THAI EFL LEARNERS' WTC IN ENGLISH: EFFECTS OF ICT SUPPORT, LEARNING ORIENTATION, AND CULTURAL PERCEPTION

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Abstract

This study examined the influence of ICT support, language learning orientation, and cultural perception on Thai EFL learners' willingness to communicate (WTC) inside and outside classroom in a path analysis model. Three indexes, root mean square error of approximation (RMSEA), Tucker-Lewis index (TLI), and comparative fit index (CFI) were utilized to assess the model fit. The results showed that high levels of ICT support and cultural perception were predictors of low degrees of willingness to communicate inside and outside classroom among Thai EFL learners, while language learning orientations had a significant effect on Thai EFL learners' WTC inside and outside classroom. The examined model significantly explained 96% of both the variability in learners' willingness to communicate inside classroom ($R^2 = .96$, $SE = .01$, $p < .001$) and outside classroom ($R^2 = .96$, $SE = .01$, $p < .001$). The findings of this study suggest that Thai EFL learners' WTC inside and outside classroom are not enhanced by various ICT supports; it is only the type of ICT supports stimulating and facilitating communications that can potentially enhance Thai EFL learners' WTC. Thai EFL learners also do not perceive that their cultural backgrounds impede their WTC inside and outside classroom; in this instance, attention should be paid to interactions and contextual factors which can address communication anxiety and topic relevancy to students' interests. Nevertheless, language learning orientations influence Thai EFL learners' WTC inside and outside classroom which is consistent with the findings of previous studies.

Keywords: Willingness to communicate; ICT support; learning orientation; culture

Introduction

Willingness to Communicate (WTC), developed by McCroskey and Baer (1985), has emerged as one of the key concepts in the effort of enhancing language acquisition and communication. Emphasis on WTC can produce more active learners using the target language, which can lead to better participation and interaction inside and outside classroom (Peng, 2012). Unfortunately, research on WTC has been very focused on learners in Western and East Asian countries (Mahmoodi and Moazam, 2014; Shao and Gao, 2016). Therefore, the present study seeks to contribute to the research of WTC by focusing on EFL learners in one of Southeast Asia countries, i.e. Thailand. The primary focus is to examine factors that can potentially enhance Thai EFL learners' WTC inside and outside classroom. It specifically examines three factors: information and communication technology (ICT) support, language learning orientation, and cultural perception.

Early studies have investigated the effects of incorporating information and communication technology (ICT) into language learning in enhancing learners' WTC. For instance, Freiermuth and Jarrell (2006) compared the effects of using online chat and face-to-face setting on two groups of female Japanese students' WTC who were working on class assignments. They found that students who used online chats felt more comfortable communicating in English with their friends that those who talked in face-to-face setting. In language learning, computer-mediated communication (CMC), like synchronous chat, can be integrated to promote speaking practice which potentially improves learners' WTC (Compton, 2004). Meanwhile, recent studies have explored the effects of integrating digital game into language learning on enhancing learners' WTC. The results suggest that digital games can potentially lower affective barriers in learning (Reinders and Wattana, 2014) and affect L2 interaction patterns eventually contributing to L2 acquisition; however, careful pedagogic planning of activities play a key role in implementation (Reinders and Wattana, 2011). Moreover, apart from using a synchronous chat, Buckingham and Alpaslan (2017) examined asynchronous computer-mediated practice, in which

students performed out of class speaking practice. The results disclose a positive impact on improving students' speaking scores in the aspects of giving responses confidently with minimal pauses and hesitation. Another study found the benefits of integrating of web-services based conversational agent in enhancing learners' WTC (Ayedoun et al., 2016).

Previous studies have also revealed the effectiveness of understanding learners' learning orientations for the success of second language acquisition (Ehrman and Oxford, 1989; Noels et al., 2000). The language orientations that have potential to affect learner's second language learning involve instrumental, friendship, travel, and knowledge orientations (Clément and Kruidenier, 1983). In the context of WTC, positive correlations have been found between learners' language learning orientations and their WTC (MacIntyre et al., 2001). Furthermore, aside from ICT support and learning orientation, another factor that can affect language learning outcomes, especially in terms of communication, is culture. The failure to cope with cultural elements may impede the improvement of students' spoken English (Byram and Feng, 2004; Kim, 2004). Nonetheless, how exactly culture can influence learners' WTC using English for communication has not been explored yet.

From this brief review, it is evident that information and communication technology (ICT) support, language learning orientation, and cultural perception have the potential to enhance learners' WTC. The present study intends to continue the exploration around learners' WTC inside and outside classroom and embrace the concepts from the previous studies mentioned earlier. It is important to note that, unlike the present study, none of the previous studies examined the three factors together in the same data analysis. Given the importance of WTC concept, the findings of this study may matter in the development of students' communicative ability and revealing the crucial factors affecting it, especially in the context of Thai EFL learners. Therefore, it attempts to address the following research question: How do ICT support language learning orientation, and cultural perception affect Thai EFL learners' willingness to communicate inside and outside classroom in a path analysis model?

Literature Review

EFL learners' inhibitions in L2 oral communication

It is assumed that enhancing EFL learners' WTC is one way to address EFL learners' inhibitions in L2 or foreign language oral communication. Thus, this section reviews some of the findings from previous studies to serve as the foundation of this study. As this study focuses on Thai EFL learners, the review includes inhibitions possessed by Asian learners in general and Thai EFL learners in particular.

1. Asian EFL learners' inhibitions

Generally, Asian learners are viewed to have some inhibitions influencing the success of second/ foreign language learning, mostly identified as affective/ psychological factors (Cheng, 2000; Jones, 2004). Among those inhibitions are being too scared of poor performance in front of others and prefer being silent in class (Young, 2003). Asian students often feel apprehensive when communicating with others in a foreign language (Chu, 2008). Nonetheless, several empirical studies confirm the role of technology in improving shy and low achievers in language learning to be more active participants in computer-assisted classroom setting (Beauvois, 1994; Kelm, 1992). In a study on online anonymous peer discussion by Lai et al. (2012), it was found that there was a positive correlation between learners' willingness to communicate with friends and academic achievement; those with low communication intention might gain knowledge through self-exploration, yet their unwillingness to interact with peers might have led them to gain incorrect concepts of knowledge. The study was conducted to students who were involved in a course requiring students to do online discussions with their peers.

Shao and Gao (2016) were concerned with the view that East Asian learners tend to be unwilling to communicate in class because of their cultural backgrounds. They, then, analysed ten articles focusing on learners in China, Hong Kong, Japan, Korea, Macau, and Taiwan. Their findings did not suggest that the learners from these countries are culturally conditioned to be silent and passive. Various interactions among individual learners and contextual factors play key roles in enhancing students' willingness to communicate. Thus, in East Asian classroom, teachers are encouraged to implement activities that

essentially scaffold peer-group cohesiveness, positive traits of students, and personalizing student connections; in addition, teachers should ensure that their teaching practices address communication anxiety and topic relevancy to students' interests (Aubrey, 2011).

2. Thai EFL learners' inhibitions

Thai EFL learners may share some characteristics with learners from other countries in Asia. Although they tend to possess high extrinsic motivation in learning English and have positive attitudes towards English, some cultural inhibitions such as being worried about making mistakes in pronunciation still exist (Khamkhien, 2011). Dilbeck et al. (2009) investigated self-perceived communication competence among Thai college students. The findings indicate that Thais feel most competent on communication with acquaintances and/or in a small group and feel less competent on talking with friends or in meeting. Communication in a public speaking setting or talking with strangers was reported to be the most unfavorable, in which they feel least competent.

