

CHAPTER 1 INTRODUCTION

Background

The notion of willingness to communicate (WTC), which was initially defined as the probability of one's tendency to initiate to communicate (McCroskey & Baer, 1985; McCroskey & Richmond, 1990), has been gradually seen as a crucial factor in the L1/L2 learning and communication (Cao & Philp, 2006; Kang, 2005; MacIntyre et al., 1998). With more emphases given to the role of interaction in the language learning, teaching and communication process, the tendency to communicate embedded in the term of WTC attracted L2 researchers' attention. Some pointed out the importance of WTC from the perspective of language learners' functional use of L2 in the language development (e.g., Skehan's emphasis of 'talking to learn' in 1989, see Swain, 1995) whereas others considered the significance of enhancing learners' WTC as a fundamental goal of L2 language learning and instruction (MacIntyre et al., 1998; Kang, 2005). Still others proved that WTC could effectively predict communication frequency in L2 (Hashimoto, 2002; Huang, 2004; Yashima, 2004).

Recently, WTC has been utilized as a more reliable variable than motivation (Cao & Philp, 2006) to account for the individual differences in communication behaviors (e.g., initiating L2 talks) among L2 learners (MacIntyre et al., 1998). Inside the classrooms, language instructors may find some students with high motivation show low WTC and keep reticent (Cortazzi & Jin, 1996; Tsui, 1996; Wen & Clement, 2003). It seems that motivation is "not necessarily sufficient" for starting communication whereas WTC could better predict the functional use of L2 than the former variable (Matsuoka & Evans, 2005, p. 3).

L2 researchers have tested and confirmed the validity of MacIntyre et al.'s (1998) heuristic model of WTC (see Appendix 1) and several other available WTC theories (Cao & Philp, 2006; Cetinkaya, 2005; Hashimoto, 2002; Huang, 2004; Kim, 2004;

Matsuoka, 2006; Weaver, 2005; Wen & Clement, 2003; Yashima, 2002) in explaining the diversity of WTC in L2 communication. From the interactive perspective of WTC, they insisted that the ultimate WTC involve trait WTC and situational willingness to communicate (SWTC, see Kang 2005). They examined and confirmed that one's WTC behaviors might be influenced by a number of enduring and situational factors (MacIntyre et al., 1998), which in fact can be classified into learner and situational factors. The former factors included students' proficiency and perceptions of language competence, communication anxiety, and personality trait of introversion and extroversion (Cetinkaya, 2005; Hashimoto, 2002; Huang, 2004; Kim, 2004; Yashima, 2002). The latter involved the variable of teacher immediacy (Hsu, 2005; Hsu, 2006; Lin, 2003; Shih & He, 2005; Wang, 2007; Wang & Hsu, 2007), access to resources in L2 tasks (Weaver, 2004), interactional contexts, and familiarity with interlocutors and topics (Cao & Philp, 2006; Kang, 2005).

Among these researchers, only Cao and Philp (2006) examined situational variables from Kang's (2005) perspective, including topics, interlocutors, and speaking contexts (see Appendix 2). They pointed out that in addition to the variables of topics, interlocutors, and speaking contexts, L2 students' SWTC might be influenced by learner factors (e.g., confidence) and other situational factors (e.g., group sizes). Since they did not examine the joint effects of learner variables and situational factors on SWTC, it seems worthwhile to explore how learner variables may interact with situational variables in generating SWTC.

Besides, it would be essential to get a deeper understanding of the interrelations among learner factors and situational variables in determining SWTC from the students' and instructors' perspectives. Such an understanding might help elaborate the nature and the complexity of SWTC in L2 and increase the functional uses of L2. One additional advantage is an improvement on L2 instructors' teaching effectiveness

(Hashimoto, 2002; Hsu, 2006) by means of a “pedagogical intervention” intended to increase learners’ SWTC (Kang, 2005, p. 5).

It is noted that it is not clear about what variables may determine EFL learners’ SWTC levels. Regardless of the proposed SWTC models and theories mentioned above, not many of the past SWTC researchers investigated the construct of SWTC from Kang’s (2005) perspective as mentioned above and few of them explored the interrelations among its potential predictors in the EFL contexts. Therefore, the lack of sufficient research to clarify the issues from EFL learners’ perspectives offers the background for conducting the current study.

Statement of the Problem

The role of motivation in predicting the success in the SLA aroused a lot of controversy. Literature revealed that a number of L2 motivation researchers relied on Gardner’s (1985) motivational theories to explain whether integrative motivation is superior to instrumental motivation to predict L2 learners’ success in the SLA. One essential argument was that integrative motivation is a necessary condition to achieve a certain level of L2 proficiency such as in the immersion programs (Gardner & Lambert, 1959; Gardner & MacIntyre, 1993). Nevertheless, others (e.g., Warden et al., 2000) found conflicting reports and stressed the role of instrumental orientation to learn an L2 in the EFL contexts. The inconsistent results as discussed above indicated that integrative and instrumental motivations are likely to be invalid predictors of the success in the SLA. Some scholars started to point out the significance of expanding the scopes of the recent motivation theories.

Dornyei (2001), in an attempt to expand the horizon in the motivational study has pointed out WTC as an issue for further exploration. To respond to the call for new motivational research directions from interdisciplinary perspectives, several L2

researchers constructed alternative motivational frameworks based on MacIntyre et al.'s (1998) heuristic model of WTC, in which WTC involves trait WTC and SWTC (see discussions in the Background section). Some examined the role of motivation as an immediate antecedent of WTC and its relations to other variables (e.g., confidence). With exception of Hashimoto (2002), most of them found that motivation and confidence are two salient predictors of WTC (Cetinkaya, 2005; Kim, 2004; Yashima, 2002). For example, Cetinkaya (2005: 132) pointed out, "In Japanese, Korean, and Turkish contexts, it seems like students' motivation to learn English is not directly related to their willingness to communicate but rather, is indirectly related" through one component of confidence---that is, students' perceptions of language competence.

However, the above mentioned scholars and the SWTC researchers paid little attention to the effects of learner factors (e.g., motivation and confidence) and other situational factors on SWTC from Kang's (2005) perspective (see discussions in the Background section). There are several possible reasons. One potential reason is that there is a lack of reliable scales developed based on SWTC theories (Kang, 2005) to remedy the weakness (e.g., lack of generalizations to a larger population) in conducting the observational and interviewing studies on SWTC (Cao & Philp, 2006). It seems that the past L2 researchers lacked the interests in generalizing their research findings (e.g., based on Kang's SWTC model in 2005) to "a larger population" (Kim, 2004, p. 83).

Another reason may be that it is very time-consuming and challenging to develop a reliable and valid scale on SWTC and to conduct both quantitative and qualitative studies of SWTC in L2 to observe the relations of SWTC to the learner variables and those to situational factors (Cao & Philp, 2006). Based on the discussion above, it seems appropriate for the present author to apply quantitative research methods to examining students' SWTC levels and the relations among SWTC and its predictors

(e.g., learner and situational factors) with consideration of time limits and generalization of the research findings.

It is also noted that a few WTC researchers in Taiwan paid their attention to studying the role of motivation (Huang, 2004) and teacher immediacy in determining EFL students' WTC levels (e.g., Lin, 2003; Hsu, 2005; Hsu, 2006; Shih & He, 2005; Wang, 2007; Wang & Hsu, 2007). Nevertheless, it seems that these researchers paid less attention to the relations between SWTC and motivation and those between SWTC and teacher immediacy. It is warranted to explore these issues in the future.

Moreover, literature revealed that shyness plays a role in determining the amount of L2 talks and in explaining the diversity of the uses of help-seeking strategies among learners in the classroom instruction (Syau, 2001; Zheng, 2002). However, the relations between SWTC and shyness as avoidance behaviors due to social anxiety (McCroskey & Richmond, 1982) have been less researched. It seems worthwhile to explore the impacts of shyness on SWTC in an L2 classroom.

Similarly, the nature of classroom climate in an EFL context and its relations to SWTC are seldom examined by L2 researchers in Taiwan. Literature suggested that the classroom climate plays a vital role in determining the levels of students' motivation, WTC, and interpersonal relationships between teachers and students and among peers in L2 interactions (Chang & Lin, 2001; Chang & Chang, 2003). Nevertheless, insufficient attention is paid to the effects of students' preparedness (Fassinger, 1995) on climate and the relations between SWTC and climate, which may stimulate more researchers' attention.

Based on the discussion above, it seems that similar to the past SWTC scholars, L2 researchers in Taiwan paid less attention to the relations among SWTC, and the situational and learner factors as discussed previously. It is warranted to explore the issue for further studies. Since it is too ambitious to investigate the relationship

between SWTC and all of the potential variables influencing SWTC, the researcher decided to investigate the relations of SWTC to 3 learner factors (i.e., motivation, confidence, and shyness) and those to 2 situational variables (i.e., teacher immediacy and classroom climate). Due to lack of research on SWTC and the chosen five variables as its predictors, the researcher's specific hypotheses were informed by a limited body of theory and research regarding SWTC (Cao & Philp, 2006; Kang, 2005). The dominant theoretical perspective of the relations between SWTC and its potential predictors is Kang's (2005) perspective. Some additional guidance for the assumptions of the interaction between SWTC and its predictors (e.g., learner and situational variables) is provided by Cao and Philp (2006). It is hypothesized that a significant and systematic relation might exist among SWTC (Kang, 2005) and the aforementioned learner and situational factors, and that none of the chosen predictors of SWTC alone could significantly account for the diversity of SWTC levels among students in an EFL context. Thus, a SWTC model is proposed and to be tested (see Figure 1) in this study.

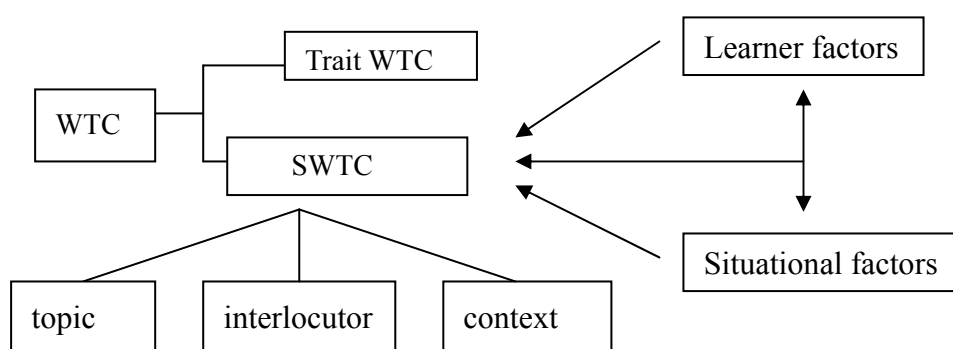


Figure 1 A Proposed SWTC Model in This Study

In addition, to test the validity of the proposed SWTC model (see Figure 1) it is very essential to develop reliable and valid instruments to measure SWTC and the chosen predictors before conducting the main study (see Chapter 3). First, due to the

lack of available SWTC scales, a generic SWTC scale was author-tailored based on SWTC theories (Kang, 2005). Besides, the researcher also developed three scales on learner factors predicting SWTC. Partially duplicating Kim's (2004) study, the researcher adopted and revised Kim's (2004) motivation and confidence scales to measure EFL students' perceptions of the levels of motivation and confidence (see Chapter 3). Besides, McCroskey Shyness Scale (McCroskey & Richmond, 1982) was adopted and revised to examine students' shyness in the EFL classes. One reason was that the scale items were designed to capture behavioral aspects of shyness, which is related to SWTC. They were different from other scales items developed to examine cognitive or emotional domains of shyness from psychologists' perspectives (Su, 1995) and to explore the variables affecting the consequence of shyness from EFL researchers' viewpoints (Syau, 2001; Zheng, 2002).

Moreover, the researcher developed scales to tap the levels of situational factors (i.e., climate and teacher immediacy) affecting SWTC. The researcher in this study adopted not only Hsu's (2001) climate scale items but also Fassinger's (1995) with the emphases on teacher support, peer support, and students' preparedness in determining climate (see Chapter 3). Besides, it is noted that the use of Gorham's (1988) verbal immediacy has been questioned due to the lack of validity (Hsu, 2006; Robinson & Richmond, 1995) and "actual flow of talks and activity comprising a teaching-learning encounter" (Rubin, 2002, p. 415; cited in Hsu, 2005, p. 19). To be specific, there are some drawbacks (e.g., a potential gap between the observed and students' self-reported immediacy) in the uses of scales on immediacy. Despite the limitations, the researcher decided to revise Sanders and Wiseman's (1990) immediacy scales' items and added several items based on the results of empirical studies of immediacy to capture students' perceptions of the levels of teacher

immediacy (e.g., Lin, 2003; Hsu, 2005; Hsu, 2006; Shih & He, 2005; Wang, 2007; Wang & Hsu, 2007).

Purpose of the Study

The present study was conducted for multiple purposes. The first aim was to develop a reliable and valid scale on the components of SWTC as well as the variables of motivation, shyness, confidence, climate, and teacher immediacy predicting SWTC.

The second goal is to examine the relationships between SWTC and learner variables (i.e., confidence, motivation, and shyness) and those between SWTC and situational factors (i.e., teacher immediacy and climate).

The third aim is to investigate the relations among SWTC, situational factors, and learner variables as previously mentioned from Kang's (2005) perspective. Specifically, the author of the study attempted to explore the best predictors of SWTC, and investigate whether there is a systematic and significant relationship among SWTC and its predictors in this study.

Research Questions

In this study, the following three key research questions are addressed.

RQ1: What are the relationships between senior high students' situational willingness to communicate (SWTC) and such learner factors as motivation, confidence, and shyness in the EFL contexts of Taiwan?

RQ2: What are the relationships between senior high students' situational willingness to communicate (SWTC) and such situational factors as teacher immediacy and climate in the EFL contexts of Taiwan?

RQ3: What are the best predictors of situational willingness to communicate (SWTC) when learner factors and situational variables are considered together?

Significance of the Study

So far, the roles of topics, interlocutors, and speaking contexts in determining students' SWTC levels have not been much researched at the secondary education level in Taiwan. The past SWTC researchers demonstrated the dynamic and complex nature of SWTC in their studies of a limited number of the university students' SWTC in the ESL contexts (Cao & Philp, 2006; Kang, 2005). Nevertheless, the results of their studies did not offer any information about EFL learners' SWTC from the perspective of topics, interlocutors, and speaking contexts (Kang, 2005). Therefore, the results of the present study might help us capture senior high learners' SWTC levels in the EFL classes in Taiwan and clarify the relationships among SWTC and situational factors of topics, interlocutors, and speaking contexts.

Another significance of the study is the development of the scales measuring SWTC and its predictors (i.e., shyness, motivation, confidence, climate, and teacher immediacy). The measures used in this study may offer reliable and valid tools for future studies of SWTC in an EFL context.

Moreover, it is anticipated that the results of the study will clarify whether there is a systematic and significant relation among SWTC and the chosen learner variables (i.e., motivation, shyness, and confidence) and situational factors (i.e., climate and teacher immediacy). The results of multiple regression analyses will help us seek the best predictors of SWTC. By capturing the differences of their predictive powers on SWTC, the author of the study expects to give pedagogical implications to the senior high EFL instructions in Taiwan in generating and sustaining L2 learners' high SWTC, and attaining success in L2 communication. Additionally, the results might extend the scope of the theories on SWTC.

Definition of Terms

Situational WTC (SWTC)

The concept of situational willingness to communicate (SWTC) refers to ones' psychological readiness or volition to initiate discourse with specific persons in specific speaking contexts. Based on MacIntyre et al.'s (1998) heuristic WTC model, SWTC refers to state-levels of WTC (MacIntyre, 2007). In contrast to other researchers (Wen & Clement, 2003), Kang (2005) argued that SWTC is composed of three situational antecedents (i.e., topics, interlocutors, and speaking contexts). Cao and Philp (2005) described SWTC as "state WTC" or "behavioral WTC."

Despite the controversy over the definitions as discussed above, the author of this study adopted Kang's (2005) conceptualization of SWTC, and defined it as senior high students' perceptions of their readiness or volition to initiate L2 talks about different topics with their EFL teachers and classmates across interactional contexts (whole class or group activities) in Taiwan. It is noted that based on Kang's (2005) SWTC model, the researcher developed an SWTC scale in which SWTC was defined by two components--- that is, topic familiarity and positive feedback (see Chapter 3).

Teacher Immediacy (TI)

Teacher immediacy (hereafter TI) refers to one's perceptions of instructors' cognitive choices of specific verbally (Gorham, 1988) and nonverbally (Andersen, 1979) affinity-seeking strategies to narrow down the physical and/or psychological gaps between teachers and students. Both verbal immediacy and nonverbal immediacy may play a role in facilitating positive student-teacher interpersonal relations (Hsu, 2005; Hsu, 2006; Lin, 2003; Shih & He, 2005; Wang, 2007; Wang & Hsu, 2007) and instructors' teaching effectiveness (Hashimoto, 2002; Hsu, 2006). Besides, from the perspective of Chinese culture, TI can be instructional, personal, and relational (Zhang, 2005; Zhang & Oetzel, 2006).

In this study, TI refers to Taiwanese senior high school students' perceptions of their EFL teachers' verbal and nonverbal aspects of immediacy behaviors inside the classrooms. It is hypothesized that TI is positively related to SWTC in L2.

Classroom Climate in L2

The concept of classroom climate refers to one's mental contexts in which different types of learning experience might result from a variety of psychological feelings (e.g., liking) of the communication contexts. Dornyei (2001) suggested that climates might determine L2 motivation, and a supportive climate may result from sufficient supports from the peers and teachers as significant others (Hsu, 2001), which is emphasized in Wen and Clement's (2003) WTC model from the perspective of Chinese culture. Fassinger (1995) argued that in addition to teachers' and peers' support, the variable of student's preparedness perhaps played a profound role in influencing climate, especially the chilly one from the instructional communication perspectives.

In this study, climate refers to senior high EFL learners' perceptions of their socio-psychological contexts, and it is defined to have three situational components: teacher support, peer support, and students' preparedness. To be specific, it is assumed that the increase of support from teachers and peers might result in a more supportive climate. Besides, when students are more prepared for course contents, they might have a better climate. It is also hypothesized that climate is positively related to SWTC in L2.

Shyness in the EFL class

Based on McCroskey and Richmond (1982) conceptualization of shyness, the construct is defined as one's avoidance due to social anxiety, which might result in low SWTC. From their perspective, shy students may keep quieter or talk less than other classmates. Zheng (2002) and Syau (2001) investigated the roles of shyness in

affecting the amount of L2 talks in English classes, and the impacts of shyness on the uses of help-seeking strategies.

In this study, following McCroskey and Richmond (1982), the researcher defined shyness in the EFL class as one's avoidance behaviors when he or she is afraid of having negative evaluations from peers in L2 interactions. Besides, shy students may be those who perform quiet or shy behaviors when they had low SWTC than their classmates. It is considered that learners' shyness might be the function of their personality traits, quiet/ talkative behaviors, and peers' agreements on the statements depicting others' quiet or talkative behaviors (see Chapter 3). Moreover, shyness is seen to be negatively related with SWTC in this study.

Organization of the Study

The dissertation is composed of five chapters. Chapter one is the introduction of background, the statement of the problem, the purpose of the study, the significance of the study, research questions, definitions of terms and organization of the study. Chapter two contains a detailed literature review of theoretical backgrounds of WTC constructs, approaches to defining WTC, L2 WTC and communication models. It also reviews studies on the relations between WTC and background variables (e.g., gender, schools' prestige and locations, and students' perceptions of language proficiency), between learner factors and WTC and between situational factors and WTC. The final part of this chapter contains a summary of empirical WTC research in the L2 contexts, and introduces empirical WTC and TI studies in Taiwan. Chapter three offers information about the research design (participants and instruments) and methodology (data analysis) in the main study. Chapter four displays the findings of the quantitative data analyses. Finally, Chapter five is the conclusion part of the present study with a summary of the main results and limitations. Besides, pedagogical implications and suggestions for future studies are given at the end of the chapter.

CHAPTER 2 LITERATURE REVIEW

This section contains literature reviews of the key theoretical foundations of WTC constructs, approaches to defining WTC, and the proposal of WTC and communication models. Besides, it introduces theories and studies regarding the relations of WTC to the following variables: background variables (i.e., gender, schools' prestige and locations, students' perceptions of their listening, speaking, reading, and writing competence), learner variables (i.e., shyness, motivation, and confidence), and situational variables (i.e., climate and teacher immediacy). Finally, empirical WTC studies conducted in the L2 contexts and previous WTC and TI studies in Taiwan were reviewed accordingly.

Theoretical Foundations of Developing WTC Construct

Based on Matsuoka and Evan's (2005) comprehensive review article on WTC studies, there are three primary foundations for the development of the construct of WTC---that is, Burgoon's (1976) proposal of unwillingness to communicate (UWTC), Mortensen et al.'s (1977) notion of "predisposition toward verbal behavior" (PVB) and McCroskey and Richmond's (1982) concept of "shyness" as social anxiety (see MacIntyre et al., 2002, p. 539; Matsuoka, 2006, p. 4). They are introduced as follows:

The origin of the studies on WTC and the available WTC models (e.g., the heuristic WTC model proposed by MacIntyre et al., 1998) is related to Burgoon's (1976) notion of UWTC. McCroskey and Baer (1985) conceptualized WTC as a counterpart of UWTC. WTC is defined as "the probability of engaging in communication when free to choose to do so" (MacIntyre et al., 1998, p. 546).

The second foundation of WTC construct is related to Mortensen et al.'s (1977) conceptualization of PVB from L1 communication perspectives. The notion of PVB is treated as a determinant of one individual's communication frequency across speaking

contexts. Although McCroskey (1997) reported the correlation between UWTC and PVB was not as high as reported by Mortensen et al. (1977), some EFL researchers paid attention to how frequency of L2 use was determined by L2 WTC in Japanese contexts (Yashima, 2002) or in the learning situations in Taiwan (Huang, 2004).

The third main theoretical foundation of WTC is associated with the studies on the shyness construct. Some authors defined shyness as social anxiety (Leary, 1983). Others insisted a shy behavior be the function of personality traits (e.g., an internally experienced discomfort) and timidity and less talk (e.g. externally observable quiet behaviors). McCroskey shyness scale was thus developed (McCroskey et al., 1982; Matsuoka & Evans, 2005, p. 6). Nevertheless, the instrument is seldom utilized to measure students' shyness in L2 interactions (Matsuoka & Evans, 2005).

Based on the discussion above, the theories of the UWTC, PVB, and shyness constructs provided significant bases of the development of WTC theories and those of empirical studies of WTC in L1 and L2 communication.

Approaches to Defining WTC: Trait-Like, Situational or Interactive

Three main approaches to defining WTC can be identified based on diverse theoretical positions: trait-like, situational, and interactive perspectives (see Table 1). The following section contains introductions to these approaches accordingly.

Trait-like perspective of WTC

As shown in the second column of Table 1, Burgoon's (1976) notion of UWTC provided a significant theoretical foundation of the construct of WTC in L1 as discussed in the previous sections. Besides, WTC is originally seen as a trait-like construct as related to the "variability in talking behaviors" (McCroskey & Richmond, 1990; cited in Cetinyaka, 2005, p. 17).

Table 1 Approaches to Defining WTC: Trait-Like, Situational, or Interactive Perspectives

Main characteristics of WTC			
	Trait like	situational	interactive
L1 UWTC	Burgoon's (1976) concept of UWTC;		
WTC in L1	McCroskey and Richmond (1987) defined WTC as " <i>personality-based, trait-like predisposition relatively consistent across a variety of communication contexts and types of receivers</i> ", see McCroskey and Richmond, 1990, p. 73)		
WTC in L2 (including UWTC In L2)	1. WTC in L2 was a "personality based predisposition toward approaching or avoiding the initiation of communication when free to do so" (McCroskey, 1992, p. 17, cited by Hashimoto, 2002, p. 38) 2. MacIntyre (1994) found communication apprehension and self-perceived communicative competence as predictors of WTC 3. Kim (2004) found Korean college students' WTC was perceived by students to be more likely to be trait-like than situational;	1. McCroskey et al., 1985; MacIntyre et al., 2001 and 2003--- because students might change WTC across cultural settings such as in (non-)immersion and home-stay programs; 2. Cao and Philp (2006) validated the significance of contextual factors (whole-class, group, and dyadic activities) in influencing situational willingness to communicate (SWTC); 3. Kang (2005) proposed a SWTC model; 4. Lin (2003) and Hsu (2006) examined TI and WTC.	1. In McIntyre et al.'s (1998) heuristic WTC model, WTC refers to one person's "readiness to enter into discourse at particular time with a specific person or persons, using a L2" (p. 547) 2. Wen and Clement (2003)— Chinese L2 learners' UWTC/ reticence;

Notes:

1. WTC in L1 does not guarantee WTC in L2 (McCroskey et al., 1998, p. 54) while they "are likely to be independent" (MacIntyre et al., 2003; Cao & Philp, 2006, p. 481)
2. WTC may be detrimental **or** positive to the SLA process (Lin, 2003);
3. Desire to communicate (DC) and WTC are seen as located at two ends of the continuum (Wen & Clement, 2003);
4. Unlike traditional research, Wang's study (2004) was concerned with the effect of students' oral performance on WTC, and Hashimoto's (2002) found a direct path from WTC to motivation.

From a trait-like perspective, it is argued that a person's WTC might remain stable with the changes of speaking contexts and interlocutors. Since 1980s, research findings have confirmed the viewpoint. Empirical studies revealed that WTC in L2 might be triggered by learner factors such as personality, introversion, self-esteem,

communication competence, and apprehension (Kim, 2004; MacIntyre 1994; Matsuoka, 2006; Yashima, 2002). One comprehensive model is proposed by MacIntyre (1994), who suggested that the construct of trait WTC was closely related to “such attributes as communication competence, introversion-extraversion, self-esteem, and so forth” (ibid, see Figure 2).

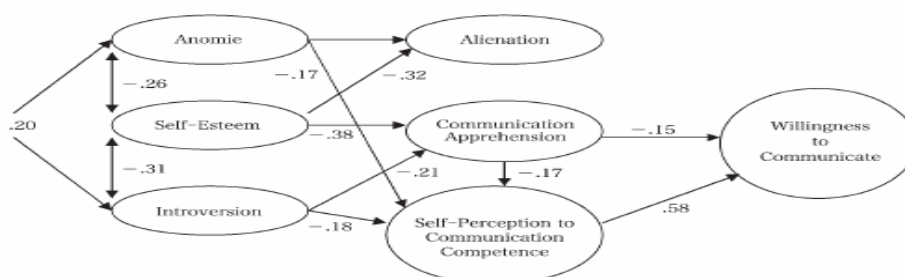


Figure 2 MacIntyre's (1994) Proposal of the WTC Model

Recently, several researchers have employed WTC to account for the diversity of L2 students' reticent communication behaviors. McCroskey (1992: 17) defined WTC in L2 as a “personality based predisposition toward approaching or avoiding the initiation of communication when free to do so” (cited by Hashimoto, 2002, p. 38). Although both situational and learner factors may influence one's WTC, Korean students' WTC was more perceived as trait-like than situational since it was “more likely to be consistent across L2 communicative contexts rather than situational depending on L2 contexts” (Kim, 2003, p. 146).

However, the approach to defining WTC as trait-like is open to criticism due to the ignorance of the role of situational variables influencing WTC in L2. Since it is never denied that a person's WTC might be influenced by situational factors (e.g., topic, interlocutors, and contexts) (Cao & Philp, 2006; Kang, 2005), some researchers highlighted the effects of situational factors on WTC. Such a situational perspective is introduced in the following lines.

Situational perspective of WTC

From the situational perspective of WTC, it is believed that learners' WTC might change across cultural or interactional settings. For example, McCroskey et al. (1985) proved there was a great diversity of WTC among college students studying in the immersion/ non-immersion program. MacIntyre et al. (2001) explored the variations of the home-stay students' WTC. Recently, Cao and Philp (2006) had conducted a comparison study of L2 students' SWTC across contexts (e.g., whole class, group, and dyadic activities). Other authors investigated how a situational variable of teacher immediacy was correlated with WTC in the EFL contexts (Lin, 2003; Hsu, 2006).

Based on the discussions above, it is found that the first and second approaches to defining WTC could not account for the interactive effects of learner factors and situational factors on WTC in L2 communication. This offers a vital background for the development of the third (interactive) approach to defining WTC, which is to be discussed as follows:

Interactive Perspective of WTC

To avoid the potential drawback of the trait-like and situational perspectives of WTC as mentioned above, some authors stressed the significance of the third (interactive) perspective of WTC. Pinpointing the dual (both trait and situational) characteristics of WTC, MacIntyre et al. (1998) developed a heuristic model of WTC in L2 from the western-based communication perspective. Later, extending the heuristic model, Wen and Clement (2003) proposed a Chinese culture-specific WTC framework. Despite different theoretical positions, it is argued that the ultimate WTC in L2 is complex and dynamic due to the potential joint effects of learner variables and situational factors on WTC in L2 (Cao & Philp, 2006; Kang, 2005).

Besides, it seems difficult for L2 researchers to examine the relations among WTC and a great number of affective factors, especially by means of interviews (Cao

& Philp, 2006) or structural equation model (SEM) analyses (Cetinkaya, 2005; Kim, 2005; Matsuoka, 2006; Yashima, 2002). Despite the above mentioned difficulty, Kang (2005) and Cao and Philp (2006) stressed a need for considering learner variables and situational factors predicting trait WTC and SWTC in L2 interactions.

To respond to Kang (2005) and Cao and Philp (2006), the author of the study rested on correlational and regression analyses to identify interrelations among learner variables (shyness, motivation, and confidence) and situational factors (teacher immediacy and climate). By means of illustrating the potential sequence priority among the above variables, she expected to throw light on SWTC theories from the interactive perspective.

L2 WTC and Communication Models

This section is concerned with the proposed WTC and communication models as related to the current study (Kim, 2004; Kang, 2005; MacIntyre et al., 1998; Wen & Clement, 2003).

MacIntyre et al.'s (1998) Heuristic Model

Though MacIntyre and Charos (1996) proposed a model of L2 communication that was applied to French as a second language situation in Canada (see Figure 3), MacIntyre et al.'s (1998) heuristic model of WTC construct (see Appendix 1) is one of the most comprehensive WTC models available for L2 researchers so far.

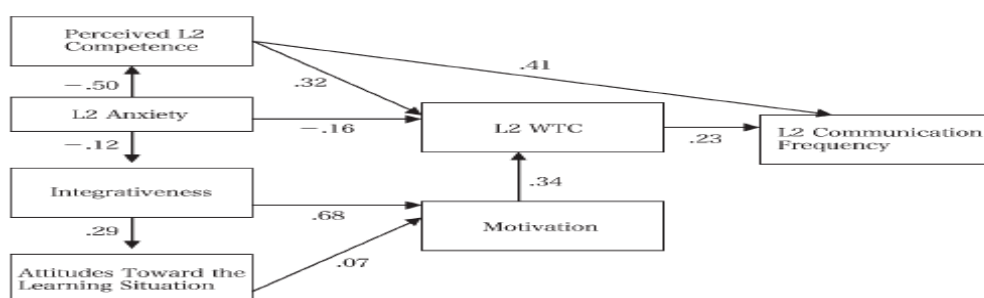


Figure 3 Model of L2 Communication Applied to French as an L2 in Canada (MacIntyre & Charos, 1996)

Within MacIntyre et al.'s (1998) framework, twelve variables are separately arranged in six layers of a pyramid shape. For example, L2 use, which is located in the top of the WTC pyramid, is seen as the consequence of WTC, which is situated in Layer II. As to the remaining ten factors, they are arranged in Layer III to Layer VI. They are considered to be effective predictors of WTC in L2.

A complex interrelationship exists between the factors across layers within the WTC pyramid. For example, Layer III contains two immediate antecedents of WTC: desire to communicate with a specific person and state of communicative self-confidence. They are situational determinants of WTC, which are intricately related to “motivational propensities” (MacIntyre et al., 1998) such as L2 self-confidence and motivation variables (i.e., interpersonal and intergroup motivation) located in Layer IV. Besides, the previously mentioned five variables are considered to be related to another two types of predictors of WTC located in the bottom layers. They are affective-cognitive contextual factors arranged in Layer V (intergroup attitudes, social situation, and communicative competence) and those related to social and individual contexts (intergroup climate and personality) as situated in Layer VI.

It is noted that that the variables located in layers IV, V, and VI have enduring influences on WTC and they are considered as more distant predictors of WTC compared with those as proximal antecedents of WTC arranged in layer III.

The validity of the heuristic WTC model (MacIntyre et al., 1998) has been tested by several authors (Cetinkaya, 2005; Hashimoto, 2002; Huang, 2004; Kim, 2005; Matsuoka, 2006; Weaver, 2005; Yashima, 2002; Yashima et al., 2004). They examined the interrelations among affective variables (e.g., motivation, confidence, and international posture), WTC, and frequency of L2 use. Nevertheless, they did not explore the complexity of WTC in the EFL classroom interactions L2 from Chinese culture perspectives (Wen & Clement, 2003).

Based on the discussion above, MacIntyre et al.'s (1998) heuristic model contributes to identifying twelve significant communication variables and arranging them in six layers of the pyramid of WTC to illustrate proximal and distant antecedents of WTC as well as L2 use as a consequence of WTC. Besides, since the heuristic model of WTC does not consider the determinants of WTC from non-western perspectives, it is warranted to test the applicability of alternative communication models to different cultural contexts. The following introduced another comprehensive WTC model (Wen & Clement, 2003) that extended MacIntyre et al.'s (1998) heuristic model.

Wen and Clement's (2003) WTC Model

Although a number of studies confirmed the validity of MacIntyre et al.'s (1998) WTC model as previously discussed, Wen and Clement (2003) proposed a WTC model from a non-western cultural perspective (see Table 2).

Table 2 Wen and Clement's (2003) Identification of Cultural Origins of UWTC in Chinese Society

	Potential crucial variables	Classroom behaviors
Cultural origins of UWTC underlying the value of interpersonal relations from cultural/ Confucian viewpoints	1. Other-directed self face-protected orientation (e.g., jen as a key element related to social self and evaluation from significant others in Chinese value of Confucianism; insider effect (sense of belonging and psychological distance) 2. A submissive way of learning (e.g., submission to authority)	1. submission to social expectation (e.g., an avoidance of negative opinions) and ; other-directedness with identification of ingroups and outgroups; 2. teachers as the authority responsible for L2 language stimulation and modeling in that students are poor mastering of grammars and self-correction

As shown in Table 2, it is argued that Chinese students' reticent or UWTC behaviors might be characteristic of submission to social expectations (e.g., avoidance of negative evaluations). Their senses of ingroups and outgroups are perhaps related to their perceptions of social and psychological distances among interlocutors (e.g.,

peers or teachers). Besides, it is assumed that Confucian values of interpersonal relations may result in the beliefs that language teachers are the authority being responsible for L2 stimulation and modeling, and facilitating students' mastering grammar with self-corrections.

