergraduate students in Thailand. It contains two parts: the first part contains 37 items relating to strategies in coping with speaking problems. These include social-affective, fluency-oriented, negotiation for meaning whilst speaking, accuracy-oriented, message reduction and alteration, non-verbal strategies whilst speaking, message abandonment, attempt to think in English, and circumlocution strategies. The second part includes 25 items referring to strategies in dealing with listening problems containing negotiation for meaning whilst listening, fluency-maintaining, getting the gist, non-verbal strategies whilst listening, less active listener, and word-oriented.



## CS Research in Thailand

Considering CS research in Thailand, previous studies of Thai learners generally focused on frequency of CS use and results showed diversity due to the different taxonomies that were employed. For example, Phothongsunan (2010) used observation and semi-structured interviews to examine Thai university students using English as a medium for teaching and learning. Celce-Murcia, Dörnyei and Thurrell (1995) taxonomy was applied, it revealed that avoidance strategies were the most frequent strategies used.

Somsai (2011) investigated the CS use of Thai undergraduate students majoring in English, and used an adapted CS classification based on Dörnyei and Scott's (1997) and Nakatani's (2006) taxonomy to collect data. She found using familiar words, phrases, or sentences to convey the message to be the most frequently used strategies.

In the same year, Prapobratanakul and Kangkun (2011) examined the CS use of fourth grade Thai students during a speaking task based on Tarone's (1981), and Faerch and Kasper's (1983) taxonomy. They found using gestures or facial expression strategies were the most frequently CS used.

Using CS categories based on Tarone's (1980); Faerch and Kasper's (1983); Dörnyei and Scott's (1997) taxonomy, Malasit and Sarobol (2013) used a speaking task to examine CS use among ninth grade Thai students. The results showed fillers/hesitation devices were the most frequently used CS.

Metcalf and Noom-Ura's questionnaire (2013) used an adapted CS classification based on Nakatani's, (2006); Chiang's, (2011), and Chuanchaisit and Prapphal's, (2009) questionnaire to examine Thai undergraduate students majoring in English. The results revealed that message reduction and alteration strategies were the most frequently reported speaking strategies of these groups.

In addition, several Thai researchers, such as Chuanchaisit and Prapphal (2009); Somsai (2011); Malasit and Sarobol (2013); Metcalf and Noom-Ura (2013) investigated other variables affecting the use of CSs such as students' level of proficiency, task types, and gender. After a review of the relevant literature, it was found out that there is very little investigation of exposure to oral communication in English of Thai students.

## Exposure to Oral Communication in English

The term "exposure to oral communication in English" in this study refers to opportunities which second language learners or foreign language learners have in communicating verbally to interlocutors in English language (Thuc Bui & Intaraprasert, 2013). These opportunities occur in a classroom setting where students are being taught by a teacher. Teaching grammatical lessons, watching a movie, reading a book, or a role-play activity during an English class are examples of English taught inside the classroom. In this case, formal and informal English teaching occurred inside the classroom setting (MacLeod & Larsson, 2011). When talking about an exposure to oral communication in English outside the classroom this term refers to the English language which students are exposed to outside the classroom and outside the school with their teachers, peers, or other people. Chatting with foreign peers via the Internet, or playing online video games with foreign peers are examples of exposure to oral communication in English outside the classroom. This is an informal English teaching environment (MacLeod & Larsson, 2011).

The nature of a second language learning environment has affected different learners' linguistic abilities. It has been suggested that while formal instruction in the classroom setting may lead to a higher level of grammatical competence in SLL or FLL, outside the classroom exposure to the second or foreign language in more natural settings may lead to increased communicative ability Krashen (as cited in Spada, 1979). Language learners with more informal contact with the target language also improved in fluency than those with less informal exposure to English (Spada, 1979).

Over the last five years, some researchers investigated relationships between CS use and exposure to oral communication in English in Thai and foreign country contexts (Somsai, 2011; Thuc Bui & Intaraprasert, 2013). However, after a review of the relevant literature, there is no study that examined the relationships in a Thai engineering context. Somsai (2011) examined Thai undergraduate students and found that there were relationships between communication strategies and exposure to oral communication in English. Additionally, the group of students with wider exposure to oral communication in English reported more frequency and variety of strategy use. In addition, two years later, Thuc Bui and Intaraprasert (2013) investigated Vietnamese university students' attitudes and exposure to oral communication in English and Zhao and Intaraprasert (2013) also examined EFL students' attitudes and exposure to oral communication in English in the field of tourism in China. The findings, in both research, revealed minor relationships between communication strategies and exposure to oral communication in English.