Pattapong's study (2010), further, argues that the norms of social interactions in Thai culture consist of establishing a network of relationships and maintaining the hierarchical system embedded in the society, which influence individual's decisions to interact or endure silence. Hence, in a classroom context, Thai learners' WTC can be influenced by peer interlocutors, teachers' teaching methods including task and class management, and social and psychological variables involving learning orientations, personal beliefs, and language anxiety. The elements of task design, comprising of task types, topics of discussion, interactional settings, and semiotic mediations, appear to be influential on Thai EFL learners' WTC during classroom interaction (Suksawas, 2011; Pattapong, 2015). Also, the integration of technology, such as gameplay, that aims to facilitate interaction using the target language and minimize language anxiety, can enhance Thai EFL learner's WTC (Wattana, 2013)

Willingness to communicate (WTC)

Developed by McCroskey and Baer (1985), WTC is specifically focused on the variability in talking behaviour rooted in personality variables. In other words, the fact that some people talk little while others talk more or some people talk less in some contexts than in others is the proof that people

differ dramatically from one another in terms of the degree to which they want to talk. The concept of WTC suggests the significant role of cognitive, affective, social, and situational variables in learners' WTC and in his/her actual use of second language; therefore, WTC is also considered as "a state of readiness that occurs in a particular moment with its immediate influences being a state of self-confidence (defined by low anxiety and a perception of L2 competence) and a desire to communicate with a specific person" (Bernales, 2016).

The strength of WTC theory model lies in the effective integration of diverse and essential concepts, including situation-based and trait-based constructs, situational desire to communicate in relation to self-motivation, and cognitive (i.e. individual) and social (i.e. group or societal) bases (Subtirelu, 2014). The model of WTC is illustrated in six layered pyramid (shown in Figure 1), in which the first three layers, consisting of communication behaviour, behaviour intention, and situated antecedents, depict situational influence on WTC while the other three layers, involving motivational propensities, affective-cognitive context, and social and individual context, indicate enduring influences on second language communication process. The body of the literature has provided empirical studies exploring these layers.
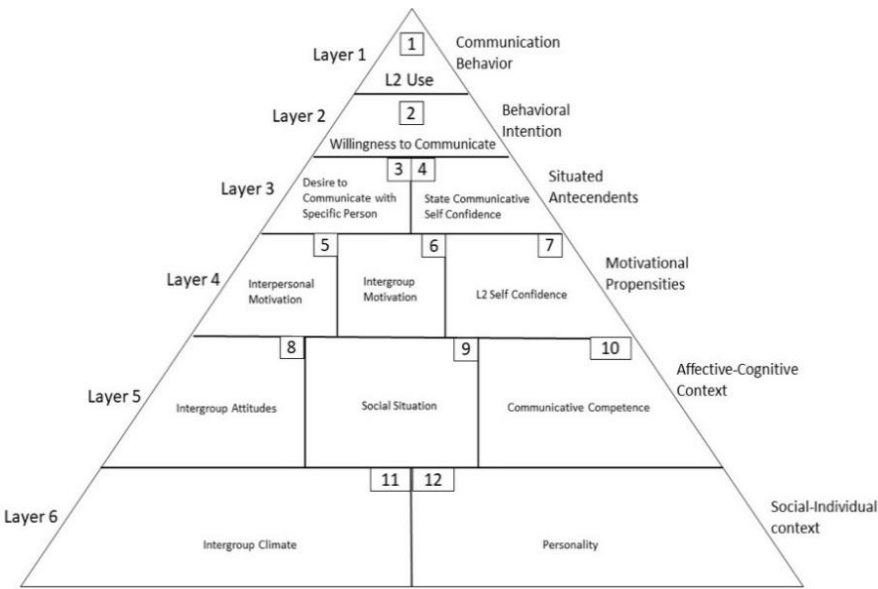
Figure 1: The Pyramid Model of WTC by MacIntyre et al. (1998)

In the layers of communication behaviour, behavioural intention, and situated antecedents, it has been found that context- and receiver-type familiarity can aid learners to initiate communication (Barjesteh et al., 2012). The nature of learners' WTC is always in a state of flux, which can be affected by variables such as topic, planning time, the opportunity to express one's ideas and the mastery of requisite lexis (Pawlak and Mystkowska-Wiertelak, 2015). Then, on motivational propensities, affective-cognitive context, and social and individual context, research has found that learners' confidence in using English for communication, attitudes toward intercontinental community, and motivation in learning English were directly associated with their WTC in English (Asmalı, 2016). The level of learners' WTC can affect academic achievement in the target language (Mahmoodi and Moazam, 2014) and correlate with emotional intelligence, which can be a great help for teachers in understanding the intricacy of language learning process in the aspects of internal mechanism and social interpersonal interaction (Alavinia and Alikhani, 2014).

Learner's willingness to communicate inside and outside classroom can be affected by the so-called "learner variables". Alemi et al. (2013) discovered that proficiency level, being abroad, length of studying a foreign language, and opportunities to communicate with foreigners affect EFL learners' willingness to communicate. On the other hand, such variables as major, gender, age, personality type, and major have no significant effects on EFL learners' WTC. The latest published article by Piechurska-Kuciel (2018) suggests learners' openness to experience as a predictor of WTC levels rooted in human cognition, affect, and behavior. Besides, it is also important to consider the roles of context in advancing learners' WTC. In a study that involved 185 2nd year students in three semi-private schools in Majorca, Spain, Menezes and Juan-Garau (2015) found a significant influence of Content and Language Integrated Learning (CLIL) on fostering learners' WTC, compared to Non - CLIL contexts. Such positive result was supported by the features in CLIL contexts, involving interactive tasks, collaborative work, less emphasis on explicit correction, and frequency of communicative language use.

Some empirical studies have also indicated the substantial roles of teachers in improving learners' willingness to communicate. Zarrinabadi's

qualitative study (2014) on the effect of teachers on learners' WTC revealed that teachers' wait time, error correction, decision on topic, and support affect learners' tendency to talk in class. Teachers are expected to understand the dynamics of in and out groups among students and be able to create an awareness of the shift among groups to improve communication (Edwards, 2011; Mystkowska-Wiertelak, 2016). Teachers are also encouraged to apply classroom discipline strategies, for instance in order of predictive power, recognition/ reward, and aggression and involvement, as these strategies have the potential to improve learners' WTC inside classroom (Khodarahmi and Nia, 2014). In terms of task types, teachers are advised to give students more of problem-solving tasks since these tasks can positively affect and advance learners' WTC (Marzban and Mahmoudvand, 2015).

Wood (2016) examined the fluid relationship between WTC and speech fluency among Japanese learners. This exploratory study found the possible directionality of the relationship that fluency breakdowns can lead to lowered WTC and vice versa. In another study, learners' WTC has a positive relationship with their overall speaking skills, emphasizing on the importance of activities included in the course content (Bergil, 2016). Besides, high learners' fear of negative evaluation, pronunciation self-perception, and beliefs concerning the pronunciation of the target language emerge to be a predictor of lower degrees of WTC (Baran-Łucarz, 2014). Learners' study abroad experiences can also significantly develop WTC, speaking abilities, and classroom interaction (Kang, 2014).