Figure 4 demonstrated that there is a continuum with desire to communicate (DC) at one hand and with willingness to communicate (WTC) at the other hand in L2 interactions. Based on Wen and Clement's (2003) WTC framework, the former (DC) is a "deliberate choice or preference" to initiate talks. Variables locating on the continuum may influence the relations between DC and WTC (see Figure 4). These factors were motivational orientation (e.g., affiliation and task-orientation), affective perceptions (inhibited monitor), personality factors (e.g., risk-taking and tolerance of ambiguity) and societal contexts (e.g., group cohesiveness and teacher support).

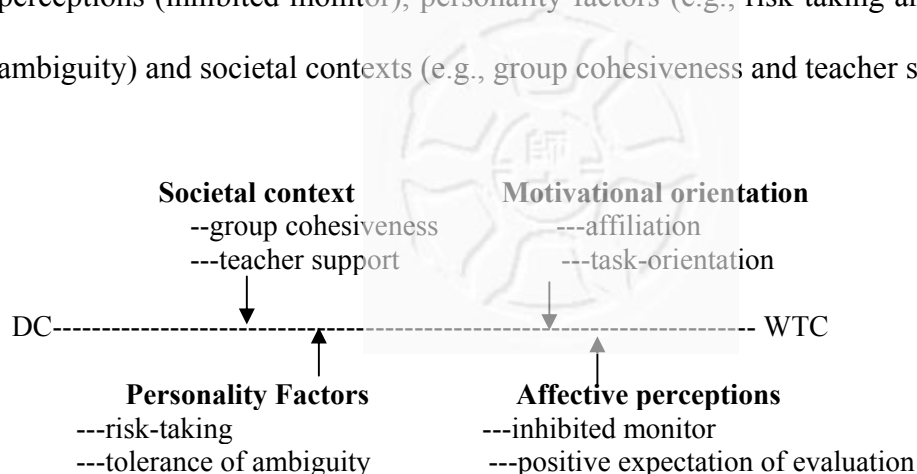


Figure 4 Variables Moderating the Relation between DC and WTC in Chinese EFL Classrooms (adopted from Wen & Clement 2003; see Figure 4 in Matsuoka & Evans 2005, p. 8).

The discussion above demonstrated that Wen and Clement's (2003) WTC framework is a communication model accounting for the diversity of WTC among Chinese learners. However, only a few researchers (Hsu, 2006) examined its applicability to the EFL contexts such as in Taiwan. Future scholars may pay more attention to this research topic.

Kim's (2004) L2 Communication Model

Unlike the authors as mentioned above, Kim (2004) examined Korean students' WTC in L2. Duplicating Yashima's (2002) study, Kim relied on two theoretical foundations--- that is, MacIntyre et al.'s (1998) heuristic WTC model and Gardner's (1985) socio-educational theories to account for the diversity of WTC among Korean EFL learners. The main results of Kim's (2004) study indicated three significant paths from attitude to motivation, from motivation to confidence, and from confidence to WTC in L2 (see Figure 5). The research findings supported the validity of applying MacIntyre et al.'s (1998) WTC model to accounting for Korean students' WTC in L2.

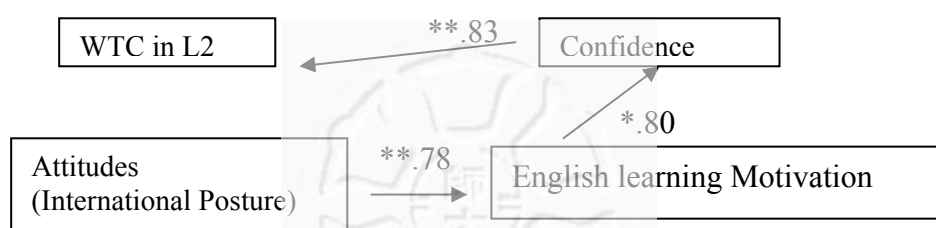


Figure 5 Kim's (2004) L2 Communication Model

Kim (2004) pointed out that there was no direct relation between motivation and WTC, and between WTC and attitudes. The finding did not totally correspond to the results of Yashima's (2002) study. It is probably because "the selected university students' motivation to learn English was more related to written English than oral English" (Kim, 2005, p. 151).

Regardless of the inconsistent results as discussed above, the author of the study paid attention to how salient predictors of trait-like WTC (e.g., motivation and confidence) might influence situational willingness to communicate (SWTC) in Taiwan's senior high EFL contexts.

Kang' (2005) Situational WTC (SWTC) Model

This section introduced Kang's (2005) situational willingness to communicate (SWTC) model (see Appendix 2), which is different from available WTC models (Kim, 2004; MacIntyre et al., 1998; Wen & Clement, 2003) as previously discussed.

As shown in Appendix 2, Kang (2005) considered that topic, interlocutor, and speaking contexts are three situational antecedents of SWTC. Three key psychological antecedents of SWTC are excitement, responsibility, and security. The ultimate WTC is defined by trait WTC and SWTC (See Appendix 2).

Though there are a number of potential "situational" variables influencing SWTC construct (Kang, 2005), Cao and Philp (2006) extended Kang's (2005) SWTC model by observing the potential variables determining both trait and situational aspects of WTC in L2. In addition to classroom observations, Cao and Philp (2006) utilized interviews as well as a revised trait-like WTC questionnaire to collect L2 students' self-reports about the predictors of WTC in L2. The results suggested that despite the potential gaps between actual and reported WTC behaviors, the top five significant factors influencing WTC were group sizes and self-confidence, followed by familiarity with interlocutors, interlocutor participation, and degrees of topic preparation. Two additional factors were cultural backgrounds and medium of communication. The results of Cao and Philp's (2006) study confirmed the dual characteristics of WTC (e.g., trait-like and state, see MacIntyre et al., 1998; Kang, 2005; Kim, 2004), and partially supported Kang's (2005) SWTC model in which SWTC is considered to have three situational components. They are topic, interlocutors, and contexts (see Appendix 1).

Nevertheless, it is noted that a development of self-report SWTC questionnaires probably can remedy the weakness (e.g., lack of generalization of research findings to large population, see Kim 2005, p. 83) of qualitative approaches (e.g., classroom

observations and interviews). This motivates the author of the study to construct an SWTC scale (see Chapter 3).

Background Variables and WTC

This section reviews literature on WTC and such background variables as gender, school variables (e.g., schools' locations and prestige), and students' perceptions of listening, speaking, reading, and writing proficiency respectively.

The Role of Gender

L2 researchers provided limited information about the impact of gender on WTC. Baker and MacIntyre (2000) examined the diversity of WTC among Canadian high school immersion and non-immersion students learning French as L2. The results suggested that the former had higher competence and WTC, and female non-immersion learners were motivated to learn L2. However, no significant gender effects on motivation in L2 (French) were found when learners studied in the immersion programs.

Later, MacIntyre et al. (2002) conducted an empirical study of seventh to ninth graders' WTC in an immersion program. The results indicated that females were more willing to communicate than males although L2 learners' motivation declined from grade 7 to grades 8 and 9.

In contrast to the above mentioned authors studying immersion students, Huang (2004) examined EFL students' WTC studying in a central-Taiwan private university. One significant finding was that compared to male students, females had more motivation, WTC, and L2 use.

The discussions above indicated that there is insufficient information about the effect of gender on SWTC in the L2 contexts such as in Taiwan, which motivates the author of the study to explore the correlations between SWTC and gender.

The Role of School Variables: Locations and Prestige

Most of the past research on WTC in L2 scarcely examined the relations between SWTC and school variables (e.g., schools' locations and prestige). For example, a few EFL researchers examined college/university students' WTC levels in the northern (Lin, 2003; Hsu, 2005; Wang & Hsu, 2007) and in central Taiwan (Huang, 2004). Nevertheless, none of them explored whether students studying in the metropolitan areas (e.g., in Taipei) had higher SWTC (Kang, 2005) compared to those students attending non-metropolitan schools (e.g., in Nantou).

Besides, it is recognized that prestigious schools in the metropolitan areas are chosen by junior high graduates scoring higher in the Basic Competence Tests as crucial entrance exams of senior high schools in Taiwan.

Based on the reasons mentioned above, the author of the study speculated that students attending prestigious and metropolitan schools may have higher SWTC.

The Role of Students' Perceptions of Language Proficiency

The past research on WTC in L2 scarcely examined the relations between WTC and students' perceptions of language proficiency (e.g., writing, speaking, reading, and listening competence). Lin (2003) investigated the impacts of students' perceived TI and their language proficiency levels (e.g., advanced, intermediate, and basic) on university students' WTC in the EFL contexts in Taiwan.

It is noted that in Lin's (2003) study, students' language proficiency was defined based on two primary tests scores. They were students' scores in speaking and listening tests from the intermediate-level General English Proficiency Tests, and those in reading and writing tests in the college entrance exam. Although she considered students' competences in four skills as the fundamental bases of placing the participants into three proficiency levels, she did not observe how WTC could be

predicted by students' perceptions of their proficiency (e.g., reading, speaking, listening, and writing competence).

In contrast to Lin (2003), some authors reported conflicting findings on proficiency and WTC. Yashima (2002) suggested no direct correlation between WTC and English proficiency, which might be predicted by motivation. Matsuoka (2006) deployed CASEC (i.e., Computerized Assessment System of English Communication, which involves tests on vocabulary, listening, dictation, and idioms) to test Japanese learners' English communicative proficiency levels. The results of Pearson correlation analyses with significance two-tailed ($p < .05$) indicated that WTC was not related to any proficiency subscales. Huang (2004) utilized multiple regressions to analyze the effects of English proficiency levels on the relationships among English learning motivation, WTC in English, and frequency of communication in English. One main finding was that WTC seemed to be a stronger predictor of frequency of communication in English for those high and low English proficiency students compared with those with mid-level English proficiency.

Due to the lack of information about the relations between SWTC (Cao & Philp, 2006; Kang, 2005) and students' perceptions of reading, writing, listening, and speaking competence (Lin, 2003; Matsuoka, 2006), it stimulates the author of the study to investigate the role of senior high school EFL students' perceptions of their own proficiency levels in influencing SWTC.

To sum up, the discussions above indicated that it is not clear about the correlations between SWTC and the aforementioned background variables (i.e., gender, schools' locations and prestige, and students' perceptions of reading, writing, listening, and speaking proficiency). It is promising to clarify their interrelationships.

Learner Factors and WTC

This section contains the literature reviews of the theories and empirical studies with respect to the relations of WTC to such learner factors as confidence, motivation, and shyness. They are introduced in the following lines.

The Role of L2 Self-confidence

Literature on WTC suggests that confidence in L2 can be conceptualized either as a trait or a state. Similar to shyness (McCroskey et al., 1982) and communication apprehension (anxiety), confidence might be researched from trait, state and situation-specific perspectives (Cetinkaya, 2005; Kim, 2004; MacIntyre, 2007; MacIntyre & Gardner, 1991; Yashima, 2002). Based on MacIntyre et al.'s (1998) heuristic model of WTC, both trait and situational confidence may influence WTC independently.

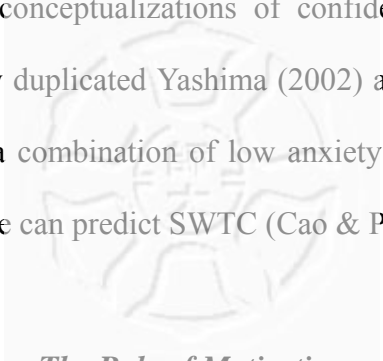
Despite the different levels of confidence, a number of L2 researchers had examined the roles of self-confidence in influencing the success in the second language learning and communication processes. Some authors (e.g., Ganschow & Sparks, 1991) defined confidence as students' perceptions of the ease influencing the SLA process, especially in experiencing learning difficulties (Kim, 2004, p. 57). Others maintained that confidence, which is probably confined by cognitive variables such as perceived self-competence (competence) and communication apprehension (anxiety), can predict L2 learners' attitudes to the target community members (Cetinkaya, 2005; Kim, 2004; Matsuoka, 2006; Yashima, 2002). Still others found confidence is a predictor of language achievement (Cheng et al., 1999; MacIntyre et al., 1997).

Similarly, the past literature showed conflicting perspectives of the relations between anxiety and competence, which are defined as two components of L2

self-confidence as discussed above. Yashima (2002) and Kim (2004) demonstrated that these two constructs were negatively correlated. Nevertheless, based on results of quantitative analyses, Cetinkaya (2005) found that L2 university students' anxiety in Turkey did not correlate with their perceived competence. Specifically, since the correlation coefficient between competence and anxiety was near zero (standardized regression coefficient was -.08), it seems that Cetinkaya's (2005) findings did not confirm the existence of L2 confidence (Kim, 2005; Yashima, 2002).

It is noted that there may be a gap between the "perceived" and "actual" WTC (Cao & Philp, 2006) and between "self-reported" and "observed" confidence in that quantitative and qualitative data might show different results (Cetinkaya, 2005).

Despite the different conceptualizations of confidence mentioned above, the author of the study partially duplicated Yashima (2002) and Kim's (2004) study, and she defined confidence as a combination of low anxiety and high competence. It is hypothesized that confidence can predict SWTC (Cao & Philp, 2006; Kang, 2005).



The Role of Motivation

Motivation is frequently seen as a reliable predictor of the success in the SLA process (Kim, 2004; MacIntyre, 2007). A number of L2 researchers relied on Gardner's (1985) motivational theories to examine the nature of motivation influencing the success in the SLA. Some found that integrative motivation was superior to instrumental motivation in the prediction of L2 success (see Gardner & MacIntyre, 1993; Kim, 2004, p. 51). Others authors (Warden et al., 2000) stressed instrumental motivation could predict EFL students' WTC and L2 use. Based on the discussion above, it seems controversial to identify the key roles of integrative and instrumental motivation as predictors of the success in the SLA. It is speculated that

the integrative and instrumental dichotomy of motivation might not help predict L2 use in the learning success (Cao & Philp, 2006).

Recently, Dornyei (2001) had stressed the need for motivation researchers to expand the scope of L2 learning motivation theories by combining theories from other research fields into the SLA fields. It is suggested that L2 motivation studies should not operate independently from other research (e.g., communication) fields (Dornyei, 2001). To respond to the call for the interdisciplinary research on WTC, several authors succeeded in combining MacIntyre et al.'s (1998) heuristic WTC models with Gardner's (1985) socio-educational model of L2 motivation and tested the proposed WTC model (Kim, 2004; Yashima, 2002).

It is noted that empirical studies revealed inconsistent findings of the relations between motivation and WTC in L2. For example, Kim (2004) and Yashima (2002) indicated that motivation is indirectly related to WTC via L2 confidence. By contrast, Hashimoto's (2002) research finding indicated that there was a direct path from WTC to motivation and the result implied that WTC probably had motivational properties.

Regardless of inconsistent findings on WTC and motivation, it is noted that the past authors did not explore how motivation is related to SWTC, and it is worthwhile to explore the issue in the future studies.

The Role of Shyness

According to the psychological theories (King, 1994; Su, 1996), shyness is constantly seen to be related to the variables of social skill deficiency or social anxiety. From the skill deficiency perspective, students who are socially inadaptive could be shy or withdrawn in different speaking contexts. They are often unpopular among class peers. In social anxiety studies, shyness can be treated as a type of human behaviors resulting from negative self-evaluations (Leary, 1983). Besides, shyness

can be situation-bound and it is seen as “a product of the desire to present a certain image of oneself and uncertainty that one can achieve the desired image” (Shepperd & Arkin, 2004, p. 308).

It is noted that L2 research offered little information about effective management strategies for handling shy students compared to education studies. A number of education scholars (King, 1994; Su, 1996; Tsai, 1999) maintained effective teachers should appropriately utilize management skills to help shy students increase participations whereas L2 authors paid little attention to the relations among WTC, shyness, and management in L2 communication.

In the field of second language studies, there is a lack of systematic introductions to the role of shyness in influencing one’s behaviors (e.g., WTC and L2 use) in L2 learning and communication. Exclusive of some empirical EFL studies of shyness (e.g., Syau, 2001; Zheng, 2002), Ellis (1994) reviewed a great amount of research on the relations of several personality variables (e.g. self-esteem, risk-taking, empathy, sensitivity to rejection, inhibition, anxiety, and introversion/ extroversion) to second language learning. It seems that shyness is not a central topic in the SLA studies.

In addition, literature revealed that the relations between WTC and shyness are less researched than those between WTC and introversion/extraversion in L1 talks (McCroskey et al., 1990) and in L2 interactions (Cetinkaya, 2005; MacIntyre et al., 1998; Matsuoka, 2006). Two possible reasons are noted. The first one is that it is perhaps difficult to distinguish introversion from shyness although the latter is usually considered as a personality trait of introversion. It is acknowledged that an introvert student might be shy to speak L2 whereas a student’ shyness is not necessarily related to introversion. Regardless of the discrepancy between shyness and introversion, researchers paid less attention to the impact of the former than that of the latter on WTC in the EFL contexts (Matsuoka, 2006).

The second possible reason is related to the lack of a “consensus measure” of shyness in L1 and L2 communication (McCroskey & Richmond, 1982, p. 461; Su, 1995). Several available instruments were developed to measure shyness from psychologists’ perspectives (e.g., the Cheek and Buss scale, Zimbardo scale, and Su’s shyness scale, see details in Su’s article in 1995). It is noted that McCroskey Shyness scale was proved to be a highly reliable instrument measuring shyness and could distinguish the concept of communication apprehension from that of shyness as an avoidance of communication (McCroskey & Richmond, 1982). Nevertheless, the tool had not been applied to the studies of WTC and shyness in L2.

Moreover, a few researchers in Taiwan explored the construct of shyness in the EFL contexts. Zheng (2002) investigated the effectiveness of the Three-in-one Strategy Program whose goal was to reduce shy EFL students’ anxiety, and it was found that there was a negative relation between achievement and shyness. Syau (2001) was another author investigating shy students’ academic helping-seeking behaviors in Taiwan’s senior high schools. The result suggested that similar to girls, shy students tended to seek executive help whereas others asked help for instrumental motivations when encountering difficulties in their assignments.

Based on the discussion above, it is concluded that there is a lack of validity tests on the McCroskey Shyness Scale (McCroskey & Richmond, 1982), and the role of shyness in influencing SWTC could be a central concern of the L2 classroom researchers. Thus, the author of the study was motivated to revise McCroskey Shyness Scale and investigate students’ shyness in the EFL contexts. It is also expected to explore how shyness might predict SWTC in an L2 classroom.

Situational Variables and WTC

The following sections introduce literature on two situational factors (i.e., climate and teacher immediacy) predicting WTC accordingly. Although five social variables of “the participants, the setting, the purposes, the topic, and the channel of communication” can be identified as determinants of WTC (Kim, 2005, p. 73), this section only reviewed related studies on the role of climate and teacher immediacy in influencing WTC in L2.

The Role of Climate

Classroom climate is a vital social contextual variable that may influence one's L2 motivation as a predictor of the success in the L2 learning and communication. According to Dornyei (2001), climate can refer to one's mental contexts in which one may have a variety of learning experiences and psychological feelings of the learning situations. Climate may indirectly determine ones' L2 motivation. Besides, a supportive climate helps teachers reduce students' anxiety (Dornyei, 2001, p. 121). Hsu (2000) developed an L2 climate scale in which climate was defined as related to teacher support and peer support, and the results demonstrated that climate was a determinant of students' questioning in L2 communication. The authors emphasized the significant roles of teachers and peers in generating supportive climates.

Besides, little information is reported about the relations between SWTC and climate. MacIntyre et al. (1998) and Wen and Clement (2003) pointed out the profound role of “group cohesion” (Clement, Dornyei & Noels, 1994) in influencing the variables of intergroup attitudes and intergroup climate. Nevertheless, the aforementioned authors seldom examined the effect of climate on SWTC.

It is noted that unlike previous authors, Fassinger (1995) examined the determinants of the “chilly climate” in the classroom interactions. From his perspective, a classroom climate was bound to such variables as professor traits (e.g.,

supportiveness, approachability, and welcoming discussions), students' traits (e.g., confidence, preparation, and comprehension), class traits (e.g., interaction norms such as classmates' listening attentively"), peer support, and friendship.

Moreover, little research attention is paid to the role of climate in influencing SWTC in the EFL context of Taiwan. Chang and Lin (2001) compared the differences between whole language and traditional teaching methods in terms of L2 motivation, strategy, and climates in a junior high school in Taichung. They observed six-ninth seventh graders' perceptions of the previously mentioned constructs. One profound finding was that learners studying in the whole language classroom had increased awareness of the different climates due to changes of teaching methods (e.g., whole language and traditional instructions). They were more likely not to be afraid to talk to their teachers inside or outside the classroom communication. Chang and Chang (2003) investigated the effects of multiple intelligence teaching and portfolio assessment on achievement, motivation, learning strategy, and English class climate in a junior high school in central Taiwan. The results indicated that a great number of the students in their study reported a better classroom climate in multiple-intelligence teaching than that in the traditional instructions. Based on the discussion above, it is concluded that there seems insufficient information about the relations between climate and SWTC in the EFL context of Taiwan.

Besides, that there is no consensus measure of climate in the EFL studies. Hsu (2001) developed a climate scale in which climate had two components: teacher support and peer support in students' questioning. Chang and Lin (2001) and Chang and Chang (2003) utilized a revised climate scale mainly based on Yeh's (1992) climate study. According to this climate scale, the construct of class climate was defined to have four components. They were teacher support, peer support, unions, and satisfaction levels. There seemed to be no agreed scales on L2 climate.

The discussions above showed that despite different conceptualization of climate, it is worthwhile to take Fassingers' (1995) perspective of the roles of teachers, peers, and students themselves in influencing climate, and to develop a climate scale measuring L2 learners' perceptions of climate as a predictor of SWTC in the future.

The Role of Teacher Immediacy (TI)

The construct of immediacy has been the most researched one in the communication studies. Immediacy, which was initially constructed by Mehrabian (1969), refers to a person's interpersonal communication behaviors that may reduce the psychological distance between interlocutors by means of enhancing physical or psychological closeness or nonverbal messages. From Mehrabian's (1969) perspective, immediacy and liking are positively related as "two sides of the same coin" (Andersen, 1979; cited in Lin, 2003, p. 14).

Later, a line of communication researchers examined the nature of immediacy in the classroom contexts. Andersen (1979) first conceptualized the construct of teacher immediacy (TI) by incorporating Mehrabian's (1969) concept of immediacy into teacher talks. From Andersen's (1979) perspective, TI referred to instructors' nonverbal behaviors intended for reducing physical or psychological distances between teachers and students. However, such a conceptualization is likely to ignore the verbal aspect of teachers' immediacy behaviors. Later, to remedy the shortcoming of Andersen's conceptualization of TI, Gorham (1988) supplemented the nonverbal components of TI with verbal immediacy as strategies for the increase of closeness between interlocutors in the classrooms. Recently, Hsu (2005) maintained that teachers' approaching (i.e., immediacy) behaviors may facilitate student-teacher relationships in L2 classroom interactions.

A number of researchers identified multiple functions of TI in L2 communication. For example, the use of verbal TI might help L2 instructors elicit learners' ideas and viewpoints, incorporate "student input into course and class design," communicate "availability," and enhance "their 'humanness' via humor and self-discourse" (Gorham, 1988, p. 52). Besides, L2 teachers' use of immediacy might encourage students to engage themselves more in the learning task and increase their motivation (Christophel, 1990). TI may influence aspects (e.g., behavioral, affective, and cognitive) of learning, and four models (learning, motivation, affective, and arousal) have been proposed (see a recent review in Lin, 2003).

However, the above mentioned TI authors did not account for the cultural effects on students' perceptions of TI. As a result, some researchers started to reexamine the construct of TI from cross-cultural perspectives. Myers, Zhong, and Guan (1998) indicated that American students differed from Chinese learners with respect to their perceptions of TI.

Unlike the western scholars, Zhang (2005), and Zhang and Oetzel (2006) contributed to conceptualizing three functions (e.g., instructional, relational, and personal) of TI construct from the perspective of Chinese culture (See Table 3).

Table 3 Chinese Teacher Immediacy Scale Items and Factor Loadings

Dimension	Factor loadings
Instructional Immediacy	
(1) is committed to teaching	.61
(2) is well-prepared in teaching	.75
(3) is passionate about teaching	.75
(4) answers questions earnestly	.72
(5) is patient in teaching	.72

Table 3 (Continued.)

Dimension	Factor loadings
<i>Instructional Immediacy</i>	
(1) is committed to teaching	.61
(2) is well-prepared in teaching	.75
(3) is passionate about teaching	.75
(4) answers questions earnestly	.72
(5) is patient in teaching	.72
<i>Relational Immediacy</i>	
(6) understands students	.68
(7) treats students fairly and equally	.70
(8) respects students	.68
(9) don't hurt students' self-respect	.71
(10) encourages students	.72
(11) provides timely response to students' concerns	.72
<i>Personal Immediacy</i>	
(12) has good morality	.61
(13) sets a good example for others	.75
(14) is approachable	.75
(15) conducts oneself well	.72

The first type of TI was instructional immediacy, which referred to teachers' uses of immediacy cues to show great patience, responsibility, passion, and commission to teaching. In contrast, the counterparts of instructional immediacy contained instructors' non-immediacy due to "mechanical and boring" teaching methods, "inadequate preparation for teaching", and "an irresponsible teaching attitude" (Zhang & Oetzel, 2006, p. 228).

The second type of TI refers to teachers' caring about and showing respect to students, and avoiding "bias against certain students" (ibid., p. 229), which might result in students' perceptions of "relational immediacy." As to the third type of TI, personal immediacy refers to "the use of communication behaviors associated with instructors' personal attributes and characteristics, like idiosyncratic personality,

morality and scholarship” (Zhang & Oeztel, 2006, p. 229). This type of immediacy is significant for Chinese students. The main reason is that from their perspectives, “teachers are deemed as a role model, authority, and parent for students” (ibid). It is noted that the three types of TI behaviors as mentioned above are treated as “three sides of an immediacy triangle” (Zhang & Oeztel, 2006, p. 229).

Recently, a line of L2 authors in Taiwan paid attention to exploring the relations between TI and WTC from an interdisciplinary perspective. Partially duplicating Lin’s (2003) study, Hsu (2006) utilized a revised scale based on Menzel and Carrell’s (1999) “Willingness to Talk in Class Scale.” Wang and Hsu (2007) and Hsu (2005) investigated university students’ perceptions of TI and WTC. Wang (2007) explored how situational variables (e.g., seating locations) might influence the relations between TI and WTC based on a one-year classroom observation in a central Taiwan junior high school. Despite different research aims of the above authors, one consistent finding is that there was a positive correlation between TI and WTC.

Based on the discussion above, L2 researchers examined TI from different perspectives (see Table 4).

Table 4 Approaches to Researching Teacher Immediacy (TI)

Perspectives	Main focuses	Authors
1. linguistic	Nonverbal immediacy and liking are related	Mehrabian (1971)
2. instructional	a. Nonverbal aspects of TI were initially conceptualized; b. Both verbal and nonverbal TI are equally stressed.	Anderson (1979); Gorham (1988)
3. interpersonal	Approaching is a strategy to maintain relations.	Mottet and and Richmond (1997)

Table 4 (Continued.)

Perspectives	Main focuses	Authors
4. learning*	Immediacy is related to aspects of learning (behavioral, affective and cognitive)--- from perspectives of (A) learning, (B) motivation, (C) affective, and (D) arousal models;	A. Andersen (1979) B. Christophel (1990); Richmond (1990); Frymier (1994); Christopher and Gorham (1995); C. Rodriguez et al. (1996) D. Kelly and Gorham (1995)
5. cross-cultural	American students differed from Chinese learners with respect to their perceptions of instructor immediacy	Myers, Zhong and Guan (1998)
6. culture-specific	TI can serve not only instructional and relational functions but also personal ones.	Zhang (2005); Zhang and Oeztel (2006)
7. interdisciplinary	TI and WTC are related	Lin (2003); Hsu, (2006); Wang and Hsu (2007); Wang (2007)

Note: The present study did not review articles on TI and distant education (see Lin's review in 2003).

It is noted that Hsu (2005) pointed out three perspectives of verbal immediacy--- linguistic, instructional communication, and interpersonal viewpoints (see Table 4). However, Hsu's (2005) classification of the TI studies was not complete due to the lack of updating the TI research from learning, cross-cultural, culture-specific, and interdisciplinary perspectives (see the bottom four lines of Table 4). By means of adding four new approaches to Hsu's (2005) identification of approaches to researching TI, the researcher of this study summarized seven approaches to TI research (see Table 4).

Based on the development of approaches to examining TI as mentioned above, it is unclear how TI may influence SWTC. This motivated the author of the study to examine the relations between TI and SWTC in an L2 classroom.

Empirical WTC Research in the L2 Contexts

This section surveyed empirical studies of WTC in the L2 contexts exclusive of L1 WTC research as previously discussed (see Table 5) and the Taiwan-oriented WTC studies, which are to be discussed in the next sections.

Table 5 Summary of the Selected WTC Research in L1

Authors (Year)	Main focus and findings
Burgoon (1976)	Both anomie and alienation were related to WTC, but they were not causal factors to WTC.
McCorskey & Richmond (1990)	Cultural differences were found in terms of the correlations between WTC and introversion (-.19 to -.43), between WTC and self perceived communication competence (.44 to .80), and between WTC and communication anxiety/apprehension (-.44 to -.52).
McCroskey & Richmond (1991)	Five antecedents of WTC in L1 were Introversion, self-esteem, communication competence, apprehension, and cultural diversity.
MacIntyre (1994)	“WTC is based on a combination of greater perceived communicative competence and a lower level of communication apprehension” (Yashima, 2002, p. 55).
McCrosky (1997)	Personality, affect, and attitude were predictors of WTC.
MacIntyre and Charos (1996)	Significant paths were provided from motivation to L2 WTC, from L2 anxiety to L2 WTC, and from self-perceived communication competence to L2 WTC and communication frequency.
MacIntyre et al. (2001)	Motivation and social support could predict WTC.

A number of western researchers examined some of the twelve variables listed in the heuristic WTC model (MacIntyre et al., 1998, see Appendix 1). Some of them explored gender and WTC in immersion programs (Baker & MacIntyre, 2000). Others observed the impacts of social support and language learning orientations (MacIntyre et al., 2001) and those of anxiety and motivation on WTC and communication frequency in L2 (MacIntyre & Charos, 1996).

Unlike the previous authors, a few researchers in Turkish and Asia areas had paid gradual attention to examining WTC and predictors from L2 learners' viewpoints. Some conducted both qualitative (e.g., observations and interviews) and quantitative

studies (e.g., structural equation model, multiple regressions or correlational analyses) to explore the predictors of L2 WTC in the Japanese (Weaver, 2004; Yashima, 2002) and Turkish EFL contexts (Cetinkaya, 2005).

Others demonstrated such variables as motivation, confidence, international posture, and personality could predict WTC in the L2 contexts in Japan (Hashimoto, 2002; Matsuoka, 2006; Yashima, 2002; Yashima et al., 2004) and in Korea (Kim, 2005). Most of the above authors suggested the reliability of the use of MacIntyre et al.'s (1998) heuristic model in accounting for the diversity in WTC among L2 students, but they paid little attention to Wen and Clement's (2003) WTC model.

It is noted that based on MacIntyre et al.'s (1998) heuristic WTC model and Gardner's (1985) socio-educational model of motivation, Yashima (2002) coined a new construct of international posture (e.g., attitude towards L2 situations) and observed its relations to WTC and other variables (i.e., confidence, motivation, and L2 proficiency). The results indicated that international posture was directly to WTC and it might influence WTC via motivation. However, Yashima's (2002) findings mentioned above were not supported by those of Kim's (2005) and Hashimoto's (2002) studies. The former indicated that no direct relation existed between international posture and WTC, and the latter found a direct path from WTC to motivation (see Figure 6).

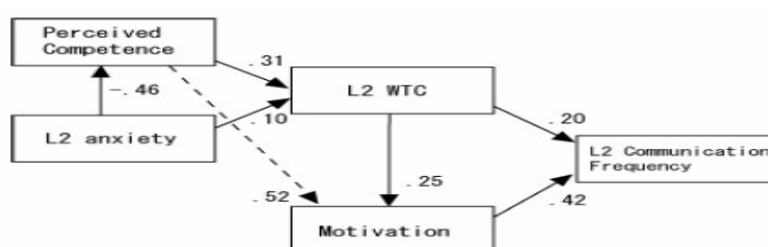


Figure 6 Hashimoto's (2002) Proposal of WTC in Japanese ESL contexts

Recently, Mastuoka (2006) examined the predictors of WTC and English proficiency levels among seven types of individual difference variables in the Japanese EFL contexts. They included integrativeness, communication apprehension, perceived competence, introversion, motivation intensity, attitudes, and other-directedness. Based on the results of multiple regression analyses, it was found that the previous five variables were effective predictors of WTC whereas proficiency was predicted by WTC and perceived competence.

It is also noted that the result of Cetinkaya's (2005) study showed that anxiety was not related either to competence or WTC in L2. This finding was not consistent with those of the previous studies conducted in Japan (Yashima, 2002; Yashima et al., 2004) and in Korea (Kim, 2004). It suggested that the relations between predictors of WTC (e.g., competence and anxiety) might change due to "ethno-linguistic vitality" of a language as well as the target students getting involved in the WTC studies (Cetinkaya, 2005; Kim, 2004; Yashima, 2002).

Based on the discussion above, except Hashimoto (2002) and Cetinkaya (2005), most of the past L2 researchers (see Table 6) confirmed the validity and reliability of MacIntyre et al.'s (1998) heuristic model of WTC.

Table 6 Summary of the Selected Studies of WTC in L2 outside Taiwan

Authors (Year)	Main focus and findings
Yashima (2002)	Predictors included International Posture (attitude), motivation, confidence, and proficiency.
Hashimoto (2002)	Predictors of L2 use include perceived competence, L2 anxiety, WTC, and motivation in L2. The former two caused WTC.
Kim (2004)	Predictors of L2 use include International Posture (attitude), motivation, and confidence.
Weaver (2004)	Resource (e.g., access to written notes) was related to WTC.
Yashima et al. (2004)	The findings confirmed the results of Yashima's (2002) study.
Weaver (2005)	A WTC scale for ESL learners was developed.

Table 6 (Continued.)

Authors (Year)	Main focus and findings
Cetinkaya (2005)	Turkish EFL students' WTC
Kang (2005)	1. Situational antecedents of SWCT included topic, interlocutors, and speaking contexts. 2. Psychological antecedents of SWTC were excitement, security, and responsibility.
Matsuoka (2006)	Integrativeness, apprehension, competence, introversion, and motivation intensity were significant predictors of WTC.
Cao and Philp (2006)	1. The correlations between trait WTC and SWTC were not clear; 2. Factors affecting SWTC were group sizes, familiarity with interlocutors, confidence, topic preparation, medium of communication, and interactional contexts.

Besides, L2 WTC researchers paid little attention to the significance of SWTC and its predictors in the L2 communication. They did not examine the validity of Kang's (2005) SWTC model in explaining the construct of SWTC and exploring its relations to the learner factors and situational variables affecting SWTC as mentioned above. It seems worthwhile to explore the issues in the SWTC studies.