## **Methodology**

### **Context and Participants**

Thai-Nichi Institute of Technology (TNI) is a Private Higher Education Institution. It contains four faculties: Engineering Faculty, Business Administration Faculty, Information Technology Faculty, and College of General Education and Languages. All students are non-English majors and are required to take three compulsory English subjects. These include ENL-101: English for Communication 1, ENL-102: English for Communication 2, and ENL-201: English for Communication 3. The total number of the population of this study was 666 engineering students (358 were first-year students and 308 were second-year students) in the first semester of the 2015 academic year. They took ENL-101 and ENL-201 respectively. The core curriculum contained reading, writing, listening, and speaking. Thai instructors were assigned to teach the grammatical aspects, reading and writing, this consists of two sessions per week and each session lasts one and a half hours. Foreign instructors were assigned to teach listening and speaking for only one hour per week.

The participants of this study comprised 382 engineering student, 200 were freshmen, and 182 were sophomore. Stratified Random Sampling Techniques were used to select the participants. There were 290 male students and 92 female counterparts. Their age range was from 19 to 24. They studied in five engineering majors which were Automotive Engineering (AE), Production Engineering (PE), Computer Engineering (CE), Industrial Engineering (IE), and Electrical Engineering (EE).



## Research Instrumentation

This research employed Oral Communication Strategy Inventory (OCSI) which was developed by Metcalfe and Noom-Ura (2013). The original questionnaire contained 37 items relating to a speaking category and 25 items relating to a listening category. Their Item Objective Congruence (IOC) index was 0.83 which was judged to be good validity. The Cronbach alpha coefficient for the pilot test was .838 for the speaking section and .905 for the listening one. Their reliability value suggesting that they had high internal consistency. However, Metcalfe and Noom-Ura's (2013) questionnaire was relatively new and used for collecting data only one time in Thailand. As a result, their questionnaire was reviewed and rechecked its levels of validity and reliability. Three experts at TNI were invited to verify the validity of the original Thai translation version. Due to a recommendation from one expert, one item in the speaking section was split. Consequently the adapted version contains 38 items in the speaking section and 25 items remained the same in the listening part. Moreover, some items in the Thai translation version were slightly modified. The new IOC index was tested and found at 0.91 which was judged to be good validity. The pilot test of the adapted questionnaire showed the new Cronbach alpha coefficient at .923 for the speaking section and .931 for the listening part. This is the confirmation that the questionnaire has high levels of internal consistency (Nakatani, 2006).

## Data Collection

The adapted Metcalfe and Noom-Ura's OCSI (2013) in the Thai version was distributed to the engineering students during their regular English classes. The students were reminded that there were no right or wrong answers and informed how these questionnaires will help to improve their English communicational abilities. Then the subjects were given time to complete the questionnaires and finally returned back to the practitioner for further analysis.

## Data Analysis

The descriptive statistics for the OCSI were analysed to identify the frequency and range of communication strategies employed by the samples. Then, Pearson product moment correlation was applied to determine any relationship between the CS use and exposure to oral communication in English inside the classroom and outside the classroom setting. Finally, Stepwise multiple regression was applied to predict the best CS use.

## Results

### ***Research Question One: What kinds of communication strategies are used by Thai engineering students at Thai-Nichi Institute of Technology?***

In order to answer research question one, descriptive statistics from the participants' response to OCSI in the Thai version were investigated. The findings revealed that message reduction and alteration strategies were the most frequently reported speaking strategies whereas accuracy-oriented strategies were the least used strategies (see Table 1). Regarding listening, negotiation of meaning whilst listening strategies were the most frequently used strategies whilst fluency-maintaining strategies were the least frequently reported listening strategies (see Table 2).