Method

Participants and context

This study employed convenience sampling which involved students (N = 50) who took general English course named "English in Cultural Diversity", coded in GEN60-114, administered by Walailak University Language Institute (WULI) in the third term of the academic year of 2017/18 at Walailak University, Thailand. The students majored in English, Communication, Nursing Science, Electrical Engineering, Medical

Technology, Chinese, and Agriculture. In 2017, Walailak University conducted a placement test assessing students' English proficiency on reading, listening, speaking, and writing. The results of the placement tests showed that in these fifty students, 4 of them were considered remedial, 14 were beginner, 16 were intermediate, and 16 were advanced.

The study took place right after the students finished their GEN60-114 in April 2018. It was intentionally designed for capturing students' learning experiences with ICT support and, it was expected that, to some extent, their language learning orientations and cultural perceptions would have been developed by the course content that included such broadening knowledge topics of the global world as study abroad, festivals, arts, and crafts, airport. As a matter fact, the GEN60-114 was the first general English course at Walailak University that put more emphasis on ICT integration into teaching and learning process inside and outside classroom and involved heavy formative and summative assessments. Table 1 below provides a brief explanation of activities done by students inside and outside classroom together with the used ICT tools.

Table 1: Example of the Activities Inside and Outside Classroom Together with ICT Support

Week	Material	In class		Outside Class	
		Activities	ICT Support	Activities	ICT Support
1	Course Introduction				
2	Unit 1: Airport	Speaking: Getting to know different accents; Pronunciation; Vocabulary; Listening: Conversations at airport; Reading: Varieties of English; Grammar: Preposition	Mp3, Video, Facebook Group, Socrative.com, and Google form	Writing: Role-play script; Writing a short essay	WriteAbout.com and storybook.com

Table 1: (Continued**)**

| Week | Material | In class | | Outside Class | |
		Activities	ICT Support	Activities	ICT Support
3	Unit 1: Airport	Role-play performance	Mp3, Video, Facebook Group, Socrative.com, and Google form		
4	Unit 2: Restaurant	Speaking: My favourite restaurant; Pronunciation; Vocabulary; Listening: At restaurant; Reading: Eating out in America; Grammar: Adjectives	Mp3, Video, Facebook Group, Socrative.com, and Google form	Writing: Role-play script; Writing a short essay	WriteAbout.com and storybook.com

Among those ICT tools used in the course are socrative.com for everyday vocabulary tests in class, writeabout.com for writing and giving feedback to students' essays, video, Facebook group, and google form for homework outside classroom, mp3 files for listening, and other various online tools, in which lecturers personally decided to enhance the teaching and learning process. Students also practiced role-plays during the course as part of the speaking activities and formative assessment and had an interview with teacher in the end of the course. The research instruments collected the details of ICT support that students received during the course, coupled with their WTC inside and outside classroom, language learning orientation, and cultural perception. The following table specifies the use of each ICT tools by students and teacher.

Table 2: The Use of ICT Tools for Each Activity

Activities	ICT tools
Weekly multiple-choice vocabulary tests; given in the beginning of each class	Socrative.com
Writing short essays about airport, restaurant, study abroad, and festival	WrieAbout.com
Listening	Mp3 and video
Class communication	Facebook group
Listening, reading, and grammar homework	Google form
Quizzes and Kahoot	In class practices
Pronunciation	Video
Writing role-play script	Mystorybook.com

Instrument and measure

A quantitative research design was employed in this study. A set of questionnaires was created as the data collection tool, which consisted of 1) willingness to communicate in English inside classroom, 2) willingness to communicate in English outside classroom, 3) language learning orientation, and 4) cultural perception. The details are provided as follows. The complete questionnaire can be found in the appendix.

Willingness to communicate (WTC) in English inside classroom

The questionnaire items were adapted from MacIntyre et al. (2001) and Yashima et al. (2004). They were designed to assess students' willingness to communicate in class. There were 12 items with a 5-point Likert scale. The items consisted of questions, for instance, "How willing are you to speak in a group discussion in class?", "How willing are you to speak to the teacher about homework in class?" and "How willing are you to talk to a stranger who suddenly enters the class?". The provided options are from 1 to 5, where "1" indicates "Almost never willing", "Sometimes willing", "Willing half of the time", "Usually willing", and "Almost always willing". The Cronbach's alpha is .908, which shows very high internal consistency for (Mean = 34.74 and SD = 9.85).

Willingness to communicate (WTC) in English outside classroom

This scale was basically developed in the same way as the previous one, but in the context of outside classroom. The Cronbach's alpha is .943, which shows very high internal consistency (Mean = 30.98 and SD = 10.53).

Language learning orientation

The construction of items was based on Clément and Kruidenier (1983) and MacIntyre et al. (2001). Four subscales were put under this scale, consisting of instrumental (7 items), job (4 items), friendship (2 items), and knowledge (4 items), as shown in table 1. The provided choices are from 1 to 5, where "1" indicates "Strongly disagree", "Disagree", "Neutral", "Agree", and "Strongly agree".

Table 3: Cronbach's Alpha of Language Learning Orientation Subscales

Subscales	Examples	Cronbach's alpha
Instrumental	Studying English is important because I must fulfil the university course requirement.	.864 (Mean = 28.94 and SD = 4.46)
Job	Studying English is important because it will be useful in getting a good job	.946 (Mean = 17.68 and SD = 2.62)
Friendship	Studying English is important because I want to make friend with foreigners.	.879 (Mean = 8.58 and SD = 1.58)
Knowledge	Studying English is important because it will help me acquire new ideas and broaden my outlook.	.891 (Mean = 16.72 and SD = 2.79)

Cultural perception

The items were constructed by referring to Clément et al. (2003), Zhong (2013), and Cao and Philp (2006). This scale contains 12 items and the responses include "Yes" and "No", recoded into "Yes" = "1" and 'No" = "0." The items, for example, are "Influenced by Thai cultures, I feel shy to speak in English", "Influenced by Thai cultures, I am worried that other students may laugh if I speak English", and "Influenced by Thai cultures, I prefer not asking questions in class". The Cronbach's alpha is .869, which shows high internal consistency for (Mean = 5.44 and SD = 3.73).

Results

Descriptive statistics

1. Thai EFL leaners' WTC inside classroom

Regarding their WTC in English inside classroom, most of the students reported that they are sometimes willing to speak in a group discussion (M = 2.98; SD = 1.15), speak to the teacher about homework (M = 3.16; SD = 1.20), talk to a stranger who suddenly enters the class (M = 2.44; SD = 1.07), ask for clarification about homework instruction (M = 2.56; SD = 1.07), to talk to a friend while waiting for their turn (M = 2.38; SD = 1.10), to speak to the teacher about tests (M = 3.08; SD = 1.28), to speak to the teacher about your grades (M = 2.74; SD = 1.21), to complain to the teacher about homework or test (M = 2.40; SD = 1.21), to ask your teacher for advice in studying English (M = 2.82; SD = 1.16), to ask questions (M = 2.90; SD = 1.22), and to answer questions (M = 3.12; SD = 1.24). Nevertheless, most of the students indicated that they were almost always willing to speak in role-play performance (M = 4.16; SD = 1.02).

2. Thai EFL leaners' WTC outside classroom

Meanwhile, for situations outside classroom, most of the students are sometimes willing to speak in a group discussion (M = 2.58; SD = 1.11), to speak to the teacher about homework (M =2.68; SD = 1.15), to talk to a stranger (M = 2.48; SD = 1.18), to ask for clarification about homework instruction (M = 2.61; SD = 1.07), to talk to a friend (M = 2.64; SD = 1.16), to discuss role-play assignments (M = 2.98; SD = 1.06), to speak to the teacher about tests (M = 2.58; SD = 1.01), to speak to the teacher about your grades (M =2.34; SD = 1.12), to complain to the teacher about homework or test (M = 2.36; SD = 1.05), to ask your teacher for advice in studying English (M =2.62; SD = 1.26), to ask questions (M = 2.50; SD = 1.07) and to answer questions (M = 2.60; SD = 1.16).