Empirical WTC and TI Studies in Taiwan

In this section, the author introduced preliminary Taiwan-oriented empirical studies on WTC and TI (Huang, 2004; Hsu, 2005; Hsu, 2006; Lin, 2003; Shih & He 2005; Wang, 2007; Wang & Hsu, 2007).

Lin (2003) conducted a preliminary study on the relations between TI and WTC at three leveled freshman classes of General English in NTNU. After her nine-week classroom observations, Lin (2003) required the participants to respond to the questionnaire items adopted from Christensen et al.'s (1995) "Willingness to Talk" Scale. They also responded to scale items adapted from Gorham's (1988) verbal TI scale and McCroskey et al.'s (1995) nonverbal immediacy scale. The results of Lin's

(2003) study indicated that there was a positive correlation between perceived TI and WTC whereas there were no significant differences in students' perceptions of their teachers' uses of nonverbal immediacy.

Huang (2003) contributed to examining the relationships among WTC, motivation, and communication frequency (CF). She made a survey to three hundred and twenty-six freshmen including 142 males and 184 females from six departments (social science, management, arts, science, engineering, and agriculture) of a central Taiwan's university. She grouped the students into three (high, mid, and low) levels and required them to complete a sixty-item questionnaire whose items were adopted from AMTB (Gardner 1985), two Motivational questionnaires (Schmidt et al., 1996) and a WTC scale (MacIntyre et al., 2001). The main findings of her study suggested that gender could effectively predict motivation, WTC, and CF, and freshmen perhaps had higher WTC to speak L2 with their teachers than with their classmates. Besides, high and low-proficiency students' WTC levels were found to be more effectively predicted compared to those of the intermediate proficiency-leveled students. It is noted that there was a correlation among WTC, motivation, and CF. The former construct (WTC) better predicted CF than the second (motivation).

Hsu (2005) conducted a qualitative study of TI and WTC in L2. The participants involved twenty seven graduate freshmen in the financial management programs. Only nine of them were classified into three proficiency levels and then interviewed after the three-month classroom observations. The main findings of the interviews showed six salient patterns of teachers' immediacy behaviors. They were "talking to students frequently and actively relating topics to students' lives, observing learners to give response, memorizing and sharing learners' information, making self-disclosure, and being humorous" (p. 58). Besides, Hsu (2005) argued that TI might interact with contextual factors (e.g., activities) to determine learners' motivation and WTC in L2.

Shih and He (2005) mainly relied on qualitative research methods to investigate the primary school students' perceptions of TI. During the three-week classroom observations, they explored how immediacy strategies were utilized by a third-grade English teacher. To reach the goals, they utilized the frequently used behavioral indices adopted from Gorham's (1988) Verbal Immediacy Scale and from McCroskey et al.'s (1995) Nonverbal immediacy Scale. The main results showed that the teacher applied a number of verbal and nonverbal immediacy strategies, and one frequently used nonverbal immediacy was "acting out animals." Besides, students showed individual differences in terms of their perceptions of the functions of TI. For example, some merrily accepted teachers' praise whereas others did not.

Recently, several authors had analyzed the relationship between WTC and TI in L2 communication in Taiwan's EFL contexts. Hsu (2006) partially duplicated Lin's (2003) study and explored three hundred and eighty-six students' WTC levels and their perceived TI in central-Taiwan colleges. Based on the results of statistical analysis (e.g., Spearman rho correlation), she indicated that TI was positively related to WTC. Verbal TI was found to have higher correlations with WTC compared to nonverbal TI. These findings corresponded to Lin's (2003) results.

Wang (2007) conducted a qualitative study on the effect of seating locations on the relations between WTC and TI in a central-Taiwan junior high school. During the final week of classroom observations, she collected students' written responses to an open-ended question. It was addressed to elicit their perceptions about the relationship between seating locations, TI, and WTC. Besides, she interviewed students sitting in the front, central, and back zones of the classroom interactions. The main results indicated that there was inconsistency in students' accounts of the role of seating locations in influencing WTC and TI. Besides, students sitting in the front and center of a classroom perceived more TI, and engaged in more classroom participation.

Based on the discussions above, it is concluded that the past WTC and TI researchers in Taiwan (see Table 7) paid little attention to the exploration of the relations between SWTC and TI. This indicates that the studies of SWTC and TI are still in infancy in Taiwan. There seems a lack of a variety of research topics (e.g., a limit to studying WTC and TI). Thus, future studies of SWTC and TI at the senior high school education level may extend the scope of the studies of SWTC in L2.

Table 7 Summary of the WTC and TI Studies in Taiwan

Authors (Year)	Main focus and findings
Lin (2003)	WTC in L2 was positively predicted by TI.
Huang (2005)	Relations between motivation and WTC were moderated by English proficiency, and gender was found to predict WTC effectively.
Hsu (2005)	TI could predict university students' WTC.
Shih and He (2005)	TI influenced students' WTC and teacher-student relationship.
Hsu (2006)	WTC and TI were closely related.
Wang (2007)	Seating locations influenced the relations between TI and WTC.
Wang & Hsu (2007)	WTC and TI were closely related.

CHAPTER 3 METHODOLOGY

This chapter described research methods employed in the current study. It consists of the following sections: research design, participants, instruments, data collection and data analysis.

Research Design

The researcher intended to observe how the chosen learner variables and situational factors may have impacts on SWTC from Kang's (2005) perspective (see Figure 1 as shown in Chapter 1). The present study examined Taiwanese senior high students' perceptions of their SWTC levels, motivation, shyness, confidence, classroom climate, and teacher immediacy. It also investigated how these learner factors (motivation, shyness and confidence) and situational variables (climate and teacher immediacy) were related to SWTC in the EFL context of Taiwan.

It is noted that unlike the previous SWTC researchers (Cao & Philp, 2006; Kang, 2005), the researcher of the present study relied on quantitative methods to investigate the potential antecedents of SWTC. In this study, a correlational design was utilized. The use of Pearson Product correlation enabled the examination of the correlations between SWTC and learner factors and interrelations between SWTC and situational factors. One limitation of this design is that while the correlational method could establish a relationship, it failed to establish a cause-effect relationship between variables that are correlated.

Besides, in order to determine if the chosen learner variables and situational factors (i.e., as the independent variables) were predictors of students' SWTC (i.e., as a dependent variable), multiple regression analyses were conducted. The background information of the participants was given in the next section.

Participants

Different groups of students were selected for the pilot study and for the main study. In the pilot study, 709 students from four senior high schools in Nantou County and Taichung County separately completed the scales on SWTC (N=144), motivation (N=161), shyness (N=76), confidence (N=161), teacher immediacy (N=131), and climate (N=204) from December, 2006 to September, 2007.

In the main study, twelve classes of second-year students from twelve public senior high schools in Taiwan were chosen to complete the instruments in the main study (see Table 8). To be specific, the target participants of the study were selected from six schools in the metropolitan areas and another six schools in the non-metropolitan areas.

There were two main considerations in the sample selection. The first was the location of schools. Students in the metropolitan areas (Taipei City, Taichung City, and Kaohsiung City) and non-metropolitan areas (Taoyuan County, Nantou County, and Tainan County) were chosen because researchers (Chang et al., 2007) maintained that school locations (e.g., urban and suburban) played a role in the differences of students' L2 proficiency as related to their WTC (Yashima, 2002). Thus, it was worthwhile to investigate whether senior high school learners' SWTC varied with school locations (in metropolitan and non-metropolitan areas).

Table 8 Summary of the Student Sample Selected in the Study

City/ County	Area	Public Schools	
		More prestigious	Less prestigious
Taipei City	metropolitan	A1	A2
Taichung City	metropolitan	B1	B2
Kaohsiung City	metropolitan	C1	C2
Nantou City	non-metropolitan	D1	D2
Taipei City	non-metropolitan	E1	E2
Tainan City	non-metropolitan	F1	F2

The second consideration is the prestige of schools. The author had chosen students from two types of senior high schools: prestigious schools (A1, B1, C1, D1, E1, and F1) and less prestigious ones (A2, B2, C2, D2, E2, and F2) (see Table 8). The former schools were more frequently chosen by junior high school graduates making higher scores on the entrance exam such as Basic Competence Exam. The latter schools were not often chosen by junior high graduates with higher scores on the entrance exam. It was hypothesized that students in prestigious schools probably had higher SWTC than those in less prestigious schools.

It was noted that there was a gap between school numbers in metropolitan and non-metropolitan areas. The total number of public senior high schools in Taipei City was 28 while that in Nantou County was 5. Thus, the author of the study decided to choose one out of the top and bottom five schools with different prestige in Taipei City, Kaohsiung City, Taichung City, Taoyuan County, Nantou County, and Tainan County based on the criterion of school selections as discussed above.

Table 9 Numbers and Percentages of Males and Females in Metropolitan and Non-metropolitan Areas

	Metropolitan	Non-metropolitan	Total
Male	90 (50.0%)	90 (50.0%)	180 (39.2%)
Female	145 (52.0%)	134 (48.0%)	279 (60.8%)
Total (Percent)	235 (51.2%)	224 (48.8%)	459 (100.0%)

With respect to the sample size, the total number of participants was 459 (See Table 9). Two hundred and seventy-nine were female (60.8%) and one hundred and eighty were male (39.2%). Two hundred and thirty-five students (51.2%) came from schools in the metropolitan areas, and two hundred and twenty-four (48.8%) from non-metropolitan areas. One hundred and forty-five females (52.0%) were from metropolitan schools, and one hundred of thirty-four females (48%) from

non-metropolitan schools. And an equal number (N=90) of the male students were from metropolitan and non-metropolitan areas.

In terms of students' gender and the prestige of schools, equal numbers of males and females (N=117) were found from prestigious schools. However, more females (N=162) were found than males (N=63) in less prestigious schools. Besides, almost an equal number (N=234 and 225) of the students were observed in terms of more/less prestigious schools.

Background Questionnaire

Background Information included four questions. They were designed to elicit students' gender, schools' locations, schools' names, and students' perceptions of English proficiency (e.g., listening, speaking, reading, and writing competence).

Measurements Utilized in the Study

In the following sections, the author described the criteria used for item selections for the draft questionnaires in the pilot study and then introduced the revised questionnaires to be utilized in the main study. These questionnaires measured SWTC, learner factors (i.e., shyness, motivation, and confidence), and situational factors (i.e., teacher immediacy and climate) predicting SWTC. Before introducing the developments of these measurements utilized in the study, the researcher presented criteria for item selection in the following section.

Criteria for Item Selection

To achieve the goal of selecting reliable and valid scale items while retaining the desirable and interpretable factors of instruments, the author performed item analyses (IA) and principal component analysis (PCA) before finalizing the scale items. The

procedures of item analyses included calculations of item-total correlations (ITC), comparisons between extreme groups and internal consistency coefficient. PCA was also utilized to help determine the latent structure (dimensions) of a set of variables in the measurements utilized in this study. Negatively worded statements were reverse scored before item analyses.

Below are the criteria for item selections in specific analyses.

a. **Item-total (item-scale) correlation:** In the analysis of item-total correlation (ITC), items with statistical significance (e.g., $p < .05$) were retained for further analyses. Items that did not meet the above criterion were discarded.

b. **Comparison between extreme groups:** T-value (Critical ratio or CR) was calculated in the comparisons between extreme groups. To test the discriminant validity of scale items, the mean score of each item between the two extreme groups of students (the top and the lowest 27 % of the sample) was compared. Statistical non-significance of CR (i.e., above .16, $p \geq .05$) is a criterion for removing the item.

c. **Reliability test:** The calculation of coefficient of internal consistency (Cronbach's alpha) is used to test the internal homogeneity of the scales.

Alpha was computed for every possible version of the scales with one single item removed at one time. Items were dropped when their deletion would substantially increase the alpha of the scale.

d. **Principal component analysis:** After the author decided to remove certain items based on the results of item analyses, principal component analysis was applied to examine the factor structures of the instruments in the pilot tests.

Two profound criteria were utilized in the evaluation of the adequacy for analyses of factor structures. They were Kaiser-Meyer-Olkin (KMO, varying between 0 and 1) measure of sampling adequacy, and Bartlett's test of Sphericity (with a null hypothesis that all of the diagonal elements are 1 and all off diagonal

elements are 0 in a matrix). The minimum criteria were the KMO over .6, and Bartlett's test of Sphericity with statistical significance ($p < .05$).

Oblique rotations (e.g., direct oblimin rotations, see McCroskey and Richmond, 1982) were used as a means of seeking a simple structure of the factor solution and extracting desirable and interpretable factors embedded in each questionnaire. After determining the number of factors, the author examined the pattern matrix and retained the item that had a major loading above .40. Items that loaded on two factors (loadings $> .40$) with a difference smaller than 0.2, were removed. Each factor included at least three items.

Two criteria were used to determine the number of factors for each scale. A scree analysis or Cattell scree test was first used as a criterion for determining the number of factors. Second, the number of factors that best reflected the structure of a particular construct was chosen. For example, two factors were extracted for shyness because it supported McCroskey and Richmond (1982) theories on shyness, which is defined by two indicators: quietness and talkativeness.

What follows describes the development of each instrument in the main study.

Developments of Instruments

To answer research questions addressed in the study, the researcher developed six questionnaires measuring SWTC and its predictors including 2 situational factors (e.g., teacher immediacy and climate) and 3 learner variables (e.g., motivation, confidence, and shyness) in the pilot tests. By adopting Kang's (2005) perspective of SWTC, the researcher attempted to examine the relations among SWTC and its predictors. In this study, two types of variables predicting SWTC were chosen. They were learner factors and situational variables. The former contained such variables as motivation, confidence, and shyness and the latter involved such factors of climate

and teacher immediacy (TI). These variables predicting SWTC were chosen based on the review of the SWTC theories. It is noted that since there is no SWTC scale that is designed to measure SWTC from Kang's (2005) perspective, an SWTC scale was author tailored. Besides, the researcher in this study developed another 5 scales on the predictors of SWTC by revising the available scales on the chosen learner and situational variables as mentioned above. The following section introduced the developments of the above mentioned scales respectively.

Situational Willingness to Communicate (SWTC) Questionnaire

Since one aim of the study was to investigate the senior high students' SWTC. An author-tailored situational willingness to communicate (SWTC) questionnaire was developed based on theories on SWTC in L2 (Cao & Philp, 2006; Kang, 2005; MacIntyre et al., 1998) and an empirical study on WTC in L2 by the author from 2004 to 2005. From Kang's (2005) perspective, SWTC has three situational antecedents, and they are topic, interlocutors, and speaking contexts (see Appendix 2). Due to the lack of the development of SWTC scales from Kang's (2005) perspective, the researcher author-tailored an SWTC scale whose original scale items were classified into three groups in the initial stages of the scale developments. Items 1 to 5 and 16 were designed to measure students' perceptions of topics in affecting their SWTC. Items 6 to 10 and 17 examined the role of interlocutors in influencing students' SWTC. As to the other items (e.g., items 11 to 16 and 18), they were constructed to measure the impacts of speaking contexts on SWTC. It is noted that items 16, 17, and 18 were developed mainly based on the research findings of an empirical study of WTC in L2 conducted in Taiwan (Wang, 2007). In a word, the scale items were developed based on SWTC theories and relevant research findings.

The 18-item SWTC questionnaire was a five-point Likert-type scale (from one to five) eliciting learners' reactions to the SWTC scale items (Appendix 3). Student participants were requested to circle the number representing the levels of agreement on the items (i.e., 1= strongly disagree; 2= disagree; 3= no opinions; 4 = agree; 5= strongly agree).

After compiling the SWTC items in Chinese, the researcher requested a senior high school teacher and two TESOL experts to help examine and improve the contents of the scale items. Besides, the researcher was suggested by three senior high school students who participated in the piloting of the scale item to underline the key words of the statements for each scale item. They indicated that they might have better comprehension of the scale items with signals of the key words. Thus, the researchers accepted their suggestions and underlined the key words for each scale item. For example, she underlined the words "assignment" in the statements of the item 3 (e.g., when English teachers talked about assignments, I am willing to know the answers to the questions in the assignments) to enhance students' comprehension.

The researcher distributed SWTC questionnaire to four classes of one hundred and forty-one senior high school students in Nantou County in the late September, 2007. After collecting the data, the author had conducted item analyses and PCAs by means of the statistic program (i.e., SPSS 8.01 version). Before the item analyses, the scores of items 6, 8, 10, 15, 17, and 18, which had negatively worded statements, were reversed in advance.

Based on the criteria of item selection listed above, items 10, 15, 16, 17, and 18 were suggested to be deleted in the item analyses (see Table 10).

Table 10 Summary of Item Analyses for SWTC Scale

Item	Item-total correlation	CR values	alpha if item deleted	Item deletion
1	.6322**	7.14**	.7489	
2	.6551**	5.87**	.7453	
3	.7050**	8.89**	.7398	
4	.6418**	6.21**	.7481	
5	.6455**	7.40**	.7466	
6	.4015**	3.70**	.7665	
7	.7068**	8.35**	.7429	
8	.4686**	2.69**	.7620	
9	.5459**	4.38**	.7560	
10	.3581**	(.92)	.7719	√
11	.7579**	8.91**	.7379	
12	.7653**	8.16**	.7369	
13	.7040**	6.79**	.7416	
14	.7473**	7.93**	.7365	
15	(-.1770)	(.24)	(.8041)	√
16	(-.4803)	(-4.40)	(.8198)	√
17	(-.3474)	(-1.54)	(.8129)	√
18	.2716**	(1.86)	(.7794)	√

Note: 1. Items with the symbol of “√” represented those chosen for item deletions.

2. ** P<.01 * P<.05

First, as shown in Table 10, all of the ITCs of the SWTC scale items were statistically significant except items 15, 16, and 17. Since the ITCs of the above three items were negative (-.1770, -.4803, and -.3474), which suggested higher scoring participants answered these question items incorrectly or had low scores on these items, they were deleted.

Besides, the results of extreme groups comparison analysis indicated that all of the twenty items were able to discriminate extreme groups of students (n=144, p <.05) except items 10, 15, 16, 17, and 18 (see Table 10). The CR values of Items 10, 15, and 18 (CR= .92, .24 and 1.86) were not significant (p=.360, .812, and .065>.05). Those of Items 16 and 17 were negative (CR= -4.40 and -1.54) probably due to students' difficulties in comprehending the meanings of scale items. Based on the discussion above, items 10, 15, 16, 17, and 18 were thus deleted.

It was also found that if we deleted items 15, 16, 17, and 18, the coefficients of internal consistency would be improved (α =.8041, .8198, .8129, and .7794), which would be larger than the alpha value (α =.7737) of the initial 18-item scale.

Based on the results of item analyses and reliability tests discussed above, items 10, 15, 16, 17, and 18 were deleted before the first PCA.

Next, two PCA were performed. As shown in Appendix 4, after the deletion of items 10, 15, 16, 17, and 18, the result of the first PCA suggested that the retained 13 items revealed a four-factor structure of scale items. Factor 1 included items of 1, 3, 7, 11, 12, 13, and 14. Factor 2 was loaded by items 8 and 9 and Factor 3 by item 6. As to Factor 4, it was composed of items 5, 4, and 2.

The result of the first PCA indicated that Factor 1 included items 1, 3, 7, 11, 12, 13, and 14 and they loaded on the expected factor of positive feedback. Item 3, which was originally designed to measure the impacts of topics (e.g., assignment) on WTC, was deleted due to its loading on the wrong factor (e.g., positive feedback). Moreover, less than three items loaded on Factors 2 (items 8 and 9) and on Factor 3 (item 6), which violated the criterion (i.e., at least three items for each factor) as discussed above. The items 8, 9, and 6 were thus deleted. Finally, Item 1 was also removed because it had double loaded on Factors 1 and 3 (loadings were .65109 and .46502, which were larger than .40). Based on the discussion above, items 1, 3, 8, 9, and 6 were deleted before the second PCA.

The result of the second PCA indicated that the 8 retained items had a two-factor structure (See Appendix 5). Items 7, 11, 12, 13, and 14 formed Factor 1 and accounted for 55.4% of variance. Besides, items 2, 4, and 5 loading on Factor 2 explained 12.9% of the variance. These two factors were renamed as (1) positive feedback and (2) familiarity with topics under discussion. The first factor was measured by items 7, 11, 12, 13, and 14. They elicited students' responses to how their SWTC levels varied with positive feedback. The second factor was defined by items 2, 4, and 5. They elicited students' reactions to the role of familiar topics in determining SWTC.

Cronbach's alpha value of the finalized 8-item SWTC scale was .8814 (see Appendix 6), and those of the two subscales were .8805 and .7602 (see Appendix 6).

It is noted that the results of item analyses did not seem to fully correspond to Kang's (2005) definitions of SWTC, which involved three situational antecedents (i.e., topics, interlocutors, and speaking contexts). In this study, only two factors were extracted. One reasonable explanation was that contextual factors of the ESL and EFL learning contexts might influence the components of SWTC. To be specific, Kang (2005) conceptualized SWTC as to have three components based on his qualitative study of ESL university students' SWTC levels. Nevertheless, the researcher of the study found only two components of SWTC---topic familiarity and positive feedbacks based on the results of the piloting tests. Probably due to insufficient opportunities to speak L2 with native speakers or with classmates from different "cultural" backgrounds (e.g., Korean or Japanese) as shown in Kang's (2005) study, the participants in this study valued positive feedbacks from their teachers and peers in the EFL classrooms.

Another possible reason was that the finding of the construct of positive feedback might suggest an unclear boundary of interlocutors and speaking contexts. For example, the items 11 to 14 seemed to be correlated with item 7. Based on the original scheme of the item development, items 11 to 14 were designed to measure speaking contexts affecting SWTC whereas item 7 assessed the role of interlocutors (e.g., those with attentive listening) in generating SWTC. Based on the results of PCAs, the above items formed the factor of positive feedback, which seemed to suggest the complex interactions between interlocutors and contexts.

Besides, it seemed arbitrary for the author of the study to give an operational definition of SWTC based on the results of the item analyses. It is noted that the process of item constructions involved the preference of the researcher in the creation

of scale items and the biased selections of those items based on the psychometric tests (e.g., item analyses and PCAs). In other words, the wrong use of items might lead to the results of the PCAs, which was different from the researcher's expectation of extracting three factors from Kang's (2005) viewpoints.

In spite of the controversy of the components of SWTC as discussed above, the researcher argued that the preliminary characteristics of the roles of topic familiarity and positive feedbacks based on the PCAs in this study might shed light on SWTC theories. Hence, she expected to investigate students' SWTC, which was defined by the two identified components (positive feedback and topic familiarity), and explored the relations among SWTC, learner variables, and situational factors in this study. The following introduced the development of the scales on the predictors of SWTC.

Teacher Immediacy (TI) Questionnaire

To explore students' attitudes towards verbal and nonverbal aspects of TI, the researcher designed a TI questionnaire, and requested the students in the pilot tests to circle the number representing the levels of their agreement on the items (i.e., 1= strongly disagree; 2= disagree; 3= no opinions; 4 = agree; 5= strongly agree).

The TI scale had 28 items and they were both theory-based and data-based. The first 21 items were adopted based on Sanders and Wiseman's (1990) scale items. Items 1 to 13 measured verbal TI and items 14 to 21 examined nonverbal TI. As to Items 22 to 25 and 27, they were concerned with teachers' announcing class dismissal, control of wait time, mistake confession, and code-switching. Items 26 and 28 measured nonverbal aspects of TI (e.g., signal of keywords and uses of gestures, see Appendix 7). It is noted that these seven items (items 22 to 28) were adopted based on a qualitative study on WTC and TI conducted by the researcher in a central-Taiwan junior high school (Wang, 2007).

Before pre-tests of TI scales, two TESOL experts and two senior high school teachers were invited to give comments on the revised TI scale items and help the researcher avoid sensitive and ambiguous words and sentences.

One hundred and thirty-one copies of TI questionnaire were collected in the pilot tests in the early December of the year 2006, and the following was a brief report on the results of item analyses and PCAs.

Before the item analyses, the scores of items 3, 15, 16, 18, 20, and 21, which had negatively worded statements, were reversed in advance. Based on the criteria of item selection listed above, the author deleted items 3, 16, 19, 20, 21, and 28 in the item analyses (see Table 11).

Table 11 A Summary of Item Analyses for TI Scale

Item	Item-total correlation	CR values	alpha if item deleted	Item deletion
1	.6230**	7.09**	.8501	
2	.6704**	8.68**	.8496	
3	.2326*	2.61*	(.8602)	√
4	.7425**	10.54**	.8460	
5	.4801**	6.19**	.8545	
6	.5334**	5.76**	.8533	
7	.7018**	11.08**	.8482	
8	.7075**	9.34**	.8481	
9	.5809**	6.82**	.8516	
10	.5739**	5.58**	.8524	
11	.6597**	8.28**	.8505	
12	.7681**	13.4**	.8455	
13	.5592**	7.4**	.8526	
14	.5991**	9.61**	.8515	
15	.5590**	6.71**	.8521	
16	(.1514)	(0.12)	(.8620)	√
17	.3118**	3.74**	.8583	
18	.3841**	3.96*	.8568	
19	(.0190)	(0.14)	(.8646)	√
20	.1944*	(1.37)	(.8614)	√
21	.1729*	(0.79)	(.8621)	√
22	.4358**	3.72**	.8557	
23	.4937**	5.30**	.8543	
24	.5576**	5.38**	.8528	
25	.7242**	8.27**	.8474	
26	.6737**	7.78**	.8489	
27	.5383**	4.51**	.8536	
28	.3483**	2.02*	(.9007)	√

Note: 1. Items with the symbol of “√” represented those deleted in item analyses.

2. ** p<.01 *p<.05

As shown in Table 11, the main findings included that ITCs of items 16 and 19 were low (.1514 and .0190) and not significant ($p > .05$), and CR values of the items 16, 19, 20, and 21 were not significant ($p > .05$). Besides, alpha values would be increased (alpha larger than .8597) if we deleted items 3, 16, 19, 20, 21, and 28. Thus, the above 6 items were deleted before the first PCA.

Two PCAs were performed for the TI scale. The results of the first PCA (see Appendix 8) suggested the removal of items 5, 26, 4, 13, 17, and 23. The main reason was that the first two items (items 5 and 26) loaded on the wrong factor, and the third one (item 4) had doubled loaded on factor 1 and factor 2. As to other items (13, 17, and 23), they had factor loadings less than .40. Since the above 6 items did not meet the criteria for the item selection as discussed above, they were deleted before the second PCA. The results of the second PCA reflected that the retained items loaded on two expected factors (See Appendix 9). Specifically, items 1, 2, 6, 7, 8, 9, 10, 11, 12, 22, 24, 25, and 27 formed Factor 1 of verbal immediacy. Items 18, 15, and 14 measured Factor 2 of nonverbal immediacy. These two factors separately accounted for 39.0% and 7.4% of variance.

The Cronbach's alpha value of the finalized 16-item TI scale was .9039 (see Appendix 10), and those of the two subscale items measuring verbal and nonverbal TI were .9051 and .7085 (See Appendix 11).

Climate Questionnaire

Since one aim of the study was to investigate senior high students' attitudes toward their classroom climate in English courses, an author-tailored Foreign Language Classroom Climate Scale (FLCC, hereafter the climate scale) was developed based on theories and research on climate in the L2 contexts (Chang & Chang, 2003; Chang & Lin, 2001; Fassinger, 1995; Hsu, 2001).

The climate scale included 24 items. The first eighteen items were adopted from Hsu's (2001) questionnaire on climate. Items 2, 5, 8, 11, 12, 13, 15, and 17 measured the variable of teacher support, and the items of 1, 3, 4, 6, 7, 9, 10, 14, 16, and 18 examined the variables of peer support. The 19th to 24th items measuring students' traits of "preparedness", which were not originally included in Hsu's (2001) climate scale, were adopted from Fassinger's (1995) study.

The climate questionnaire (see Appendix 12) was a five-point Likert-type scale (from one to five). Student participants were requested to circle the number representing the levels of their agreement on the items (i.e., 1= strongly disagree; 2= disagree; 3= no opinions; 4 = agree; 5= strongly agree).

Before piloting the climate scale, the researcher translated the scale items into Mandarin Chinese and required two TESOL experts and two senior high school teachers to modify ambiguous scale items and enhance their content validity.

After collecting two hundred and four senior high students' responses to the items on the climate questionnaire in the late April of the year 2007, item analyses and PCAs were performed to ensure the construct validity of the instrument.

Before the item analyses, the scores of items 3, 4, 9, 14, 17, 19, and 20, which had negatively worded statements, were reversed in advance. Based on the criteria of item selection listed above, items 4, 9, 17, 19, and 20 were deleted (see Table 12).

Table 12 Summary of Item analyses for Climate Scale

Item	Item-total correlation	CR values	alpha if item deleted	Item deletion
1	.3714**	5.30**	.7286	
2	.6144**	7.82**	.7094	
3	.2124*	3.39**	.7393	
4	(-.0021)	(-.15)	(.7541)	√
5	.5212**	6.64**	.7169	
6	.2962*	3.93**	.7343	
7	.4716**	5.98*	.7214	
8	.5605**	.7.75**	.7138	
9	(.0462)	.91**	(.7454)	√

Table 12 (Continued.)

Item	Item-total correlation	CR values	alpha if item deleted	Item deletion
10	.2959**	.361**	.7334	
11	.6206**	3.61**	.7103	
12	.6310**	8.74**	.7086	
13	.6469**	6.07**	.7051	
14	.3734**	4.63**	.7283	
15	.5476**	6.54**	.7161	
16	.5306**	7.40**	.7174	
17	.2697**	5.64**	(.7584)	√
18	.4164**	5.16**	.7254	
19	.1816*	.287**	(.7432)	√
20	(.0282)	(.64)	(.7536)	√
21	.3514**	4.98**	.7299	
22	.3442**	4.20**	.7298	
23	.4456*	5.51**	.7231	
24	.4609**	4.77**	.7220	

Note: 1. Items with the symbol of “√” represented those deleted in item analyses.

2. ** $p < .01$ * $p < .05$

First, as shown in Table 12, since item 4 had a negative (-.0021) and non-significant ITC ($p > .05$) and those of items 9 and 20 were not significant ($p > .05$), they were deleted. Besides, all of the 24 items were able to discriminate extreme groups except items 4 and 20 (i.e., CR values were not statistically significant, $p > .05$). It was also found that if items 4, 9, 17, 19, and 20 were deleted, the internal consistency of the scale would be improved. Cronbach's alpha values of the scale became .7541, .7454, .7584, .7432, and .7536, which were larger than that of the initial scale (= .7426). Based on discussions above, items 4, 9, 17, 19, and 20 were deleted before the first PCA.

After the deletion of the previous five items, two PCAs were performed. The results of the first PCA suggested the deletion of items 6, 14, 16, and 18 (See Appendix 13). Since Items 6 and 14 loaded on the fourth factor and had less than three items, they violated the criteria for item selection listed above. They were thus deleted. Besides, it was found that all of the items loaded on the accurate components of teacher support, student traits of preparedness, and peer support except item 16 and

18 loading on the wrong factor. Based on the discussion above, items 6, 14, 16, and 18 were deleted before the second PCA. The result of the second PCA (see Appendix 14) conformed to theoretical expectations of factor loadings. To be specific, items 2, 5, 8, 11, 12, 13, and 15 were loadings on the first factor of teacher support. Items 21 to 24 loaded on the second factor of student traits of preparedness, and items 1, 3, 7, and 10 on the third factor of peer support.

The Cronbach's alpha value of the finalized 15-item climate scale was .8003, and those of the scales on peer support, students' preparedness, and teacher support were .6227, .7500, and .8594 (see Appendix 15).

Motivation Questionnaire

To explore students' learning motivation in L2, the author adopted Kim's (2004) motivation scale in which items measured three indicator variables of motivation: motivational intensity (MI referring to strength of motivation), desire to learn English (DLE), and attitudes toward learning English (ALE).

Twenty-two items measured L2 motivation. The first ten measured ALE. They were (1) "Learning English is really great," (2) "I really enjoy learning English," (3) "English is an important part of the school programs," (4) "I plan to learn as much English as possible," (5) "I love learning English," (6) "I hate English," (7) "I would rather spend my time on subjects other than English," (8) "Learning English is a waste of time," (9) "I think that learning English is dull," and (10) "When I leave school, I shall give up learning English entirely because I'm not interested in it."

Items 11 to 16 measured students' MI. They were (11) "Compared to my classmates, I think I study English relatively hard," (12) "I often think about the words and ideas which I learn about in my English classes," (13) "If English were not taught at school, I would study on my own," (14) "I think I spend fairly long hours studying

English,” (15) “I really try to learn English,” and (16) “After I graduated from school, I will continue to study English and try to improve.”

Items 17 to 22 measured DLE. They were (17) “When I have assignments in English, I try to do them immediately,” (18) “I would read English newspapers or magazines outside my English class,” (19) “During English classes I am absorbed in what is being taught and concentrated on my studies,” (20) “I would like the number of English classes at school increased,” (21) “I believed absolutely English should be taught at school,” and (22) “I find studying English more interesting than other subjects.”

To explore EFL students’ motivation, Kim’s (2004) 22 items on motivation (Cronbach’s alpha= .88) were adopted and rearranged in a 5-point scale (see Appendix 16) instead of the originally 7-point Likert type instrument. Students were requested to circle the number representing the levels of their agreement on the items (i.e., 1= strongly disagree; 2= disagree; 3= no opinions; 4 = agree; 5= strongly agree).

Before piloting the questionnaire on motivation, the author of the study invited two senior high school teachers and two experts in the TESOL fields to check whether the statements in scale items were readable and ensure that problematic items could be modified to increase the reliability and validity of the scale items.

After collecting one hundred and sixty-one questionnaires on motivation, item analyses and PCAs were performed in the pilot tests and the following was the summary of the main findings.

Before the item analyses, the scores of the items 6, 9, and 10, which had negatively worded statements, were reversed in advance. Based on the criteria of item selection listed above, no item was deleted before the first PCA (see Table 13).

Table 13 A Summary of Item Analyses for Motivation Scale

Item	Item-total correlation	CR values	alpha if item deleted	Item deletion
1	.6608**	7.57 **	.8642	○
2	.6736**	7.05**	.8637	○
3	.4374**	3.12**	.8716	○
4	.6905**	5.34**	.8634	○
5	.6905**	3.93**	.8629	○
6	.6925**	5.90**	.8674	○
7	.5463**	5.31**	.8682	○
8	.5021**	5.88**	.8694	○
9	.4729**	6.12**	.8704	○
10	.5021**	5.62**	.8727	○
11	.2893**	3.12**	.8763	○
12	.5007**	5.34**	.8695	○
13	.4296**	3.93**	.8718	○
14	.4287**	4.64**	.8722	○
15	.5657**	9.71**	.8689	○
16	.5651**	9.34**	.8682	○
17	.5305**	8.14**	.8688	○
18	.4733**	5.75**	.8705	○
19	.4690**	6.02**	.8705	○
20	.5416**	5.54**	.8683	○
21	.4877**	6.51**	.8707	○
22	.6381**	7.74**	.8652	○

Note: 1. Items with the symbol of “○” represented the retained items.

