

Willingness to Communicate in English: A Microsystem Model in the Iranian EFL Classroom Context

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This study examined willingness to communicate (WTC) in English among Iranian EFL learners in the classroom context. For this purpose, a second language willingness to communicate (L2WTC) model based on WTC theory (MacIntyre, Clément, Dörnyei, & Noels, 1998) and empirical studies was proposed and tested using structural equation modeling (SEM). This model examined the interrelationships among WTC in English, communication confidence, motivation, classroom environment, attitudes toward learning English, and English language achievement. A total of 243 English-major university students in Iran completed a questionnaire. The proposed SEM model adequately fitted the data. Results of the SEM indicated that classroom environment was the strongest direct predictor of L2WTC; communication confidence directly affected WTC; motivation indirectly affected WTC through communication confidence; English language proficiency indirectly affected WTC through communication confidence; and the classroom environment directly affected attitudes, motivation, and communication confidence.

doi: 10.1002/tesq.204

Foreign/second language (L2) teaching has undergone many changes and revisions over the past century. In the past, English language teaching emphasized the mastery of structures, but more recently the communicative competence of the language learners and the use of language for the purpose of communication have been emphasized (Cetinkaya, 2005). Communicative language teaching

(CLT) highlights the use of language for meaningful communication in the process of foreign and second language acquisition. As MacIntyre and Charos (1996) maintain, “recent trends toward a conversational approach to second language pedagogy reflect the belief that one must use the language to develop proficiency, that is, one must talk to learn” (p. 3). L2 learners cannot become proficient unless they use language communicatively. In spite of this, when language learners have the opportunity to use the second language, they show differences in speaking the L2. Some learners seek every opportunity to speak the L2 in the classroom, while others remain silent.

Willingness to communicate (WTC) in the second or foreign language is the construct that explains the differences in learners’ intention to communicate in the L2. It is considered to be an individual difference variable and has been recently investigated by many researchers (Cao, 2011; Ghonsooly, Khajavy, & Asadpour, 2012; MacIntyre & Legatto, 2011; Peng, 2012). WTC is defined as “a readiness to enter into discourse, at a particular time with a specific person or persons, using L2” (MacIntyre, Clément, Dörnyei, & Noels, 1998, p. 547). It is seen as the ultimate goal of language learning because a higher willingness to communicate in a foreign language (L2WTC) facilitates L2 use (MacIntyre et al., 1998).

L2WTC has been investigated in relation to different personality, affective, and social psychological variables (e.g., Cetinkaya, 2005; MacIntyre & Charos, 1996; Yashima, 2002). However, most of these studies examined L2WTC in the English as a second language (ESL) context (Baker & MacIntyre, 2000; Clément, Baker, & MacIntyre, 2003; MacIntyre, Baker, Clément, & Donovan, 2002; MacIntyre & Charos, 1996). Previous research investigated it with a scale developed by McCroskey and Baer (1985) where participants are placed into situations that they have rarely experienced in their everyday lives (e.g., talk with a friend while standing in line; Cao & Philp, 2006; Peng & Woodrow, 2010). An important distinguishing feature of the English as a foreign language (EFL) context from the ESL context is that learners usually do not have the opportunity to use the L2 outside the classroom (Oxford & Shearin, 1994). Therefore, the language classroom is the best context for practicing and communicating the L2 in EFL contexts. Despite this, very few studies have explored the role of the language classroom context (e.g., Cao, 2011; Peng, 2012; Peng & Woodrow, 2010), and if investigated at all, most have been done in the Chinese EFL context. Furthermore, none of the models examined in EFL classroom contexts using structural equation modeling (SEM) has integrated a mixture of psychological, contextual, and linguistic variables. Given that Iran is an EFL context and no study has examined the L2WTC in the

language classroom context of Iran, this study examines psychological, contextual, and linguistic variables of L2WTC in the Iranian EFL context. For this purpose, the present study proposes a model to investigate these variables. The accurate examination of this comprehensive model provides a useful viewpoint of L2 communication in the EFL classroom context in general, and the Iranian context in particular. Moreover, the proposed model can help L2 learners understand what factors affect their willingness to communicate in English. Based on this, they can become aware of their own communication preferences and, therefore, foster communication and speaking in the classroom. Hence, language learners' willingness to communicate in English in the Iranian EFL context is examined within the WTC framework proposed by MacIntyre et al. (1998) and Peng and Woodrow (2010) using SEM.