3. ICT support

All the students informed that their teachers used socrative.com for vocabulary tests, used writeabout.com for our writing/ essay assignments, used

Facebook group to communicate and share information, used video for listening practice in class, and used online dictionary for pronunciation practice, whereas most of them testified the use of Mp3 and video for listening practice, google form for reading, grammar, and listening homework, *Kahoot.com* and *Quizzes.com* for exercises.

4. Language learning orientation

Most of the students reported that their language learning orientations are essentially aimed for job ($M = 4.42$; $SD = .66$), followed by friendship ($M = 4.29$; $SD = .79$), and knowledge ($M = 4.18$; $SD = .70$). They also viewed language learning as an instrument to attain their future goals ($M = 4.13$; $SD = .64$).

5. Cultural Perception

Many of the students do not perceive that Thai cultures influence their shyness to speak English, their worries of being laughed when speaking English, their preference not to ask questions inside and outside classroom, their unwillingness to interrupt in class, and their dislike for English. However, most of them admitted that their Thai cultures influence them to be afraid of making mistakes. They also believed that teacher is always right, and they want teacher to teach them everything.

Path analysis results

1. Bivariate correlations

The Shapiro-Wilk test of normality was employed, in which the normal distribution lies on the *p*-value greater than .05 (Shapiro and Wilk, 1965) and skewness and kurtosis between -2 and + 2 (George and Mallery, 2010). After running the analyses, it was obtained that the data were not normally distributed: learners' willingness to communicate outside classroom ($p = .001$), ICT support ($p < .001$), language learning orientation ($p < .001$), and cultural perception ($p = .02$) and learners' willingness to communicate inside classroom ($p = .046$) with skewness = .337 and kurtosis = .662. These non-normal results seem to affect the following bivariate correlations, showing that the dependent variable,

learners' willingness to communicate inside classroom, was only correlated with cultural perception ($r = -.39$, $p = .05$) and job ($r = .33$, $p = .02$), while learners' willingness to communicate outside classroom was not correlated with the independent variables. Most of social and behavioral science data are likely to fail to satisfy the assumption of multivariate normality (Micceri, 1989).

Because of this non-normality, ML and GLS estimation could not be employed as it would produce biased standard errors and incorrect results of test statistics; thus, the path analysis was carried out by implementing MLM estimation suggested by (Bryant and Satorra, 2012; Lei and Wu, 2012; Satorra and Bentler, 2010; Yuan and Bentler, 2000). M-plus version 7 was used to run the analysis since this software accommodates MLM estimation in path analysis model (Muthen and Muthen, 1998-2010).

2. Path analysis

Three indexes were utilized to assess the model fit, which comprised of root mean square error of approximation (RMSEA), Tucker-Lewis index (TLI), and comparative fit index (CFI). Jackson et al. (2009) reviewed scholarly articles published between 1996-2006 and discovered that most of the studies employed RMSEA, TLI, and CFI for model fit assessment with the cut offs for RMSEA (.6), TLI ($\geq.95$), and CFI ($\geq.95$). The index of CFI compares the improvement of the fit of the proposed structural model over a more restricted model, yet RMSEA adjusts for a model's complexity (Weston and Gore, 2006). TLI is acceptable at the value is $\geq .95$ (Schreiber et al., 2006). RMSEA was the most popular index used by most of empirical studies reviewed by McDonald and Ho (2002), in which values less than .5 are considered a good fit and lower than .8 link to an acceptable fit.

In this study, the results of the analyses showed that the value of chi-Square of model fit was 123.975 ($df = 7$, $p < .001$), while the value of chi-square of model fit for the baseline model was 73.316 ($df = 5$, $p < .001$). As the chi-square of model fit is sensitive with sample size and non-normal data (Barrett, 2007), the three indexes explained earlier were considered. The estimate value for RMSEA reflected a good fit of the model at .58, given the accepted value

< .6 (Schreiber et al., 2006). Nevertheless, the other two indexes did not show good estimate values (*TLI* = - 3.30, *CFI* = .00). The total of observations was 50 and free parameters was 47. The Scaling Correction Factor for MLM was at 1.69. The examined model significantly explained 96% of both the variability in learners' willingness to communicate inside classroom (R^2 = .96, *SE* = .01, p < .001) and outside classroom (R^2 = .96, *SE* = .01, p < .001).

The analyses were, then, continued to see the significance of the standardized regression weights for the three paths illustrated in the base model: from ICT support, language learning orientation, and cultural perception to learners' willingness to communicate inside and outside classroom. ICT support and cultural perception had significant paths, but language learning orientation did not. Apart from that, learners' willingness to communicate inside and outside classroom showed a significant relationship. Significant relationships were also found among the three scales: ICT support, language learning orientation, and cultural perception and between the language learning and its subscales: instrumental, job, friendship, and knowledge. The details were provided in Table 4 below.

The base model was re-evaluated and re-examined. The subsequent analyses aimed to expose the effects of ICT support on language learning orientation and cultural perception as well as the effects of language learning orientation on cultural perception. The results confirmed the significant paths from ICT support to language learning orientation (β = .07, *SE* = .01, p < .001) and to cultural perception (β = .13 *SE* = .00, p < .001) and from language learning orientation to cultural perception (β = .01, *SE* = .00, p < .001). In addition, the subscales of language orientation significantly measured language learning orientation, yet did not have significant paths to both learners' WTC inside and outside classroom. This was considered as the final model, recognized as an acceptable fit with RMSEA at .698 (McDonald and Ho, 2002), and Scaling Correction Factor at 1.129. In this model, the path from language learning orientation to learners' willingness to communicate inside and outside classroom was significant. Figure 2 below gives the detailed significant paths.

Table 4: The Results of Path Analysis of the Base Model

	1		2		3		4		5		6		7		8	
	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)
1 - WTC inside																
2 - WTC outside	.44 (.09)***	.89 (.06)***														
3 - ICT support	-2.51 (.30)***	-.73 (.09)***	-3.21 (.33)***	-.84 (.09)***												
4 - Language learning orientation	-.07 (1.58)	-.02 (.46)	-1.35 (1.85)	.35 (.48)	-.76 (.01)***	-.76 (.01)***										
5 - Cultural perception	-.70 (.31)*	-.20 (.09)*	-.39 (.35)	-.10 (.09)	.95 (.00)***	.95 (.00)***	-.78 (.02)***	-.80 (.02)***								
6 - Instrumental	-.30 (.74)	-.09 (.21)	.81 (.76)	.21 (.20)	-.76 (.01)***	-.78 (.01)***	.98 (.00)***	.98 (.00)***	-.79 (.02)***	-.79 (.02)***						
7 - Job	.50 (.46)	.14 (.13)	.19 (.59)	.05 (.15)	-.75 (.01)***	-.75 (.01)***	.97 (.01)***	.97 (.01)***	-.80 (.02)***	-.80 (.02)***	.94 (.01)***	.94 (.01)***				

Table 4: (Continued)