2. ** p<.01

Next, two PCAs were performed. The results of the first PCA indicated that items 15, 16, 18, and 20 loaded on the wrong factors, and they were deleted before the second PCA (see Part 1 of Appendix 17). The result of the second PCA indicated that the retained 18 items reflected a three-factor structure (see Part 2 of Appendix 17). Items 1 to 10 loaded on Factor 1 of ALE, items 17, 19, 21, and 22 on Factor 2 of DLE, and items 11, 12, 13, and 14 on Factor 3 of MI.

The Cronbach’s alpha value of the finalized 18-item motivation scale was .8541 (See Appendix 18), and those of the three subscale measuring ALE, MI, and DLE were .8732, .6776, and .7218 (see Appendix 19).

Confidence Questionnaire

With the aim to investigate EFL students' perceptions of their L2 self-confidence (hereafter confidence), the researcher adopted Kim's (2004) motivation scale items. The latent variable of confidence was defined by two indicator variables: communication apprehension (hereafter anxiety) and perceived competence (hereafter competence).

Twelve items were involved in the anxiety scale. They were (1) "Have a small group conversation in English with acquaintances," (2) "Give a presentation in English to a group of strangers," (3) "Give a presentation in English to a group of friends," (4) "Talk in English in a large meeting among strangers," (5) "Have a small group conversation in English with a group of stranger," (6) "Talk in English in a large meeting among friends," (7) "Talk in English to friends," (8) "Talk in English in a large meeting with acquaintance," (9) "Talk in English to acquaintances," (10) "Give a presentation in English to a group of acquaintances," (11) "Talk in English to a stranger," and (12) "Talk in English to a small group of friends."

Similarly, the same statements were utilized to elicit students' reports of their competence in twelve situations. It was assumed that a negative correlation was between anxiety and competence (Kim, 2004; Yashima, 2002).

The researcher did not follow Kim (2004) to require students to identify the degrees (zero to 100 percentages) of their anxiety and perceived competence in English in twelve situations. Instead, they were required to point out the levels of their anxiety and competence in the five-point Likert type scales, and to choose one number from 1 to 5 (i.e., 5= strongly anxious; 4= very anxious; 3= a little anxious; 2 = not very anxious; 1= not strongly anxious) representing their perceptions of anxiety and competence in different situations.

Before piloting the questionnaire on confidence in L2 in June, 2007 (see the second section of Appendix 16), two senior high school teachers and two experts in the TESOL fields were requested to check whether the statements of scale items (i.e., items 1 to 12 measured anxiety and items 13 to 24 competence, see Appendix 16) were readable and ensure that problematic items could be modified to increase the content validity.

After collecting one hundred and sixty-one copies of questionnaire on confidence, item analyses and PCAs were performed in the pilot tests and the following was the summary of the main findings.

Before the item analyses, the scores of the twelve items on the anxiety scale (items 1 to 12) were reversed in advance. Based on the criteria of item selection listed above, no item was suggested to be deleted (see Table 14) in the item analyses. The main reason was that alpha value would become lower than that of the initial scale ($\alpha=.8134$) if any items were removed.

Table 14 Summary of Item analyses for Confidence Scale

Item	Item-total correlation	CR values	alpha if item deleted	Item selection
1	.3627**	5.99**	.8084	○
2	.5430**	7.46**	.8092	○
3	.4040**	5.37**	.8052	○
4	.5260**	6.37**	.8061	○
5	.5460**	7.59**	.8040	○
6	.4574**	6.04**	.8054	○
7	.3623**	5.32**	.8119	○
8	.4297**	6.10**	.8072	○
9	.4312**	6.12**	.8027	○
10	.4686**	6.40**	.8112	○
11	.5133**	6.51**	.8071	○
12	.4188**	6.81**	.8097	○
13	.3876**	3.67**	.8112	○
14	.3720**	2.92**	.8016	○
15	.4671**	3.78**	.8084	○
16	.4519**	4.40**	.8031	○
17	.4930**	5.38**	.8013	○
18	.4622**	4.24**	.8062	○

Table 14 (Continued.)

Item	Item-total correlation	CR values	alpha if item deleted	Item selection
19	.2941**	2.25**	.8119	○
20	.4165**	3.86**	.8072	○
21	.5198**	3.34**	.8027	○
22	.3137**	2.78**	.8053	○
23	.4227**	3.86**	.8032	○
24	.3526**	2.63**	.8083	○

Note: 1. Items with the symbol of “○” represented the retained items.

2. ** $p < .01$

Next, a PCA was performed (Appendix 20). The result revealed confidence scale had a two-factor structure. Items 1 to 12 (labeled as Q1 to Q12) loaded on the factor of anxiety, and items 13 to 24 (labeled as Z1 to Z12) on the factor of competence. It supported Yashima's (2002) and Kim's (2004) conceptualizations of confidence as a combination of low anxiety and high competence.

Besides, Cronbach's alpha values of the two subscales on anxiety and competence were .8756 and .9178 (See Appendix 21).

Shyness Questionnaire

To explore how shyness is related to WTC in L2, one shyness scale is developed based on McCroskey and Richmond's (1982) McCroskey Shyness Scale (MSS). It was a 5-point Likert scale on shyness and it was adopted because it had high reliability ($>.90$) and it could distinguish communication apprehension from shyness as mentioned in *The Role of Shyness* Section in Chapter 2.

The original fourteen scale items on shyness were adopted from the MSS. They were (1) “I am a shy person,” (2) “Other people think I am shy,” (3) “I tended to be very quiet in class,” (4) “I am a quiet person,” (5) “I don't talk much,” (6) “Other people think I am very quiet,” (7) “Most people are more shy than I am,” (8) “I am a

very talkative person,” (9) “I talk a lot,” (10) “I talk more than most people,” (11) “I talk more in a small group (3-6) than others do,” (12) “Most people talk more than I do,” (13) “I talk more than most people do,” and (14) “Other people think I talk a lot.” They were divided into two groups. The first seven items were concerned with perceived quietness but the other seven with talkativeness.

All of these original 14 items discussed above were all translated into Chinese to enhance responders’ comprehension. Moreover, to assess students’ shyness in the classroom contexts rather than in the general contexts, alternative modifications included the revisions of “other” and “other people” in items 2, 4, 8, 10, 11, 12, 13, and 14 into “classmates.” Besides, “when learning in the English class” was added to each of the 14 items assessing students’ shyness in English classes.

It is noted that the key words were underlined to help the students better understand the scale items. For instance, “classmates” in the statement of “Classmates think I am shy” was underlined to elicit respondents’ reactions to other-perceived rather self-perceived quietness in the revised shyness scale.

Before distributing the Chinese version of MSS to the target participants of the study, the author collected feedbacks from different sources to fine-tune shyness scale items. She requested two TESOL experts and a senior high school teacher in Nantou to point out difficult or obscure words in the Chinese version of MSS. For example, one expert pointed out the Chinese translations of the scale items 3 and 5 (“I am a very talkative person” and “I talk a lot”) and item 13 “I have more opportunities to speak English than other classmates” were ambiguous (see Appendix 22). Similarly, a senior high school teacher suggested redundancy occurred between items 5 (“I talk a lot”) and 7 (“I don’t talk much”). To solve the previous problems, the researcher decided to delete items 5 and 7, and item 3 was retained. Besides, she revised item 13 into “I talk more in English class than other classmates.”

In addition, items 9 was removed because redundancy occurred between item 6 (“I tend to be very quiet in class”) and item 9 (“I am a quiet person”) with the addition of “when learning in the English class.” Similarly, redundancy occurred between item 9 and item 3. As a result, item 9 was deleted whereas items 3 and 6 were retained.

After deleting items 5, 7, and 9 as mentioned above, the researcher distributed the revised 11-item shyness scale (see Appendix 23) to two classes of senior high school students in Nantou County in early December of the year 2006. Seventy-six questionnaires were completed. Before the item analyses, the scores of the items 2, 3, 8, 10, 11, and 13 were reversed due to negatively worded statements. Item analyses and PCAs were conducted by means of the statistic program (i.e., SPSS 8.01 version).

Table 15 Summary of Item analyses for the Revised Shyness Scale

Item	Item-total correlation	CR values	alpha if item deleted	Item deletion
1	.4143**	4.04**	.6981	
2	.5252**	6.78**	.6639	
3	.5457**	6.64**	.6597	
4	-.2957**	-3.38*	(.7650)	√
6	.6528**	5.83**	.6550	
8	.6284**	7.34**	.6498	
10	.5736**	5.83**	.6561	
11	.3348**	2.75*	(.7024)	√
12	.6764*	9.33**	.6500	
13	.4956**	4.99**	.6679	
14	.3048*	2.33*	(.7034)	√

Note: 1. Items with the symbol of “√” represented those chosen for item deletions.

2. Items 5, 7, and 9 were not scored.

3. ** p<.01* p<.05

Based on the criteria of item selection listed above, items 4, 11, and 14 were deleted (See Table 15) in the item analyses. With the deletion of the items 4, 11, and 14, alpha values of the revised shyness scale would become .7650, .7024, and .7034, which were larger than that of the initial scale on shyness ($\alpha=.6968$). Thus, the three items (4, 11, and 14) were removed before the first PCA.

After the removal of items 4, 5, 7, 9, 11, and 14 as discussed above, the results of the first PCA suggested that the factor structure of the retained 8 items (see Appendix 24) reflected McCroskey and Richmond's (1982) notion of shyness, which is defined by quietness (items 2, 3, 8, 10, and 13) and talkativeness (items 1, 6, and 12). They separately accounted for 43.2% and 23.7% of variance.

The Cronbach's alpha value of the finalized 8-item shyness scale was .7689 (see Appendix 25), and those of the scales on quietness and talkativeness were .7443 (see Appendix 26) and .8623 (see Appendix 27). The scale of talkativeness was renamed as non-talkativeness after the scores of the scale items were reversed (see Chapter 4).

Based on the discussions above, Appendix 28 offered a summary of the reliability of the instrument utilized in the current study.

The Finalized Questionnaire Utilized in the Main Study

To answer research questions of the study, the author designed a packet of questionnaires (see Appendix 29) measuring SWTC, climates, TI, motivation, confidence, and shyness based on the results of piloting research instruments as previously discussed.

Shyness: The latent variable was measured by two indicators of shyness: quietness and talkativeness (McCroskey & Richmond, 1982). After piloting the revised MSS scale, the 8-item shyness scale (Cronbach's alpha =0.7829, see items 1 to 8 in Appendix 29) was deployed to measure students' shyness levels in English classes rather than in other communication situations.

Motivation: The latent variable of motivation was measured by desire to learn English (DLE), Motivation Intensity (MI), and Attitudes to learn English (ALE).

Based on the results of the piloting of the initial 22-item motivation scale, the finalized motivation scale included 18 items (Cronbach's alpha= .8074) (see items 9 to 26 in Appendix 29).

Teacher immediacy (TI): The latent variable of TI was measured by two indicators: verbal and nonverbal immediacy (Gorham, 1998; McCroskey et al., 1995; Sanders & Wiseman, 1995). After the piloting the TI scale, sixteen items (Cronbach's alpha= .9039) were adopted (see items 27 to 42 in Appendix 29).

Climate: The latent variable of climate was defined by three indicators: preparedness, peer support, and teacher support (Fassinger, 1995; Hsu, 2001). After piloting the initial 24-item scales on climate, the finalized instrument included 15 items (Cronbach's alpha= .8003, see items 43 to 57 in Appendix 29).

Situational Willingness to Communicate (SWTC): A questionnaire on SWTC was an author-tailored scale mainly based on Kang's (2005) SWTC theories. After piloting the 18-item SWTC scale, the finalized one included 8 items (Cronbach's alpha= .8814, see items 58 to 65 in Appendix 29) and two subscales (i.e., alpha values were .8805 and .7602) measured the impacts of (1) positive feedback and (2) familiarity with topics under discussion on students' SWTC

Confidence: The construct of confidence was measured by two indicators: communication apprehension (anxiety) and perceived competence (competence, see Kim, 2005; Yashima, 2002). After piloting the scale on confidence, twenty four items were adopted to measure students' anxiety and competence (see the final section of questionnaire in Appendix 29). The Cronbach's alpha of the confidence scale was .8134.

Data Collection and Data Analysis

After the pilot study, the formal study was conducted. To be specific, the researcher made contact with 12 English instructors either by e-mail or on the phone during from September to the early November in 2007. They were required to distribute the copies of the questionnaire to one class of their students in their schools. Eleven of them promised to collect and return the copies of questionnaire to researchers by parcels whereas only one instructor in Kaohsiung contended that the administration of questionnaire should be done by the researcher herself.

To collect more valid copies of questionnaire, those instructors were given the purposes and schedules of the project and a checklist for implementing and returning the copies of questionnaire. Similar procedures were administrated before the author went to one public senior high school in Kaohsiung to collect questionnaire data. The data collection had been done from the late November, 2007 to January, 2008.

To analyze the collected data, the author made use of the SPSS statistic package for Windows 8.0. She analyzed the results of questionnaire through descriptive and inferential statistics. Before answering the main research questions in the current study, the author reported the results of descriptive statistics (e.g., means and percentages) on students' perceptions of their language proficiency (e.g., listening, speaking, reading, and writing competence).

A series of t-tests were utilized to explore the relationship between SWTC and such background variables as students' gender, schools' locations and prestige, and students' perceptions of their language proficiency (i.e., listening, speaking, reading, and writing competence).

To examine relationships between learner factors (i.e., motivation, confidence, and shyness) and SWTC, and between situational factors (i.e., climate and teacher immediacy) and SWTC, Pearson-product Correlation were performed.

To investigate the relative predictive capacity of learner factors (motivation, confidence, and shyness) and situational factors (climate and teacher immediacy) on the sole dependent variable (SWTC), multiple regression analyses were performed.

It is noted that multiple regression analyses were employed to investigate how well the construct of senior high school students' SWTC (the dependent variable, DV) could be predicted by five independent variables (IVs): learner factors (motivation, confidence, and shyness) and situational factors (climates and teacher immediacy). The stepwise multiple regressions were chosen instead of simultaneous multiple regressions with an attempt to search for the best predictors (Huang, 2007, p. 58).

Besides, the researcher applied three criteria to judge the assumptions of multi-collinearity, normality, and linearity. They were briefly introduced in the following sections.

In testing multi-collinearity, it was assumed that at least some relations should exist between the independent variables (IV) and dependent variables (DV), but the correlational coefficients should not be higher than .70. Specifically, high correlational coefficients (e.g., above .70) suggested the possibility of multi-collinearity between IV and DV. The author would select those DVs, which were moderately (e.g., below .70) correlated with IV to enter the stepwise multiple regression equations, and to find out the best predictors of DV.

To explore collinearity, it was assumed that there was a high possibility of collinearity when there was a low value of Tolerance (i.e., near zero). The higher tolerance was found, the less collinearity was expected. In contrast, a high collinearity perhaps appeared between variables when there was a high value of the variance inflation factor (VIF). The higher value of VIF suggested the more possibility of collinearity between the variables. Thus, the author hypothesized that low collinearity existed among SWTC and the five chosen predictors in this study.

Another two tests that were utilized to examine the normality and linearity before multiple regression analyses were scatterplots of residual against the DV and the normal probability plot. It was noted that normality and linearity were claimed when residuals were found to be scattered in a normal distribution around the scores on DV, and when the residuals were linearly linked with the DV.



CHAPTER 4 RESULTS AND DISCUSSION

This chapter reports the results of the descriptive statistics, t-tests, Pearson correlation, and multiple regression analyses. In response to the research questions addressed in the study, the chapter contains the following five parts: (1) levels of SWTC and its relevant predictors, (2) SWTC and background variables, (3) SWTC and learner factors, (4) SWTC and situational factors, and (5) relations among SWTC and its predictors.

Levels of SWTC and Its Predictors

The following section is mainly concerned with the results of descriptive analyses of the levels of SWTC and its relevant predictors (i.e., shyness, motivation, confidence, climate, teacher immediacy, and language proficiency). Before discussing the above issues, the author reported the results of the reliability tests on the instruments, and then the mean scores of the scales on SWTC and its predictors.

After checking for and deleting missing values of the returned copies of the finalized questionnaire, the author collected four hundred and fifty-nine valid copies of the questionnaire, and found that all of the developed scales on SWTC and its predictors had high ($>.70$) reliability coefficients. Alpha value of SWTC scale was .7764 and those on shyness, motivation, confidence, teacher immediacy and climate were .8267, .9060, .9525, .8616, and .8068 (see Appendices 30 to 35).

To compare the mean scores of the scales on SWTC and its predictors and those of their subscales, the author computed new mean scores by utilizing the data collected and divided each mean score by the number of items in each individual scale, for example, $N=8$ for shyness scale.

Next, based on the results of descriptive statistics, the levels of SWTC and its relevant predictors of shyness, motivation, confidence, climate, teacher immediacy, and language proficiency were reported in the following sections.

SWTC

This section presents the results of descriptive statistics on the SWTC scale (see Table 16). First, the study found that students had a moderate mean score of SWTC (M=3.4842; SD=.6231). Second, they had a moderate level of topic familiarity (M=3.3014, see Table 16) and positive feedback (M= 3.5939, see Table 16).

Table 16 Mean and Standard Deviation of SWTC Scale

Variables	Label	Item Number	Mean	SD
SWTC	SWTC		3.4842	.6231
Topic	topic	a58, a59, a60	3.3014	.7262
Feedback	Fback	a61, a62, a63, a64, a65	3.5939	.6645
Total Scale	SWTC			

First, students' moderate levels of SWTC were probably related to students' limited experience in speaking to foreigner instructors inside or outside schools. Another possible reason was that they seemed to be passive learners with low desire to speak up in L2 (Tsui, 1996; Cortazzi & Jin, 1996; Wen & Clement, 2003).

Besides, the researcher found that students did not have high SWTC in discussing personal experiences and knowing correct answers to teachers' questions (M of item 58 and 60= 2.8257 and 3.7298, see Table 17).

Table 17 Mean Score and Standard Deviation of SWTC Scale Items

Item (valid N= 459)	Mean	SD
58. I am more willing to speak up when our class talk about personal or outside-class experiences.	2.8257	1.009
59. I have higher WTC when I am well-prepared before classes.	3.3486	.9670
60. I have more WTC when I know correct answers to English teachers' questions.	3.7298	.9257

Table 17 (Continued.)

Item (valid N= 459)	Mean	SD
61. When English teachers listen to me carefully, I am more willing to express my ideas.	3.5512	.8711
62. When my group members encourage me, I have higher WTC.	3.5294	.8544
63. When working with high proficiency classmates, I have more WTC in discussion.	3.4357	.8551
64. When teachers give positive feedbacks, I have more WTC to answer other questions.	3.7298	.8417
65. When I actively answer teachers' questions and get extra scores, I have higher WTC to answer questions in L2.	3.733	.9131

Similarly, their SWTC was moderate when they were well-prepared before classes (M of item 59= 3.3486, see Table 17). It seemed that students would have higher SWTC when they felt comfortable, ready, and excited about the topics under discussion. The finding supported the results of Kang's (2005) and Cao and Philp's (2006) studies with the emphasis that it is significant to select appropriate topics under discussion, especially those familiar to the students.

After the comparison of the students' response to items 61 to 65 (see Table 17), the researcher found that students had moderately high SWTC if their teachers gave them positive feedbacks and if they actively answered teachers' questions and got extra scores (M of item 64 and 65= 3.7298 and 3.733, see Table 17). Besides, their SWTC was moderate if they had group members' encouragement and teachers' attentive listening (M of items 62 and 61= 3.5294 and 3.5512, see Table 17). They also had moderate SWTC when they worked with high proficiency students (M of item 63= 3.4357, see Table 17). The results demonstrated that the students might be more willing to communicate due to social supports from their teachers and classmates as significant others.

Based on the discussion above, the results of the study indicated that students had moderate levels of SWTC in L2 and its components (i.e., topic familiarity and positive feedback). It seems that they lacked high SWTC, and theories on SWTC need to take variations of SWTC among students into account to determine the effect ways to enhance students' SWTC as a central teaching goal (Kang, 2005).

Shyness

After reversing scoring of positively worded statements on students' self- or peer-perceived talkativeness, several main findings were noted. First, it was found that students had a moderate level of shyness (M=3.3851; SD=.6835, see Table 18).

Table 18 Mean and Standard Deviation of the Revised Shyness Scale

Variables	Label	Item Number	Mean	SD
Shyness	Shyness		3.3851	.6835
quietness	quietness	a1, a4, a7	3.5765	.7142
talkativeness	non-talkativeness	a2, a3, a5, a6, a8	3.0061	.8281
Total Scale	Shyness			

Note: With the reversed scores on the talkativeness scale, the scale was renamed as non-talkativeness. The higher mean score of non-talkativeness student had, the more shyness they performed.

The second finding was that they had a moderate level of quietness and talkativeness in class (M=3.5765 and 3.0061, see Table 18). One possible reason was that they cared about how their classmates evaluated their quiet and talkative behaviors, and they did not like to have much talk in an L2 class. The results of the analyses of items 1 and 4 (M=3.057 and 3.316, see Table 19) indicated that the students were shy and quiet persons, and they probably disliked to talk in L2.

Table 19 Mean Score and Standard Deviation of Shyness Scale Items

Item (valid N= 459)	Mean	SD
1. In English classes, I am a shy person.	3.057	1.011
2. In English classes, other classmates think I am talkative.	2.381	1.049
3. In English classes, I am a very talkative person.	2.436	1.060
4. In English classes, I tended to be very quiet.	3.316	1.046
5. In English classes, I am more talkative than other classmates.	2.351	.965
6. In English activities, I talk more than other classmates.	2.698	1.061
7. In English classes, other classmates think I am very quiet.	3.472	.907
8. In English classes, I talk more than most classmates do.	2.257	1.022

Besides, from their classmates' perspective, the participants were perhaps not talkative (M of items 2= 2.381) and kept quiet in class (M of item 7= 3.472, see Table 19). The findings suggested that when senior high instructors attempt to reduce students' shyness in L2, it seems essential to encourage students to have more mutual understanding of their own as well as their classmates' personality traits of quietness and talkativeness.

Motivation

This section presents the results of mean scores and standard deviations of the motivation scale items. It was found that the mean score of motivation was moderate (M= 3.3166, SD= .5749, see Table 20). The finding appeared to support the results of the past research (e.g., Peng, 2002). It seemed that senior high students' motivation was not high (around the average of 3.0 in this study).

Table 20 Mean and Standard Deviation of the Motivation Scale

Variables	Label	Item Number	Mean	SD
Motivation	Motivation		3.3166	.5749
ALE	attitude	a9, a10, a11, a12, a13 a14, a15, a16, a17, a18	3.7139	.7401
MI	intensity	a19, a20, a21, a22	2.6716	.6358
DLE	desire	a23, a24, a25, a26	3.4510	.7687
Total Scale	Motivation	a1, a4, a7		

Comparing the mean scores of the subscales (i.e., attitude, intensity, and desire) of motivation (see Table 20), it was found that the students in this study had higher levels of attitude and desire (M= 3.7139 and 3.4510) but a lower level of intensity (M= 2.6716, See Table 20). One possible reason for their low intensity was that as seen in Table 21, the students probably did not work harder than other classmates (M of item 19 =2.650) or review the new vocabulary and concepts they learned in English classes (M of item 20= 2.93).

Overall, students had a positive attitude toward learning English (Table 21). Examining the mean scores of 9, 10, 16, and 17 (M =3.473, 3.340, 3.919, and 3.680, see Table 21), the researcher found that the students in this study had happy learning experiences. They had interests in learning a foreign language (M of items 13 and 14= 3.442, and 3.416, see Table 21).

Moreover, they agreed that English is an important part of the school programs (M of item 11= 4.242) but disagreed with the statement “Learning English is a waste of time (M of item 16= 2.081). Although they believed that English should be taught at school (M of item 25=3.872) and they concentrated on school subjects (M of item 24= 3.427), they seemed to be reluctant to self-study in English after school or spend much time learning English (M of items 21 and 22= 2.880 and 2.946). This may indicate that although they wanted to learn English, they did not study English very diligently and were not willing to spend long hours self-studying it after schools.

Table 21 Mean and Standard Deviations of Motivation Scale Items

Item (valid N= 459)	Mean	SD
9. Learning English is really great.	3.473	1.022
10. I really enjoy learning English.	3.340	1.031
11. English is an important part of the school program,	4.242	.8413
12. I plan to learn as much English as possible.	3.961	.8323
13. I love learning English.	3.442	1.034
14. I hate English.	3.416	1.083

Table 21 (Continued.)

Item (valid N= 459)	Mean	SD
16. Learning English is a waste of time.	2.081	.9061
17. I think that learning English is dull.	2.320	1.086
18. When I leave school, I shall give up learning English entirely because I am not interested in it.	1.863	.9089
19. I work harder than other classmates.	2.650	.9491
20. I often think about or review the new vocabulary and concepts I learn in English classes.	2.930	.8985
21. I self-study in English after school.	2.880	.9489
22. I spend much time learning English.	2.946	.9503
23. When I have assignment in English, I try to do them immediately.	3.312	.8622
24. During English classes, I am absorbed in what is being taught and concentrated on my subject.	3.427	.8544
25. I believed absolutely English should be taught at school.	3.872	1.011
26. I find studying English more interesting than other subjects.	3.194	1.022

Also, participants suggested that they might not give up learning English entirely when they left school (M of item 18= 1.8627), and they planned to learn as much English as possible (M of item 12= 3.961). It suggested that they had some desire and plans to learn more English after graduation from schools or at school.

In addition, they seemed to be willing to spend time on subject other than English (M of item 15= 3.529). The finding suggested that the students might want to spend their time learning English as well as other subjects.

It is noted that the results of the study indicated that the students had lower intensity (M=2.6716) than those (e.g., the low achievers) in Peng's (2001) research (M=2.91). The discrepancy might result from different students' backgrounds (e.g., studying in metropolitan and non-metropolitan schools). This study included students in Taipei City but also others in central and southern Taiwan, which was not considered in Peng's (2001) study. It suggested that schools' locations might be related to students' intensity.

Confidence

This section presents the results of analyses of the mean scores and standard deviations of the confidence scale items (see Table 22).

Table 22 Mean and Standard Deviation of the Confidence Scale Items

Variables	Label	Item number	Mean	SD
Confidence			2.687	.6653
Anxiety	anxiety	B1, B2,, B12	3.328	.7464
Competence	competence	C1, C2,, C12	2.704	.5460
Total Scale	confidence			

In this study, one finding was that students had the low mean score of the confidence scale ($M = 2.687 < 3.0$). Students might lack sufficient confidence in speaking L2 to different types of people (strangers, acquaintances, and friends).

The second finding was that the students had low competence ($M = 2.704 < 3.0$, see Table 22). It seems that students considered themselves as low competent learners.

By examining the mean scores of the competence scale, it was also found that students had insufficient competence when they had a small group conversation with a group of strangers (M of item 1 = 2.9826, see Table 23) and with strangers (M of item 5 = 2.5381, see Table 23). Besides, as shown in Table 23, students perceived higher competence to talk in English to one of their friends (M of item 7 = 3.0436) than to a small group of friends (M of item 12 = 2.8976).

Table 23 Mean Scores and Standard Deviations of Confidence Scale Items

Item (valid N= 459)	<u>anxiety</u>		<u>competence</u>	
	M	SD	M	SD
1. Have a small-group conversation in English with a group of strangers.	3.444	1.103	2.9826	.8435
2. Give a presentation in English to a group of strangers.	4.0283	.9606	2.4553	.9059

Table 23 (Continued.)

Item (valid N= 459)	<u>anxiety</u>		<u>competence</u>	
	M	SD	M	SD
3. Have a presentation in English to a group of friends.	2.8715	1.040	2.8039	.8570
4. Talk in English in a large meeting among strangers.	4.3682	.9584	2.3028	.9609
5. Have a small-group conversation in English with strangers.	3.7298	1.018	2.5381	.8916
6. Talk in English in a large meeting among friends.	3.3769	1.021	2.7211	.8771
7. Talk in English to friends	3.4052	1.035	3.0436	.8978
8. Talk in English in a large meeting with acquaintances.	3.2353	1.016	2.7538	.8529
9. Talk in English to acquaintances.	3.6885	1.056	2.5185	.8799
10. Give a presentation in English to a group of acquaintances.	3.1329	1.034	2.8126	.8765
11. Talk in English to strangers.	3.6057	1.053	2.6166	.9091
12. Talk in English to a small group of friends.	2.8105	1.066	2.8976	.8843

Note: The scores of anxiety scale were reversed, and the scale was renamed as non-anxiety based on Yashima's (2002) concept of confidence as a combination of low anxiety and high competence.

Besides, it was found that the students had less competence talking in English in a large meeting among strangers (M of item 4= 2.3028) and giving a presentation in English to a group of strangers (M of item 2= 2.4553). However, they were more competent talking in English in a large meeting with acquaintances and friends (M of items 6 and 8= 2.7211 and 2.7538) and having a presentation in English to a group of friends (M of item 3= 2.8039) or a group of acquaintances (M of item 10= 2.8126).

The discussion above showed that students might feel more competent having a small-group conversation, giving presentations, or talking in L2 in a large meeting with those they knew (i.e., friends or acquaintance). However, they felt less competence talking with strangers in the same speaking contexts.

The third finding was that students had a moderate level of anxiety (M = 3.328, see Table 22). As seen in Table 23, the students had high anxiety when they gave a

presentation in English to a group of strangers (M of item 2= 4.0283) and when they talked in English in a large meeting among strangers (M of item 4= 4.3682). However, they had moderate levels of anxiety in having a small-group conversation in English with a group of strangers (M of item 1= 3.444) and talking in English to strangers (M of item 11= 3.6057). Besides, it is noted that talking to a small group of friends (M of item 12= 2.8105) and having a presentation in English to a group of friends (M of item 3= 2.8715) were two of the least anxiety-provoking situations.

The results of the study indicated that the learners did not have severe anxiety in communicating with those they knew (e.g., friends) whereas it was the most anxiety-provoking to communicate with strangers in the formal settings (e.g., in L2 presentations and in large L2 meeting).

Climate

In this study, students were found to have a moderate mean score on climate scale (M= 3.502; SD= .4631, see Table 24).

Table 24 Mean and Standard Deviation of the Climate Scale Items

Variables	Label	Item Number	Mean	SD
Climate	Climate		3.5020	.4631
Peer Support	peer	a43, a45, a47, a49	3.5027	.6187
Teacher Support	teacher	a44, a46, a 48, a50, a51, a52, a53	3.7084	.5748
Preparedness	preparedness	a54, a55, a56, a 57	3.1400	.6543
Total Scale	Climate			

It was also found that students had a moderate level of teachers' support (e.g., 3.7084) and students' preparedness (M= 3.1400, see Table 24). Likewise, students had a moderate level of peer support (M= 3.5027, see Table 24). It seemed that they

required themselves to be prepared for course contents and assignment, and felt comfortable to learn with their teachers and classmates with social support.

Besides, as seen in Table 25, the students disagreed that their speech was seldom interrupted by their English teachers (M of item 48= 2.4227), but they agreed that their instructors were inspiring persons (M of item 46= 3.4815), and encouraged them to speak more English (M of item 44= 3.5229, see Table 25) and ask questions (M of item 53= 3.9717). It seemed that the students might be angry with their teachers interrupting their talks in class. Nevertheless, they probably felt pleasant due to being inspired to learn more English in creative in-class activities or being encouraged to initiate students' questions and speak more in L2.

Table 25 Mean Scales and Standard Deviations of Climate Scale Items

Item (valid N= 459)	M	SD
43. My classmates encourage one another.	3.4205	.9822
44. Our English teacher encourages us to speak English.	3.5229	.8383
45. My classmates do not have mutual respects.	2.4684	1.0025
46. Our English teacher is an inspiring person.	3.4815	.8873
47. My classmates like to complete L2 tasks in groups.	3.4466	.7811
48. Our speech is seldom interrupted by English teachers.	2.4227	.8359
49. Our English teacher allows us to look at notebooks in tasks	3.6122	.9564
50. My classmates are closely acquainted with one another.	3.8780	.7891
51. Our English teacher answers to our questions clearly.	3.8911	.7827
52. Our English teacher is humorous.	3.6362	1.009
53. Our English teacher helps us express opinions and ask questions.	3.9717	.7424
54. I am well-prepared for assignments.	3.2854	.9753
55. I am well-prepared for course contents.	3.6863	.8473
56. I have good comprehension of course contents.	3.2789	.9136
57. I understand English teacher's questions.	3.3094	.9110

Table 25 also displayed that the students disagreed with the statement “My classmates do not have mutual respects” (M of item 45= 2.4684), and they suggested

that their classmates liked to complete L2 tasks in groups (M of item 47= 3.4466). It seemed that they wanted to establish a good rapport with their classmates showing respects to another. Moreover, they were more likely to speak more freely in groups probably believed that in groups, “they are not under so much pressure as they are when asked to speak in front of the whole classes” (Harmer, 2007, p. 182).

In addition, the students showed positively attitudes to their preparedness (see Table 25). Although they were well-prepared for course contents and assignments (M of items 55 and 54= 3.2854 and 3.6863, see Table 25), they had moderate comprehension levels of course contents (M of item 56= 3.2789) and their instructors’ questions (M of item 57= 3.3094). It seemed that they needed more appropriate activities to improve their understanding of course contents and teachers’ questions.

Teacher Immediacy

This section presents several findings about TI and its components. First, it was found that students perceived moderate TI (M= 3.5708, see Table 26). One possible explanation was that their English instructors interacted with the students by adapting their language to their audience (e.g., students), and paying attention to the kind of language students were likely to understand.

Table 26 Mean and Standard Deviation of the TI Scale Items

Variables	Label	Item Number	Mean	SD
TI	TI		3.5708	.5318
Verbal immediacy (VI)	verbal	a27, a28, ... a35, a39, ..., a42	3.5926	.7852
Nonverbal immediacy (NVI)	nonverbal	a36, a37, a38	3.5658	.5327
Total Scale	TI			

The second finding was that the students perceived moderate levels of NVI ($M=3.5926$ and $SD= .7852$, see Table 26) and a moderate level of VI (see Table 26).. It seemed that the students showed moderately positive attitudes to the way that their instructors talked to them to establish a good student-teacher relationship by means of VI and NVI strategies.

Examining the mean scores of items 36, 37 and 38 ($M= 3.5839$, 3.3943 and 3.7996 , see Table 24), the author of the study found that the students' teachers were probably humorous and had a variety of facial expressions and gesture. They perhaps utilized different tones in the management of teaching. For example, they might speak louder to be audible, and to ensure the students at the back of the class can hear them as those sitting at the front of the class. Sometimes, they might stop to speak quietly as "a way of getting students' attention" when they said something important (Harmer, 2007, p. 36). It seemed that the students probably understood teachers' personality traits (e.g., humor), and teachers' voices and/or gestures as reliable communicative devices to express their emotions and teaching attitudes, and to draw learners' attention to instructors' talks.