English Language Teaching in Iran

Formal language teaching in Iran starts at junior high school. Two languages are taught, English and Arabic, and both of them are compulsory school subjects. However, due to its international usage, English is preferred to Arabic (Pishghadam & Naji, 2011). Taguchi, Magid, and Papi (2009) state that Iranian students learn English to enter prestigious universities, to study and live abroad, and to get access to information. English lessons involve a teacher reading short sentences with new vocabulary words; those sentences are translated, and then the explicit grammatical rules are explained (Papi & Abdollahzadeh, 2012). At the university level, all students have to pass a three-credit general English course, where the emphasis is on reading skills and structure (Noora, 2008).

Willingness to Communicate

Willingness to communicate was originally investigated in the context of first language communication. McCroskey and Baer (1985) consider willingness to communicate as a personality trait and explain that individuals show similar tendencies in different communication contexts. However, it is a different concept when it is applied in second or foreign language learning. MacIntyre et al. (1998) state that it is almost impossible to equate first language willingness to communicate (L1WTC) with L2WTC. Following this, they developed a WTC model for the L2 that integrates psychological, linguistic, and contextual variables. According to this model, dual

characteristics including both trait and state factors affect individuals' L2WTC, which is different from the trait feature of willingness to communicate in L1. Trait L2WTC refers to a stable personality characteristic that people show in their communication in L2 (MacIntyre, Babin, & Clément, 1999). L2WTC might best be approached, by both teachers and researchers, from a state-like perspective. This is significant because people show differences in their communicative competence ranging from almost no L2 competence to full L2 competence (MacIntyre et al., 1998).

Empirical research on L2WTC has revealed that it is related to many other variables. One of the most important factors involved in L2WTC is L2 self-confidence, and this refers to the "overall belief in being able to communicate in the L2 in an adaptive and efficient manner" (MacIntyre et al., 1998, p. 551). L2 self-confidence is a construct composed of two dimensions: perceived competence and a lack of anxiety (Clément, 1980, 1986). Perceived competence refers to learners' self-evaluation of their L2 skills (Peng, 2009), and foreign language anxiety is defined as "worry and negative emotional reaction aroused when learning or using a second language" (MacIntyre, 1999, p. 27); foreign language anxiety is seen as one of the obstacles to L2 learning and achievement. L2 self-confidence was found to be the most significant predictor of L2WTC in many studies (Cetinkaya, 2005; Ghonsooly et al., 2012; Kim, 2004; Peng & Woodrow, 2010; Yashima, 2002; Yashima, Zenuk-Nishide, & Shimizu, 2004).

Motivation and Attitudes

Research in the field of L2 motivation began with the work of Gardner and his associates (Gardner, 1985; Gardner & Lambert, 1972). In Gardner's (1985) socioeducational model of second language acquisition, groups of attitudes—integrativeness and attitudes toward the learning situation—support the learners' level of L2 motivation. Motivation is measured by L2 learners' desire to learn the L2, motivational intensity, and the attitudes toward L2 learning. These three clusters (integrativeness, attitudes toward the learning situation, and motivation) are called *integrative motive*.

Early research on L2WTC utilized the socioeducational framework by applying motivation and integrativeness as two important variables in MacIntyre et al.'s (1998) pyramid model. Although Gardner's socioeducational model was a dominant theory of motivation, it has its own limitations; among them is its limited applicability in foreign language settings (Dörnyei, 1990; Oxford & Shearin, 1994). The reason is that

in EFL contexts language learners do not communicate with the target language community but learn the foreign language in the classroom. Because foreign language learners do not have sufficient contact with the target language community, they may not form attitudes toward the target community (Dörnyei, 1990).