Table 1  
Mean, Standard Deviation, and Rank of Strategy Use in Coping with Speaking Problems

Strategies	M	SD	Rank
Message reduction and alteration	3.99	.69	1
Non-verbal strategies whilst speaking	3.77	.68	2
Attempt to think in English	3.69	.77	3
Social-affective	3.66	.55	4
Circumlocution	3.50	.42	5
Negotiation for meaning whilst speaking	3.48	.67	6
Fluency-oriented	3.41	.65	7
Message abandonment	3.23	.75	8
Accuracy-oriented	3.10	.75	9

Table 1 shows the descriptive statistics and ranking of strategy use in coping with speaking problems of 382 engineering students. The results revealed the mean scores in nine speaking categories of OCSI, message reduction and alteration strategies had the highest mean ( $M = 3.99$ ), followed by nonverbal strategies ( $M = 3.77$ ), and attempt to think in English strategies ( $M = 3.69$ ). In contrast, accuracy-oriented strategies had the lowest mean ( $M = 3.10$ ), followed by message abandonment strategies ( $M = 3.23$ ), and fluency-oriented strategies ( $M = 3.41$ ).

Table 2  
Mean, Standard Deviation, and Rank of Strategy Use in Coping with Listening Problems

Strategies	M	SD	Rank
Negotiation of meaning whilst listening	3.79	.66	1
Getting the gist	3.76	.62	2
Word-oriented	3.74	.62	3
Less active listener	3.74	.83	4
Non-verbal strategies whilst listening	3.68	.77	5
Fluency-maintaining	3.52	.62	6

Table 2 presents the descriptive statistics and ranking of strategy use in coping with listening problems of 382 engineering students. The results revealed the mean scores in six categories of OCSI, negotiation of meaning whilst listening strategies had the highest mean ( $M = 3.79$ ), followed by getting the gist strategies ( $M = 3.76$ ). On the contrary, fluency-maintaining strategies had the lowest mean ( $M = 3.52$ ), followed by non-verbal strategies ( $M = 3.68$ ).

In the research question one, message reduction and alteration strategies were the most frequently reported speaking strategies whereas accuracy-oriented strategies were the least used strategies. Regarding listening strategies, negotiation of meaning while listening strategies were the most frequently used strategies, but fluency-maintaining strategies were the least frequently reported listening strategies.



**Research Question Two: Is there any relationship between the use of CSs and exposure to oral communication in English?**

Pearson product-moment correlation coefficient analysis was applied to examine the relationship between CSs and exposure to oral communication in English. The results found that communication strategies had a significant relationship with exposure to oral communication in English but at a fairly low level of correlation ( $r = .153$ ) at 0.01 level as shown in Table 3.

Table 3

Correlations between CSs and Exposure to Oral Communication in English (N = 382)

	Exposure to Oral Communication in English
Communication Strategies	.153**

\*\* Correlation is significant at the 0.01 level ( $p < .01$ )

Table 3 shows that CSs had a significant relationship with exposure to oral communication in English with fairly low levels of correlation at  $r = .153$ ,  $p < .01$ .

In the research question two, there was a positive relationship between CSs and exposure to oral communication in English, but this relationship was seen as a positive low relationship  $r = .153$  at 0.01 significant level.

**Research Question Three: Are there relationships between nine speaking strategies of CSs (social-affective, fluency-oriented, negotiation for meaning while speaking, accuracy-oriented, message reduction and alteration, non-verbal strategies while speaking, message abandonment, attempt to think in English, and circumlocution strategies) and exposure to oral communication in English (inside-classroom and outside-classroom)?**

Pearson product-moment correlation coefficient analysis was applied to examine the relationship between nine speaking strategies of CSs and exposure to communication in English (inside-classroom and outside-classroom). Results (see table 4) showed that six out of nine speaking strategies in CS use had a significant relationship with inside-classroom exposure to oral communication in English but at a fairly low level of correlation, ranging from .121 to .185. Fluency-oriented strategies were the most correlated with exposure inside the classroom settings at  $r = .185$ ,  $p < .01$  whereas the least correlated strategies were message abandonment strategies at  $r = -.121$ ,  $p < .05$ .

With regard to relationships between speaking strategies and outside-classroom exposure to oral communication in English, the findings also indicated that four out of nine speaking strategies in CS use had a significant relationship with outside-classroom exposure to oral communication in English but at a fairly low level of correlation, ranging from .148 to .338. Fluency-oriented strategies were most correlated with exposure to outside the classroom settings at  $r = .338$ ,  $p < .01$  whilst the least correlated strategies were social-affective strategies at  $r = .148$ ,  $p < .01$ .

