

Willingness to communicate in English among Iranian EFL engineering students

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Received on January 15, 2012

Accepted on May 4, 2012

Abstract

The ability and willingness to verbalize feelings and thoughts are partly dependent on situational and external variables, and students naturally differ in this aspect. The present study investigated the extent to which willingness to communicate (WTC) model (MacIntyre, 1998) could explain the relationship between social-psychological and communication variables in the EFL context. The participants in this study were 45 Iranian engineering students who took the TOEFL and subsequently filled out a WTC questionnaire (MacIntyre, 1998). For data analysis, in addition to descriptive statistics, point-biserial correlation and ANOVA were run. The results revealed that university students' WTC functions as a trait, and it is low both in and out of the classroom because the students do not need to communicate in English for their basic needs. The results also indicate that no relationship exists between sources of support and components of orientation. Furthermore, in terms of orientation, the learners displayed more integrative than instrumental motivation. Among social support factors, teachers had the main role. Moreover, among all skills, learners were more interested in reading, and the reason they are not willing to communicate in classes is that they might fear being evaluated.

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Therefore, we need more authentic L2 communication and foster more friendly relationships between learners and teachers. Besides, Language instructors should cover a wide range of areas, from making teaching materials relevant to learners by setting specific learning goals to increasing learner satisfaction.

Keywords: willingness to communicate, EFL learners, engineering students, L2 communication

1. Introduction and Background

Because the primary function of any language is communication, the goal of foreign language research should be to eliminate any impediments to this. One of the primary factors in this regard is willingness to communicate. MacIntyre, Clément, Dörnyei, and Noels (1998) have devised a “Willingness to Communicate” (WTC) model. In this model, all factors that may contribute to the description, explanation or even prediction of communication in a second language (L2) are used: psychological, communicative, and linguistic factors. The researchers define willingness to communicate as “a readiness to enter into discourse at a particular time with a specific person or persons, using L2” (p. 547).

The WTC model takes into consideration the effect of all social, cognitive, affective, and situational variables on a person’s willingness to communicate in the L2. Although this is a recent model, many studies have been conducted to test its efficacy (Çetinkaya, 2007; Clément, Baker, & MacIntyre, 2003; Hashimoto, 2002; MacIntyre, 2000; MacIntyre, Baker, Clément, & Conrod, 2001; MacIntyre, Baker, Clément, & Donovan, 2002; MacIntyre & Charos, 1996; Yashima, 2002). Some of these studies have demonstrated that if L2 students have a high opinion of their language competency – perceived but not actual - and if they have low communication anxiety, their WTC in L2 soars (Baker & MacIntyre, 2000; Clément, Baker, & MacIntyre, 2003; Hashimoto, 2002; MacIntyre & Charos, 1996; Yashima, 2002). Recent studies by Clément, Baker, and MacIntyre (2003) and Yashima (2002) using the combined notions of perceived language competence and lack of communication anxiety demonstrated the linguistic self-confidence concept. Moreover, many other studies indicate that learners’

motivation can be indirectly (MacIntyre & Charos, 1996) or directly (Baker & MacIntyre, 2000; Hashimoto, 2002; MacIntyre & Baker, 2001; MacIntyre, Baker, Clément, & Donovan, 2002; Yashima, 2002) related to their WTC.

Other studies indicate a relationship between WTC and the learners' attitude and how the relationship can be either direct or indirect. In the EFL context, Yashima (2002) showed that there is a direct relationship between attitude toward the international community in the EFL context and WTC. Aside from the ESL context, an indirect relationship between willingness to communicate and attitude toward the target language speaker's group through linguistic self-confidence has been shown to exist by Clément et al. (2003). Another group of studies has proven the indirect relationship between the learner's personality and his WTC (MacIntyre, Babin, & Clément, 1999; MacIntyre & Charos, 1996). Furthermore, Çetinkaya (2007) showed that WTC in English in the EFL context is directly related both to attitude toward the international community and perceived linguistic self-confidence.