Motivational studies changed their focus to cognitive and humanistic aspects of motivation during the 1990s. One of the most salient educational psychology theories of this period is self-determination theory (SDT; Deci & Ryan, 1985). SDT claims that human beings have three innate psychological needs: autonomy, competence, and relatedness. Autonomy refers to the sense of unpressured willingness to perform an action, competence is the need for showing one's capacities, and relatedness is the need that a person feels he or she belongs with and is connected with significant others. It is proposed that the degree of satisfaction of these needs leads to different types of motivation (Deci & Ryan, 2000).

Noels, Pelletier, Clément, and Vallerand (2000) applied SDT to L2 research, investigating the role of intrinsic and extrinsic motives. Intrinsic motivation refers to the desire to do something because it is interesting and pleasing. When learning is a goal in itself, and students find the task interesting and challenging, they are intrinsically motivated. Extrinsic motivation comes from external factors, that is, learning for instrumental goals (such as earning reward or avoiding punishment). Intrinsic motivation is composed of three parts: *knowledge* refers to motivation to do an activity for exploring new ideas, *accomplishment* is the sensation of achieving a goal or a task, and *stimulation* is the fun and excitement involved in doing a task.

Consistent with Deci and Ryan's (1985) SDT theory, Noels et al. (2000) also distinguish three types of extrinsic motivation: external, introjected, and identified regulation. *External regulation*, which is the least self-determined type of motivation, refers to activities that are external to the learner, such as tangible benefits. The second type of motivation, which is more internal, is *introjected regulation*. It refers to doing an activity due to some kind of internal pressure, such as avoiding guilt or ego enhancement. The most self-regulated type of extrinsic motivation is *identified regulation*; this is where students carry out an action due to personally related reasons and a desire to attain a valued goal. Noels et al. also state that, when students have neither an intrinsic nor extrinsic reason to do an action, they are unmotivated and they will leave the activity as soon as possible.

One of the features of SDT is that, unlike the socioeducational model, it can be applied in EFL classroom contexts. The rationale for choosing SDT as the motivational framework, according to Peng and Woodrow (2010), is that, first, the theoretical principles of SDT relate

human beings' basic psychological needs to environmental factors (this is consistent with the ecological perspective of the present study). Second, the socioeducational model is useful for examining the motivational patterns of multilingual contexts, but has little exploratory power for understanding and explaining motivational features in the EFL classrooms (Dörnyei, 2005). Therefore, the present study, which was conducted in an Iranian EFL classroom context, uses SDT as the motivational framework.

Language Classroom Environment

Many researchers in the field of social psychology believe that behavior is specific to the situation in which it occurs (MacLeod & Fraser, 2010). In other words, behavior is a function of both environment and person. From an ecological point of view, which examines how each component in a context is related to other components, the notion of context in L2 learning is emphasized (Cao, 2009). Also, based on Bronfenbrenner's (1979) ecological perspective on human development, both person and environment play a part in development. The ecological approach to research in language classrooms has recently attracted the attention of L2 researchers (Cao, 2009, 2011; Peng, 2012; Peng & Woodrow, 2010). The ecological perspective in language learning considers individuals' cognitive processes related to their experiences in the physical and social world (Leather & Van Dam, 2003).