	1		2		3		4		5		6		7		8	
	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)
8 - Friendship	.14 (.37)	.04 (.11)	.42 (.39)	.11 (.10)	-.60 (.01)***	-.60 (.01)***	.91 (.01)***	.97 (.01)***	-.66 (.02)***	-.66 (.02)***	.89 (.02)***	.88 (.02)***	.87 (.03)***	.87 (.03)***		
9 - Knowledge	.02 (.56)	.00 (.16)	.25 (.57)	.06 (.15)	-.71 (.01)***	-.71 (.01)***	.97 (.01)***	.97 (.01)***	-.74 (.02)***	-.74 (.02)***	.94 (.01)***	.94 (.01)***	.93 (.02)***	.93 (.02)***	.86 (.04)***	.86 (.04)***

Notes: $* p < .05$, $** p < .01$, $*** p < .001$, two tailed tests.
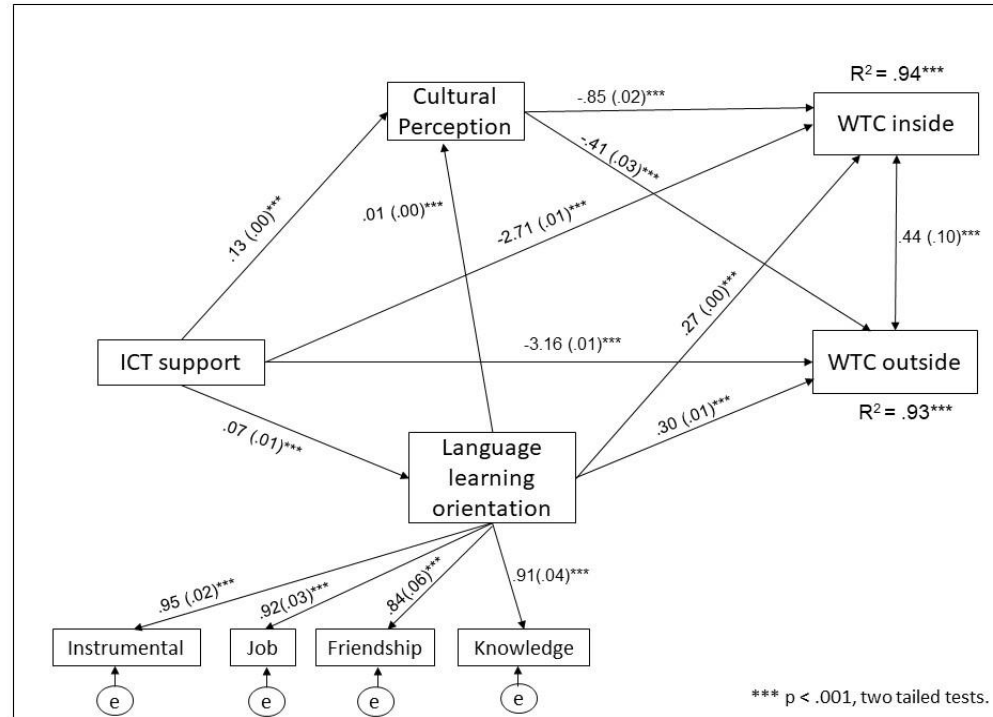
Figure 2: The Final Model

Discussion

The present study attempts to address the research gap between the positive influences of ICT, learning orientations, and culture on the success of language learning and willingness to communicate (WTC) inside and outside classroom in the context of learners in Thai higher education. It examined the influence of ICT support, language learning orientation, and cultural perception on Thai EFL learners' WTC inside and outside classroom. Additionally, the effects of ICT support on language learning orientation and cultural perception, the effects of language learning orientation on learners' cultural perception with regards to the influence of Thai culture on foreign language learning process, and the effects of the subscales of language learning orientation on learners' WTC inside and outside classroom were also examined.

The final estimation model provided support for the theoretically projected relationships (Figure 2). High levels of ICT support and cultural perception were predictors of low degrees of willingness to communicate inside and outside classroom among Thai EFL learners. Meanwhile, language learning orientations had a significant effect on Thai EFL learners' WTC inside and outside classroom. These results offer some thought-provoking insights for improving learners' WTC inside and outside classroom, especially in Thai context. However, it is important to note that the nature of learners' WTC is always in a state of flux (Pawlak and Mystkowska-Wiertelak, 2015), which can be influenced by context- and receiver type familiarity (Barjesteh et al., 2012) and the so-called learner variables (Alemi et al., 2013).

Previous studies investigating the effects of incorporating information and communication technology (ICT) into language learning on learners' WTC suggest positive results, including the effects of using online chat (Compton, 2004; Freiermuth and Jarrell, 2006), digital games (Reinders and Wattana, 2014) and web services (Ayedoun et al., 2016; Buckingham and Alpaslan, 2017). However, in the present study, the results of the relationships between ICT support and Thai EFL learners' WTC inside and outside classroom were found to be negative. It is argued that such negative relationships happened because the types of ICT support received by the students were not such ICT

tools that have direct links to the improvement and facilitation of students' interactions. Each of these ICT tools was used to serve a variety of purposes, such as for vocabulary tests, writing, listening, reading, etc. (see Tables 1 and 2), so the used ICT supports were not limited to speaking. As shown in descriptive statistics earlier, the students reported that their learning process inside and outside classroom was supported using Socrative.com for vocabulary tests, Writeabout.com for writing assignments, Facebook group for class communication and sharing information, video recording for pronunciation assignment, Mp3 files for listening practice, google form for reading homework, listening homework, and grammar homework, kahoot.com and quizizz.com for quizzes.

The findings of this study confirm that learners' WTC inside and outside classroom were not enhanced by ICT supports with diverse purposes of usage. Levels of learners' WTC seem to develop in a specific computer-assisted classroom setting specially design for either oral or written communication, such as online chat or peer discussion (Beauvois, 1994; Kelm, 1992; Lai et al., 2012). This also means that the integration of ICT supports into language learning inside and outside classroom should suit the learning goals. For instance, if the learning goal to improve students' WTC, it is suggested to integrate tools, like online chat or computer-mediated communication as these tools not only aid interaction but also potentially minimize language anxiety (Wattana, 2013).

Furthermore, in the aspect of culture, the results of the survey disclose that the majority of the students believe that their Thai cultures are not attributed to their shyness to speak in English, do not create worries when speaking English, do not influence their decisions in asking questions inside and outside class, do not make them feel uncomfortable when interrupted in class, do not make them not accustomed to raise questions, do not make English feel boring, do not make them dislike answering questions, and do not make English feel strange. These results were in line with the path analysis results which showed a negative relationship between Thai EFL learners' cultural perceptions and their WTC inside and outside classroom (see Figure 2). So, essentially, it is

important to note that Thai EFL learners do not perceive their cultural backgrounds as the obstacles to progress in their learning process. At this point, the findings of this study sustain the argument that EFL learners are not culturally conditioned to be silent and passive (Shao and Gao, 2016). If learners appear to be silent and passive throughout the learning process, attention should be given to interactions and contextual factors which can address communication anxiety and topic relevancy to students' interests (Aubrey, 2011).

However, many of the students confirm the findings of the previous studies (e.g. Chu, 2008; Khamkhien, 2011; Young, 2003) that their Thai cultures affect their worries about making mistakes, affect them to believe that teacher is always right, and make them expect teacher to teach everything. At this point, it is important to interpret that there is more than just about cultural influences on learners' degrees of WTC inside and outside classroom and efforts for the enhancement; in the context of Thai EFL learners, more emphasis should be put on teachers' teaching methods including task design (task types, topics of discussion, interactional settings, and semiotic mediations) and class management, peer interlocutors, social and psychological variables involving learning orientations, personal beliefs, and language anxiety (Pattapong, 2010; Pattapong, 2015; Suksawas, 2011).