Aki (2006) stated that emotional intelligence that is having the ability to recognize, employ, comprehend and manage emotions is important in language learning. Therefore, to establish WTC among language learners, tolerance and patience are needed. Moreover, MacIntyre et al. (1999) articulated how some enduring personal traits, such as emotional stability and introversion vs. extroversion, affect communication trepidation and the perceived language competence of the learners and how this relates to their WTC. Previously, MacIntyre and Charos (1996) had indicated that while some personality traits, such as intellect, extraversion, emotional stability, and conscientiousness, are related indirectly to WTC through perceived language competence, communication apprehension, and motivation, the personality trait of agreeableness is directly related to WTC. These studies use the WTC model created by MacIntyre et al. to elaborate on the relationship among communicative, social-psychological, and linguistic variables to describe the L2 learners' WTC. However, most participants in these studies are Anglophone students who learn French as a second language in Canada (Baker & MacIntyre, 2000; MacIntyre, Baker,

Clément, & Donovan, 2002; MacIntyre & Charos, 1996). In the studies conducted by Clément, Baker&MacIntyre (2003) and Hashimoto (2002), students were ESL learners. In research by Yashima (2002), Yashima, Zenuk-Nishide, and Shimizu (2004), Kim (2004), and Çetinkaya (2007), foreign language learners in the EFL context participated. However, few studies have been conducted in Iran investigating engineering students' WTC.

2. Purpose of the Study

The present study investigated the impact of affective-cognitive, social, and communication variables on Iranian engineering students' willingness to communicate in the EFL context. A point of departure from previous studies conducted in the EFL context is that this study examined whether engineering students studying English as a foreign language in the Iranian context were willing to communicate in English when given the opportunity. Moreover, a second objective of this study was to understand the extent to which the WTC model (MacIntyre, Clément, Dörnyei, & Noels, 1998) could explain the relationship among social-psychological, linguistic, and communication variables in the EFL context. The researcher addressed the following research questions:

1. What is the relationship among skills in WTC inside and outside the language classroom?
2. Is there any relationship between orientations and WTC both inside and outside the classroom in the Iranian context?
3. What are the effects of social support on WTC inside and outside the classroom in the Iranian context?
4. Is there any relationship between social support and orientations in the Iranian context?

3. Method

This study examined the Willingness to Communicate (WTC) model of MacIntyre et al. (1998) with participants who were freshmen university students in the EFL context at Sharif University of

Technology in Tehran, Iran. The study targeted the students' WTC in English.

3.1 Participants

The participants for this study were 45 engineering freshmen taking a compulsory three-credit General English course at Sharif University of Technology. These students had recently graduated from high school and were 18 years of age or older. There was no opportunity for a simple random selection of the participants. The participants were in intact classes selected by the researchers and completed the questionnaires.

3.2 Instruments

The instruments used in this study were TOEFL (2003), with reliability of 0.896, and a four-part questionnaire in English. The different parts of this questionnaire were as follows:

Willingness to Communicate in the Classroom: This part of the questionnaire, which contained 27 items, assesses learners' willingness to communicate in their EFL class when assigned communicative tasks. A five-level Likert scale was employed to ask learners to rate their willingness to communicate with a number from one to five (1. almost never willing, 2. sometimes willing, 3. willing half of the time, 4. usually willing, and 5. almost always willing).

The categorization of the items in each section was based on the type of language skill (alpha levels are calculated for the reliability of each skill's items): speaking (8 items, .584), listening (5 items, .447), reading (6 items, .551), and writing (8 items, .585).

The four L2 skill areas were included to determine which skills are more active (such as speaking) and which are more receptive (such as reading) in terms of engagement with the L2. The receptive usage is also related to the concept of WTC because authentic usages of the L2 in the form of receptive skills and tasks may increase learners' WTC in other areas. The present study also focused on finding the correlation between the four skills.

Willingness to Communicate outside the Classroom: In this section, the same 27 items were also used; however, in this part,

items referred to the student's willingness to communicate outside the classroom, and thus, respondents were to rate their WTC in that context. The rating scale was the same as in the fore mentioned section: speaking (8 items, .706), listening (5 items, .574), reading (6 items, .74), and writing (8 items, .721).

Orientations for Language Learning: The items are taken from Clément and Kruidenier (1983), however, with different scaling (1-6). Students were to choose the extent to which each reason for learning English was true of them, using the options 1 to 6 (1. strongly agree, 2. moderately agree, 3. mildly agree, 4. mildly disagree, 5. moderately disagree, and 6. strongly disagree). The scale reflected a reliability of 0.919. There were also five orientations proposed, each with four items: travel (0.76), knowledge (0.67), friendship (0.80), job related (0.775), and school achievement (0.75).

Social Support: In this section, there were 6 yes/no questions, and students were to answer these questions regarding their source of support for L2 learning. This procedure is similar to Ajzen's (1988) method for testing subjective norms. The participants were to answer yes or no to questions about whether the following people provided support for learning the L2: mother, father, teacher, favorite sibling, best friend, and other friends. The items in this section were used individually, not as a scale. Consequently, reliability estimates cannot be calculated for them.