Bronfenbrenner's (1979) ecological perspective investigates human development across a set of interrelated structures called ecosystems. There are four layers within this model: microsystem, mesosystem, exosystem, and macrosystem. The microsystem is the innermost layer and is the immediate setting which contains the developing person. This layer is related to a face-to-face interaction with persons and objects in the immediate situation (Bronfenbrenner, 1979). The mesosystem examines the developing person in situations beyond the immediate setting. The exosystem comprises the linkages and processes taking place between two or more settings, at least one of which does not contain the developing person, but in which events occur that indirectly affect processes in a person's immediate setting (Bronfenbrenner, 1979). Finally, the macrosystem involves micro-, meso-, and exosystems as a manifestation of a particular culture or subculture. It was Peng (2012), based on Bronfenbrenner's ecological perspective, who provided operational definitions of these layers with regard to L2WTC. As examples of these ecosystems, the language classroom is considered as a microsystem (the home environment), students' past experiences outside the language classroom are considered examples

of a mesosystem (Peng, 2012), and curriculum design and course assessments are examples of an exosystem. The sociocultural and educational context in Iran is an example of a macrosystem (Peng, 2012).

Some studies have applied this model to explain the dynamic and situational nature of L2WTC (Cao, 2009; Kang, 2005; Peng, 2012). Research in L2WTC has indicated that students' motivation, beliefs, teaching methods, attitudes, L2 proficiency, and self-confidence are among the factors that are related to the microsystem—that is, the language classroom itself (Cao, 2011; Peng, 2012).

The microsystem level of L2WTC, or the very context of the classroom environment, is the main focus of the present study. Therefore, in the current research, characteristics of both environment and person are explored for a better understanding of L2WTC in the Iranian EFL context. For this purpose, six variables were selected in line with the microsystem level of the ecological perspective: L2WTC, L2 self-confidence, L2 motivation, classroom environment, attitudes, and L2 achievement. L2WTC, L2 self-confidence, L2 motivation, and attitudes are considered as individual differences variables. L2 achievement is considered as a linguistic variable, and the classroom environment is used to capture the role of contextual variables in L2WTC. The rationale for choosing these variables was based on MacIntyre et al.'s (1998) pyramid model and Peng and Woodrow's (2010) findings in the classroom environment.

Peng and Woodrow (2010) considered only three components of the language classroom environment: teacher support, student cohesiveness, and task orientation. Their justification for selecting these variables was based on previous empirical research that showed that the teacher, the students, and the learning tasks were the relevant factors in the language classroom environment (Clément, Dörnyei, & Noels, 1994; Williams & Burden, 1997).

Teacher support refers to the extent to which the teacher helps, supports, trusts, befriends, and is interested in students (Dorman, Fisher, & Waldrup, 2006). Wen and Clément (2003) explain that the teacher's support might have a direct effect on WTC. Student cohesiveness refers to the extent to which students know, help, and support each other (Dorman et al., 2006). Clément et al. (1994) found that student cohesiveness greatly influenced interaction and learning in the classroom. Learners in a cohesive group may feel more encouraged to study and perform learning tasks (Peng, 2009). Task orientation refers to the extent to which it is important to complete activities and solve problems (Dorman et al., 2006). Attractive and useful tasks lead to student engagement, and tasks that are meaningful, relevant,

and have a reasonable degree of difficulty can enhance performance quality (Kubanyiova, 2007).

Hypothesized Model

In order to examine the interrelationships between the selected variables (i.e., L2WTC, communication confidence, motivation, attitudes toward learning English, English language achievement, and classroom environment), a structural model is proposed. Model specifications are based on the knowledge of the theory and/or empirical research (Byrne, 2010).

Consistent with the L2WTC theory (MacIntyre et al., 1998) and previous empirical studies (Cetinkaya, 2005; Ghonsooly et al., 2012; Peng & Woodrow, 2010; Yashima, 2002), we hypothesize a path from communication confidence to L2WTC.

Following Peng and Woodrow (2010), we hypothesized that classroom environment directly influences motivation, communication confidence, and L2WTC. Therefore, three paths from classroom environment to motivation, communication confidence, and L2WTC were hypothesized.

MacIntyre et al.'s (1998) pyramid model shows that motivation indirectly affects L2WTC. Recent empirical studies (Cetinkaya, 2005; Ghonsooly et al., 2012; Peng & Woodrow, 2010; Yashima, 2002) have also indicated that motivation influences L2WTC indirectly through communication confidence. Accordingly, we added a path from motivation to communication confidence.