Table 4  
Correlations between Nine Speaking Strategies of Communication Strategies and Two Types of Exposure to Oral Communication in English (N = 382)

IV Speaking Strategies	DV	Inside-Classroom		Outside-Classroom	
		Pearson correlation	Sig. (2 tailed)	Pearson correlation	Sig. (2 tailed)
Social-affective		.173**	.001	.148**	.004
Fluency-oriented		.185**	.000	.338**	.000
Negotiation for meaning whilst speaking		.165**	.001	.181**	.000
Accuracy-oriented		.140**	.006	.177**	.001
Message reduction and alteration		.035	.500	.046	.373
Non-verbal strategies whilst speaking		.023	.656	-.020	.694
Message abandonment		-.121*	.018	-.091	.075
Attempt to think in English		.078	.126	.011	.835
Circumlocution		.149**	.004	.065	.203

\* Correlation significant to .05 level

\*\* Correlation significant to .001 level

Table 4 shows six out of nine speaking strategies in CS use had a significant relationship with inside-classroom exposure to oral communication in English. Significant positive correlations were obtained for five speaking strategies: fluency-oriented (.185), social-affective (.173), negotiation for meaning while speaking (.165), circumlocution (.149), and accuracy-oriented (.140), all significant at 0.01 levels. Message abandonment found significant negative correlation (-.121) at 0.05 levels. However, the rest of speaking strategies found no significant correlation with inside-classroom exposure to communication in English.

With regard to outside-classroom exposure to oral communication in English, significant positive correlations were obtained for four speaking strategies: fluency-oriented (.338), negotiation for meaning while speaking (.181), accuracy-oriented (.177), and social-affective (.148), all significant at 0.01 levels. In contrast, the rest of speaking strategies found no significant correlation with outside-classroom exposure to communication in English.

Stepwise multiple regression was performed to determine which speaking strategy category - social-affective, fluency-oriented, negotiation for meaning while speaking, accuracy-oriented, message reduction and alteration, non-verbal strategies while speaking, message abandonment, attempt to think in English, and circumlocution strategies are most strongly influenced and correlated with inside-classroom and outside-classroom exposure to oral communication in English. The findings revealed that social-affective and circumlocution strategies were strongly influenced and correlated with exposure to oral communication in English inside the classroom setting (see Table 5). As for outside-classroom exposure to oral communication in English, it was found that fluency-oriented, negotiation for meaning, and accuracy-oriented strategies were strongly influenced and correlated (see Table 6).



Table 5  
Stepwise Multiple Regression Analysis to Predict Speaking Strategies of  
Communication Strategy Use and Inside-Classroom Exposure to English (N = 382)

IV	DV	<i>R</i>	<i>R</i> <sup>2</sup>	<i>Adj.R</i> <sup>2</sup>	<i>df</i>	<i>F</i>	$\beta$	<i>t</i>	<i>p</i>
Social-affective	inside-classroom	.173	.030	.027	1	11.68	.173	3.42	.001
Circumlocution	inside-classroom	.149	.022	.020	1	8.63	.149	2.94	.004

The regression model in table 5 indicated that the first predictor for inside-classroom exposure were social-affective strategies. They accounted for a significant 2.7% of variance in inside-classroom exposure, and these two variables were significantly correlated ( $R^2 = .027$ ,  $F = 11.68$ ,  $\beta = .173$ ,  $t = 3.42$ ,  $p = .001$ ).

The second predictor of inside-classroom was circumlocution strategies. They accounted for a significant 2.0% of variance in inside-classroom exposure, and these two variables were significantly correlated ( $R^2 = .020$ ,  $F = 8.63$ ,  $\beta = .149$ ,  $t = 2.94$ ,  $p = .004$ ).