3.3 Data Collection and Analysis

To categorize learners' language proficiency, the reading and structure sections of the TOEFL (2003) were given. The test reflects a satisfactory reliability index of 0.896 for 45 items, which indicates learners' consistency in responding to the test questions. Then, the students were asked to complete the questionnaire in class. Finally, the data were given to SPSS to calculate the total reliability and correlation among different parts.

4. Results and Discussion

As mentioned above, Willingness to Communicate is an indicative factor in learners' future academic achievement (Kim, 2005). Moreover, WTC is not unidimensional but a multifaceted construct (MacIntyre et

al., 1999). This means that learners might be highly motivated to communicate in speaking but not reading. To this end, different statistical procedures were followed, and the data of this study were subjected to SPSS to answer different questions addressed.

4.1 Interrelationship among Components of WTC inside and outside the Classroom

The preliminary analysis of the data to answer the first research question, i.e., the relationships among subcomponents of WTC inside and outside the classroom, shows that unlike the findings of MacIntyre and Baker (2001), all subcategories of WTC are not significantly inter related.

Table 1: WTC components intercorrelation

	WTC Inside				WTC Outside			
	Speak- ing	Read- ing	Writ- ing	Listen- ing	Speak- ing	Read- ing	Writ- ing	Listen- ing
WTC Inside								
Speaking	1.000							
Reading	.078	1.000						
Writing	.512**	.359*	1.000					
Listening	.151	.462*	.586*	1.000				
WTC Outside								
Speaking	-.426**	.011	-.285*	-.085	1.000			
Reading	-.191	-.617*	-.348*	-.422**	.133	1.000		
Writing	-.151	-.099	-.434*	-.099	.414**	.317*	1.000	
Listening	-.197	-.113	-.331*	-.579**	.305*	.394*	.147	1.000

As shown in Table 1, the WTC inside components are intercorrelated positively and vary from 0.078 to 0.586. However,

speaking inside WTC is not correlated with reading and listening. Additionally, among the outside WTC components, all subcomponents are inter-correlated and vary from 0.133 to 0.414 except for speaking, which is not significantly correlated with reading outside WTC, and writing outside WTC, which is not correlated with listening outside WTC. The lack of correlation in speaking and reading inside WTC might be due to the low importance of speaking both inside and outside universities. Iranian students do not feel that speaking ability is required in the English community in Iran. This is true for outside WTC speaking. The lack of correlation in outside WTC writing and listening might be due to students' lack of exposure to English for listening; they need only to read some materials to write their assignments.

Surprisingly, unlike the findings of MacIntyre and Baker (2001), inside and outside WTC subcomponents are mostly negatively correlated and vary from - 0.579 to 0.11. This may indicate that WTC functions as a trait in this study's sample. That is, the sample does not vary in different situations as far as WTC is concerned. However, some of the outside WTC subcomponents are not correlated with inside WTC subcomponents. For example, inside WTC reading is not correlated with outside WTC writing and listening. Additionally, inside WTC speaking is not correlated with inside WTC reading, writing, and listening. Moreover, inside WTC listening is not correlated with outside WTC speaking and writing. This finding might indicate that these two are different traits for some but states for others in the selected sample. That is why the ranks of students are not predictable in these subcategories.

4.2 WTC and Orientation Relationship

To answer the second question of the study, i.e., whether there is any relationship among orientations and WTC both inside and outside the classroom in the Iranian context, data were subjected to correlational analysis by SPSS. The result is shown in Table 2.

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Table 2: WTC components and orientation intercorrelation

	Orientation				
	Job	Travel	Friendship	Knowledge	School
WTC Inside					
Speaking	-0.18	-0.21	-0.26	-.26	-0.06
Reading	-0.30*	-0.27	-0.41**	-0.27	-0.27*
Writing	-0.21	-0.23	-0.25	-0.39**	-0.18
Listening	-0.37**	-0.40**	-0.35*	-0.53**	-0.31*
WTC outside					
Speaking	0.008	0.006	0.21	0.32*	-0.14
Reading	0.47**	0.37**	0.65**	0.56**	0.22
Writing	0.05	0.20	0.19	0.21	-0.01
Listening	0.28*	0.27	0.28*	0.49**	-0.03

* $p < 0.01$; ** $p < 0.001$

As shown in Table 2, there are five different orientations. According to McIntyre (2001), orientation refers to a learner's motivation to learn the L2, that is, job, travel, friendship, knowledge, and school. As reported here, inside WTC components are mostly negatively correlated with orientation subcomponents. For example, inside WTC reading is negatively correlated with job ($r = -0.30$), friendship ($r = -0.41$), and school ($r = -0.27$). This finding indicates that a learner with the orientation of job, friendship or school is not willing to communicate in reading comprehension classes. Additionally, learners with the orientation of knowledge are not willing to communicate in writing and listening. This result might be due to the fact that writing skills are not practiced in Iranian universities, in contrast to reading comprehension.