Thai EFL learners' language learning orientations did have a positive effect on their WTC inside and outside classroom, consistent with the findings of previous studies (e.g. Clément and Kruidenier, 1983; MacIntyre et al., 2001). ICT support appeared to be influential for Thai EFL learners' orientation and cultural perception, and language learning orientation affect learners' cultural perception. These findings can be meaningful for improving EFL teaching practices in Thailand. The norms of social interactions in Thai culture consist of establishing a network of relationships and maintaining the hierarchical system embedded in the society, which influence individual's decisions to interact or endure silence (Pattapong's study, 2010). In a nutshell, knowing that ICT support has positive correlation with learners' learning orientation and cultural perception, the following step is to focus on utilizing ICT support specifically

designed for stimulating interaction and minimizing language anxiety, thereby enhancing Thai EFL learners' WTC inside and outside classroom.

Conclusion

In the context of Thai EFL learners, the roles of ICT support, language learning orientations, and cultural perceptions are crucial for improving learners' willingness to communicate (WTC) inside and outside classroom. The present study has unveiled that the types of ICT support received by learners and variety of purposes to be achieved through ICT integration affected learners' WTC inside and outside classroom. To put it into perspectives, when the type of ICT support is not directly designed for communication purpose, the effects on learners' WTC would not be significant. In this instance, in the effort to improve Thai EFL learners' WTC inside and outside classroom, teachers are advised to utilize ICT tools specifically designed to facilitate interactions among learners inside and outside classroom, such as computer-mediated communication and online chat. In a bigger picture, school or university can be more selective in investing their money in ICT tools, especially those with limited financial budget.

Furthermore, the findings of this study also suggest that Thai EFL learners are not culturally conditioned to be silent and passive. The subjects of this study did not reflect negative perceptions of the influence of their Thai cultural background upon their EFL learning process. Thus, although teachers may see Thai EFL learners silent and passive most of the time, it is important to note that attention should be paid to interactions and contextual factors which can address communication anxiety and topic relevancy to students' interests, which potentially improve learners' WTC. The other suggestion is that teachers need to consider learners' language learning orientations since they have a significant effect on enhancing learners' WTC. The proven path analysis model in this study shows that ICT support positively influence learners' cultural perceptions and language learning orientations which potentially enhance their WTC inside and outside classroom. At this point, ICT support can play key roles in enhancing Thai EFL learners' WTC inside and outside classroom.

This study only investigated students taking one general English course related to English in cultural diversity. Although activities in this course involve skills required in English communication, such as pronunciation, speaking, vocabulary, listening, etc., it is important to acknowledge that different types of courses may give different results since this study did not control the nature of the course. The findings of this study should not be generalized, but they should be useful in helping teachers understand the influences of ICT support, learning orientation, and cultural perception on Thai EFL learners' willingness to communicate.

Acknowledgement

References

Afshari, M., Ghavifekr, S., Siraj, S. and Jing, D. (2013) Students' attitudes towards computer-assisted language learning. *Procedia-Social and Behavioral Sciences* 103: 852-859.

Alavinia, P. and Alikhani, M. A. (2014) Willingness to communicate reappraised in the light of emotional intelligence and gender differences. *Procedia-Social and Behavioral Sciences* 98: 143-152.

Alemi, M., Tajeddin, Z. and Mesbah, Z. (2013) Willingness to communicate in L2 English: Impact of learner variables. *Research in Applied Linguistics* 4(1): 42-61.

Asmalı, M. (2016) Willingness to communicate of foreign language learners in Turkish context. *Procedia-Social and Behavioral Sciences* 232: 188-195.

Aubrey, S. (2011) Facilitating interaction in East Asian EFL classrooms: increasing students' willingness to communicate. *Language Education in Asia* 2(2): 237-45.

Ayedoun, E., Hayashi, Y. and Seta, K. (2016) Web-services based conversational agent to encourage willingness to communicate in the EFL context. *The Journal of Information and Systems in Education* 15(1): 15-27.

Baker, W. (2008) A critical examination of ELT in Thailand: The role of cultural awareness. *RELC journal* 39(1): 131-146.

Baran-Łucarz, M. (2014) The link between pronunciation anxiety and willingness to communicate in the foreign-language classroom: The Polish EFL context. *Canadian Modern Language Review* 70(4): 445-473.

Barjesteh, H., Vaseghi, R. and Neissi, S. (2012) Iranian EFL learners' willingness to communicate across different context-and receiver-types. *International Journal of English Linguistics* 2(1): 47.

Barrett, P. (2007) Structural equation modelling: Adjudging model fit. *Personality and Individual differences* 42(5): 815-824.

Beauvois, M. H. (1994) E-talk: Attitudes and motivation in computer-assisted classroom discussion. *Computers and the Humanities* 28(3): 177-190.

Bergil, A. S. (2016) The influence of willingness to communicate on overall speaking skills among EFL learners. *Procedia-Social and Behavioral Sciences* 232: 177-187.

Bernales, C. (2016) Towards a comprehensive concept of Willingness to Communicate: Learners' predicted and self-reported participation in the foreign language classroom. *System* 56: 1-12.

Bryant, F. B. and Satorra, A. (2012) Principles and practice of scaled difference chi-square testing. *Structural Equation Modeling: A Multidisciplinary Journal* 19(3): 372-398.

Buckingham, L. and Alpaslan, R. S. (2017) Promoting speaking proficiency and willingness to communicate in Turkish young learners of English through asynchronous computer-mediated practice. *System* 65: 25-37.

Byram, M. and Feng, A. (2004) Culture and language learning: Teaching, research and scholarship. *Language teaching* 37(3): 149-168.

Cao, Y. (2011) Investigating situational willingness to communicate within second language classrooms from an ecological perspective. *System* 39(4): 468-479.

Cao, Y. and Philp, J. (2006) Interactional context and willingness to communicate: A comparison of behavior in whole class, group and dyadic interaction. *System* 34(4): 480-493.

Cheng, X. (2000) Asian students' reticence revisited. *System* 28(3): 435-446.

Choomthong, D. (2011) A case study of learning English passive of Thai EFL learners: Difficulties and learning strategies. *Learning strategies*. [Online URL: http://iafor.info/archives/offprints/acll2011-offprints/ ACLL2011_0083.pdf] accessed on November 7, 2018.

Chu, H. N. R. (2008) *Shyness and EFL learning in Taiwan: A study of shy and non-shy college students' use of strategies, foreign language anxiety, motivation, and willingness to communicate*. The University of Texas at Austin. [Online URL: https://repositories.lib.utexas.edu/bitstream/ handle/2152/3864/chuh41126.pdf?sequence=2] accessed on November 7, 2018.

Clément, R. and Kruidenier, B. G. (1983) Orientations in second language acquisition: The effects of ethnicity, milieu, and target language on their emergence. *Language Learning* 33(3): 273-291.

Clément, R., Baker, S. C. and MacIntyre, P. D. (2003) Willingness to communicate in a second language: The effects of context, norms, and vitality. *Journal of Language and Social Psychology* 22(2): 190-209.

Compton, L. (2004) Using text chat to improve willingness to communicate. In *Computer Assisted Language Learning: Concepts, contexts, and practices*, edited by Son, J. B., pp. 123-144. New York: iUniverse, Inc.

de Saint Léger, D. and Storch, N. (2009) Learners' perceptions and attitudes: Implications for willingness to communicate in an L2 classroom. *System* 37(2): 269-285.