Table 6  
Stepwise Multiple Regression Analysis to Predict Speaking Strategies of  
Communication Strategy Use and Outside-Classroom Exposure to English (N = 382)

IV	DV	<i>R</i>	<i>R</i> <sup>2</sup>	<i>Adj.R</i> <sup>2</sup>	<i>df</i>	<i>F</i>	$\beta$	<i>t</i>	<i>p</i>
Fluency-oriented	outside-classroom	.338	.114	.112	1	48.99	.338	7.00	.000
Negotiation for meaning	outside-classroom	.181	.033	.030	1	12.84	.181	3.58	.000
Accuracy-oriented	outside-classroom	.177	.031	.029	1	12.27	.177	3.50	.001

The regression model in table 6 indicated that the first predictor for outside-classroom exposure were fluency-oriented strategies. Fluency-oriented strategies accounted for a significant 11.2% of variance in outside-classroom exposure, and these two variables were significantly correlated ( $R^2 = .112$ ,  $F = 48.99$ ,  $\beta = .338$ ,  $t = 7.00$ ,  $p = .000$ ).

The second predictor of outside-classroom was negotiation for meaning strategies. Negotiation for meaning strategies accounted for a significant 3.0% of variance in outside-classroom exposure, and these two variables were significantly correlated ( $R^2 = .030$ ,  $F = 12.84$ ,  $\beta = .181$ ,  $t = 3.58$ ,  $p = .000$ ).

The third predictor of outside-classroom was accuracy-oriented strategies. Accuracy-oriented strategies accounted for a significant 2.9% of variance in outside-classroom exposure, and these two variables were significantly correlated ( $R^2 = .029$ ,  $F = 12.27$ ,  $\beta = .177$ ,  $t = 3.50$ ,  $p = .001$ ).

In the research question three, six out of nine speaking strategies in CS use had a significant relationship with inside-classroom exposure. Social-affective and

circumlocution strategies were strongly influenced and correlated with exposure to oral communication in English inside the classroom setting. As for outside-classroom exposure to oral communication in English, four out of nine speaking strategies in CS use had a significant relationship. Fluency-oriented, negotiation for meaning, and accuracy-oriented strategies were strongly influenced and correlated with exposure to oral communication in English outside the classroom setting.

**Research Question Four: Are there relationships between six listening strategies of communication strategies (negotiation of meaning while listening, fluency-maintaining, getting the gist, non-verbal strategies while listening, less active listener, and word-oriented strategies) and exposure to oral communication in English (inside-classroom and outside-classroom)?**

Pearson product-moment correlation coefficient analysis was applied to examine the relationship between six listening strategies of CSs and exposure to communication in English (inside-classroom and outside-classroom). Results from table 7 showed fairly low levels of correlation between listening strategies and inside-classroom exposure. Significantly positive correlations were obtained for only one listening strategy: word-oriented (.112), significant at 0.05 level. There was no significant correlation with the rest of listening strategies. With regard to correlation between listening strategies and outside-classroom exposure, the findings revealed that there was no significant correlation between them.

Table 7  
Correlations between Six Listening Strategies of Communication Strategies and Two Types of Exposure to Oral Communication in English (N = 382)

IV Listening Strategies	DV	Inside-Classroom		Outside-Classroom	
		Pearson Correlation	Sig. (2 tailed)	Pearson Correlation	Sig. (2 tailed)
Negotiation of meaning whilst listening		.098	.055	.044	.389
Fluency-maintaining		.094	.067	.079	.123
Getting the gist		.038	.456	-.007	.898
Non-verbal strategies whilst listening		.069	.179	-.017	.745
Less active listener		.010	.851	-.066	.197
Word-oriented		.112*	.029	.048	.351

\* Correlation significant to .05 level

Table 7 demonstrates that only one listening strategy in CSs had a significant positive correlation with inside-classroom exposure to oral communication in English at  $r = .112$ ,  $p < .05$  whereas there was no correlation with outside-classroom exposure. The rest of listening strategies did not indicate correlation with exposure to oral communication in English inside the classroom and outside the classroom setting.

Stepwise multiple regression was performed to determine which listening strategy category – negotiation of meaning while listening, fluency-maintaining, getting the gist, non-verbal strategies while listening, less active listener, and word-oriented strategies is most strongly influenced and correlated with inside-classroom and outside-classroom exposure to oral communication in English. The findings



revealed that only word-oriented strategies were strongly influenced and correlated with exposure to oral communication in English inside the classroom setting (see Table 8). As for outside-classroom exposure to oral communication in English, it indicated that there was no correlated strategies were found.