Moreover, the study found that students probably had positive perceptions that their English teachers used "we" to refer to all students (M of item 30= 3.6732 , see Table 27), and liked their teachers' code-switches between Mandarin, English, and Taiwanese (M of item 41= 3.878 , see Table 27). It seemed that the students might not expect that their teachers always acted as a controller giving grammar explanations, and they showed positive attitudes to their instructors' changes of their different roles, especially in the use of the pronoun "we" and students' mother tongue such as Mandarin or Taiwanese as L1) to have closer psychological or social distances.

**Table 27 Mean Scores and Standard Deviations of Teacher Immediacy
(TI) Scale Items**

Item (valid N= 459)	M	SD
27. English teachers use their personal examples.	3.4728	.9066
28. English teachers encourage us to speak English.	3.8519	.8305
29. English teachers discuss about our assignments or personal questions during breaks.	3.6841	.8426
30. English teachers use “we” calling us.	3.6732	1.0162
31. English teachers ask how we feel about an assignment and praise students’ work.	3.6166	.8847
32. English teachers welcome us for asking questions by phone.	3.1307	.8256
33. English teachers often help us express our opinions.	3.4444	.9004
34. English teachers praise students for good performance.	3.4837	.8799
35. English teachers choose appropriate topics due to students’ feeling tired.	3.5098	.9765
36. English teachers utilize gestures and keep smiling.	3.5839	1.0038
37. English teachers’ tones are dull and boring.	3.3943	1.0875
38. English teachers have fixed facial expressions and tense body positions.	3.7996	.9151
39. English teachers announce the time for dismissing classes with a careful consideration of the class schedules.	2.9281	1.0265
40. English teachers confess mistakes in their speech or misspelling on the blackboard.	3.8780	.8478
41. English teachers often have code-switches between Mandarin, English, and Taiwanese.	3.5468	1.0956
42. English teachers require us to underline key words, phrases or sentences.	4.1351	.8142

In this study, students probably had a positive attitude to their instructors confessing mistakes in their speech (M of item 40= 3.8780). Although the students might have the cultural belief that teachers were the authority in the L2 class (Wen & Clement, 2003), they felt that their teachers set up good models when instructors confessed mistakes in front of their students.

It is noted that the item 39 had the lowest mean score (M = 2.9281, see Table 27). The finding suggested that the students might understand the class schedules clearly if their instructors could announce the time for dismissing classes before classes or at the appropriate time points. It seemed that the students needed their teachers’ help them understand the class schedule and monitor their learning process well.

By contrast, the students showed their most positive attitudes when they English teachers asked them to underline the key words, phrases or sentences (M of item 42= 4.1351). It seemed that students expected to be given “cues” to find out keywords and they paid attention to how their teachers explained the uses of these words. They might believe this teaching approach was useful for them to identify or get familiar with specific language points of the course contents.

This study also found that the teachers probably welcomed students to ask questions by phone (M of item 32= 3.1307, see Table 27), and they discussed assignments with the students or talked about personal questions during breaks (M of item 29= 3.6841). It seemed that the students’ instructors were patient with students’ questions and they wished to build good a student-teacher relationship during or after the L2 classes.

Based on the discussion above, it was found that the students had a moderately positive attitude to teachers’ uses of a variety of verbal and nonverbal behaviors. Besides, the students in this study probably thought that their English teachers could set good models by confessing mistakes in class, help them with a clear understanding of the class schedule, be patient in helping them with the identification of the uses of keywords, and build up rapport between teachers and students inside or outside classrooms, either on the phone call or in discussions of students’ personal questions.

The results supported Zhang and Oeztel’s (2006) proposal of three functions of teacher immediacy (e.g., personal, relational, and instructional) from the perspective of Chinese culture. In a word, the results of the study indicated the significance of the appropriate uses of immediacy behaviors for personal, relational, and instructional purposes inside and outside the EFL classrooms in Taiwan.

Language Proficiency

This section introduces the results of descriptive statistics (e.g., means and standard variations) of students' perceptions of their language proficiency (e.g., listening, speaking, reading, and writing competence). One finding was that as shown in Table 28, students had a moderate level of competence in reading (M=3.13; SD=.92) whereas they felt less competence in speaking, listening and writing in L2 (M=.279, 2.88 and 2.78; SD= .92, 1.02, and .87, see Table 28). It is seemed that the students had insufficient proficiency in listening, speaking, and writing in L2, but they seemed to have a positive attitude to their reading proficiency.

Besides, it was found that the lowest mean score appeared in writing proficiency (M=2.78, see Table 28). One possible reason was that the participants lacked formal L2 writing curriculum in addition to English instructions.

Table 28 Descriptive Statistics of Students' Perceptions of Language Proficiency

Variable	Mean	SD	Minimum	Maximum	N
Listening	2.88	1.02	1.00	5.00	459
Speaking	2.79	.92	1.00	5.00	459
Reading	3.13	.92	1.00	5.00	459
Writing	2.78	.87	1.00	5.00	459

So far, we had presented the results of the descriptive statistics of SWTC and its relevant predictors in the previous section. It was concluded that students had perceived a moderate level of SWTC. Similarly, they showed a moderate level in the relevant predictors of SWTC (e.g., motivation, shyness, teacher immediacy, and climate) but a low level of confidence. Another finding was that their proficiency in speaking, writing and listening in L2 were below the average of 3.0.

SWTC and Background Variables

The following sections present the results of t-tests on SWTC and such background variables as students' language proficiency, gender, schools' locations, and schools' prestige.

SWTC and Language Proficiency

Before t-tests, the participants in this study were divided into two groups (high- and low-proficiency) based on the mean scores of their perceived competence in listening, speaking, reading, and writing in L2 (M=2.88, 2.79, 3.13, and 2.78, see Table 28). The results of descriptive statistics showed that 309 students had low listening proficiency and the number of low speaking, reading and writing proficiency were separately 311, 163, and 307. Moreover, the numbers of the high proficiency (e.g., higher than the mean scores) students in listening, speaking, reading and writing were 150, 148, 296, and 152.

Table 29 Results of T-tests on Perceived Language Competence and SWTC

		Leven' s Test for Equality of Variances				T-test for Equality of Means				
		F	Sig	t	df	Sig	MD	SED	Interval Lower	Difference Upper
Listening	Equal Variance assumed	1.676	.196	2.817	457	.005	1.387	.4923	.4193	.2354
Speaking	Equal Variance assumed	2.634	.105	2.138	457	.033	1.06	.4959	.0658	2.035
Reading	Equal Variance assumed	.588	.443	2.611	457	.009	1.261	.4831	3.12	2.211
Writing	Equal Variance assumed	.214	.644	2.782	457	.006	1.365	.4908	.4007	2.330

Note: The results of t-tests with equal variance not assumed were not listed due to any violation of the equal variance.

The results of the t-tests on SWTC and perceived language competence (see Table 29) indicated students' SWTC varied significantly with their perceptions of language proficiency in all four language skills.

It was found that t-values of students' competences in listening, writing, reading, and speaking were significant ($T=2.817^{**}$, 2.782^* , 2.611^{**} , and 2.782^{**}). The result indicated that high proficiency students in four skills had significantly higher SWTC than others.

To measure the association between SWTC and types of perceived competences in four skills, Eta values and their squares are computed (see Table 30).

Table 30 Measures of Associations

	Eta	Eta square
SWTC*speaking	.060	.004
SWTC*Listening	.074	.006
SWTC*reading	.085	.007
SWTC*writing	.088	.008

The results of this study suggested that high speaking, listening, reading, and writing proficiency students had higher levels of SWTC than others. Such a significant difference was found among high and low proficiency students in their SWTC levels. It suggested that students' proficiency levels could account for the diversity of SWTC among different L2 learners.

It is noted that English teachers should not ignore the finding of individual differences of SWTC behaviors among students at different levels (i.e., high and low proficiency students) in this study. They might find that some students were quite competent and dominant in speaking activities and they probably had more opportunities to express their opinions whereas others kept reticent. They might help the low proficient students with more classroom engagement and higher SWTC by means of praising their good task performance in group works or encouraging them to successfully answer to teachers' questions, especially the easier ones. Besides, it seems essential to require high and low students "to do different tasks depending on

their abilities” (Harmer, 2007, p. 177), which might reduce their pressure or fear of making mistakes in front of others and enhance their SWTC.

SWTC and Gender

To examine the gender effect on SWTC, t-tests were conducted. First, the author of the study found females (M= 3.51; N=279; SD=5.44) reported higher SWTC than males (M= 3.44; N=180; SD=4.66). Despite their gender, the students showed a moderate level (around the average of 3.4 to 3.5) of SWTC, and they probably had a moderately positive attitude to teachers’ and peers’ positive feedbacks and topic familiarity under discussion.

However, as shown in Table 31, there was no significant (T =1.233; p= .218) difference between male and female students in terms of their SWTC scores at the significant level of .05. It meant that gender was not a good predictor of SWTC.

Table 31 Results of the Independent T-tests on Gender and SWTC

	Leven’ s Test for Equality of Variances				T-test for Equality of Means				
	F	sig	t	Df	sig	MD	SED	Interval difference Lower Upper	
SWTC	3.983	.047	-1.233	457	.218	.587	.4763	-1.523	.348
Equal Variance assumed									

Note: The author did not list t values with equal variance not assumed due to any violation of the equal variance.

The results of the study were partially in line with the findings of the previous findings. Baker and MacIntyre (2002) and Huang (2005) investigated the relationship between gender and WTC, and found female had higher WTC in L2 than males. They suggested that females tended to be more motivated in L2 talks. Unlike the previous

studies, the results of this study found that females had high SWTC levels, but no significant differences were found between females and males in their SWTC. It indicated that gender was not effective in accounting for the diversity of SWTC among students. Since it seems not clear how gender is related to trait WTC and SWTC, it is promising for future studies.

SWTC, Locations, and Prestige

To examine the effect of schools' locations and prestige on SWTC, t-tests were computed. The study found that students in metropolitan and non-metropolitan areas had moderate SWTC (M = 3.52 and 3.43; SD= .5941 and .6483). So were those studying in the prestigious and less prestigious schools (M= 3.52 and 3.44; SD= .6656 and .5744).

Table 32 Results of the Independent Samples T-tests on Locations and SWTC and on Prestige and SWTC

	Leven' s Test for Equality of Variances				T-test for Equality of Means					
	F	sig	t	Df	sig	MD	SED	Interval difference Lower Upper		
Schools' Location Equal Variance assumed	2.579	.109	1.986	457	.048*	.115	.0058	.002	.229	
Schools' Prestige Equal Variance assumed	3.224	.073	1.342	457	.180	.080	.008	.0062	.192	

Note: The author did not list t values of schools' locations and SWTC and that of prestige and SWTC with equal variance not assumed due to any violation of the equal variance.

Table 32 demonstrated the results of the independent samples t-test. It was found that students in metropolitan (M=3.52) had significantly higher SWTC than

non-metropolitan students ($t=1.986$; $P<.05$). The finding did not violate the assumption that students in the metropolitan schools might have higher SWTC than those attending non-metropolitan schools. Besides, the difference of SWTC levels between the metropolitan and non-metropolitan students was statistically significant. As discussed previously in Chapter 3, students in metropolitan schools might be those who scored high in the Basic Competence Tests as the entrance exams of senior high schools. Research (Chang et al., 2007) indicated that students in the urban or metropolitan areas tended to have high L2 proficiency. The result of this study showed students with high proficiency levels had higher SWTC. It seemed reasonable to find that students in the metropolitan schools had significantly higher SWTC than others.

However, it was found that students in prestigious schools did not have significantly higher SWTC than those in less prestigious schools ($t=1.342$; $P>.05$). As discussed previously, not all of the students scoring high Basic Competence Tests chose to enter prestigious senior high schools. The results of the t-test analyses showed that schools' prestige could not effectively explain the diversity of SWTC among the students studying in different schools with a variety of prestige. It seemed that among the school variables, schools' locations could better predict the diversity of SWTC among students than schools' prestige.

Based on the results of the t-tests on SWTC and background variables, it can be concluded that exclusive of gender and schools' prestige, English proficiency levels and schools' locations can effectively account for the diversity of SWTC among students (e.g., between high and low proficiency students, and between metropolitan and non-metropolitan students).

SWTC and Learner Factors

The section shows the relations of SWTC to learner factors (motivation, confidence, and shyness). Pearson correlation analyses were conducted, and the results of the Pearson correlation analyses are to be presented in the following lines.

SWTC and Shyness

Table 33 showed the results of the correlational studies on SWTC and shyness. First, the correlation between the two variables was both negative and low ($r = -.252^{**}$). The finding suggested that the higher shyness students perceived, the lower SWTC they performed. Since the r square was .0635, the result indicated low percents (6.35%) of variance were explained between SWTC and Shyness.

Table 33 Pearson Correlation between SWTC and Shyness

	SWTC
Shyness	-.252**
Quietness	-.217**
Non-Talkativeness	-.234**

Note: ** $p < .01$ (two-tailed)

The second finding was that SWTC was negatively correlated with quietness ($r = -.217^{**}$) and non-talkativeness ($r = -.234^{**}$). Besides, the r square of SWTC and non-talkativeness ($r^2 = .0548$) and that of SWTC and quietness ($r^2 = .0471$) were not high. It indicated that this pair of variables only accounted for a limited (5.48% and 4.71%) amount of the shared variance.

Literature suggested students' lack of help-seeking strategies in L2 classes might be related to the fear of peers' negative evaluations as well as their self-evaluations (McCroskey & Richmond, 1982). Researchers (Syau, 2001; Zheng, 2001) suggested

that shy students might not have multiple help-seeking strategies to deal with their difficulties in assignments or like to communicate with their teachers and classmates. The results of this study supported the assumptions that shy students might avoid communication and lacked help-seeking strategies in L2, which resulted in low SWTC in L2. In addition, the study found that peers' negative evaluation might mediate the correlation between shyness and SWTC.

It is noted that Kang (2005) argued that not all the predictors of SWTC positively influence SWTC. The results of the study supported this claim because shyness was found to be negatively correlated with SWTC. It seemed that an increase of students' shyness might have a negative effect on students' SWTC. Similarly, when students perceived higher quietness from their own and their classmates' perspectives, they might decrease their SWTC levels. From this perspective, it is essential for English teachers to reduce the negative effect of shyness and its components (e.g., quietness and non-talkativeness) on students' SWTC in L2.

Moreover, the results of the study indicated that students' SWTC was negatively related to shyness. Students who had a positive attitude toward their shy behaviors as avoidance of negative evaluations from others were less willingness to communicate in English. Similarly, students that showed high amount of quietness were less willing to talk in L2 with their classmates than those with low quietness. In contrast, the students who considered themselves as more talkative than others were likely to have higher SWTC levels. It seemed that students were aware of their personality traits of quietness and talkativeness and cared about others' perceptions of their quiet and talkative behaviors. It appeared that L2 teachers should encourage those had positive attitudes to their quietness to understand the benefit of their increase of their classroom engagement (e.g., winning teachers' positive attitudes to their risk-taking or correcting their mistakes in L2 tasks), which might result in students' higher SWTC.

The results of the study also help us understand that the shy students may become anxious and tongue-tied if they experience negative evaluations of their classmates in speaking more in L2 than other classmates. If these students could increase their positive experiences or expectations of their more talkative behaviors than others, they might increase their SWTC.

To sum up, the results indicated that shyness and its components were negative predictors of SWTC. Besides, the negative correlation between shyness and SWTC were significant. In sum, systematic (e.g., negative) and significant relations were found between SWTC and shyness and between SWTC and the components of shyness (i.e., quietness /non-talkativeness). It seems essential for L2 teachers to help shy students with a clear understanding of the potential benefits in their reduction of quietness and in the enhancement of their classroom participations, and more positive evaluations of their classmates' as well as their own personality, which may result in the shy students' SWTC levels.

SWTC and Motivation

Table 34 showed that SWTC and motivation were positively correlated ($r=.444$; $P<001$), which indicated that the higher motivation students had, the higher SWTC they perceived. Since r square was .19713, the result suggested 19.713% of shared variance would be explained by the two variables.

Table 34 Pearson Correlation Between SWTC and Motivation

	SWTC
Motivation	.444**
Attitude	.406**
Intensity	.302**
Desire	.424**

Note: ** $p<.01$ (two-tailed)

Besides, the correlation coefficients of SWTC and each of the three components of Motivation (e.g., attitude, intensity, and desire) were not relatively high ($r=.406^{**}$, $.302^{**}$, and $.424^{**}$). Furthermore, because the r square of these three sets of variables were .1648, .0912, and .1798, the results revealed that 16.48% of variance was explained by SWTC and attitude, 9.12% of variance by SWTC and intensity, and 17.98% of variance by SWTC and desire.

The results of the study did not violate the theoretical assumptions that there might be a relation between trait WTC and SWTC, and motivation, which is one salient predictor of trait WTC (MacIntyre & Charos, 1996), and motivation had a positive correlation with SWTC. Unlike the previous studies, the results of the study demonstrated that learner factors (e.g., motivation) may positively determine SWTC, which implied a relation between trait WTC and SWTC. There seemed a complex relation between trait WTC and SWTC via motivation.

Besides, the study found all of its three components (i.e., desire, intensity, and attitude) were positively correlated with SWTC. It indicated that the more desire, intensity, and attitude students had, the more SWTC they performed. In other words, SWTC could be predicted by the above three components of motivation.

It is noted that motivated students might have higher levels of “linguistic confidence” (Cetinkaya, 2005) resulting in higher WTC in L2. The results of this study indicated that similar to other EFL students, Taiwan’s senior high students that wanted to pass the English course might have instrumental motivation to improve their L2 speaking competence. Their L2 motivation might not be necessarily related to their SWTC. Motivated students seemed to perceive high language proficiency, which may result in their linguistic confidence and SWTC in L2. Similarly, motivated students’ desire, intensity, and attitude in L2 might be indirectly related to their SWTC via linguistic confidence. In other words, the results of this study showed that to be

motivated in L2 tasks alone is not necessarily be related to the emergence of SWTC, and motivation might be indirectly related to SWTC via their linguistic confidence or perceived language proficiency.

Corresponding to Cao and Philp's (2006) and Kang's (2005) theoretical perspectives of SWTC, the study showed a potential relation among trait WTC, SWTC, and motivation. Learner factors such as motivation may have positive correlations with trait WTC or with SWTC. The finding suggested that there was probably a complex relation among SWTC, motivation, and trait WTC.

Based on the discussion above, it is concluded that systematic (positive) and significant correlations existed between motivation and SWTC, and between SWTC and the components of motivation in an EFL context of Taiwan. Besides, a complex interaction might exist among trait WTC, SWTC, and motivation.

SWTC and Confidence

Table 35 showed the results of Pearson correlation analyses on SWTC and Confidence. One finding was that the correlation coefficient between these two variables was very low ($r=.225^{**}$). Since r square of SWTC and confidence was .0506, the result indicated that only 5.06% of variance was explained.

Table 35 Pearson Correlation between SWTC and Confidence

	SWTC
Confidence	.225**
anxiety*	-.168**
competence	.228**

Note: ** $p < .01$ (two-tailed)

Besides, SWTC and such components as anxiety and competence are positively correlated ($r = -.168^{**}$ and $.228^{**}$, see Table 35). Since their r squares were .02822

and .05198 respectively, the result indicated that the two sets of variables separately explained 2.822 % and 5.198% of variance.

The results of the study did not violate the assumption that students' confidence in L2 was positively correlated with SWTC. Besides, among the component of confidence in L2, competence seemed to have a positive relationship with SWTC. By contrast, anxiety was found to be negatively correlated with SWTC. The result confirmed Kang's (2005) claim that not all predictors of SWTC were positively correlated with SWTC.

Despite Cetinkaya's (2005) research, literature revealed that L2 confidence and its components (i.e., competence and anxiety) are salient predictors of WTC in L2 (Kim, 2004; Yashima, 2002). Kim (2005) and Yashima (2002) suggested that WTC in L2 might be predicted by confidence, which could be defined as a combination of high competence and low anxiety. Unlike the previous authors, Cao and Philp (2006) pointed out that confidence could predict SWTC. Results of the study seemed to support Cao and Philp's (2006) interactive perspective of SWTC. Specifically, this study found that the positive correlations existed between SWTC and confidence. It is noted that the study also found a positive correlation between SWTC and competence, which is not captured by the previous authors.

Besides, there is no consistent finding of the relations among L2 self-confidence, self-perceived competence, and actual competence (Cetinkaya, 2005; Kim, 2004; Yashima, 2002). Some suggested that self-confidence is negatively correlated with anxiety but positively correlated with anxiety (Kim, 2004; Yashima, 2002). However, others (Centikaya, 2005) found no negative correlation between anxiety and competence. Despite the inconsistent finding of the previous studies, the researcher argued that there is probably a gap between self-perceived and actual competence. From theoretical perspectives, to help students with positive expectations of their

“future” communication behaviors or L2 achievement, it is important to control students’ “negative aspect of language anxiety in SLA (Kim, 2004, p. 166).

It is significant to guide the students to have “realistic” expectations of their L2 learning. It is pointed out that “expectations of L2 learning are often uncertain or unknown” to the students (Kim, 2004, p. 168). If L2 students could find out the best way to reduce the potential gaps in their expectations and evaluations of perceived and actual L2 speaking performance, they might increase their L2 confidence, and in turn, SWTC in L2.

So far, the author presented the results of correlation tests t-tests on SWTC and learner factors. It was found there were systematic and significant relations between SWTC and learner factors (e.g., shyness, motivation, and confidence), and all of the learner factors might be effective predictors of SWTC. Besides, there might be a correlation between trait-WTC and SWTC because it proved that SWTC and trait WTC might be influenced by learner factors such as shyness, motivation, and confidence. It is also noted that the finding corresponded to Kang’s (2005) theoretical assumption that some predictors of SWTC (e.g., shyness and anxiety) may have negative impacts on SWTC.

Moreover, research indicates that expectations are the common factor among motivation and confidence in L2 (Kim, 2004, p. 167). Unlike the previous findings, the results of the study demonstrated the positive correlations between SWTC and these two factors. It seems essential for L2 instructors to help students with different motivation and confidence to establish clear or positive expectations of their L2 performance. For example, to increase students’ L2 motivation and confidence, L2 teachers might help students understand their own and others’ attitudes and expectations of their behaviors (e.g., making mistakes in L2 tasks). With the reduction of anxiety in the uncertain processes in L2 tasks, students may have their positive and

realistic expectations, increase their confidence and motivation to seek speaking opportunities in L2, and eventually enhance their SWTC.

SWTC and Situational Factors

The section demonstrated the results of the Pearson Correlation analyses of the relationships between SWTC and situational factors (teacher immediacy and climate).

SWTC and Teacher Immediacy

As shown in Table 36, one vital finding is that a significant but low correlation was found between SWTC and TI ($r=.374^{**}$). The result indicated the more TI students got, the higher SWTC they had. Since r square of these two constructs is 0.1399, the result suggested that 13.99% of shared variance were explained. It indicated that TI was a positive predictor of SWTC.

Table 36 Pearson Correlation between SWTC and Teacher Immediacy

	SWTC
Teacher immediacy (TI)	.374**
Verbal immediacy	.377**
Nonverbal immediacy	.244**

Note: ** $p < .01$ (two-tailed)

Another finding was that SWTC was positively correlated to VI ($r=.377^{**}$) and NVI ($r=.244^{**}$). Since r square of SWTC and VI was .1421 and that of SWTC and NVI was 0.0595, the results indicated that more amount of (14.21%) variance was explained by the former constructs compared to that (5.95%) by the latter. The results indicated that the two components of TI were positive predictors of SWTC.

Researchers (Hsu, 2006; Lin, 2003) pointed out that there was a positive correlation between WTC and TI, and between WTC and the components of TI (VI and NVI). Unlike the previous authors, the researcher of this study found that SWTC was correlated with TI and its components. It seems that the results of the study indicated the complex interactions between SWTC and TI, which supports Kang's (2005) perspective of SWTC.

The results of the study also seemed to suggest that the facilitating effect of teachers' use of verbal and nonverbal immediacy behaviors on SWTC became stronger when the students had higher SWTC. If students had positive attitudes to the use of VI and NVI such as to build up student-teacher relations, they might have SWTC in L2. It seemed that students with higher SWTC might decrease their SWTC when they showed negative attitudes to the development of rapport between teachers and students. In other words, it is essential to maintain a supportive relationship between teachers and students with high SWTC across situations.

Similarly, the results of the study indicated that the amount of VI and NVI is context-bound. It seems essential for L2 teachers to assess the appropriate amount of teacher immediacy for different purposes (e.g., instructional, relational or personal, see Zhang, 2004; Zhang & Oetzel, 2006). From this perspective, the increase of TI might not be necessarily welcomed by the EFL students with higher SWTC in Taiwan. One possible reason was that they perhaps like more instructional immediacy to enhance their comprehension of teachers' questions whereas they might feel no need to have more relational immediacy for better teacher-student relationships. Besides, it seems that students might feel negative attitudes to a lack of TI when they could answer teachers' questions correctly. An important pedagogical implication is that teachers should attempt to understand students' communication needs and their expectations of the appropriate amount and functions of TI in L2 interactions.

Based on the results of correlation analyses of the relations between SWTC and TI, it was found that a positive correlation was found between these two variables. To be specific, the higher TI instructors performed, students had higher SWTC, and such a correlation was found to be significant. To sum up, the result of the study suggested that the relationships between TI and SWTC were systematic (e.g., a positive correlation) and significant in an EFL context of Taiwan.

SWTC and Climate

Table 37 displayed the results of correlational studies on SWTC and climate. First, it was found that the correlation between SWTC and Climate was positive and moderate at the significant levels of .001 ($r=.452^{**}$, see Table 37). Since r square is 0.2043, the result indicated SWTC and climate explained 20.43% of shared variance.

Table 37 Pearson Correlation between SWTC and Climate

	SWTC
CLIMATE	.452**
Preparedness	.384**
T support	.430**
Peer support	.163**

Note: ** $p < .01$ (two-tailed)

Another finding was that among the three components of climate, teacher support had higher correlation with SWTC ($r = .430^{**}$) than preparedness ($r = .384^{**}$) and Peer support ($r = .163^{**}$). The results indicated that teacher support could best predict SWTC among the components of climate.

The results of the study revealed that there was a positive correlation between SWTC and climate. This finding partially corresponded to the past climate studies because the study found students with teacher support and peer support are not only

motivated (Chang & Chang, 2003; Chang & Lin, 2001), but also have high SWTC. However, the current study found that preparedness, which is seldom observed in the past studies with the exception of Fassinger's (1995), was positively related to SWTC. Besides, it is noted that students' perceptions of teacher support and peer support alone might not necessarily result in students' SWTC. In Taiwan's EFL contexts, it appeared that students who have a positive attitude to social support from teachers and classmates may have higher SWTC. However, the results of the study indicated that students' preparedness may be indirectly related to students' attitude to teachers' and classmates' support predicting SWTC in L2. In other words, prepared students that won more teachers' and peers' support might show higher SWTC than others. From this perspective, social support from teachers and classmates as well as students' self-preparations for course contents and assignments may play a role in determining students' SWTC levels.

To sum up, SWTC is positively related to climate and its components (e.g., teacher support, peer support, and preparedness), and such a correlation was significant ($P < .01$). It seemed that there is a systematic relation between SWTC and climate and between SWTC and the components of climate as discussed above.

Moreover, it is noted that the situational factors chosen in this study (climate and teacher immediacy) were found to be positively correlated with SWTC. From the perspective of Kang's (2005) SWTC model, it is theoretically assumed that other potential situational factors might influence SWTC and its components (topic, interlocutors, and speaking contexts). The results of this study supported the assumptions that SWTC might be affected by such situational factors as teacher immediacy and climate from Kang's (2005) perspective. In addition, the results of the study suggested that students' SWTC might be related to teachers' choice of VI and VI, and those with higher SWTC might increase their confidence in L2 if they

perceived positive climate in creative L2 task designs. Thus, L2 teachers need to expose students to different TI behaviors and create supportive climate, which may lead to students' positive attitude to increase their SWTC levels in L2 talks.

Relations among SWTC and Its Predictors

Multiple regression analyses were performed to investigate how well the construct of senior high school students' SWTC (the dependent variable) can be predicted by the following factors as independent variables: learner factors (motivation, confidence, and shyness) and situational factors (climate and teacher immediacy). The stepwise multiple regressions were utilized instead of simultaneous multiple regressions with an attempt to search for the best predictors.

To determine the linearity of SWTC and the five chosen predictors, the study tested the assumptions of multi-collinearity, normality, and linearity. To reach the goals, Pearson product-moment correlation coefficients, scatterplots, and examined the "values of Tolerance" (hereafter VIF) were applied.

The following presents the main findings. First, it was found that all of the coefficients between SWTC and predictors were less than .70 and significant at the .05 level. It seemed to suggest low multi-collinearity of SWTC and the chosen predictors. As shown in Table 38, the results of one-tailed correlations analyses demonstrated that their correlational coefficients listed here ($r = -.252, .444, .225, .374,$ and $.452$) were the same as those as discussed in the sections of "Correlational Studies on SWTC and Learner Factors" and "Correlational Studies on SWTC and Situational Factors", in which two-tailed correlational analyses were conducted.

Table 38 Correlation between SWTC and Predicting Variables:

	SWTC	Shyness	Motivation	Confidence	TI	Climate
SWTC	1.000					
Shyness	-.252**	1.000				
Motivation	.444**	-.058	1.000			
Confidence	.225**	-.183**	.384**	1.000		
TI	.374**	-.064	.242**	-.049	1.000	
Climate	.452**	-.070	.473**	-.127**	.657**	1.000

Note: * $p < .05$ ** $P < .01$ (one-tailed)

In addition, the author presented five minor but significant findings. First, shyness was negatively and significantly correlated to confidence ($r = -.183^{**}$). Specifically, the more confidence students had, the less shyness they perceived. However, motivation, teacher immediacy, and climate could not predict shyness.

Second, confidence was positively and significantly correlated with motivation ($r = .384^{**}$). The finding suggested the higher confidence students had, the more motivated they became. However, the increase of teacher immediacy might not be related to higher confidence (correlational coefficient of teacher immediacy and confidence = $-.049$).

Third, TI was positively correlated with motivation ($r = .242^{**}$) and climate ($r = .657^{**}$). The result indicated the latter (climate) could effectively predict the first construct (TI). Despite discrepancy of students (e.g., college or senior high school students), the finding of the positive relations between motivation and TI as mentioned previously is corresponding to those of Christophel's (1990) and Richmond's (1990) studies.

Fourth, TI was negatively related to confidence but the correlation was not significant ($r = -.049$, $p > .05$, see Table 38). The result suggested that the increase of TI might reduce students' confidence. One possible reason was that with more TI, students might increase their anxiety, which might reduce their confidence.

Based on the results of Pearson correlation analyses as discussed above, it was found that there are systematic interrelationship (e.g., positive or negative correlations) between SWTC and the predictors. Second, all of the coefficients between SWTC and predictors were less than .70.

Next, Table 39 displayed a summary of collinearity statistics by means of Tolerance and VIF (Rong, 2006). It is found that the tolerance value of the five predictors was within the range of .463 to .994 and the VIFs were small (within the range of 1.007 to 2.160). The results suggested the suitability of the use of multiple regression analyses to examine the relations among SWTC and its predictors.

Table 39 Statistics of Collinearity: Tolerance and VIF

	Tolerance	VIF
Climate	.463	2.160
Motivation	.767	1.304
Shyness	.994	1.007
TI	.562	1.781
Confidence	.802	1.247

After conducting the previous two tests, the author examined the scatterplots of the residuals against the predicated SWTC score (see Figure 7). She also checked the Normal Probability Plot (see Figure 8). It was found that residuals were normally distributed around the SWTC scores and they were linearly related to SWTC scores. So far, it has been found that the assumptions of low multi-collinearity, normality and linearity were not violated among SWTC and the chosen predictors.

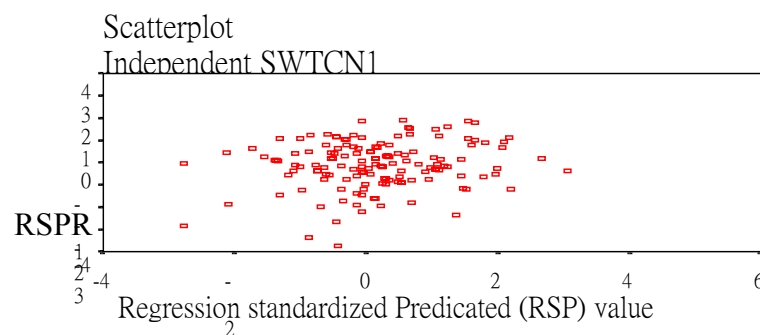
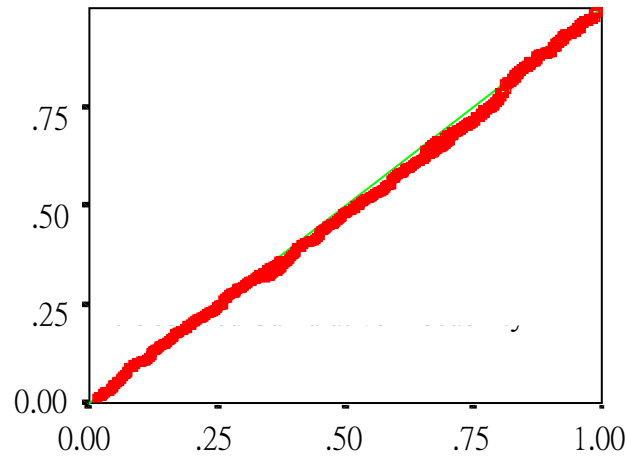


Figure 7 Scatterplot



X: Observed Cumulative Probability

Y: Expected Cumulative Probability

Dependent variable: SWTC

Figure 8 Normal P-P Plot of Regression Standardized Residual

Stepwise Multiple Regression of SWTC on Predicting Variables

The following introduced the results of multiple regressions. As shown in Table 39, climate was found to have the best prediction of SWTC because it was first chosen in model 1 accounting for 20.4% of variance (e.g., R2 change=.204). Motivation, which is chosen in the second model of multiple regressions, is the second best predictor of SWTC (R2 change=.068). As to shyness and TI, they were put into the third to fourth multiple regressions. They additionally accounted for 4.5% and 1.6% of variance (e.g., R2 change=.045 and .016).

Moreover, two additional results were noted. The first was that the five IVs explained 33.3% of variance, and that all of the F values (5, 454) were significant (e.g., 117.256**, 42.728**, 30.255**, and 10.573**, see Part 1 of Table 40). The second was that Beta coefficients in the four regression models were accordingly .184, .304, -.210, and .166, and t values were significant (3.262**, 6.596**, -5.466**, and 3.252**, see Part 2 of Table 40).

Table 40 Results of Stepwise Multiple Regressions of SWTC on Shyness, Motivation, Confidence, Teacher Immediacy, and Climate

(Part 1) F, R, Adjusted R² and R² Change

	F	P	R	R²	Adjusted R²	R² Change
1a	117.256	.000**	.452	.204	.202	.204
2b	42.728	.000**	.552	.272	.269	.068
3c	30.255	.000**	.564	.318	.313	.045
4d	10.573	.000**	.577	.333	.327	.016

Predictor a: (Constant), Climate

Predictor b: (Constant), Climate and Motivation

Predictor c: (Constant), Climate, Motivation, and Shyness

Predictor d: (Constant), Climate, Motivation, Shyness, and TI

Dependent Variable: SWTC

Table 40 (Continued.)