Dilbeck, K. E., McCroskey, J. C., Richmond, V. P. and McCroskey, L. L. (2009) Self-perceived communication competence in the Thai culture. *Journal of Intercultural Communication Research* 38(1): 1-7.

Edwards, P. (2011) They could but they don't: Willingness to communicate and in group dynamics among Korean learners of English. *DHU TESOL 2011 Journal* 5-33.

Ehrman, M. and Oxford, R. (1989) Effects of sex differences, career choice, and psychological type on adult language learning strategies. *The Modern Language Journal* 73(1): 1-13.

Freiermuth, M. and Jarrell, D. (2006). Willingness to communicate: Can online chat help?. *International Journal of Applied Linguistics* 16(2): 189-212.

Genc, B. and Bada, E. (2005) Culture in language learning and teaching. *The Reading Matrix* 5(1): 73-84.

George, D. and Mallery, P. (2010) SPSS for Windows step by step: A simple guide and reference, 17.0 update.

Hsu, H. Y., Wang, S. K. and Comac, L. (2008) Using audio blogs to assist English-language learning: An investigation into student perception. *Computer Assisted Language Learning* 21(2): 181-198.

Jackson, D. L., Gillaspy Jr, J. A. and Purc-Stephenson, R. (2009) Reporting practices in confirmatory factor analysis: an overview and some recommendations. *Psychological methods* 14(1): 6-23.

Jones, J. F. (2004) A cultural context for language anxiety. *English Australia Journal* 21(2): 30-39.

Kabilan, M. K., Ahmad, N. and Abidin, M. J. Z. (2010). Facebook: An online environment for learning of English in institutions of higher education? *The Internet and Higher Education* 13(4): 179-187.

Kang, D. M. (2014) The effects of study-abroad experiences on EFL learners' willingness to communicate, speaking abilities, and participation in classroom interaction. *System* 42: 319-332.

Kelm, O. R. (1992) The use of synchronous computer networks in second language instruction: a preliminary report. *Foreign Language Annals* 25: 441-545.

Khamkhien, A. (2010a) Teaching English speaking and English speaking tests in the Thai context: A reflection from Thai perspective. *English Language Teaching* 3(1): 184-190.

Khamkhien, A. (2010b) Thai Learners' English Pronunciation Competence: Lesson Learned from Word Stress Assignment. *Journal of Language Teaching & Research* 1(6): 757-764.

Khamkhien, A. (2011) Quantitative and qualitative views of Thai EFL learners' learning oral communication skills. *Academic Research International* 1(1): 90-103.

Khodarahmi, E. and Nia, Z. M. (2014) EFL teachers' classroom discipline strategies and learners' willingness to communicate in English inside the classroom. *Procedia-Social and Behavioral Sciences* 98: 976-981.

Kim, S. J. (2004) Coping with cultural obstacles to speaking English in the Korean secondary school context. *Asian EFL Journal* 6(3): 17-27.

Lai, C. H., Chen, W. X., Jong, B. S. and Hsia, Y. T. (2012) The relation between willingness to online communicate and learning achievement. In *International conference on information engineering. Lecture Notes in Information Technology* 25: 8-12.

Lei, P. W. and Wu, Q. (2012) Estimation in structural equation modeling. [Online URL: http://psycnet.apa.org/record/2012-16551-010] accessed on November 7, 2018.

MacIntyre, P. D., Baker, S. C., Clément, R. and Conrod, S. (2001) Willingness to communicate, social support, and language-learning orientations of immersion students. *Studies in Second Language Acquisition* 23(3): 369-388.

MacIntyre, P. D., Clément, R., Dörnyei, Z. and Noels, K. A. (1998) Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *The Modern Language Journal* 82(4): 545-562.

Mahmoodi, M. H. and Moazam, I. (2014) Willingness to communicate (WTC) and L2 achievement: The case of Arabic language learners. *Procedia-Social and Behavioral Sciences* 98: 1069-1076.

Marzban, A. and Mahmoudvand, M. (2013) The Impact of Doing Problem-Solving Tasks on Willingness to Communicate, Self-perceived Communication Competence, and Communication Apprehension among Iranian EFL Learners. *Journal of Applied Linguistics* 6(13): 125-145.

McCroskey, J. C. and Baer, J. E. (1985) Willingness to communicate: The construct and its measurement. [Online URL: https://files.eric.ed.gov/fulltext/ED265604.pdf] accessed on November 7, 2018.

McDonald, R. P. and Ho, M. H. R. (2002) Principles and practice in reporting structural equation analyses. *Psychological methods* 7(1): 64.

Menezes, E., Juan-Garau, M. (2015) English Learners' Willingness to Communicate and Achievement in CLIL and Formal Instruction Contexts. In *Content-based Language Learning in Multilingual Educational Environments*, edited by Juan-Garau, M. and Salazar-Noguera, J., pp. 221-236. Cham: Springer.

Methitham, P. and Chamcharatsri, P. B. (2011) Critiquing ELT in Thailand: A reflection from history to practice. *Journal of Humanities, Naresuan University* 8(2): 57-68.

Micceri, T. (1989) The unicorn, the normal curve, and other improbable creatures. *Psychological bulletin* 105(1): 156-166.

Muthen, L. K. and Muthen, B. O. (1998-2010) *Mplus Users' Guides*. 6th ed. Los Angeles: Authors.

Mystkowska-Wiertelak, A. (2016) Dynamics of classroom WTC: Results of a semester study. *Studies in Second Language Learning and Teaching* 6(4): 651-676.

Nieto, C. and Zoller Booth, M. (2010) Cultural competence: Its influence on the teaching and learning of international students. *Journal of Studies in International Education* 14(4): 406-425.

Noels, K. A., Pelletier, L. G., Clément, R. and Vallerand, R. J. (2000) Why are you learning a second language? Motivational orientations and self-determination theory. *Language Learning* 50(1): 57-85.

Noytim, U. (2010) Weblogs enhancing EFL students' English language learning. *Procedia-Social and Behavioral Sciences* 2(2): 1127-1132.

Pattapong, K. (2010) Willingness to communicate in a second language: A qualitative study of issues affecting Thai EFL learners from students' and teachers' point of view. [Online URL: https://ses.library.usyd.edu.au/bitstream/2123/9244/1/Pattapong_Thesis_2013.pdf] accessed on November 7, 2018.

Pattapong, K. (2015) Complex Interactions of Factors Underlying Thai EFL Learners' Willingness to Communicate in English. *PASAA: Journal of Language Teaching and Learning in Thailand* 49: 105-136.

Pawlak, M. and Mystkowska-Wiertelak, A. (2015) Investigating the dynamic nature of L2 willingness to communicate. *System* 50: 1-9.

Peng, J. E. (2012) Towards an ecological understanding of willingness to communicate in EFL classrooms in China. *System* 40(2): 203-213.

Phoocharoensil, S. (2011) Collocational errors in EFL learners' interlanguage. *Journal of Education and Practice* 2(3): 103-120.

Piechurska-Kuciel, E. (2018) Openness to experience as a predictor of L2 WTC. *System* 72: 190-200.

Rahimi, M. and Yadollahi, S. (2011) Foreign language learning attitude as a predictor of attitudes towards computer-assisted language learning. *Procedia Computer Science* 3: 167-174.

Reinders, H., and Wattana, S. (2014). Can I Say Something? The Effects of Digital Gameplay on Willingness to Communicate. *Language Learning & Technology* 18(2): 101-123.