Table 8  
Stepwise Multiple Regression Analysis to Predict Listening Strategies of  
Communication Strategy Use and Exposure to English Inside-Classroom (N = 382)

IV	DV	<i>R</i>	<i>R</i> <sup>2</sup>	<i>Adj.R</i> <sup>2</sup>	<i>df</i>	<i>F</i>	<i>β</i>	<i>t</i>	<i>p</i>
Word-oriented	inside-classroom	.112	.013	.010	1	4.83	.112	2.20	.029

The regression model in table 8 indicated that the first predictor for inside-classroom exposure were word-oriented strategies. Word-oriented strategies accounted for a significant 1% of variance in inside-classroom exposure, and these two variables were significantly correlated ( $R^2 = .010$ ,  $F = 4.83$ ,  $\beta = .112$ ,  $t = 2.20$ ,  $p = .029$ ).

In the research question four, there was only one listening strategy category in CS use that had a significant relationship with inside-classroom exposure. Word-oriented strategies were strongly influenced and correlated with exposure to oral communication in English inside the classroom setting. As for outside-classroom exposure to oral communication in English, there was no influence and correlation with any listening strategies in CS use.

## Discussion

### Discussion of Finding One

According to the descriptive data from Table 1, message reduction and alteration, non-verbal strategies whilst speaking, and attempt to think in English strategies were reported as the most frequently used in order to cope with speaking problems by Thai engineering students at TNI whereas accuracy strategies were reported as the least frequently employed. As for the first most frequently reported speaking strategies, these findings are in consistent with the results obtained in Thailand by Somsai (2011); Metcalfe and Noom-Ura (2013), and in Asian countries, such as in Japan by Nakatani, 2006; in Taiwan by Chen (2009); Huang (2010). Possible explanation could be that low proficiency participants may employ avoiding strategies, using familiar words or expressions in order to convey the message across but due to real-time constraints and lack of lexical knowledge they express improper and inappropriate oral responses in English (Mirzaei & Heidari, 2012). Nevertheless, Dörnyei (1995) asserts that these strategies are considered to be useful to deal with oral communication difficulties in terms of gaining more time to think and remain in the conversation in order to reach a communication goal.

The second most highly used speaking strategy was non-verbal strategies classified as achievement strategies. These strategies are a non-linguistic means when coping with oral communication difficulties by using eye contact, gestures, or facial expressions to convey messages to interlocutors. This present study supports the findings obtained in Thailand (Metcalfe and Noom-Ura, 2013), and in Taiwan (Chen,

2009; Huang, 2010) in relation to usefulness of non-verbal strategies in tackling oral communication difficulties which were found by Canale and Swaine, 1980; Allen, 1999. However, it contradicted Nakatani's findings which showed that Japanese undergraduate students applied the strategies of message abandonment when coping with speaking problems (Nakatani, 2006). Japanese culture might be the main factor affecting these findings (Metcalf & Nook-Ura, 2013).

The third most highly used speaking strategy in this present research was attempting to think in English strategies. These strategies contradicted Thai research (Metcalf & Nook-Ura, 2003); and Taiwanese studies (Chiang, 2011; Huang, 2010) which revealed that social-affective strategies were reported and ranked third on the strategy use list table. Possible factors that explain such differences are the level of oral proficiency and the field of study. The first possible factor is the participants' level of oral proficiency. Learners with a low level of proficiency, especially in speaking, tend to use their L1 language to deal with oral communication problems since they have insufficient linguistic knowledge in the L2. The second factor is the field of study. The participants in this study were engaged in the field of engineering which was a non-English major. They spent less time in oral English language practice and had fewer opportunities to cope with a breakdown of communication than English major participants. Consequently, they possess less lexical resources and strategic knowledge to convey information and resource their native language to manage their difficulties (Kongsom, 2009). On the other hand, the English major participants employed another kind of achievement strategy that was social-affected strategies. These kinds of strategies are associated with affective factors such as relaxing while speaking, or enjoying the conversation, or self-encouraging. The present results support the findings of Oxford and Nyikos (1989) who found that the field of study had a strong impact on selected language learning strategies.