(Part 2) B, Beta and T

Model 1	B	SE	Beta	t	P
Constant	11.815	1.938		6.097	.000
1. climate	.132	.040	.184	3.262	.001
2. motivation	.147	.021	.304	6.956	.000
3. shyness	-.192	.035	-.210	-5.466	.000
4. teacher immediacy	.0097	.030	.166	3.252	.001

The results of multiple regression analyses indicated that climate could best predict SWTC followed by motivation, shyness, and TI. Nevertheless, since confidence did not seem to significantly predict SWTC, the result of the study indicated that except confidence, there was a linear relationship among 2 learner factors (i.e., motivation and shyness), 2 situational factors (i.e., climate and teacher immediacy), and SWTC.

Now, the author summarized the main findings of the multiple regression analyses. First, the results of correlational analyses indicated all of the coefficients

between SWTC and predictors were less than .70 and significant at the .05 level, which suggested low multi-collinearity of SWTC and the chosen predictors. Second, the regression between the combination of motivation, shyness, climate and teacher immediacy were significant. Third, since the contribution of confidence as a predictor of SWTC was excluded, only four of the five chosen factors among learner and situational factors were found the direct and significant predictors of SWTC.

It is noted that climate may determine students' motivation in L2 (Dornyei, 2001), and motivation could predict WTC in L2 (Kim, 2004; Yashima, 2002). Unlike the previous studies, the current research found that SWTC could be better predicted by climate than motivation (R^2 changes= .204 and .068, see Table 40). It seems that to increase Taiwan's EFL students' SWTC, experiencing a positive climate is more helpful than experiencing a higher level of motivation. Besides, the results of the study indicated that climate may indirectly influence students' SWTC via motivation. To be specific, to have high climate and motivation alone may not necessarily lead to SWTC in that students' SWTC might be the function of students' perception of climate and their motivation. Thus, unlike the previous motivation and climate studies, the study found that although climate and motivation were two best predictors of SWTC, students might perceive positive climate for the increase of their motivation in L2, which result in SWTC in an L2 class.

Furthermore, the results of the study also indicated that students' shyness may negatively predict SWTC, and TI was the least effective predictor of SWTC among the chosen predictors in the multiple regression models. First, in contrast to the previous SWTC studies (Cao & Philp, 2006; Kang, 2005), the finding of the study suggested that the feeling of shyness is likely to be related to students' low SWTC. Despite other predictors (e.g., climate, motivation, and TI, see Table 40), it seems that to increase students' SWTC levels, it is effective to reduce students' shyness. It is

noted that L2 teachers can increase students' SWTC by means of the reduction of students' shyness in addition to the increase of climate, motivation, and TI. Reducing negative effect of shyness on SWTC is just one effect way to enhance SWTC.

Besides, research suggested both teachers and classmates are two primary source of social support (e.g., help-seeking) in mistake corrections or in completion of assignments (Zheng, 2002; Syau, 2001). Unlike the previous studies of shyness, the results of this study demonstrated that shyness could better predict SWTC than TI. It seemed that shy students in this study cared more about positive evaluations and feedbacks from their "peers" than from their "teachers." The results of the study seemed to indicate that the shy students' perceptions of peers' positive evaluations of L2 performance may have stronger effects on SWTC than those of teachers' use of TI. Despite the different impacts of shyness and TI on SWTC, the results of the study also pointed out that it is possible that students might reduce their shyness and increase their SWTC via teachers' use of TI. In other words, shy students that cared about their classmates' evaluation of their personality and L2 behaviors might show higher SWTC due to their positive attitudes to certain types of TI. Thus, it seems that L2 teachers may not only encourage students to have a more positive evaluation of others' and their own L2 behaviors but also pay attention to the pressure of shy students when there are gaps between teachers' and peers' evaluations of their personality and L2 behaviors.

The result of this study also helps us understand that the chosen learner factors (motivation and shyness) and situational (climate and TI) may influence SWTC, and more importantly, it should not be ignored that students' SWTC might be the function of the joint effects of these factors or just some of these variables. To be specific, students with a positive attitude to climate and motivation may have higher SWTC than those with negative evaluations of the roles of these two factors in L2 talks.

Similarly, motivated students might reduce their shyness via the use of TI, which may result in SWTC. It is also possible that students might increase their SWTC due to the joint effects of situational factors (e.g., climate and TI) or learner factors (e.g., motivation and shyness) in L2 talks. It seems that the diversity of SWTC among students could be explained by the effects of the learner factors, situational factors or the joint effects of learner factors and situational variables on SWTC. Thus, L2 teachers should help students understand the potential predictors of their SWTC and control the negative effects of the predictors of SWTC (i.e. shyness and anxiety) if the instructional goals of the English course are set to enhance SWTC in L2 and facilitate the success of the L2 learning and communication (Kim, 2005).

Based on the discussion above, it can be concluded that in line with the previous SWTC studies (Cao & Philp, 2005; Kang, 2005), the current research proved that the relations among SWTC, learner factors, and situational ones predicting SWTC are systematic and complex. To be specific, SWTC and the four predictors in multiple regression models were linearly correlated. Besides, it is noted that one single of these predictors (i.e., motivation, shyness, climate, and teacher immediacy) could not effectively explain the diversity of SWTC among students. To sum up, the relations between SWTC and the four aforementioned predictors are not straightforward.

CHAPTER 5 CONCLUSIONS

This chapter first presents the summary of the main findings of the study. Then some pedagogical implications and suggestions for senior high education in Taiwan and situational willingness to communicate (SWTC)-oriented research in L2 communication are given based on the findings of the current study.

Summary of the Findings

This study was carried out to investigate three primary research questions (see Table 41). They were formulated based on the theoretical perspective of situational willingness to communicate (hereafter SWTC, Kang, 2005). The first research question was addressed to examine the relationships between senior high students' SWTC and such learner factors as motivation, confidence, and shyness. The second question examined the impacts of two situational factors (teacher immediacy and climate) on SWTC. Regarding the third research questions, it was formulated to observe the interrelationship among SWTC, and the chosen learner and situational variables in this study.

The follow section presents a summary of the findings of the study in accordance with the research questions stated above.

Table 41 A Summary of the Findings

	Research questions	Sub-questions	Research methods	Findings
Three Primary Findings	1. What are the relationships between SWTC and learner factors (motivation, confidence, and shyness)?	i. What are the levels of senior high EFL students' SWTC?	Descriptive statistics (M and SD)	Students had a moderate level of SWTC
		ii. What are students' perceptions of their motivation, confidence and shyness?	Descriptive statistics (M and SD)	1. moderate motivation and shyness but a relatively low confidences ; 2. low intensity and competence among the components of the five predictors.

Table 41 (Continued.)

Research questions	Sub-questions	Research methods	Findings
	iii. How is SWTC related to confidence, shyness, and motivation?	Pearson Product Correlation analyses	1. Shyness was negatively correlated with SWTC 2. Motivation and confidence were positively correlated with SWTC
2. What is the relationship between SWTC, and situational factors (teacher immediacy and climate)?	i. What are students' perceptions of teacher immediacy and climate?	Descriptive statistics (M and SD)	Students perceived moderate teacher immediacy and climate.
	ii. How is SWTC related to teacher immediacy and climate?	Pearson Product Correlation analyses	Teacher immediacy and climate are positively correlated with SWTC.
3. What are the best predictors of situational willingness to communicate (SWTC) when learner factors and situational variables are considered together?		multiple regressions	(based on R ² changes) Climate > Motivation > shyness > teacher immediacy
Minor Findings	What's the relationship between SWTC and background variables (learners' gender, schools' locations and prestige, and students' proficiency)?	i. What are students' perceptions of their reading, writing, listening and writing proficiency?	descriptive statistics (M and SD);
		ii. Do females, high-proficiency and metropolitan students have significantly higher SWTC?	t-tests;
			Students perceived moderate reading but low speaking and writing proficiency. There were significant differences of SWTC between high- and low-proficiency students and between metropolitan and non- metropolitan students.

Senior High Students' SWTC Levels

Based on the average mean scores obtained in this study, the researcher found that the participants had a moderate level of SWTC, which is round the average of 3.0 on a five-point Likert type scale. The result did not violate the assumption that senior high EFL students' SWTC in Taiwan was not very strong. One possible explanation was that students did not want to lose face in front of their teachers and peers. The

results of the study seemed to indicate that cultural factors (e.g., cultural beliefs in Confucianism, see Wen & Clement, 2003) were probably related to students' moderate SWTC levels.

Besides, the results of the study found that students had moderate levels of positive feedbacks and topic familiarity. Kang (2005) pointed out that students might feel excited if their peers or teachers were willing to pay attentive listening to them. Besides, if students were prepared for the topics under discussion, especially the familiar texts, they might increase their SWTC. The results supported theoretical perspective of topic familiarity in creating SWTC (Cao & Philp, 2006; Kang, 2005).

Levels of Motivation

In general, the participants had a moderate level (i.e., around the average of .30) of motivation. From the theoretical perspective, students' motivation is related to their competence, and L2 competence is related to WTC in L2 (Kim, 2004; Yashima, 2002). The researcher of the present study adopted Kang's (2005) perspective and assumed that students' motivation could be indirectly related to SWTC via competence. The results of the study indicated that students' motivation level was not high (within the range of 3.0 to 4.0). One possible reason is that the students had insufficient competence in speaking L2 with strangers in small group talks, in L2 presentations or in larger meeting.

It is noted that students in this study had very low (i.e., below the average of 3.0) levels of intensity. It is possible that the students did not have strong motivational strength to speak L2 in class. Their anxiety in speaking L2 with strangers rather than friends in L2 presentations might make them give up the opportunities to practice English. Another possible reason is that they probably became worried about their low proficiency, which might prevent them from continuing to practice English across

interactional contexts. Besides, researchers pointed out that students' motivation is related to anxiety and competence (Kim, 2004; Yashima, 2002). From this perspective, the students' lack of high levels of intensity as one component of motivation might be related to their feeling of anxiety at the beginning of the L2 talks. They might be afraid of making mistakes due to their low competence. Nevertheless, once the conversations continued, they might choose to keep silent to avoid mistakes in their speech, and then they would become less anxious.

Based on the discussion above, to increase students' motivation, language teachers should take students' competence and anxiety levels into account. Besides, the learners' intensity might be enhanced in an anxiety-free speaking context.

Levels of Shyness

The results of the study indicated that the participants experienced a moderate level of shyness, and they had moderate levels of talkativeness and quietness. It was probably because the students as well as their peers cared about other classmates' perceptions of their being more talkative than other classmates or they worried about the consequence (e.g., being isolated) due to their quiet personality traits and behaviors. The results indicated that it is useful and valid to apply McCroskey and Richmond's (1985) concept of shyness to accounting for the individual difference of shyness among EFL students in Taiwan.

Levels of Confidence

The author of the study examined students' confidence levels by means of the use of a revised scale on confidence, which is defined by a combination of high competence and low anxiety (Kim, 2004). The result of the study showed that the students had low confidence. It suggested that the students in this study might have

insufficient competence or felt more communication apprehension (anxiety) in speaking L2 to different people across a variety of speaking contexts. Besides, since literature suggested confidence is related to motivation (Cetinkaya, 2005; Kim, 2004; Yashima, 2002), it seems reasonable to state that students' low confidence was related to their lack of L2 motivation to communicate with their teachers rather than foreign speakers or friends in the EFL context of Taiwan.

Levels of Classroom Climate

The finding from this study revealed that students had a moderate level of supportive climates. Most of the motivational and climate researcher indicated that teachers and peers played a significant role in creating an anxiety-free or supportive climate (Chang & Chang, 2001; Chang & Lin, 2001; Dornyei, 2001; Hsu, 2001). However, the researcher argued that in addition to teacher support and peer support, students' preparedness might influence climate. The results corresponded to Fassinger's (1985) finding. In sum, climate may be affected by social support from students' teachers and their own preparedness levels.

Levels of Teacher Immediacy

The study examined students' perceptions of the levels of teacher immediacy from senior high students' perspective. The results showed that the students had a moderate level of teacher immediacy. Few studies examined the relations between TI and SWTC and some authors started to examine the functions of TI from Chinese cultural perspective (Zhang, 2004; Zhang & Oetzel, 2006). The results of the study partially correspond to the aforementioned authors' research because the study found students' perceptions of TI could be examined from the perspective of relational, personal, and instructional immediacy (Zhang, 2004; Zhang & Oetzel, 2006). The

finding reflects the potential impacts of cultural factors on the conceptualization and levels of teacher immediacy in an EFL context.

Relations between SWTC and Learner Factors

The study found that motivation and confidence were positively related to SWTC whereas shyness was negatively related to SWTC. All of the correlations were significant and systematic. The results supported the assumption that there is a relation between SWTC and such learner factors as motivation, confidence, and shyness. This finding corresponded to the theoretical perspective of the role of learner factors influencing trait WTC and SWTC (Cao & Philp, 2006). In contrast to the previous research, the study suggested that there is a clear and systematic correlation between them. Besides, the negative correlations between SWTC and shyness also indicated that not all predictors of SWTC have positive impacts on SWTC (Kang, 2005).

Relations between SWTC and Situational Factors

Based on Kang's (2005) SWTC model, the researcher of the study assumed that there was probably a relation among SWTC and such situational factors as teacher immediacy and climate. The results of the study demonstrated there was a positive and significant correlation between SWTC and the situational factors mentioned above. It indicated that the increase of teacher immediacy and climate might be related to higher SWTC levels.

Relations among SWTC, Learner and Situational Variables

The results of the multiple regression analyses suggested that SWTC could be effectively predicted by L2 learner factors (shyness and motivation) and 2 situational

factors (climate and teacher immediacy). Based on the results of B and Beta values, climate was found to have the best prediction of SWTC, followed by motivation, shyness, and teacher immediacy. The finding of the interdependent relationship among SWTC and the four predictors reflects the complexity of the emergence of SWTC in L2 interactions. It suggests that one predictor alone may fail to account for the diversity of SWTC among the students in the EFL context of Taiwan.

Minor Findings

The following section introduced some minor findings in this study. First, the results showed that participants in the study reported moderate (mean around 3.0) reading proficiency but low levels of proficiency in L2 writing, speaking, and listening. From theoretical perspective, proficiency is related to confidence and motivation (Kim, 2005; Yashima, 2002). The results of the study suggested that it seems necessary to help students have higher confidence and motivation to improve their proficiency. It is also noted that students' lack of writing proficiency was probably related to no affordance of formal writing curriculum for the second-grade students at senior high schools in Taiwan.

With regard to the relations among SWTC and background variables, the study found that students in metropolitan schools and high proficiency students had significantly higher SWTC than others. It is noted that the study did not examine how these two factors (schools' location and students' proficiency) influence the relations among SWTC and learner factors and among SWTC and situational factors. It is one promising issue in the future studies.

Pedagogical Implications

This section contains several pedagogical implications based on the findings of the study.

Understanding more about students via appropriate instruments in an L2 class

One finding of the study indicated that students had moderate shyness. To reduce their shyness due to social anxiety (McCroskey and Richmond, 1982), L2 teachers may utilize the shyness scale in class. With an appropriate use of the shyness scale, they may offer a chance for students to better understand their own and their classmates' trait-like behaviors of shyness (e.g., quietness and talkativeness) in L2. After utilizing the shyness scale, they may design meaningful awareness activities to ask learners to find out the possible causes of their shyness from their past experience. Besides, they may help students learn how to utilize help-seeking strategies (Syau, 2001) and develop higher communication competence and confidence, which may in turn, result in higher SWTC.

Understanding the causes of the diversity of students' perceptions of SWTC levels and its predictors

L2 teachers need to be aware of the potential causes of students' perceptions of SWTC and its predictors. The results of the study demonstrated that the students had moderate SWTC, climate, teacher immediacy, motivation, and shyness but relatively low confidence. Another finding was that the mean scores of intensity and competence were lower than other components of the six predictors. It seemed that students might need teachers' help for setting reachable goals (Kim, 2004) to enhance learners' confidence, competence, and intensity (Kim, 2004; Yashima, 2002).

To help students reach the goals, L2 teachers are also suggested to work together with students to establish reachable learning/ teaching goals explicitly (Kim, 2004) in different L2 tasks and interactional contexts (Cao & Philp, 2006; Weaver, 2005).

Enhancing students' preparedness in a supportive climate

The results of the study indicated climate was defined by the functions of teacher support, peer support and preparedness (Fassinger, 1995) and it was the best predictor of SWTC. It suggested that L2 teachers might help students develop the awareness of the roles of their preparedness in addition to the emphasis of other components of climate (i.e., teachers' and peers' support). With more preparedness, students might gain more support from teachers and peers, and enhance better student-teacher and student-student interpersonal relationships (Hsu, 2005) in generating a supportive climate and higher SWTC.

Suggestions for Future Studies

This section lists the limitations of the current study as well as some promising research directions and suggestions.

First, the results of the study might be biased due to participants' attitudes (e.g., dishonesty) and the sample sizes (e.g., the limited number of students). The study only explored the 459 senior high students' perceptions of SWTC and its predictors. Note that the students in the main study were selected from twelve public schools in Taiwan by means of convenient sampling. The generalizations of the study may not apply to subjects in other senior high schools or students at different educational levels (e.g., colleges, universities, junior high schools, and primary schools). Future researchers can survey larger and different populations of students by means of random or cluster sampling to remedy the drawbacks.

Second, triangulation can be utilized for future studies to remedy the weakness of the questionnaire as data collection methods. This quantitative study, in which biased item constructions might appear in the psychometric tests (item analyses, reliability analyses and PCAs), failed to observe students' actual in-class behaviors

(e.g., hand-raising as motivated behaviors). Therefore, it is promising to investigate SWTC and trait WTC by means of interviews, observations, questionnaires and stimulated recall (MacIntyre, 2007). With triangulations, researchers may also compare students' and teachers' perspectives of the role of SWTC and its predictors in L2 communication.

Third, the study is limited regarding the relationship between SWTC and five chosen variables (shyness, confidence, motivation, climate, and teacher immediacy) in the speaking contexts. The author of the study did not explore learners' WTC in reading, listening and writing (MacIntyre et al., 1998; Weaver, 2005) in the web-based (Lin, 2003) or outside classroom communications (e.g., at home or in English cram schools). Neither did it explore instructional, relational, and personal immediacy (Zhang & Oeztel, 2006) or investigate how, when and why they may perform facilitating and detrimental functions on SWTC. It is thus worthwhile to conduct studies to investigate the above issues, and develop SWTC scales outside L2 classroom communications, which may shed light on the theoretical developments and empirical SWTC and SLA studies (Cao & Philp, 2006; Kang, 2005; MacIntyre, 2007; Weaver, 2005).

Fourth, future researcher should pay more attention to the application of structural equation modeling (SEM, see Byrne, 2001; Kim, 2003; Yashima, 2002) in the exploration of SWTC and its predictors. The results of the study proved that there is a dynamic and complex interrelationship between learner (shyness, motivation, and confidence), situational factors (teacher immediacy and climate), and SWTC in an L2 classroom. However, it is noted that these observed relations between SWTC and four predictors (climate, motivation, shyness, and teacher immediacy) in the multiple regression analyses are relational not directional. Due to the limitations of the use of Pearson Product-moment Correlational and multiple regression analyses, the results of

the study can not justify exact causal relationships between or among the variables. To go beyond the explanatory nature of the current study, L2 researchers may utilize structural equation modeling (SEM) to examine the cause-effect relationship between SWTC and its predictors. Instead of the use of multiple regressions, researchers may systematically look at the cause-effect relations between SWTC and other theory-based constructs such as expectations (Kim, 2005), and attitude (e.g., international posture, see Yashima 2002) by SEM.

Finally, it is worthwhile to explore how climate, motivation, anxiety and other communication variables (e.g., learner, situational or intercultural factors, see Weaver 2005) are related to L2 communication frequency (Huang, 2004; Yashima, 2002) and SWTC in L2 activities/tasks (Cao & Philp, 2006; Weaver, 2005). It is promising to check how the time variable (MacIntyre, 2007) may influence the fluctuation of SWTC (Kang, 2005; MacIntyre et al., 1998). For example, researcher can examine when and why students' SWTC levels become higher or weaken by comparing difference of SWTC levels at the beginning or end of the L2 tasks in class.

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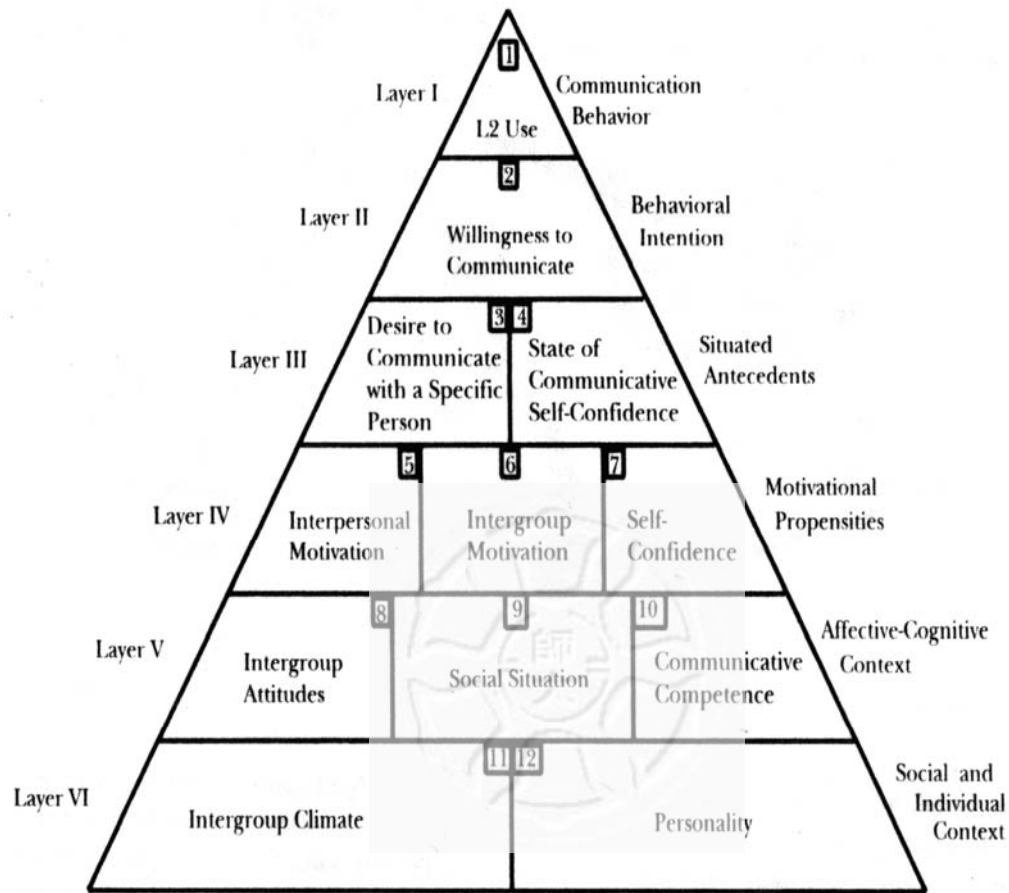
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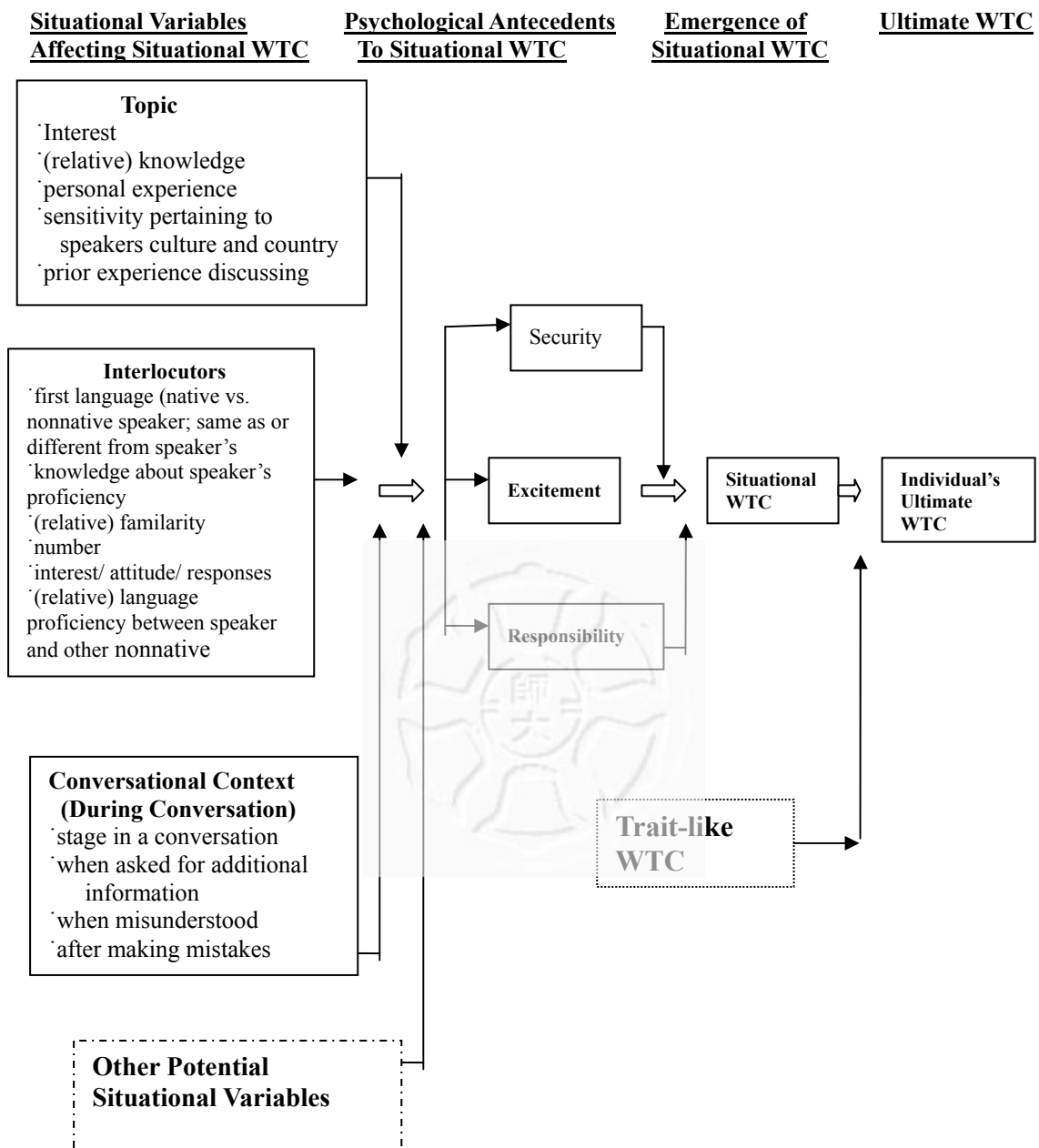
Appendices

Appendix 1 MacIntyre et al.'s (1998) Heuristic Model of WTC

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



Appendix 2 A Preliminary Construct of Situational Willingness to Communicate (SWTC): Kang's (2005) Model



Note: See the original feature in Kang (2005), page 288.

Appendix 3 Senior High Students' Situational Willingness to Communicate (SWTC) Scale

各位同學，大家好：

本問卷的目的在了解在英文課堂中，高中生面在各種溝通情境因素（如主題、回饋因素）的影響下，他們願意用英語與老師溝通的情形。本問卷所收集到的資料，純供學術研究之用途，不涉及個人或學校間比較，因此資料會絕對保密。請你依實際情形回答問題。謝謝你的合作！ 祝你 學業進步、事事如意！

國立台灣師範大學英語系博士班 王嫦娥 敬上
中華民國 96 年 10 月

第一部份：基本資料 (請在適當方格內打「V」)

1. 性別：男 女 班級：_____ 姓名_____ 學號：_____
2. 是否有綽號：無 有，例如：_____
3. 您的座位是前三排後三排 中間 其它，如_____
4. 您的個性：偏內向 偏外向 其它，(說明)_____

第二部份：圈選題

說明：針對以下問題，請依你的實際情形回答，並在每個題目的右方欄上『圈選』出一個數字，以代表你的意見和看法。「5」表示非常同意、「4」表示很同意、「3」表示沒意見或不知道、「2」表示不同意、「1」表示非常不同意。

		非 極 常很沒不 同同意同 意意見意
1	當英文老師上課講到課外的話題時，我會注意聆聽他(她)講解的內容。	5 4 3 2 1
2	當英文老師討論到班上同學在課堂外的經驗時，我通常會主動發言。	5 4 3 2 1
3	當英文老師討論課後作業時，我會想知道作業的正確答案。	5 4 3 2 1
4	當我上課前有準備時，我會有較高的溝通意願參與討論。	5 4 3 2 1
5	當英文老師提問問題的答案是我有把握的，我會比較願意回答。	5 4 3 2 1
6	當老師叫同學安靜後，我會怕被罵，而想辦法避免被他(她)點到回答問題。	5 4 3 2 1
7	當英文老師很注意聽我回答時，我比較願意說出更多自己的想法。	5 4 3 2 1
8	當英文老師糾正我的發音後，我會因為覺得很丟臉，而不想繼續回答問題	5 4 3 2 1
9	當英文老師指定到我喜歡的同學回答問題時，我會特別注意聽其回應。	5 4 3 2 1
10	如果自己沒被推選為組長時，我會比較不願意主動參與分組討論。	5 4 3 2 1
11	當組員鼓勵我多練習說英語，我會有比較高的意願回答他(她)的問題。	5 4 3 2 1
12	當我和英語成績比我好的同學做分組練習時，我會比較願意參與討論。	5 4 3 2 1
13	當英文老師對我的回答有正面回饋(如讚美)，我會樂意繼續回答問題。	5 4 3 2 1
14	當我主動回答英文老師的問題而得到加分時，我會很樂意回答問題。	5 4 3 2 1

15	當我 <u>臨時被指定</u> 和 <u>不熟悉</u> 的同學做角色扮演時，我會保持緘默、拒絕做分組練習。	5 4 3 2 1
16	當英文老師寫在黑板的 <u>重點有錯誤拼字</u> 時，我會馬上舉手跟老師說。	5 4 3 2 1
17	若英文老師和 <u>我的意見不同</u> 時，我會 <u>尊師重道</u> ，因此比較不願意主動回答他(她)問題。	5 4 3 2 1
18	當英文老師要求我們用 <u>很長的英文句子</u> 回答問題時，我會比較不願意舉手回答。	5 4 3 2 1



Appendix 4 Results of the First PCA for SWTC Scale

Analysis number 1 Listwise deletion of cases with missing values
 Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .86066
 Bartlett Test of Sphericity = 870.88362, Significance = .00000
 Extraction 1 for analysis 1, Principal Components Analysis (PC)
 Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
1	1.00000	*	1	5.80915	44.7	44.7
2	1.00000	*	2	1.22913	9.5	54.1
3	1.00000	*	3	1.12618	8.7	62.8
4	1.00000	*	4	1.02969	7.9	70.7
5	1.00000	*	5	.69738	5.4	76.1
6	1.00000	*	6	.64416	5.0	81.0
7	1.00000	*	7	.50663	3.9	84.9
8	1.00000	*	8	.44687	3.4	88.4
9	1.00000	*	9	.41834	3.2	91.6
11	1.00000	*	10	.36272	2.8	94.4
12	1.00000	*	11	.26630	2.0	96.4
13	1.00000	*	12	.25845	2.0	98.4
14	1.00000	*	13	.20500	1.6	100.0

OBLIMIN rotation (1 for extraction; OBLIMIN converged in 11 iterations).
 Pattern Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4
12	.88085	-.04509	-.02127	-.01250
14	.83038	.12245	-.14038	-.01920
13	.74080	.21798	-.08905	.00599
3	.70533	-.20088	.22067	-.11672
1	.65109	-.13847	.46502	.00254
11	.63298	.28052	-.21550	-.15706
7	.46874	.08882	.12117	-.29571
8	-.02785	.82904	.26999	-.01751
9	.19991	.74238	-.06450	-.06832
6	-.03061	.23520	.86020	-.06185
5	-.01466	-.00124	-.11294	-.88316
2	.02327	-.13594	.13154	-.79560
4	.00279	.15528	-.01058	-.76662

Appendix 5 Results of the Second PCA for SWTC Scale

(Part 1)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .88669

Bartlett Test of Sphericity = 543.18844, Significance = .00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	* Factor	Eigenvalue	Pct of Var	Cum Pct
2	1.00000	* 1	4.43347	55.4	55.4
4	1.00000	* 2	1.02932	12.9	68.3
5	1.00000	* 3	.62857	7.9	76.1
7	1.00000	* 4	.53482	6.7	82.8
11	1.00000	* 5	.43076	5.4	88.2
12	1.00000	* 6	.34529	4.3	92.5
13	1.00000	* 7	.30729	3.8	96.4
14	1.00000	* 8	.29047	3.6	100.0

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 5 iterations.