In MacIntyre et al.'s (1998) pyramid model, L2 proficiency is among the factors that indirectly affects L2WTC. Although Yashima's (2002) findings did not show the significant effect of L2 achievement on communication confidence, Gardner, Tremblay, and Masgoret (1997) indicated that L2 achievement is a very strong predictor of communication confidence. In the present study, a path from L2 achievement to communication confidence was drawn.

Finally, a path from attitudes to motivation was postulated. This path was based on Gardner's socioeducational model and empirical research (Gardner et al., 1997; MacIntyre & Charos, 1996) in which attitudes affect motivation. It should be noted that in the present study only attitudes toward learning English were included to make it fit in the EFL classroom context. The hypothesized model is shown in Figure 1.

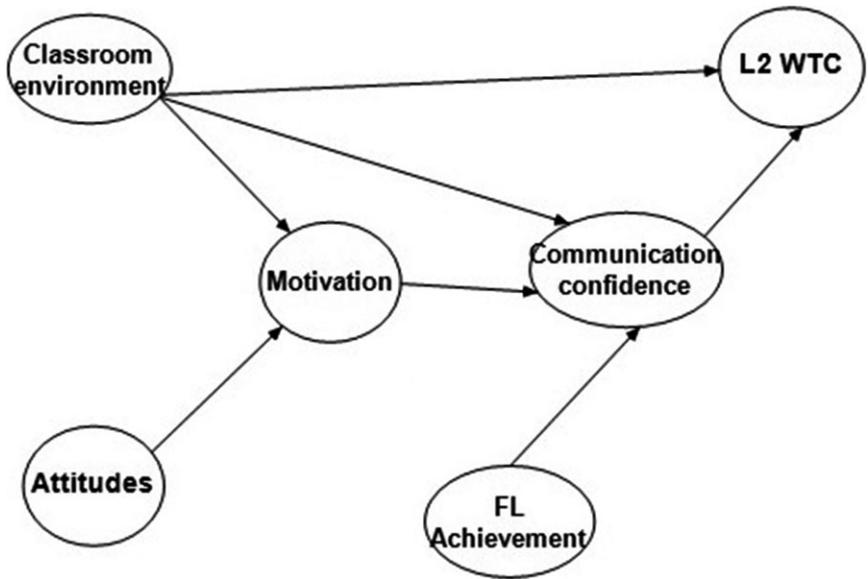


FIGURE 1. Proposed model of WTC in English in the Iranian EFL classroom context.

METHODOLOGY

Setting and Participants

A total of 243 undergraduate EFL university students participated in this study, including 148 females (60.9%), 84 males (34.6%), and 11 (4.5%) participants who did not disclose their gender. Participants were selected from two universities in a city in the northeast of Iran. All participants had passed the highly competitive university entrance exam, and all of them were studying English as an academic major. The age range of the participants was 18–42; the mean age was 21.87 ($SD = 2.97$). Age information was missing for 13 participants. We did not select non-English major university students because they do not develop a functional English proficiency, they do not have the chance to speak English in classrooms, and their English class time is limited to reading and vocabulary. Therefore, asking them about situations in which they speak English in the classroom would be irrelevant.

Instrumentation

WTC in English. Ten items from Peng and Woodrow (2010, adapted from Weaver, 2005) were used in this study to measure WTC

in English. Previous research (Peng & Woodrow, 2010) has shown a two-factor solution for WTC in English: WTC in meaning-focused activities (e.g., giving a speech in the classroom) includes six items, and WTC in form-focused activities (e.g., asking the meaning of a word) includes four items. Students answered the questions on a 7-point Likert scale from 1 (*definitely not willing*) to 7 (*definitely willing*). The items assess the extent to which the participants are willing to communicate in certain classroom situations.