Regarding listening problems, this study found that negotiation for meaning whilst listening strategies, getting the gist, and word-oriented strategies were the most frequently applied whereas fluency-maintaining strategies were the least frequently used (see Table 2). These findings support negotiation for meaning whilst listening strategies, ranked first on the list, in a Thai context (Metcalf & Nook-Ura, 2013). However, non-verbal strategies while listening, and getting the gist strategies, came second and third ranks, were contradicted these present results. Additionally, these findings from the present study, also contradicted a Japanese study (Nakatani, 2006) which revealed that non-verbal strategies whilst listening, negotiation for meaning whilst listening, and word-oriented strategies were the most highly reported. In addition, the present results also countered to the findings in Taiwan by (Chiang, 2011) who presented that getting the gist, compensation, and word-oriented strategies were the most frequently applied strategies. Although the current studies contradicted some strategies reported in a Thai context by (Metcalf & Nook-Ura, 2013), and all of listening strategies found in Asian contexts (Nakatani, 2006; Chiang, 2011), all of these reported strategies were classified as achievement strategies. Therefore, it may be concluded that participants seemed to recognise them as useful strategies in achieving listening difficulties.

In addition, possible factor which may explain a variety of findings in listening strategies is that the different methods of data collection in the surveys may affect such variety. Nakatani (2006) applied speaking tasks and interviews whereas Chiang (2011), Metcalf and Nook-Ura (2013), and this present study used close-ended questionnaires in order to collect the data. Speaking tasks and interviews



allowed researchers to observe facial expressions, gestures from interviewees whereas the close-ended questionnaire did not.

### **Discussion of Finding Two**

There was a low significant relationship between the use of communication strategies and exposure to oral communication in English among Thai engineering students at TNI. Some factors which could influence the level of relationship between these two variables are: frequency of exposure to oral communication in English outside the classroom setting, and motivation in speaking English. Huang (2010) found frequency of exposure to oral communication in English outside the classroom setting influenced the use of communication strategies. The degree of exposure to the target language is supported by Robin (1975) who asserts that good language learners seek opportunities to speak and hear the language. In addition, according to Norton and Toohey's (2001) study which revealed that using communication strategies of good and successful language learners depends a lot on the degree and quality of exposure to authentic and natural conversational interaction.

Another possible factor which influences the level of relationship between the use of CSs and exposure to oral communication in English is motivation in speaking English. Highly motivated language learners are encouraged to have conversational interaction with native speakers of the target language (Schumann, 1986). In addition, Oxford and Nyikos (1989); McIntyre and Noels (1996); support that foreign language learners and second language learners with strong motivation were more likely to apply learning strategies more frequently than did the less motivated learners.

### **Discussion of Finding Three**

Social-affective and circumlocution strategies were strongly influenced and correlated with exposure to oral communication in English inside the classroom of Thai engineering students. Participants in this study reported employing social-affective strategies including 'trying to give a good impression to the listener'; 'encouraging oneself to use English even though one might make mistakes'; 'trying to enjoy the conversation'; and 'encouraging oneself to express what one wants to say'. Their use of social-affective strategies supports Nakatani's (2006); Chuanchaisit and Prapphal's (2009); Li's (2010); Mirzaei and Heidari's (2012) research which asserts that high proficiency ESL and EFL learners employed social-affective strategies to overcome speaking difficulties. These learners paid attention to their feelings and tended to take risks and did not mind making mistakes. In addition, they tried to enjoy the communication in order to reduce anxiety while speaking with interlocutors (Oxford, 1990). In contrast, lower proficiency counterparts seemed likely to employ message abandonment strategies, e.g. giving up conveying a message (Chiang, 2011; Mei & Nathalang, 2010).

Furthermore, the participants in this present research reported using circumlocution strategies including 'creating new words when one does not understand how to express oneself', 'describing the characteristics of the object instead of using the exact word when one is not sure'. Lack of lexical knowledge seems to be problems of most ESL and EFL learners. It seems possible that high ability learners possess higher levels of lexical knowledge than lower ability peers, this makes it possible for them to apply circumlocution strategies to overcome lexical problems in oral communication with interlocutors (Chiang, 2011; Mei & Nathalang, 2010). In contrast, lower ability learners employed avoidance strategies or message

reduction strategies and used nonverbal strategies such as gestures and mime to compensate for their deficiency in lexical knowledge.