However, outside WTC reading is significantly correlated with four learners' orientations: job, travel, friendship, and knowledge. Willingness in listening is significantly correlated with different orientations, such as job, friendship, and knowledge. Outside WTC listening is correlated with two orientation types: job and knowledge. This finding indicates that Iranian university students are more independent and prefer to engage in English outside of universities. The result also shows that authorities need to work more on

materials, and teachers need to increase motivation for learning English among their students.

Unlike MacIntyre's (2001) results, travel orientation correlated more strongly with WTC reading outside (in MacIntyre's study, the highest correlation, equal to .44, is between travel orientation and WTC reading inside).

Overall, orientations for language learning in the selected sample tend to be mostly related to WTC outside rather than inside the classroom, which might indicate that the university isn't encouraging learners' intention and orientation.

4.3 WTC Skills and Social Support

To answer the third question of this study, which is to identify the effects of social support on WTC inside and outside the classroom in the Iranian context (6 yes/no questions), different ANOVAs were run. The variables used in this analysis were social supports (mother, father, siblings, friends, and teacher), WTC (two levels as within subject factors), and skills (four levels as within subject factors). The dependent variable was four.

Social supports in this study included six categories: mother support, father support, sibling support, best friend support, other friend support, and teacher support. In this data, students showed a high level of support from teachers and parents (mothers and fathers), with 88% of the students reporting that teachers supported them in WTC and 74% of students reporting that their mother and father supported them in learning English. In contrast to parents and teachers as referents, the students reported less support from peers (44% for best friends, 30% for other friends, and 52% for siblings).

Further, three ANOVAs were run. The results are as follows: a non-significant main effect of skill but a significant interaction between skill and WTC were obtained ($F(3, 41) = 5.92, p < 0.01$). No difference was shown for different interactions between friend, best friend, or siblings and either WTC or skills, which means that the main effect of skill is not modified by interaction with any social support. Moreover, unlike MacIntyre's (2001) findings, none of the main effects of social support (friend, best friend, or siblings) were significant. This result means that

social support in this sample does not indicate learners' willingness to communicate in any skills.

4.4 Social Support and Orientation Relationship

To answer the fourth question of this study, i.e., whether there is any relationship between social support and orientations in the Iranian context, a point-biserial correlation was run. The dichotomous variables were different sources of support (mother, father, teacher, best friend, other friends, and siblings). The continuous variables were different orientations, such as job, knowledge, school, travel, and friendship.

The result is shown in Table 3. As shown in this table, there is no significant correlation between any source of support and any component of orientation. This finding indicates that students without high support from any source would automatically become engaged learners in any English activity. This result highly supports the possibility that WTC in the present sample of Iranian learners is more like a trait than a state. The result is different from that of MacIntyre (2001). In his sample, English speakers learning French with orientations of travel and friendship tended to be supported by best friends and other friends. According to McCroskey and Richmond (1996), trait-like variables indicate the personality of each person communicating in L2, the society or community in which he lives, the attitudes of his community towards the speakers of the L2, self-confidence and the motivation for language learning.

Table 3: Point-biserial correlations between orientations and sources of support

Support	Orientations				
	Job	Travel	Friendship	Knowledge	School
Mother	0.201	0.217	0.077	0.200	0.198
Father	0.163	0.118	0.063	0.106	0.032
Teacher	0.091	0.122	-0.116	-0.017	-0.042
Sibling	0.074	0.084	0.091	-0.013	-0.041
Best friend	-0.068	0.023	0.032	0.106	-0.039
Other friend	0.100	0.025	0.138	-0.165	-0.051

5. Conclusion and Implications

It is believed that one indicative factor for learners' communication in the second-language context is willingness to communicate. WTC can be both enduring and situational, which means that many factors surrounding learners might affect their decision to communicate their meanings through language. Moreover, as stated above, WTC is highly skill dependent (MacIntyre, Clément, Dörnyei, & Noels, 1989).