Pattern Matrix:

	Factor 1	Factor 2
14	.89561	-.04028
12	.88171	-.03164
13	.86261	-.05527
11	.78325	.07266
7	.53998	.29168
2	-.06095	.84314
5	.04665	.80852
4	.04689	.78892

Appendix 6 Cronbach's Alpha Values of the Finalized SWTC Scale and Its Subscales
(Part 1) Cronbach's Alpha of the finalized SWTC Scale
 Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
7	21.7292	22.1709	.6531	.8664
11	21.5833	21.6713	.7044	.8612
12	21.5972	21.5429	.7112	.8604
13	21.5903	21.5582	.6660	.8647
14	21.5903	20.8449	.7177	.8590
2	21.9722	21.8454	.5349	.8800
4	21.6667	22.4196	.6016	.8711
5	21.5694	21.5895	.6136	.8704

Reliability Coefficients (N of Cases = 144.0; N of Items = 8; Alpha = .8814)

(Part2a) Cronbach's Alpha of the Subscale on Positive Feedback

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
7	12.6667	9.0629	.6165	.8766
11	12.5208	8.5170	.7254	.8525
12	12.5347	8.3205	.7606	.8441
13	12.5278	8.3629	.6997	.8585
14	12.5278	7.8314	.7729	.8406

Reliability Coefficients (N of Cases = 144.0; N of Items =5; Alpha = .8805)

(Part 2b) Cronbach's Alpha of the Subscale on Familiarity with Topics under Discussion
 Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
2	6.2778	2.5097	.5519	.7307
4	5.9722	2.8384	.6178	.6584
5	5.8750	2.5297	.6153	.6502

Reliability Coefficients (N of Cases = 144.0; N of Items = 3; Alpha = .7602)

Appendix 7 Senior High Students' Perceived TI Scale

各位同學，大家好：

這是一份學術問卷，目的在瞭解你對英文老師在課堂所展現的親和力的看法。本問卷所收集到的資料，純供學術研究之用途，不涉及個人或學校間比較，因此資料會絕對保密。請你依實際情形回答問題。謝謝你的合作！

祝你 學業進步、事事如意！

國立台灣師範大學英語系博士班 王嫦娥 敬上
中華民國 95 年 12 月 1 日

第一部份：基本資料 (請在適當方格內打「V」)

1. 性別：男 女
2. 學校名稱：_____
3. 我的座位是前三排後三排 中間 其它，如_____
4. 英語老師何時開始教你英語？
一年級上學期 一年級下學期 二年學上學期

第二部份：圈選題

說明： 針對以下問題，請依你的實際情形回答，並在每個題目的右方欄上『圈選』出一個數字，以代表你的意見和看法。「5」表示非常同意、「4」表示很同意、「3」表示沒意見或不知道、「2」表示不同意、「1」表示非常不同意。	非 常 同 意	4	3	2	1	非 常 不 同 意
1. 英文老師常常會在課堂討論時，以他(她)本身做例子，做補充說明。	5	4	3	2	1	
2. 英文老師常常會在課堂鼓勵大家發言。	5	4	3	2	1	
3. 當班上同學在課堂發問的問題與上課無關，英文老師通常會很生氣。	5	4	3	2	1	
4. 英文老師平常上課說話都很幽默、風趣。	5	4	3	2	1	
5. 英文老師通常可以很快且正確叫出同學和我的名字。	5	4	3	2	1	
6. 英文老師歡迎同學在下課休息時間，與他(她)討論課業或生活上的問題。	5	4	3	2	1	
7. 英文老師常常會用『我們』稱呼全班同學(例如『我們班』)，拉近師生距離。	5	4	3	2	1	
8. 英文老師每次在檢討作業前，問大家有沒有問題，並誇獎寫得不錯的同学。	5	4	3	2	1	
9. 英文老師非常歡迎同學打電話或寫 e-mail 給他(她)詢問和英文相關的問題。	5	4	3	2	1	
10. 英文老師常常會設法幫助每位同學用英文清楚表達自己的觀點。	5	4	3	2	1	
11. 英文老師時常讚美在課堂表現優良的班上同學。	5	4	3	2	1	
12. 英文老師會根據上課情形(如同學無精打采)適時改變話題來改善上課氣氛。	5	4	3	2	1	
13. 英文老師不介意在課堂中聽到學生們直接稱呼他(她)的姓名或英文名字。	5	4	3	2	1	
14. 英文老師通常會運用不同肢體語言、並經常保持微笑。	5	4	3	2	1	
15. 英文老師通常嗓音非常單調、枯燥無趣。	5	4	3	2	1	

16. 英文老師通常會站在靠近同學的位置講解課文。	5 4 3 2 1
17. 英文老師常常用他(她)的目光注視全班同學。	5 4 3 2 1
18. 英文老師常常會表情嚴肅、動作姿勢僵硬。	5 4 3 2 1
19. 英文老師偶爾會在教室內走動，以便掌握班上同學專心聽課的情形。	5 4 3 2 1
20. 英文老師常常會一直注視他(她)的課本、筆記或參考書。	5 4 3 2 1
21. 除了在黑板寫字外，英文老師通常會一直站在講台後方的位置。	5 4 3 2 1
22. 英文老師會考量上課進度是否提前或落後，適時宣布提早或延遲下課時間。	5 4 3 2 1
23. 在課堂問答過程中，英文老師會留給我們足夠的待答時間，鼓勵我們好好構思如何用英文回答他(她)的問題。	5 4 3 2 1
24. 在課堂中，英文老師通常會大方承認自己念錯英文單字、或在黑板上拼錯字。	5 4 3 2 1
25. 在課堂中，英文老師常常會用中、英、台語等不同語言夾雜，確保學生對上課內容的理解。	5 4 3 2 1
26. 英文老師常常會把重點歸納寫在黑板、講義上、或利用不同教具(不同色粉筆、磁鐵)，幫助我們把課文重點與非重點內容做清楚區別。	5 4 3 2 1
27. 英文老師通常會提醒我們把課本重點單字片語或句子，畫起來或做記號。	5 4 3 2 1
28. 英文老師偶爾會拍拍同學的肩膀、手臂，提醒他(她)上課要專心或不要和同學聊天。	5 4 3 2 1

謝謝您的合作!!!



Appendix 8 Results of the First PCA for the TI Scale

Analysis number 1 Listwise deletion of cases with missing values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .89216

Bartlett Test of Sphericity = 1371.2294, Significance = .00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	* Factor	Eigenvalue	Pct of Var	Cum Pct
Q1	1.00000	* 1	8.58900	39.0	39.0
Q2	1.00000	* 2	1.62893	7.4	46.4
Q4	1.00000	* 3	1.53912	7.0	53.4
Q5	1.00000	* 4	1.17039	5.3	58.8
Q7	1.00000	* 5	1.06555	4.8	63.6
Q8	1.00000	* 6	.91039	4.1	67.7
Q9	1.00000	* 7	.80071	3.6	71.4
Q10	1.00000	* 8	.73252	3.3	74.7
Q11	1.00000	* 9	.67997	3.1	77.8
Q12	1.00000	* 10	.58585	2.7	80.5
Q13	1.00000	* 11	.54883	2.5	83.0
Q22	1.00000	* 12	.48926	2.2	85.2
Q24	1.00000	* 13	.43724	2.0	87.2
Q26	1.00000	* 14	.42416	1.9	89.1
Q27	1.00000	* 15	.41949	1.9	91.0
Q23	1.00000	* 16	.40026	1.8	92.8
Q25	1.00000	* 17	.34344	1.6	94.4
Q14	1.00000	* 18	.32613	1.5	95.9
Q17	1.00000	* 19	.28349	1.3	97.2
S15	1.00000	* 20	.25266	1.1	98.3
S18	1.00000	* 21	.21689	1.0	99.3
Q6	1.00000	* 22	.15573	.7	100.0

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 10 iterations.

Pattern Matrix:

	Factor 1	Factor 2
Q6	.81022	-.26199
Q9	.79859	-.19832
Q8	.75494	.08376
Q2	.74401	.04773
Q1	.71879	-.00950
Q7	.68538	.12812
Q12	.68243	.23010
Q26	.63004	.14145
Q10	.62532	.02287
Q24	.55280	.07441
Q22	.54159	-.17391
Q25	.54035	.36187
Q11	.49521	.35540
Q27	.48545	.15543
Q4	.47165	.44736
Q23	.39388	.19896
Q17	.22974	.11282
S18	-.14756	.74275
S15	.06523	.72596
Q14	.19696	.64567
Q5	.12225	.53970
Q13	.32653	.38127

Appendix 9 Results of the Second PCA for the TI Scale

Analysis number 1 Listwise deletion of cases with missing values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .89888

Bartlett Test of Sphericity = 933.31418, Significance = .00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	* Factor	Eigenvalue	Pct of Var	Cum Pct
Q1	1.00000	* 1	6.79690	42.5	42.5
Q10	1.00000	* 2	1.52971	9.6	52.0
Q11	1.00000	* 3	1.10971	6.9	59.0
Q12	1.00000	* 4	.89073	5.6	64.5
Q14	1.00000	* 5	.85026	5.3	69.9
Q2	1.00000	* 6	.68993	4.3	74.2
Q22	1.00000	* 7	.63477	4.0	78.1
Q24	1.00000	* 8	.55348	3.5	81.6
Q25	1.00000	* 9	.51201	3.2	84.8
Q6	1.00000	* 10	.48839	3.1	87.8
Q7	1.00000	* 11	.41139	2.6	90.4
Q8	1.00000	* 12	.37532	2.3	92.8
Q9	1.00000	* 13	.35721	2.2	95.0
S18	1.00000	* 14	.32254	2.0	97.0
Q27	1.00000	* 15	.26034	1.6	98.6
S15	1.00000	* 16	.21731	1.4	100.0

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 8 iterations.

Pattern Matrix:

	Factor 1	Factor 2
Q8	.78857	.05106
Q2	.75616	.06033
Q9	.75603	-.13733
Q6	.75117	-.18688
Q12	.71276	.19722
Q10	.70778	-.12085
Q7	.69166	.15046
Q1	.66300	.11985
Q11	.62364	.18867
Q25	.59740	.30997
Q24	.52772	.14336
Q22	.51550	-.18081
Q27	.44488	.29292
S18	-.11725	.87281
S15	.12948	.75756
Q14	.32101	.52742

Appendix 10 Cronbach's Alpha of the Finalized TI Scale

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Q1	53.8473	103.2227	.6444	.8957
Q2	53.8092	103.4018	.7042	.8939
Q6	53.3664	107.0647	.5544	.8989
Q7	53.4351	102.4015	.6928	.8940
Q8	53.8931	101.9577	.7296	.8928
Q9	53.9389	104.0116	.5913	.8977
Q10	53.9160	107.3852	.5413	.8993
Q11	53.9389	106.0116	.6386	.8964
Q12	53.9466	100.1125	.7428	.8919
Q22	54.4122	110.3211	.3435	.9059
Q24	53.4962	107.6519	.5256	.8998
Q25	53.9466	102.3279	.6875	.8942
Q27	53.1221	108.7388	.5275	.8998
S15	53.9618	105.5139	.4838	.9020
S18	53.8473	110.6688	.3183	.9070
Q14	53.8473	106.5150	.5462	.8992

Reliability Coefficients N of Cases =131.0; N of Items = 16; Alpha =.90393

Appendix 11 Cronbach's Alpha Values of the Subscales on TI

(Part 1) Alpha Values of the Subscale Items on Verbal TI
Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Q1	43.3588	73.8011	.6501	.8965
Q2	43.3206	73.7733	.7230	.8935
Q6	42.8779	76.4465	.5993	.8988
Q7	42.9466	73.1894	.6945	.8945
Q8	43.4046	72.5812	.7458	.8921
Q9	43.4504	74.0341	.6196	.8980
Q10	43.4275	76.9543	.5715	.8999
Q11	43.4504	76.5571	.6215	.8980
Q12	43.4580	71.5578	.7279	.8928
Q22	43.9237	79.5326	.3629	.9090
Q24	43.0076	77.6230	.5282	.9016
Q25	43.4580	73.5117	.6673	.8957
Q27	42.6336	78.8339	.5121	.9022

Reliability Coefficients (N of Cases = 131; N of Items = 13; Alpha = .9051)

(Part 2) Alpha Values of Subscale Items on Nonverbal TI
Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
S15	7.0687	3.1568	.5721	.5614
S18	6.9542	3.6287	.5563	.5818
Q14	6.9542	4.1517	.4614	.6938

Reliability Coefficients (N of Cases = 131.0; N of Items = 3; Alpha = .7085)

Appendix 12 The Foreign Language Classroom Climate Scale

各位同學，大家好：

這是一份學術問卷，目的在瞭解你對在英語課堂中，上課的教室氣氛和您對學習任務活動與筆記的功用的看法。

本問卷所收集到的資料，純供學術研究之用途，不涉及個人或學校間比較，因此資料會絕對保密。請你依實際情形回答問題。如果您沒問卷上所列學的經驗，此時請你想像在此情境下，您的意見為何(如同意或不同意)。謝謝你的合作！ 祝你 學業進步、事事如意！

國立台灣師範大學 英語系研究生 王嫦娥
指導教授 葉錫南 敬上

中華民國 96 年 4 月 26 日

第一部份：基本資料 (請在適當方格內打「V」)

1. 性別：男 女
2. 年級：一年級 二年級 三年級
3. 你通常在課堂中與英語老師溝通的意願：高 中 低
4. 你覺得自己的英語能力，在聽說讀寫上，最擅長哪一方面？
聽 說 讀 寫
5. 你除了學校以外，有在校外補習英語嗎？否 是，一周__小時

第二部份：(第一組圈選題)

說明：針對以下問題，請依你的實際情形回答(如果您沒問卷上所列學的經驗，此時請你想像在此情境下，表示您的意見)，並在每個题目的右方欄上『圈選』出一個數字，以代表你的意見和看法。「5」表示非常同意、「4」表示很同意、「3」表示沒意見或不知道、「2」表示不同意、「1」表示非常不同意。

	非 常 同 意	4	3	2	1 極 不 同 意
1. 我們班上的同學會彼此加油打氣。	5	4	3	2	1
2. 我們老師會鼓勵我們上課多說英文。	5	4	3	2	1
3. 我們班上同學並不會尊重彼此的看法。	5	4	3	2	1
4. 如果要我在課堂上不發言，我會覺得自己受壓抑。	5	4	3	2	1
5. 我們英文老師是會鼓舞我們的人。	5	4	3	2	1
6. 我們班上主要由固定幾位同學在課堂上說英語。	5	4	3	2	1
7. 我們班上同學喜歡彼此一起完成課堂活動。	5	4	3	2	1
8. 上課時，我們英語老師不會中途打斷我們的發言	5	4	3	2	1
9. 我們班同學會讓彼此不要顯得太過自信。	5	4	3	2	1
10. 本班同學彼此很熟識。	5	4	3	2	1
11. 我們英語老師會尊重我的發言。	5	4	3	2	1
12. 我們英語老師會很清楚地回答我們提出的問題。	5	4	3	2	1
13. 我們英語老師很幽默。	5	4	3	2	1
14. 在班上有人發言時，我們都不會很專心地聽。	5	4	3	2	1
15. 在上課過程中，我們老師會讓我們表示意見以及發問。	5	4	3	2	1

16. 班上的許多友誼是在英語課堂中慢慢形成。	5 4 3 2 1
17. 我們英語老師常常對我們發牢騷。	5 4 3 2 1
18. 大致上，我覺得班上的氣氛讓我覺得舒適。	5 4 3 2 1
19. 我無法很快地把我的想法組織起來	5 4 3 2 1
20. 我害怕自己被同學看起來很愚蠢。	5 4 3 2 1
21. 我通常會在上課前完成老師要求的作業	5 4 3 2 1
22. 上英文課前，我已經準備好上課內容。	5 4 3 2 1
23. 我了解英文課堂的上課內容。	5 4 3 2 1
24. 我清楚知道英文老師提問的問題。	5 4 3 2 1

***** 問卷結束! 謝謝你的幫忙 !!! 敬祝學業進步! *****



Appendix 13 Results of the First PCA for the Climate Scale

Analysis number 1 Listwise deletion of cases with missing values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .80811

Bartlett Test of Sphericity = 1174.0105, Significance = .00000

Initial Statistics:

Variable	Communality	* Factor	Eigenvalue	Pct of Var	Cum Pct
G1	1.00000	* 1	4.90752	25.8	25.8
G10	1.00000	* 2	2.04750	10.8	36.6
G11	1.00000	* 3	2.01653	10.6	47.2
G12	1.00000	* 4	1.27996	6.7	54.0
G13	1.00000	* 5	.99013	5.2	59.2
G14	1.00000	* 6	.91542	4.8	64.0
G15	1.00000	* 7	.82678	4.4	68.3
G16	1.00000	* 8	.75910	4.0	72.3
G18	1.00000	* 9	.73567	3.9	76.2
G2	1.00000	* 10	.70436	3.7	79.9
G21	1.00000	* 11	.56982	3.0	82.9
G22	1.00000	* 12	.55955	2.9	85.9
G23	1.00000	* 13	.52764	2.8	88.6
G24	1.00000	* 14	.46404	2.4	91.1
G3	1.00000	* 15	.44606	2.3	93.4
G5	1.00000	* 16	.35818	1.9	95.3
G6	1.00000	* 17	.32194	1.7	97.0
G7	1.00000	* 18	.28868	1.5	98.5
G8	1.00000	* 19	.281130	1.5	100.0

Hi-Res Chart # 4: Factor scree plot

PC extracted 4 factors.

Pattern Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4
G12	.73638	-.16813	-.15610	-.05076
G11	.72089	-.21552	-.18440	-.05558
G13	.71955	-.13928	-.31126	.03035
G2	.68092	-.08702	-.24083	.15670
G8	.65777	-.14113	-.31589	-.02860
G15	.62789	-.20895	-.13865	-.04833
G16	.60935	-.13474	.14477	.02926
G5	.60047	-.05562	-.32370	.03329
G18	.43890	-.11387	.40205	-.30224
G22	.30092	.70712	.13324	.10295
G23	.42492	.66940	-.06496	.00311
G24	.45431	.65095	.10525	-.11658
G21	.30603	.57255	.13202	.10325
G10	.28264	-.07746	.60382	-.23683
G1	.32981	-.24821	.56229	.02988
G3	.10478	-.27410	.55089	.36985
G7	.50030	.00924	.51262	-.30370
G6	.14964	.03454	.04934	.73419
G14	.26326	-.06587	.31135	.54079

Appendix 14 Results of the Second PCA for the Climate Scale

Analysis number 1 Listwise deletion of cases with missing values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .80186

Bartlett Test of Sphericity = 972.24226, Significance = .00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics: (deleting items, 4, 9, 20, 17, 19, 6, 14, 16 and 18)

Variable	Communality	* Factor	Eigenvalue	Pct of Var	Cum Pct
G11	1.00000	* 1	4.37413	29.2	29.2
G13	1.00000	* 2	2.03800	13.6	42.7
G8	1.00000	* 3	1.78534	11.9	54.6
G12	1.00000	* 4	.95212	6.3	61.0
G5	1.00000	* 5	.93655	6.2	67.2
G2	1.00000	* 6	.75342	5.0	72.3
G15	1.00000	* 7	.64535	4.3	76.6
G22	1.00000	* 8	.61155	4.1	80.6
G23	1.00000	* 9	.57716	3.8	84.5
G24	1.00000	* 10	.51217	3.4	87.9
G21	1.00000	* 11	.47188	3.1	91.1
G1	1.00000	* 12	.39154	2.6	93.7
G10	1.00000	* 13	.36308	2.4	96.1
G7	1.00000	* 14	.30313	2.0	98.1
G3	1.00000	* 15	.28459	1.9	100.0

OBLIMIN converged in 4 iterations.

Pattern Matrix:

	Factor 1	Factor 2	Factor 3
G13	.80886	.00538	-.07520
G11	.77483	-.04716	.08651
G12	.75563	.00679	.11369
G8	.74683	-.01405	-.07909
G2	.71607	.05331	.01856
G5	.68027	.05230	-.11652
G15	.66084	-.05709	.10207
G22	-.10977	.79982	-.00899
G24	.06341	.77854	.06095
G23	.12023	.75577	-.09160
G21	-.03707	.66562	.04184
G10	-.04631	.10866	.73521
G1	.09414	-.05975	.69550
G7	.14235	.24176	.65373
G3	-.08477	-.14775	.61071

**Appendix 15 Reliability of the Revised 15-item Climate Scale
(Part 1) The Internal Consistency of the Scale Items on FLCC**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
G1	47.7941	52.1150	.2582	.8004
G10	47.3235	52.7421	.2370	.8012
G11	47.5784	48.3534	.5915	.7756
G12	47.5931	47.6218	.6098	.7733
G13	47.7696	46.7201	.5763	.7744
G15	47.5980	49.9460	.4839	.7838
G2	47.5343	47.7771	.5690	.7761
G21	48.1324	51.9479	.2784	.7987
G22	48.7157	52.4508	.2800	.7978
G23	47.9657	50.5949	.3869	.7906
G24	47.9412	50.5285	.4213	.7881
G5	47.6127	48.7311	.4724	.7838
G7	48.0588	50.4891	.4429	.7867
G8	48.0196	48.6794	.4905	.7824
G3	47.5882	55.2385	.0492	.8146

Reliability Coefficients (N of Cases = 204.0; N of Items = 15; Alpha = .8003)

(Part 2) Internal Consistency of Subscale Items on Peer Support

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
G7	10.9853	4.3594	.4517	.5198
G1	10.7206	3.9954	.4521	.5141
G10	10.2500	4.2574	.4314	.5315
G3	10.5147	4.6944	.2851	.6368

Reliability Coefficients (N of Cases = 204.0; N of Items = 4; Alpha = .6227)

(Part 3) Internal Consistency of Subscale Items on Preparedness

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
G22	9.6520	5.0162	.5831	.6726
G23	8.9020	4.7588	.5793	.6725
G21	9.0686	5.1775	.4463	.7485
G24	8.8775	4.9356	.5812	.6726

Reliability Coefficients (N of Cases = 204.0; N of Items = 4; Alpha = .7500)

(Part 4) Internal Consistency of Subscale items on Teacher Support

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
G5	21.2892	20.7386	.5583	.8498
G2	21.2108	20.4036	.6301	.8391
G15	21.2745	21.8947	.5463	.8503
G11	21.2549	20.6933	.6753	.8336
G13	21.4461	19.0956	.7011	.8285
G12	21.2696	20.3260	.6740	.8331
G8	21.6961	20.4688	.6089	.8422

Reliability Coefficients (N of Cases =204.0; N of Items = 7; Alpha = .8594)



Appendix 16 Motivation and Confidence Scales

各位同學，大家好：

這是一份學術問卷，目的在瞭解你的英文學習動機與你對自己在不同場合說英語的信心程度。本問卷所**收集到**的資料，純供學術研究之用途，不涉及個人或學校間比較，因此資料會**絕對保密**。請你依實際情形回答問題。謝謝**你的合作！** 祝你 **學業進步、事事如意！**

台灣師範大學英語系研究生 王嫦娥 敬上

中華民國 96 年 6 月 1 日

第一部份：基本資料 (請在適當方格內打「V」)

1. 性別：男 女
2. 你對英語的學習興趣如何？ 超愛的 很喜歡 還好 不喜歡
3. 在放學後，你是否有去補習班學英語：
 我沒有補習英語 我有補習英語，一禮拜共____小時
4. 上英語課時，你主動問老師問題的頻率如何？我通常一堂課問老師問題的次數是 0-1 次 2-3 次 3 次以上，如____次。
5. 英語老師已經教你們班英文____月，你覺得你們師生情誼如何？
 交情不好 交情還好 交情不錯

第二部份：圈選題

(第一題組問題)

說明：針對以下問題，請依你的實際情形回答，並在每個题目的右方欄上『圈選』出一個數字，以代表你的意見和看法。「5」表示非常同意、「4」表示很同意、「3」表示沒意見或不知道、「2」表示不同意、「1」表示非常不同意。

	非 常 不 同 意	非 常 不 同 意	非 常 不 同 意	非 常 不 同 意	非 常 不 同 意
1. 學英文真的很棒。	5	4	3	2	1
2. 我真的覺得學英文很愉快。	5	4	3	2	1
3. 英文是學校的重要課程之一。	5	4	3	2	1
4. 我打算盡量多學一些英文。	5	4	3	2	1
5. 我喜歡學英文。	5	4	3	2	1
6. 我討厭英文。	5	4	3	2	1
7. 我寧願花時間學其他科而不是英文。	5	4	3	2	1
8. 學英文很浪費時間。	5	4	3	2	1
9. 我認為學英文很無聊。	5	4	3	2	1
10. 當我畢業後，我應該會完全放棄英文因為我對它一點都不感興趣。	5	4	3	2	1
11. 我認為我比班上同學用功。	5	4	3	2	1

12. 我常思考英文課堂所學的單字或概念。	5 4 3 2 1
13. 沒上學校英文課時，我會自行研讀英文	5 4 3 2 1
14. 我認爲我花相當長的時間學英文。	5 4 3 2 1
15. 我真的想學好英文。	5 4 3 2 1
16. 高中畢業後，我會繼續學英文來提升英文能力。	5 4 3 2 1
17. 英文作業時，我會盡快試著做看看。	5 4 3 2 1
18. 除了英文課業，我也會看英文報紙或雜誌。	5 4 3 2 1
19. 英文課堂中，我很專心聽講學習。	5 4 3 2 1
20. 我希望學校可以增加英文上課節數。	5 4 3 2 1
21. 我絕對相信學校應該安排英文課程。	5 4 3 2 1
22. 我發現學英文比學其他科來得更有趣。	5 4 3 2 1

不錯ㄟ，你已經回答一半的問題，還有另一組問題等你圈選喔！請繼續作答!!!

第二部份 這份問卷主要是爲了瞭解你在下列情境中，你對自己說英語的焦慮與自信心程度。 請依你的實際情形回答，在右欄『圈選』一個數字，以代表你的意見和看法。例如，在焦慮的那一欄，若你圈選 5 表示「會非常焦慮」、4 表示「會焦慮」、3 表示「還好」、2 表示「不會焦慮」、1 表示「一點也不會焦慮」。 另外，在英語能力那一欄，若你圈選 5 表示在 12 種場合，你自己覺得你說英語的能力 5 表示「會非常好」、4 表示「會很不錯」、3 表示「還好」、2 表示「差」、1 表示「非常差」。	我 會 非 常 焦 慮 5	我 還 會 焦 慮 4	我 不 會 焦 好 3	我 一 點 也 不 焦 慮 2	我 的 英 文 能 力 會 非 常 好 5	我 的 英 文 能 力 會 很 不 錯 4	我 的 英 文 能 力 還 好 3	我 的 英 文 能 力 差 2	我 的 英 文 能 力 非 常 差 1	
1. 和三兩位熟人進行英語對話時	5	4	3	2	1	5	4	3	2	1
2. 對一群陌生人做英語口頭報告時	5	4	3	2	1	5	4	3	2	1
3. 在一群朋友面前做英語口頭報告時	5	4	3	2	1	5	4	3	2	1
4. 在大型會議中，對陌生人說英語時	5	4	3	2	1	5	4	3	2	1
5. 和三兩位陌生人進行英語對話時	5	4	3	2	1	5	4	3	2	1
6. 在大型會議中，對著朋友說英語時	5	4	3	2	1	5	4	3	2	1
7. 與朋友說英語時	5	4	3	2	1	5	4	3	2	1
8. 在大型會議中，對著認識的人說英語時	5	4	3	2	1	5	4	3	2	1
9. 在陌生人面前說英語時	5	4	3	2	1	5	4	3	2	1
10. 對一群認識的人做口頭報告時	5	4	3	2	1	5	4	3	2	1
11. 對著一個陌生人說英語時	5	4	3	2	1	5	4	3	2	1
12. 對著在一群朋友說英語時	5	4	3	2	1	5	4	3	2	1

問卷結束！ 謝謝您的合作!! 祝 學業精進 天天要加油ㄟ!

Appendix 17 Results of the First and Second PCAs for Motivation Scale

(Part 1) Results of the First PCA of Motivation Scale

Analysis number 1 Listwise deletion of cases with missing values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .84172

Bartlett Test of Sphericity = 1502.8235, Significance = .00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	* Factor	Eigenvalue	Pct of Var	Cum Pct
A1	1.00000	* 1	6.36835	28.9	28.9
A10	1.00000	* 2	2.80406	12.7	41.7
A12	1.00000	* 3	1.99444	9.1	50.8
A13	1.00000	* 4	1.39689	6.3	57.1
A14	1.00000	* 5	1.08375	4.9	62.0
A17	1.00000	* 6	.95983	4.4	66.4
A19	1.00000	* 7	.86773	3.9	70.3
A2	1.00000	* 8	.73851	3.4	73.7
A21	1.00000	* 9	.69779	3.2	76.9
A22	1.00000	* 10	.61377	2.8	79.7
A3	1.00000	* 11	.59019	2.7	82.3
A4	1.00000	* 12	.51445	2.3	84.7
A5	1.00000	* 13	.47880	2.2	86.9
A6	1.00000	* 14	.43223	2.0	88.8
A7	1.00000	* 15	.42743	1.9	90.8
A8	1.00000	* 16	.39494	1.8	92.6
A9	1.00000	* 17	.38976	1.8	94.3
A15	1.00000	* 18	.32633	1.5	95.8
A16	1.00000	* 19	.28592	1.3	97.1
A18	1.00000	* 20	.24377	1.1	98.2
A20	1.00000	* 21	.21968	1.0	99.2
A11	1.00000	* 22	.17137	.8	100.0

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 8 iterations.

Pattern Matrix:

	Factor 1	Factor 2	Factor 3
A6	.78913	-.16514	.13378
A8	.77122	-.03504	-.13421
A9	.73312	-.08859	-.06011
A3	.64396	.05670	-.16326
A10	.64282	-.07007	-.10585
A4	.63959	.19791	.13600
A7	.61305	-.03754	.16533
A2	.57209	.20438	.20492
A1	.56889	.26176	.11731
A5	.55573	.19322	.25136
A16	-.04092	.87381	-.07226
A15	-.00097	.84777	-.09336
A21	.02733	.77363	-.15240
A17	-.11153	.69760	.17871
A22	.09948	.57259	.27249
A19	.11668	.49117	.05097
A13	.00919	-.12745	.80295
A12	.03031	.01694	.74472
A11	-.00617	-.19664	.67214
A18	-.02186	.19901	.56250
A14	-.04037	.22327	.45241
A20	.19709	.19033	.44289

(Part 2) Results of the Second PCA of Motivation Scale

Analysis number 1 Listwise deletion of cases with missing values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .84262

Bartlett Test of Sphericity = 1096.4649, Significance = .00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	* Factor	Eigenvalue	Pct of Var	Cum Pct
A1	1.00000	* 1	5.53222	30.7	30.7
A10	1.00000	* 2	2.25663	12.5	43.3
A12	1.00000	* 3	1.62799	9.0	52.3
A13	1.00000	* 4	1.34271	7.5	59.8
A14	1.00000	* 5	.99993	5.6	65.3
A17	1.00000	* 6	.83474	4.6	70.0
A19	1.00000	* 7	.72108	4.0	74.0
A2	1.00000	* 8	.69432	3.9	77.8
A21	1.00000	* 9	.57332	3.2	81.0
A22	1.00000	* 10	.55449	3.1	84.1
A3	1.00000	* 11	.47573	2.6	86.7
A4	1.00000	* 12	.45809	2.5	89.3
A5	1.00000	* 13	.41041	2.3	91.6
A6	1.00000	* 14	.37423	2.1	93.6
A7	1.00000	* 15	.33816	1.9	95.5
A8	1.00000	* 16	.31580	1.8	97.3
A9	1.00000	* 17	.24920	1.4	98.7
A11	1.00000	* 18	.24097	1.3	100.0

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 9 iterations.

Pattern Matrix:

	Factor 1	Factor 2	Factor 3
A8	.79807	-.11420	-.07217
A6	.78317	-.08000	.14228
A9	.73392	-.08748	-.02443
A10	.68635	-.19003	-.02317
A7	.60798	.02961	.15280
A3	.60693	.13780	-.18233
A4	.59390	.33396	.08664
A2	.51842	.39055	.09611
A5	.51523	.33825	.18832
A1	.50963	.42186	.05283
A21	-.04003	.81052	-.20851
A22	.05692	.67348	.16874
A17	-.12407	.63475	.18716
A19	.04548	.61300	-.01831
A13	.04605	-.11043	.82922
A12	.03806	.06583	.77582
A11	.00084	-.08578	.63782
A14	-.05281	.22788	.52408

Appendix 18 Reliability of An 18-item Motivation Scale
RELIABILITY ANALYSIS - SCALE (ALPHA)
 Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A1	58.5217	69.7761	.6216	.8392
A2	58.8075	69.6689	.6329	.8388
A3	57.8696	73.0766	.4106	.8488
A4	58.3540	69.6426	.6715	.8375
A5	58.8634	68.8437	.6517	.8374
A6	58.4286	69.3089	.5858	.8404
A7	58.6460	70.8926	.5229	.8437
A8	58.2298	72.9406	.4858	.8458
A9	58.4783	72.5386	.4636	.8465
A10	58.0994	73.3401	.3691	.8508
A11	59.4845	76.0013	.2156	.8573
A12	59.2484	73.2754	.4290	.8480
A13	59.3851	74.1258	.3459	.8516
A14	59.2857	74.0054	.3233	.8530
A17	58.9565	73.4668	.3466	.8520
A19	59.1739	74.1821	.3662	.8506
A21	58.9255	73.4694	.3143	.8542
A22	59.2547	72.0785	.5173	.8443

Reliability Coefficients (N of Cases =161.0; N of Items = 18; Alpha = .8541)

**Appendix 19 Alpha Values of the Subscales on Motivation
(Part 1) Alpha value of the Subscale on ALE**

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A1	34.3478	32.7408	.6249	.8585
A2	34.6335	32.6836	.6350	.8578
A3	33.6957	34.1255	.4980	.8682
A4	34.1801	32.6111	.6822	.8544
A5	34.6894	32.2905	.6357	.8576
A6	34.2547	31.3160	.6918	.8528
A7	34.4720	33.1508	.5571	.8640
A8	34.0559	33.9156	.6040	.8608
A9	34.3043	33.7255	.5599	.8636
A10	33.9255	34.2319	.4565	.8718

Reliability Coefficients (N of Cases =161.0; N of Items = 10; Alpha = .8732)

(Part 2) Alpha Value of the Subscale on MI

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A11	8.7888	4.5926	.3401	.6876
A12	8.5528	4.0738	.5702	.5425
A13	8.6894	3.8905	.5845	.5273
A14	8.5901	4.3559	.3708	.6725

Reliability Coefficients (N of Cases = 161.0; N of Items = 4; Alpha = .6776)

(Part 3) Alpha Value of the Subscale on DLE

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A17	9.3540	4.6301	.5113	.6601
A19	9.5714	5.3339	.4338	.7023
A21	9.3230	4.3450	.5219	.6569
A22	9.6522	4.8283	.5921	.6179

Reliability Coefficients (N of Cases =161.0; N of Items = 4; Alpha = .7218)

**Appendix 20 Results of Factor Analysis for Confidence Scale
(Part 1) Community, Eigenvalue and Percent of Variance of Confidence Scale**

Analysis number 1 Listwise deletion of cases with missing values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .88564

Bartlett Test of Sphericity = 2156.0555, Significance = .00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Community *	Factor	Eigenvalue	Pct of Var	Cum Pct
1 (Q1)	1.00000 *	1	7.03530	29.3	29.3
10 (Q10)	1.00000 *	2	4.59078	19.1	48.4
11 (Q11)	1.00000 *	3	2.49563	10.4	58.8
12 (Q12)	1.00000 *	4	1.15879	4.8	63.7
2 (Q2)	1.00000 *	5	.92455	3.9	67.5
3 (Q3)	1.00000 *	6	.74036	3.1	70.6
4 (Q4)	1.00000 *	7	.66401	2.8	73.4
5 (Q5)	1.00000 *	8	.65950	2.7	76.1
6 (Q6)	1.00000 *	9	.61334	2.6	78.7
7 (Q7)	1.00000 *	10	.56775	2.4	81.0
8 (Q8)	1.00000 *	11	.50912	2.1	83.2
9 (Q9)	1.00000 *	12	.48970	2.0	85.2
13 (Z1)	1.00000 *	13	.44129	1.8	87.0
22 (Z10)	1.00000 *	14	.40149	1.7	88.7
23 (Z11)	1.00000 *	15	.38336	1.6	90.3
24 (Z12)	1.00000 *	16	.36660	1.5	91.8
14 (Z2)	1.00000 *	17	.33367	1.4	93.2
15 (Z3)	1.00000 *	18	.29992	1.2	94.5
16 (Z4)	1.00000 *	19	.27937	1.2	95.6
17 (Z5)	1.00000 *	20	.25939	1.1	96.7
18 (Z6)	1.00000 *	21	.21867	.9	97.6
19 (Z7)	1.00000 *	22	.21441	.9	98.5
20 (Z8)	1.00000 *	23	.18562	.8	99.3
21 (Z9)	1.00000 *	24	.16738	.7	100.0

(Part 2) Oblimin Rotation

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 4 iterations.