As for outside-classroom exposure to oral communication in English, fluency-oriented strategies, negotiation for meaning strategies, and accuracy-oriented strategies were strongly influenced and correlated with exposure to oral communication in English outside the classroom. Nakatani (2006); Chuanchaisit and Prapphal (2009); Li (2010) conclude that highly proficiency ESL and EFL learners took more risks and often employed achievement strategies such as fluency-oriented, negotiation for meaning whilst speaking, and accuracy strategies than that of low proficiency counterparts. In contrast, lower proficiency learners seem likely to employ message abandonment strategies e.g. reducing the message and using simple expressions and using familiar words and expressions when coping with oral communication difficulties outside the classroom (Chiang, 2011; Mei & Nathalang, 2010).

Therefore, it may infer that some participants in this present study were high proficiency EFL engineering students employing social-affective and circumlocution strategies to overcome their oral communication difficulties during English classroom activities with peers and teachers whilst lower ability counterparts avoided conversational interaction or abandoned a message or used gestures. With regard to coping with speaking difficulties or managing communication break-downs outside the classroom, the high proficiency learners used fluency-oriented, negotiation for meaning, and accuracy-oriented strategies. On the contrary, the low proficiency counterparts employed message abandonment.

#### **Discussion of Finding Four**

The results of this present study revealed that word-oriented strategies strongly influenced exposure to oral communication in English inside the classroom of Thai engineering students at TNI. According to Nakatani's (2006); Irgin's (2011); Mirzaei and Heidari's (2012) findings, low proficiency learners tend to utilise word-oriented strategies. They pay attention to every word while listening; this seems that this method weakens their overall listening comprehension. In contrast, higher ability counterparts seem to employ getting the gist strategies, they pay attention to general information contained in the speech rather than specific utterances resulting in higher listening comprehension competence. Therefore, to improve listening comprehension abilities among low proficiency learners, teachers need to train them to pay attention to general information contained in the speech rather than specific utterances in order to improve listening comprehension abilities.

#### **Conclusion and Implementations**

Message reduction and alteration, non-verbal strategies whilst speaking, and attempting to think in English strategies were the most frequently used in order to handle speaking difficulties by Thai engineering students at TNI. Additionally, negotiation for meaning whilst listening, getting the gist, and word-oriented strategies were the most highly employed when coping with listening problems of these participants. The relationship between CS use and exposure to oral communication in English was confirmed but there was a low significant correlation. Additionally, social-affective and circumlocution strategies were strongly influenced by exposure to oral communication in English inside the classroom. In other words, participants reported using these strategies in order to cope with speaking difficulties inside the



classroom. On the other hand, fluency-oriented, negotiation for meaning while speaking, and accuracy-oriented strategies were reported and correlated by exposure to oral communication in English outside the classroom. In other words, these participants reported employing these strategies to overcome oral communication outside the classroom.

The findings of this study might suggest some implications in the area of foreign language learning and teaching for Thai engineering students regarding use of communication strategies to tackle problems in speaking and listening in order to improve proficiency and confidence of the students' oral communication. Raising an awareness of applying these strategies for both language teachers and language learners is crucial. Therefore, a small-scale conference for English teaching members should be organised to discuss the importance of CSs and demonstrate how different types of CSs can be taught in the classroom in order to enhance learners' communicative competence. Dörnyei (1995) confirms that "Providing opportunities for practice in strategy use appears to be necessary because CSs can only fulfill their function as immediate first aids devices if their use has reached an automatic stage" (p.64). In the classroom, teachers should be prepared to implement achievement strategies in teaching process in order to assist foreign language learners to overcome shortage of lexical knowledge. These strategies may not directly help the learners to enhance L2 knowledge, but they could improve their self-confidence and continue the conversation effectively. Moreover, several researchers, for examples Foster (1998); Ellis (1999); Nakatani (2005) asserts that negotiation for meaning strategies have an important role in the process of second and foreign language acquisition. Consequently, ESL and EFL learners can significantly improve English acquisition through applying these strategies with native and non-native speakers. Teachers need to train these learners to develop these strategies including checking the listener's understanding and giving examples to clarify their meaning in order to improve their oral communication abilities inside and outside the classrooms. As for improving listening comprehension abilities, teachers need to encourage them to pay attention to general information contained in the speech rather than specific utterances in order to improve listening comprehension competence.

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