Research on WTC in first- and second-language contexts abounds (Çetinkaya, 2007; Yashima, 2002); however, not much research has been performed in foreign contexts where English is only used for academic purposes. The present study investigates the impact of affective-cognitive, social, and communication variables on Iranian engineering students' willingness to communicate in the EFL context to learn possible effects and relationships of different factors, such as orientation and locations on learners' WTC.

The results indicate that in the present sample, skills-related WTCs in terms of locations are directly related to each other, except for speaking, reading and listening when used inside the classroom. Moreover, outside the classroom, learners' performance of speaking English is not related to other skills like reading, and writing is not related to listening. In Iran, writing and speaking are not significantly important both inside and outside the classroom compared with reading and listening. Iranian students might watch English movies or they must have high reading ability, but they are not required to speak or write in English inside or outside the classroom.

Another finding of this study is that unlike MacIntyre and Baker's (2001) findings, inside and outside WTC subcomponents are mostly negatively related to each other, which means that WTC functions as a trait in this study's Iranian sample. That is, Iranians in the present sample do not vary in different situations as far as WTC is concerned.

Further, this study finds that inside WTC components are mostly negatively related to orientation subcomponents. This indicates that a learner in the present sample with the orientation of job, friendship or

school might not be willing to communicate in reading comprehension. Additionally, those with the orientation of knowledge are not willing to communicate in writing and listening. Moreover, the results indicate that learners with different orientations, such as job, travel, friendship, and knowledge are highly willing to communicate via reading comprehension in English, a finding that reflects the paramount importance of reading in Iran. Reading comprehension is exercised even in high school. University exams include only reading comprehension tests and reading-related knowledge such as vocabulary, idioms, and grammar. Willingness in listening is significantly correlated with different orientations, such as job, friendship, and knowledge. Outside WTC listening is correlated with two orientation types: job and knowledge. This finding indicates that Iranian university students are more independent and prefer to engage English outside universities, and it shows that authorities need to work more on materials, and teachers need to increase motivation for learning English among their students.

Unlike McIntyre's (2001) findings, travel orientation correlated more strongly with WTC reading outside (in McIntyre's work, the highest correlation, equal to .44, is between travel orientation and WTC reading inside).

Overall, orientations for language learning in the selected sample tend to be mostly related to WTC outside rather than inside the classroom, which might indicate that the university doesn't have positive effect on learners' intention and orientation.

Additionally, the results of analysis on social support and WTC are similar to what MacIntyre, Clément, Dörnyei, and Noels (1989) found in their study. In this data, students showed a high level of support from teachers and parents (mothers and fathers). The students reported less support from peers, in contrast to parents and teachers as referents. The result of the repeated measure indicates that only the interaction between skill and WTC is significant, which means that social support in this sample is not an indicative factor of learners' willingness to communicate in any skills.

Finally, the results indicate that no relationship exists between any source of support and any component of orientation. This finding

highly supports the possibility that WTC in the present sample of Iranian learners is more like a trait than a state.

In conclusion, this study indicates that in terms of orientation, the learners showed integrative rather than instrumental motivation, which partially agrees with the findings of other studies in Iran, such as that of Chalak and Kasaian (2010), on Iranian students' motivation to learn English. Among social support factors, teachers played the main role. Moreover, among all skills, learners were more interested in reading. It is surprising that they are not willing to communicate inside the classroom. They might fear being evaluated and therefore showed no interest in communicating in classes. It supports Aki' (2006) study which shows emotional intelligence needs to be taken into account for better communication between language teacher and foreign language learners. Finally, pedagogically speaking, more authentic L2 communication is needed, and undoubtedly, greater WTC will bring greater success in L2 acquisition. Authentic language use increases in less frightening atmospheres. Therefore, teachers should foster more friendly relationships between learners and teachers.

This study's most important implication is that with growing awareness of different issues, such as WTC in language classrooms, one needs to translate research results into practical terms. Language instructors should be aware of how they can motivate their students. They should cover a wide range of areas, from making the teaching materials relevant to learners by setting specific learning goals, to increasing learners' satisfaction. However, these two variables appear to predict willingness to communicate less for Iranians than for Canadians. Also according to Abdollahi-Negar and Yaqoobi (2008), quality function deployment in terms of course content and student needs analyses could be useful in the course development process to minimize frustration and maximize motivation as well as WTC among students.

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