Saengboon, S. (2004) Second language acquisition (SLA) and English language teaching (ELT). *PASAA* 35:11-34.

Satorra, A. and Bentler, P. M. (2010) Ensuring positiveness of the scaled difference chi-square test statistic. *Psychometrika* 75(2): 243-248.

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A. and King, J. (2006) Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research* 99(6): 323-338.

Shao, Q. and Gao, X. A. (2016) Reticence and willingness to communicate (WTC) of East Asian language learners. *System* 63: 115-120.

Shapiro, S. S. and Wilk, M. B. (1965) An analysis of variance test for normality (complete samples). *Biometrika* 52(3/4): 591-611.

Subtirelu, N. (2014) A language ideological perspective on willingness to communicate. *System* 42: 120-132.

Suksawas, W. (2011) *A Sociocultural Study of EFL Learners' Willingness to Communicate*. Doctoral Thesis. University of Wollongong, Australia.

Wannaruk, A. (2008) Pragmatic transfer in Thai EFL refusals. *RELC Journal* 39(3): 318-337.

Wattana, S. (2013) Talking while playing: the effects of computer games on interaction and willingness to communicate in English. [Online URL: https://ir.canterbury.ac.nz/bitstream/handle/10092/9227/Thesis_fulltext.pdf?sequence=1] accessed on November 7, 2018.

Weston, R. and Gore, P. A. (2006) A brief guide to structural equation modeling. *The Counseling Psychologist* 34(5): 719-751.

Wood, D. (2016) Willingness to communicate and second language speech fluency: An idiodynamic investigation. *System* 60: 11-28.

Yashima, T., Zenuk-Nishide, L. and Shimizu, K. (2004) The influence of attitudes and affect on willingness to communicate and second language communication. *Language Learning* 54(1): 119-152.

Young, S. S. C. (2003) Integrating ICT into second language education in a vocational high school. *Journal of Computer Assisted Learning* 19(4): 447-461.

Yuan, K. H. and Bentler, P. M. (2000) Three likelihood-based methods for mean and covariance structure analysis with non-normal missing data. *Sociological Methodology* 30(1): 165-200.

Zarrinabadi, N. (2014). Communicating in a second language: Investigating the effect of teacher on learners' willingness to communicate. *System* 42: 288-295.

Zhong, Q. M. (2013) Understanding Chinese learners' willingness to communicate in a New Zealand ESL classroom: A multiple case study drawing on the theory of planned behavior. *System* 41(3): 740-751.

<u>Appendix</u>
QUESTIONNAIRE
Student ID   :
Section   :

1. Willingness to communicate inside classroom
Instructions: The following items are designed to know how willing you are to speak in class.
"Willing" means that you want to do that.
Speaking in Class in English

No.	Items	Almost never willing	Sometimes willing	Willing half of the time	Usually willing	Almost always willing
1.	How willing are you to speak in a group discussion in class?					
2.	How willing are you to speak to the teacher about homework in class?					
3.	How willing are you to talk to a stranger who suddenly enters the class?					
4.	How willing are you to ask for clarification about homework instruction in class?					
5.	How willing are you to talk to a friend while waiting for your turn in class?					
6.	How willing are you to speak in role-plays?					
7.	How willing are you to speak to the teacher about tests in class?					
8.	How willing are you to speak to the teacher about your grades in class?					
9.	How willing are you to complain to the teacher about homework or test in class?					
10.	How willing are you to ask your teacher for advice in studying English in class?					
11.	How willing are you to ask questions in class?					
12.	How willing are you to answer questions in class?					

2. Willingness to communicate outside classroom
Speaking outside Class in English

No.	Items	Almost never willing	Sometimes willing	Willing half of the time	Usually willing	Almost always willing
1.	How willing are you to speak in a group discussion outside class?					
2.	How willing are you to speak to the teacher about homework outside class?					
3.	How willing are you to talk to a stranger outside class?					
4.	How willing are you to ask for clarification about homework instruction outside class?					
5.	How willing are you to talk to a friend outside class?					
6.	How willing are you to discuss role-play assignments outside class?					
7.	How willing are you to speak to the teacher about tests outside class?					
8.	How willing are you to speak to the teacher about your grades outside class?					
9.	How willing are you to complain to the teacher about homework or test outside class?					
10.	How willing are you to ask your teacher for advice in studying English outside class?					
11.	How willing are you to ask questions outside class?					
12.	How willing are you to answer questions outside class?					

3. ICT Support

Instruction: The following items are designed to collect types of ICT supports you have received in learning English in this term.

No.	Items	Yes	No
1.	Teacher used socrative.com for our vocabulary test.		
2.	Teacher used writeabout.com for our writing/ essay assignment.		
3.	Teacher used Facebook group to communicate and share information with us.		
4.	Teacher asked us to record video for pronunciation assignment by using our smartphone.		
5.	Teacher used Mp3 for listening practice in class.		
6.	Teacher used video for listening practice in class.		
7.	Teacher used online dictionary for pronunciation practice in class.		
8.	Teacher used Google form for our reading homework.		
9.	Teacher used Google form for our listening homework.		
10.	Teacher used Google form for our grammar homework.		
11.	Teacher used kahoot.com for exercises in class.		
12.	Teacher used quizizz.com for exercises in class.		

4. Orientations for Language Learning (ODL)

Instruction: The following items are designed to collect your orientations in learning English.

No.	Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	Studying English is important because I must fulfill the university course requirement.					
2.	Studying English is important because It will be useful in getting a good job.					
3.	Studying English is important because I want to meet and talk to native speakers.					
4.	Studying English is important because It will help me understand English cultures.					
5.	Studying English is important because I will need English for my career in the future.					
6.	Studying English is important because I want to continue my study abroad.					
7.	Studying English is important because I want to make a friend with foreigners.					
8.	Studying English is important because It will help me to be successful in business.					
9.	Studying English is important because It will help me to get a better paying job.					
10.	Studying English is important because It will make me a more knowledgeable person.					
11.	Studying English is important because It will help me when I travel abroad.					
12.	Studying English is important because It will enable me to make a friend with foreigners easily.					
13.	Studying English is important because It will help me acquire new ideas and broaden my outlook.					
14.	Studying English is important because I would like to ravel to English speaking countries.					

No.	Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
15.	Studying English is important because It will help me learn about myself.					
16.	Studying English is important because It will help me to get good grades.					
17.	Studying English is important because It will help me get into a better university later in life.					
18.	Studying English is important because It will give me a better education.					
19.	Studying English is important because I am good at English.					
20.	Studying English is important because my parents want me to study English.					

5. Cultural perceptions (CP)

No.	Items	Yes	No
1.	Influenced by Thai cultures, I feel shy to speak in English.		
2.	Influenced by Thai cultures, I am worried that other students may laugh if I speak English.		
3.	Influenced by Thai cultures, I prefer not asking questions in class.		
4.	Influenced by Thai cultures, I do not feel comfortable interrupting in class.		
5.	Influenced by Thai cultures, I prefer asking questions outside class.		
6.	Influenced by Thai cultures, I am afraid of making mistakes.		
7.	Influenced by Thai cultures, I am not accustomed to raise questions and I do not know how to ask questions.		
8.	Influenced by Thai cultures, I feel that English is boring and I feel lazy to learn it.		
9.	Influenced by Thai cultures, I believe that teacher is always right.		
10.	Influenced by Thai cultures, I want teacher to teach me everything.		
11.	Influenced by Thai cultures, I do not like answer questions.		
12.	Influenced by Thai cultures, I feel that English is strange.		