Pattern Matrix:

	Factor 1	Factor 2
18 (Z6)	.78783	.03212
15 (Z3)	.77267	.06366
20 (Z8)	.77136	-.01697
17 (Z5)	.75398	.09463
23 (Z11)	.74579	-.00457
21 (Z9)	.74249	-.00777
14 (Z2)	.73278	-.08216
13 (Z1)	.71898	-.00532
24 (Z12)	.70320	-.02947
22 (Z10)	.69538	-.11901
16 (Z4)	.66618	.07768
19 (Z7)	.61451	-.07760
5 (Q5)	.02178	.79863
11 (Q11)	-.00925	.76762
9 (Q9)	.05017	.74866
2 (Q2)	.13576	.72655
6 (Q6)	-.07949	.69781
4 (Q4)	.14992	.69491
8 (Q8)	-.07782	.64882
10 (Q10)	-.00016	.64025
3 (Q3)	-.05913	.58095
12 (Q12)	-.03137	.52994
1 (Q1)	-.07528	.49211
7 (Q7)	-.03280	.43861

Appendix 21 Cronbach's Alpha of Subscales on Confidence

(Part 1) Cronbach's Alpha of the Scale on Anxiety

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
1 (Q1)	34.9565	64.9668	.4516	.3740	.8725
2 (Q2)	33.9255	61.4694	.5885	.6957	.8645
3 (Q3)	34.7205	64.4776	.5284	.3463	.8680
4 (Q4)	33.7143	61.5929	.5402	.6904	.8680
5 (Q5)	34.1553	59.8945	.7089	.6469	.8566
6 (Q6)	34.4348	61.7098	.6407	.4318	.8613
7 (Q7)	35.3106	65.5280	.3880	.5526	.8766
8 (Q8)	34.5839	63.3820	.5915	.4081	.8646
9 (Q9)	34.0807	61.5122	.6389	.6719	.8613
10 (Q10)	34.5528	63.6613	.5711	.4185	.8657
11 (Q11)	34.2422	60.6847	.6821	.6324	.8586
12 (Q12)	34.8137	64.7651	.4834	.5193	.8705

Reliability Coefficients (N of cases=161; N of items=12 items; Alpha =.8756)

(Part 2) Cronbach's Alpha of the Scale on Competence

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
13 (Z1)	31.2050	45.9890	.6455	.5333	.9120
14 (Z2)	31.6957	44.1755	.7093	.5823	.9089
15 (Z3)	31.1988	44.5977	.6949	.5420	.9096
16 (Z4)	31.7019	43.8731	.5974	.5743	.9151
17 (Z5)	31.4907	44.3265	.6895	.5642	.9098
18 (Z6)	31.3043	44.0380	.7236	.5577	.9083
19 (Z7)	30.9627	46.4361	.5496	.4357	.9156
20 (Z8)	31.2298	44.9531	.7128	.5379	.9091
21 (Z9)	31.4596	43.1874	.6988	.5520	.9096
22 (Z10)	31.2484	45.2254	.6570	.4750	.9113
23 (Z11)	31.4783	44.2511	.6926	.5536	.9097
24 (Z12)	31.1429	45.8982	.6229	.5892	.9127

Reliability Coefficients (N of cases=161; N of items=12 items; Alpha = .9178)

Appendix 22 Experts' Evaluation of Revised McCroskey

Shyness Scale (「高中生害羞問卷」的專家效度問卷表)

<p>敬愛的教授們，您們好：</p> <p>茲爲了了解並建立本研究工具 (Revised McCroskey Shyness Scale, revised MSS)的專家效度，懇祈惠示卓見!</p> <p>這份學術問卷，目的在瞭解您針對『高中生害羞問卷』的看法。懇請 針對問卷內容，提供您寶貴的意見，作爲未來修訂問卷，並建立專家效度之重要參考依據。</p> <p>最後，感謝您撥冗填答問卷!! 填寫完成後，煩請以 e-mail 方式寄回。感謝您的協助!!</p> <p>敬祝 教安！</p> <p style="text-align: right;">國立台灣師範大學英語系 博士班研究生 王嫦娥 指導老師 葉錫南教授 敬上</p> <p style="text-align: center;">中華民國 95 年 11 月</p>
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填答說明:

1. 本問卷的題型設計，包括**基本資料**、**圈選題**共兩部份。
2. 針對本問卷第一、第二部分，若有修正卓見，請您在『修訂意見欄』填寫上您建議的修改方式，以供研究者修改之參考。

說明：經文獻探討及前測結果分析整理後，研究者改編自 McCroskey Shyness Scale (McCroskey et al, 1982)的害羞問卷，並將原先的 14 個題項翻譯成中文。其重要主張包括個性害羞(trait shyness)的向度主要是由下列兩大要素編製而成：(1) 自己與他人覺知的安靜(self-/ other-perceived quietness); (2) 自己與他人覺知愛說話程度(self-/ other perceived talkative-ness)。

問卷內容	修正意見
<p>第一部份：基本資料 (請在適當方格內打「√」)</p> <p>1. 性別：<input type="checkbox"/>男 <input type="checkbox"/>女 班級：____ 姓名____ 座號：____</p> <p>2. 英文老師教單字時，你被叫起來回答問題的頻率爲何？ <input type="checkbox"/>經常 <input type="checkbox"/>偶爾 <input type="checkbox"/>從來沒有</p> <p>3. 你通常與英文老師溝通的意願如何？ <input type="checkbox"/>高 <input type="checkbox"/>中 <input type="checkbox"/>低</p>	

dimension	第二部份(圈選題)	非常適當	很適當	不適當	很不適當	刪除	修正意見
Self/ other	<p>說明：請您就每一小題，依該向度是否適用的程度，包括非常適當、很適當、不適當、很不適當、刪除等五種情形，在最符合的方格 ("□") 中打" V"。最後，若有修正卓見，請您在『修訂意見』一欄上，填寫上您建議的修改方式。</p> <p>1. 我是個害羞的人。</p>		√				

	4. 班上同學認為我是個害羞的人。	√				
Self-other perceived quietness	6. 我在課堂中表現較安靜。	√				How does this differ from 9?
	9. 我是個文靜的人。	√				How does this differ from 6?
	14. 大部份班上同學比我表現更安靜。	√				
	12. 班上同學認為我是個安靜的人。	√				
Self/ other-perce ived talkative- ness	3. 我是很愛說話的人。	√				How does this differ from 5?
	5. 我平常很愛說話。	√				
	7. 我平常不愛說話。	√				
	8. 我比大部份的班上同學愛說話。	√				
	10. 通常在分組時，我比其他同學愛說話。	√				
	11. 班上有更多人比我更愛說話。	√				
	13. 在課堂中，我比其他班上同學有更多機會說英語。	√				
	2. 班上同學認為我很愛說話。	√				

*****專家效度問卷結束! 謝謝您的指教 !!!*****

Appendix 23 A Revised McCroskey Shyness Scale

各位同學，大家好：

這是一份學術問卷，目的在瞭解高中學生在英語課堂中，針對自己與他人表現出害羞人格特質的看法，學生的人格特質的調查研究。本問卷所收集到的資料，純供學術研究之用途，不涉及個人或學校間比較，因此資料會絕對保密。請你依實際情形回答問題。謝謝你的合作！

祝你 學業進步、事事如意！

國立台灣師範大學英語系博士班 王嫦娥 敬上

指導老師 葉錫南教授

中華民國 95 年 12 月

第一部份：基本資料 (請在適當方格內打「V」)

1. 性別：男 女
2. 英文老師教單字時，你被叫起來回答問題的頻率如何？
經常 偶爾 從來沒有
3. 你通常與英文老師的溝通意願如何？高 中 低

第二部份：圈選題

說明：針對以下問題，請依你的實際情形回答，並在每個题目的右方欄上『圈選』出一個數字，以代表你的意見和看法。「5」表示非常同意、「4」表示很同意、「3」表示沒意見或不知道、「2」表示不同意、「1」表示非常不同意。

	非 常 不 同 意	極 不 同 意	不 同 意	同 意	同 意 意 見
1. 上英文課時，我是個害羞的人。	5	4	3	2	1
2. 上英文課時，班上同學認為我很愛說話。	5	4	3	2	1
3. 上英文課時，我是很愛說話的人。	5	4	3	2	1
4. 上英文課時，班上同學認為我是個害羞的人。	5	4	3	2	1
5. 當上課科目是英文時，我平常很愛說話。	5	4	3	2	1
6. 上英文課時，我在課堂中表現較安靜。	5	4	3	2	1
7. 當上課科目是英文時，我平常不愛說話。	5	4	3	2	1
8. 上英文課時，我比大部份的班上同學愛說話。	5	4	3	2	1
9. 上英文課時，我是個安靜的人。	5	4	3	2	1
10. 上英文課時，通常在分組時，我比其他同學愛說話。	5	4	3	2	1
11. 上英文課時，班上有更多人比我更愛說話。	5	4	3	2	1
12. 上英文課時，班上同學認為我是個安靜的人。	5	4	3	2	1
13. 上英文課時，我在課堂中比其他班上同學在課堂中說更多話。	5	4	3	2	1
14. 上英文課時，大部份班上同學比我表現更安靜。	5	4	3	2	1

(* Note: Items 5, 7 and 9 were not scored)

謝謝您的合作!!!

Appendix 24 Results of the First PCA for the Revised Shyness Scale

Part 1 Community, Egenvalue and Percentage of Variance

Analysis number 1 Listwise deletion of cases with missing values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .74625

Bartlett Test of Sphericity = 260.09373, Significance = .00000

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Community	*	Factor	Eigenvalue	Pct of Var	Cum Pct
1	1.00000	*	1	3.45810	43.2	43.2
2	1.00000	*	2	1.89234	23.7	66.9
3	1.00000	*	3	.80236	10.0	76.9
6	1.00000	*	4	.53610	6.7	83.6
8	1.00000	*	5	.43645	5.5	89.1
10	1.00000	*	6	.39086	4.9	94.0
12	1.00000	*	7	.30285	3.8	97.7
13	1.00000	*	8	.18094	2.3	100.0

Part 2 Pattern Matrix

OBLIMIN rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

OBLIMIN converged in 4 iterations.

Pattern Matrix:

	Factor 1	Factor 2
8	.86062	.06067
10	.83737	-.04726
2	.78044	.01427
3	.77835	.10334
13	.76282	-.10321
6	.01766	.83349
1	-.18977	.82742
12	.25231	.76551

Appendix 25 Reliability Coefficients of the 8-item Shyness Scale

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
1	15.0526	20.6905	.1823	.7959
2	15.7237	19.0293	.5335	.7356
3	15.5789	18.4070	.5910	.7254
6	14.9605	19.0251	.3769	.7613
8	15.5658	18.0356	.6540	.7155
10	15.5921	18.6181	.5537	.7312
12	15.0658	17.1023	.5326	.7327
13	15.3289	18.6504	.4429	.7489

Reliability Coefficients (N of Cases = 76.0; N of Items = 8; Alpha = .7689)



Appendix 26 Cronbach's Alpha Values of the Sale items on Quietness

Item-total Statistics (deleting filler item 7)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
1	6.9211	3.8870	.5212	.7147
6	7.0132	3.6132	.6256	.5978
12	6.9079	3.4181	.5699	.6631

Reliability Coefficients (N of Cases = 76.0; N of Items =3; Alpha = .7443)



Appendix 27 Cronbach's Alpha Values of the Scale Items on Talkativeness

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
2	15.8553	9.1121	.6576	.8397
3	16.0000	8.8800	.6668	.8372
8	16.0132	8.4665	.7727	.8109
13	16.2500	8.4567	.6079	.8570
10	15.9868	8.5998	.7237	.8229

Reliability Coefficients (N of Cases = 76.0; N of Items = 5; Alpha = .8623)



Appendix 28 Reliability of the Instruments Utilized in the Current Study

Variable	Cronbach's alpha finalized	n of items initial/ finalized	sources of reliability
Situational willingness to communicate (SWTC)			
Positive feedback	.8814	18*/8	piloting
Topic familiarity	.7602		
<i>Situational Variables</i>			
Classroom Climate			
Peer support	.8003	24*/ 15	piloting
Teacher support	.6227		
Students' preparedness	.8594		
Teacher Immediacy			
Verbal	.7500	28*/16	piloting
Nonverbal	.9039		
<i>Learner Factors</i>			
Shyness			
Quietness	.7689	14*/8	piloting
Talkativeness	.7443		
Confidence			
Anxiety	.8134	24*/24	piloting
Competence	.8756		$\alpha=.95$ in Kim's (2004) study
Motivation			
Motivational intensity (MI)	.9718	22*/18	piloting
Desire to learn English (DLE)	.8541		$\alpha=.85$ in Kim's (2004) study
Attitude to learn English (ALE)	.7218		$\alpha=.82$ in Kim's (2004) study
	.8732		$\alpha=.90$ in Kim's (2004) study

Note: What appeared before the symbol (*) represented the numbers of items before finalizing the scale items.

Appendix 29 Finalized Questionnaires for the Main Study

各位同學，大家好：

這是一份學術問卷，目的在瞭解高中學生在英文課堂與老師溝通的情形。本問卷所收集到的資料，純供學術研究之用途，不涉及個人或學校之間的比較，因此資料會絕對保密。請你依個人實際情形回答問題。謝謝你的合作！

祝你 學業進步、心想事成！ 國立台灣師範大學英語系

博士班研究生 王嫦娥

指導老師 葉錫南教授 敬上

一、基本資料 (請在適當方格內打「V」)

- 性別：男 女
- 你的學校位於： 台北市 台中市 高雄市 桃園縣 南投縣 台南縣
- 您就讀的學校名稱：_____
- 請圈選你在英文聽、說、讀、寫能力的高低，5表「很好」，4表「不錯」，3表「尚可」，2表「差」，1表「很差」

<input type="checkbox"/> 聽	5	4	3	2	1
<input type="checkbox"/> 說	5	4	3	2	1
<input type="checkbox"/> 讀	5	4	3	2	1
<input type="checkbox"/> 寫	5	4	3	2	1

二、圈選題

第一部份	說明：針對以下問題，請依你的實際情形回答，在右欄「圈選」一個數字，以代表你的意見和看法。5表示「非常同意」、4表示「同意」、3表示「沒意見或不知道」、2表示「不同意」、1表示「非常不同意」。	非 常 同 意	沒 同 意	不 同 意	不 同 意
1. 上英文課時，我是個害羞的人。		5	4	3	2 1
2. 上英文課時，班上同學認為我很愛說話。		5	4	3	2 1
3. 上英文課時，我是很愛說話的人。		5	4	3	2 1
4. 上英文課時，我在課堂中表現較安靜。		5	4	3	2 1
5. 上英文課時，我比大部份的班上同學愛說話。		5	4	3	2 1
6. 上英文課時，通常在分組時，我比其他同學愛說話。		5	4	3	2 1
7. 上英文課時，班上同學認為我是個安靜的人。		5	4	3	2 1
8. 上英文課時，我在課堂中比其他同學在課堂中說更多話。		5	4	3	2 1
9. 學英文真的很棒。		5	4	3	2 1
10. 我真的覺得學英文很愉快。		5	4	3	2 1
11. 英文是學校的重要課程之一。		5	4	3	2 1
12. 我打算盡量多學一些英文。		5	4	3	2 1
13. 我喜歡學英文。		5	4	3	2 1
14. 我討厭英文。		5	4	3	2 1
15. 我寧願花時間學其他科而不是英文。		5	4	3	2 1
16. 學英文很浪費時間。		5	4	3	2 1
17. 學英文很無聊。		5	4	3	2 1
18. 當我畢業後，我應該會完全放棄英文，因為我對它一點都不感興趣。		5	4	3	2 1
19. 我認為我比班上同學用功。		5	4	3	2 1
20. 我常思考英文課堂所學的單字或概念。		5	4	3	2 1
21. 沒上學校英文課時，我會自行研讀英文		5	4	3	2 1
22. 我花相當長的時間學英文。		5	4	3	2 1
23. 英文作業時，我會盡快試著做看看。		5	4	3	2 1
24. 英文課堂中，我很專心聽講學習。		5	4	3	2 1

25. 學校應該安排英文課程。	5	4	3	2	1
	非 常 同 意	很 沒 同 意	不 同 意 見	不 同 意 意	不 同 意 意
26. 我發現學英文比學其他科來得更有趣。	5	4	3	2	1
27. 英文老師常常會在課堂討論時，以他(她)本身做例子，補充說明。	5	4	3	2	1
28. 英文老師會在課堂鼓勵學生發言。	5	4	3	2	1
29. 英文老師歡迎同學在下課休息時間，與他(她)討論課業或生活上的問題。	5	4	3	2	1
30. 英文老師會用『我們』稱呼全班同學(例如，我們班這次月考平均比其他班高)。	5	4	3	2	1
31. 英文老師會問大家作業有沒有問題，並誇獎寫不錯的同學。	5	4	3	2	1
32. 英文老師非常歡迎同學打電話給他(她)詢問和英文相關的問題。	5	4	3	2	1
33. 英文老師常常會設法幫助每位同學用英文清楚表達自己的觀點。	5	4	3	2	1
34. 英文老師時常讚美在課堂表現優良的班上同學。	5	4	3	2	1
35. 在同學無精打采時，英文老師會適時改變話題來改善上課氣氛。	5	4	3	2	1
36. 英文老師通常會運用不同肢體語言、並經常保持微笑。	5	4	3	2	1
37. 英文老師通常嗓音非常單調、枯燥無趣。	5	4	3	2	1
38. 英文老師常常會表情嚴肅、動作姿勢僵硬。	5	4	3	2	1
39. 英文老師會考量上課進度是否提前或落後，適時宣布提早或延遲下課。	5	4	3	2	1
40. 英文老師自己念錯英文單字、或在黑板上拼錯字時，通常會大方承認。	5	4	3	2	1
41. 在課堂中，英文老師常常會用中、英、台語等不同語言夾雜，確保學生對上課內容的理解。	5	4	3	2	1
42. 英文老師會叫同學把課本重點單字片語或句子，畫起來或做記號。	5	4	3	2	1
43. 我們班上的同學會彼此加油打氣。	5	4	3	2	1
44. 我們老師會鼓勵我們上課多說英文。	5	4	3	2	1
45. 我們班上同學並不會尊重彼此的看法。	5	4	3	2	1
46. 我們英文老師是會鼓舞我們的人。	5	4	3	2	1
47. 我們班上同學喜歡彼此一起完成課堂活動。	5	4	3	2	1
48. 上課時，我們英語老師不會中途打斷我們的發言	5	4	3	2	1
49. 本班同學彼此很熟識。	5	4	3	2	1
50. 我們英文老師會尊重我們的發言。	5	4	3	2	1
51. 我們英文老師會很清楚地回答我們提出的問題。	5	4	3	2	1
52. 我們英文老師很幽默。	5	4	3	2	1
53. 在上課過程中，我們老師會讓我們表示意見以及發問。	5	4	3	2	1
54. 我通常會在上課前完成老師要求的作業	5	4	3	2	1
55. 上英文課前，我已經準備好上課內容。	5	4	3	2	1
56. 我了解英文課堂的上課內容。	5	4	3	2	1
57. 我清楚知道英文老師提問的問題。	5	4	3	2	1

不錯ㄟ，你已經回答一半的問題了！請繼續作答下去！

	非 常 同 意	很 沒 同 意	不 同 意 見	不 同 意 意	不 同 意 意
58. 當英文老師討論到班上同學在課堂外的經驗時，我通常會主動發言。	5	4	3	2	1

59. 當我上課前有準備時，我會有較高的溝通意願參與討論。	5	4	3	2	1
60. 當英文老師提問問題的答案是我有把握的，我會比較願意回答。	5	4	3	2	1
61. 當英文老師很注意聽我回答時，我比較願意說出更多自己的想法。	5	4	3	2	1
62. 當組員鼓勵我多練習說英語，我會有比較高的意願回答他(她)的問題。	5	4	3	2	1
63. 當我和英語成績比我好的同學一起做分組練習時，我會比較有意願參與討論。	5	4	3	2	1
64. 當英文老師對我的回答有正面回饋(如讚美)，我會樂意繼續回答問題。	5	4	3	2	1
65. 當我主動回答英文老師的問題而會得到加分時，我會很樂意使用英文回答問題。	5	4	3	2	1

OK! 輕鬆一下! ~^~^~ 只剩下最後一組圈選題了! 加油!!

第二部份 這份問卷主要是爲了瞭解你在下列情境中，你對自己說英語的焦慮與自信心程度。 請依你的實際情形回答，在右欄『圈選』一個數字，以代表你的意見和看法。例如，在焦慮的那一欄，若你圈選5表示「會非常焦慮」、4表示「會焦慮」、3表示「還好」、2表示「不會焦慮」、1表示「一點也不會焦慮」。 另外，在英語能力那一欄，若你圈選5表示在12種場合，你自己覺得你說英語的能力5表示「會非常好」、4表示「會很不錯」、3表示「還好」、2表示「差」、1表示「非常差」。	我	我	還	我	我	我	我	我	我	我	我
	會	會	不	一	的	的	的	的	的	的	的
	非常	焦	焦	好	焦	慮	慮	慮	慮	慮	慮
	5	4	3	2	1	5	4	3	2	1	5
1. 和三兩位熟人進行英語對話時	5	4	3	2	1	5	4	3	2	1	5
2. 對一群陌生人做英語口頭報告時	5	4	3	2	1	5	4	3	2	1	5
3. 在一群朋友面前做英語口頭報告時	5	4	3	2	1	5	4	3	2	1	5
4. 在大型會議中，對陌生人說英語時	5	4	3	2	1	5	4	3	2	1	5
5. 和三兩位陌生人進行英語對話時	5	4	3	2	1	5	4	3	2	1	5
6. 在大型會議中，對著朋友說英語時	5	4	3	2	1	5	4	3	2	1	5
7. 與朋友說英語時	5	4	3	2	1	5	4	3	2	1	5
8. 在大型會議中，對著認識的人說英語時	5	4	3	2	1	5	4	3	2	1	5
9. 在陌生人面前說英語時	5	4	3	2	1	5	4	3	2	1	5
10. 對一群認識的人做口頭報告時	5	4	3	2	1	5	4	3	2	1	5
11. 對著一個陌生人說英語時	5	4	3	2	1	5	4	3	2	1	5
12. 對著在一群朋友說英語時	5	4	3	2	1	5	4	3	2	1	5

***** 問卷結束! 謝謝你的幫忙 !!! 敬祝學業進步! *****

**Appendix 30 Reliability of the Shyness Scale and its Subscales in the Main Study
(Part 1) Item-total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A1	24.0240	23.6610	.5301	.8093
A2	23.4619	22.2884	.6571	.7914
A3	23.5163	22.4075	.6344	.7946
A4	23.7647	22.8353	.5971	.8000
A5	23.4314	22.8615	.6617	.7921
A6	23.6885	24.6909	.4468	.8197
A7	24.2549	23.1248	.5532	.8062
A8	23.4227	25.7991	.3204	.8352

Reliability Coefficients (N of Cases = 459.0; N of Items = 8; Alpha = .8267)

(Part 2) Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A2	14.2636	7.8146	.6536	.6635
A3	14.3181	7.9772	.6093	.6810
A5	14.2331	8.1792	.6594	.6657
A6	14.4902	9.0758	.4728	.7313
A8	14.2244	10.2312	.2541	.8009

Reliability Coefficients (N of Cases = 459.0; N of Items = 5; Alpha = .7572)

(Part 3) Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A4	5.8824	3.0473	.5561	.5891
A7	6.3725	3.1557	.5011	.6581
A1	6.1416	3.2135	.5339	.6177

Reliability Coefficients (N of Cases = 459.0; N of Items = 3; Alpha = .7116)

Appendix 31 Reliability of the Scale and Subscales on Motivation in the Main Study

(Part 1) Reliability Coefficients of the Scale on Motivation

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A10	58.8758	98.8601	.6179	.8993
A11	59.0087	96.9170	.7134	.8962
A12	58.1068	103.2921	.4949	.9029
A13	58.3878	100.6746	.6643	.8985
A14	58.9063	96.7707	.7192	.8961
A15	58.9325	98.4692	.5963	.9001
A16	58.8192	98.7598	.6263	.8991
A17	58.4292	100.5643	.6096	.8997
A18	58.6688	97.8552	.6811	.8973
A19	58.2113	100.7828	.5948	.9001
A20	59.6993	107.0972	.2273	.9104
A21	59.4183	102.1784	.5217	.9021
A22	59.4684	101.6775	.5166	.9023
A23	59.4031	103.3896	.4228	.9050
A24	59.0370	103.4899	.4692	.9035
A25	58.9216	103.3868	.4804	.9032
A26	58.4771	102.9487	.4905	.9030
A27	59.1547	98.5284	.6437	.8985

Reliability Coefficients (N of Cases = 459.0; N of Items = 18; Alpha = .9060)

(Part 2) Reliability Coefficients of the Subscale on ALE

	Mean if Item Deleted	Variance if Item Deleted	Item- Total Correlation	Alpha if Item Deleted
A10	33.6667	40.3668	.6286	.8907
A11	33.7996	39.1300	.7272	.8839
A12	32.8976	43.4196	.4913	.8985
A13	33.1786	41.5706	.6812	.8880
A14	33.6972	38.7967	.7541	.8819
A15	33.7233	40.0346	.6103	.8924
A16	33.6100	40.4306	.6265	.8909
A17	33.2200	41.4951	.6218	.8910
A18	33.4597	39.2970	.7323	.8836
A19	33.0022	41.5044	.6186	.8912

Reliability Coefficients (N of Cases = 459.0; N of Items = 5; Alpha = .8993)

(Part 3) Reliability Coefficients of the Subscale on MI

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A20	8.7560	4.7700	.3505	.6789
A21	8.4749	4.4639	.4879	.5913
A22	8.5251	4.0840	.5578	.5409
A23	8.4597	4.4411	.4443	.6190

Reliability Coefficients (N of Cases = 459.0; N of Items = 4; Alpha = .6761)

(Part 4) Reliability Coefficients of the Subscale on DLE

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A24	10.4924	4.0496	.4827	.5655
A25	10.3769	4.1044	.4719	.5731
A26	9.9325	4.0413	.4686	.5741
A27	10.6100	4.0070	.3559	.6596

Reliability Coefficients (N of Cases = 459.0; N of Items = 4; Alpha = .6600)

**Appendix 32 Reliability of the Scale and Subscales on TI in the Main Study
(Part 1) Alpha Value of The 12-item Scale on TI**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A28	53.6601	63.4476	.5626	.8502
A29	53.2810	63.9711	.5821	.8498
A30	53.4488	63.8025	.5856	.8496
A31	53.4597	63.3013	.4985	.8533
A32	53.5163	62.7525	.6321	.8471
A33	54.0022	65.7445	.4458	.8557
A34	53.6885	63.2586	.5813	.8494
A35	53.6492	63.3330	.5917	.8490
A36	53.6231	61.3271	.6613	.8449
A37	53.5490	61.2350	.6462	.8455
A38	53.7386	64.7961	.3665	.8608
A39	53.3333	64.1965	.5020	.8531
A40	54.2048	68.1676	.1872	.8692
A41	53.2549	66.3563	.3852	.8583
A42	53.5861	64.1733	.4000	.8590
A43	52.9978	67.5873	.3096	.8613

Reliability Coefficients (N of Cases = 459.0; N of Items = 16; Alpha = .8616)

(Part 2) Alpha Value of the VI SubScale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A28	42.8824	40.5276	.5726	.8198
A29	42.5033	41.1239	.5769	.8202
A30	42.6710	41.0160	.5775	.8201
A31	42.6819	40.4183	.5036	.8248
A32	42.7386	40.1018	.6313	.8159
A33	43.2244	42.2137	.4720	.8270
A34	42.9107	40.6492	.5660	.8203
A35	42.8715	40.1952	.6264	.8163
A36	42.8453	39.3057	.6288	.8150
A40	43.4270	44.3718	.1852	.8490
A41	42.4771	43.0622	.3755	.8332
A42	42.8083	41.4086	.3794	.8356
A43	42.2200	44.0454	.3008	.8375

Reliability Coefficients (N of Cases = 459.0; N of Items = 13; Alpha = .8373)

(Part 3) Alpha Value of the NVI Subscale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A37	7.1939	2.9470	.4625	.6291
A38	7.3834	2.8221	.4226	.6923
A39	6.9782	2.8074	.6208	.4396

Reliability Coefficients (N of Cases = 459.0; N of Items = 3; Alpha = .6815)



Appendix 33 Reliability of the Scale and Subscales on Climate in the Main Study

(Part 1) Reliability Coefficients of the subscale on the newly revised 13-item FLCC scale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A44	49.1089	42.0143	.4136	.7962
A45	49.0065	41.8755	.4828	.7910
A46	48.9978	45.1332	.1564	.8166
A47	49.0479	42.8667	.3952	.7974
A48	49.0828	42.9451	.4581	.7934
A49	48.9521	42.6658	.4470	.7938
A50	48.9172	43.0761	.3389	.8019
A51	48.6514	41.4372	.6089	.7834
A52	48.6383	41.3012	.6294	.7822
A53	48.8932	41.2440	.4617	.7924
A54	48.5577	42.5747	.5282	.7895
A55	49.2440	42.3202	.3920	.7979
A56	49.8431	43.4426	.3657	.7994
A57	49.2505	43.3279	.3394	.8015
A58	49.2200	42.8794	.3802	.7985

Reliability Coefficients (N of Cases = 459.0; N of Items = 15; Alpha = .8068)

(Part 2) Reliability Coefficients of the subscale on Peer Support
Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A44	10.5904	3.4389	.4724	.3965
A46	10.4793	4.4641	.1547	.6634
A48	10.5643	4.2770	.3829	.4884
A50	10.3987	3.5634	.4559	.4140

Reliability Coefficients (N of Cases = 459.0; N of Items = 15; Alpha = .5725)

(Part 3) Reliability Coefficients of the subscale on Student Traits of Preparedness

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A56	6.5882	2.6969	.3604	.7656
A57	5.9956	2.0698	.5757	.5044
A58	5.9651	2.0337	.5982	.4731

Reliability Coefficients (N of Cases = 459.0; N of Items = 3; Alpha = .6911)

(Part 4) Reliability Coefficients of the Subscale on Teacher Support
Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A45	22.4357	12.6918	.4249	.7943
A47	22.4771	12.4902	.4641	.7869
A49	22.3813	12.5770	.4913	.7813
A51	22.0806	11.9826	.6559	.7529
A52	22.0675	11.9801	.6636	.7518
A53	22.3224	11.7823	.4891	.7856
A54	21.9869	12.5238	.5922	.7655

Reliability Coefficients (N of Cases = 459.0; N of Items = 7; Alpha = .8001)



**Appendix 34 Reliability of the Scale and Subscales on SWTC in the Main Study
(Part 1) Alpha Value of the SWTC Scale**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A70	14.6187	7.1054	.5218	.7459
A71	14.2375	6.8321	.6284	.7072
A74	14.5316	7.6906	.4868	.7553
A75	14.2375	7.2994	.5986	.7202
A76	14.2440	7.3290	.5194	.7454

Reliability Coefficients (N of Cases = 459.0; N of Items = 3; Alpha = .7764)

(Part 2) Alpha Value of the Subscale on Topic Familiarity

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A69	7.0784	2.8497	.2581	.7423
A70	6.5556	2.2824	.5233	.3574
A71	6.1743	2.4237	.5084	.3888

Reliability Coefficients (N of Cases = 459.0; N of Items = 3; Alpha = .6121)

(Part 3) Alpha Value of the Subscale on Positive Feedback

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
A72	14.4183	7.1522	.6712	.7734
A73	14.4401	7.1683	.6863	.7693
A74	14.5338	7.7210	.5443	.8099
A75	14.2397	7.4228	.6338	.7848
A76	14.2462	7.4131	.5614	.8066

Reliability Coefficients (N of Cases = 459.0; N of Items = 5; Alpha = .8240)

Appendix 35 Cronbach's Alpha of the Scale and Subscales on Confidence in the Main Study

(Part 1) Alpha Value of the Anxiety Scale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
B1	61.0610	237.3194	.4819	.9529
B2	62.5338	235.1752	.6386	.9508
B3	61.6340	234.3112	.6131	.9511
B4	62.7495	237.7515	.5425	.9519
B5	62.2353	231.9620	.7069	.9500
B6	61.8824	232.7110	.6790	.9503
B7	60.9107	237.2344	.5209	.9523
B8	61.7407	233.9829	.6403	.9508
B9	62.1939	231.9994	.6779	.9504
B10	61.6383	233.9301	.6274	.9510
B11	62.1111	231.5881	.6934	.9502
B12	61.3159	234.0070	.6062	.9513
C1	61.5229	236.6561	.6761	.9504
C2	62.0501	234.6503	.7006	.9501
C3	61.7015	235.1662	.7234	.9499
C4	62.2026	235.1968	.6377	.9508
C5	61.9673	233.9967	.7377	.9497
C6	61.7843	234.0516	.7488	.9496
C7	61.4619	236.0089	.6562	.9506
C8	61.7516	235.2744	.7228	.9500
C9	61.9869	233.8907	.7524	.9496
C10	61.6928	234.2482	.7416	.9497
C11	61.8889	233.6186	.7366	.9497
C12	61.6078	235.6013	.6826	.9503

Reliability Coefficients (N of Cases = 459.0; N of Items = 24; Alpha = .9525)

(Part 2) Alpha Value of the Anxiety Scale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
B1	28.6144	73.3772	.5556	.9267
B2	30.0871	72.8439	.6908	.9210
B3	29.1874	71.4059	.7172	.9198
B4	30.3028	74.3426	.5868	.9248
B5	29.7887	70.7347	.7782	.9174
B6	29.4357	70.8752	.7662	.9178
B7	28.4641	73.6204	.5857	.9251
B8	29.2941	71.7714	.7142	.9199
B9	29.7473	70.9447	.7330	.9191
B10	29.1917	71.3038	.7257	.9195
B11	29.6645	70.8785	.7395	.9189
B12	28.8693	71.6292	.6832	.9212

Reliability Coefficients (N of Cases = 459.0; N of Items = 12; Alpha = .9271)

(Part 3) Alpha Value of the Competence Scale

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
C1	29.4641	68.9523	.7543	.9608
C10	29.6340	67.3810	.8395	.9585
C11	29.8301	66.8182	.8468	.9582
C12	29.5490	67.8988	.7925	.9598
C2	29.9913	67.4541	.8035	.9595
C3	29.6427	68.0729	.8078	.9593
C4	30.1438	67.6692	.7361	.9616
C5	29.9085	67.0265	.8500	.9581
C6	29.7255	67.0555	.8637	.9578
C7	29.4031	68.3940	.7428	.9612
C8	29.6928	67.8028	.8330	.9587
C9	29.9281	67.2153	.8484	.9582

Reliability Coefficients (N of Cases = 459.0; N of Items = 12; Alpha = .9626)