Perceived communicative competence in English. Six items from Peng and Woodrow (2010, adapted from Weaver, 2005) were used on an 11-point can-do scale ranging from 0% to 100%. Students were asked to show the percentage of the time they felt competent communicating in English.

Communication anxiety in English. Ten items from Horwitz (1986) were translated and validated by Khodadady and Khajavy (2013) in the Iranian context. The scale was used for assessing communication anxiety on a 7-point Likert scale measuring the extent to which the participants felt anxious in various classroom communication situations from 1 (*completely disagree*) to 7 (*completely agree*). A sample item is “I start to panic when I have to speak without preparation in language class.”

Autonomous motivation to learn English. Eighteen items from Noels et al. (2000) translated and validated by Khodadady and Khajavy (2013) in the Iranian context were used to measure subcomponents of intrinsic motivation (knowledge, accomplishment, and stimulation) and extrinsic motivation (external, introjected, and identified regulation) from 1 (*completely disagree*) to 7 (*completely agree*) on a Likert scale. In this study, to have an overall indicator of perceived autonomy, we used the Relative Autonomy Index (RAI; Ryan & Connell, 1989). To this end, first, a weight was assigned to each of the motivational subscales (external regulation, -2; introjected, -1; identified, +1; knowledge, +2, accomplishment, +2; and stimulation, +2). Then, these weighted scores were summed. A higher RAI score demonstrates a higher level of autonomous (self-determined) motivation. A sample item is “I learn English in order to get a more prestigious job later on.”

Classroom environment. Thirteen items from Peng and Woodrow (2010, adapted from Fraser, Fisher, & McRobbie, 1996) were used for assessing classroom environment. These items measured teacher support, student cohesiveness, and task orientation on a 7-point Likert

scale from 1 (*completely disagree*) to 7 (*completely agree*). An sample item is “The teacher provides a timely response to students’ concerns.”

Attitudes toward learning English. Six items from S. Ryan (2008) were used for measuring participants’ attitudes toward learning English on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*). A sample item is “I really enjoy learning English.”

English language achievement. We asked participants to report their final grades in the speaking, writing, and reading courses that they had completed during their first three semesters of studying English. Those classes included three four-credit reading courses, two four-credit speaking courses, and one two-credit course in writing. The grades ranged from 0 to 20 for each course. For reading and speaking courses where they had more than one grade, an average of these scores was considered as the final grade.

The questionnaire was originally composed in English. A researcher translated all of the scales into Persian to increase the return rate. Eight EFL learners then piloted the questionnaire and an expert in translation back-translated it into Persian. Back-translation was used to ensure the accuracy of the translation. Then the English back-translations and the original English items were carefully examined, and the Persian translations of some items were revised. Finally, it was double-checked again by another expert for translation accuracy. Table 1 indicates the Cronbach’s α internal consistency reliability coefficient of the scales.

TABLE 1
Internal Reliability of the Scales

Latent variable	Subscale	N of original cases	N of outliers	N of valid cases	Cronbach’s α
WTC in English ($\alpha = .85$)	WTC in meaning-focused activities	243	4	239	.73
	WTC in form-focused activities	243	3	240	.89
Communication confidence ($\alpha = .85$)	Communication anxiety	243	1	242	.84
	Perceived competence	243	5	238	.91
Autonomous motivation ($\alpha = .83$)	Relative Autonomy Index	243	3	240	.83
	Attitudes toward L2	243	2	241	.84
Classroom environment ($\alpha = .86$)	Teacher support	243	0	243	.79
	Student cohesiveness	243	6	237	.81
	Task orientation	243	2	241	.80

DATA ANALYSIS AND RESULTS

We used the Statistical Package for Social Sciences (SPSS 18) for inputting data and computing descriptive statistics and Analysis of Moment Structures (AMOS 20) software to perform confirmatory factor analyses (CFAs) and SEM. SEM is a powerful multivariate technique used to confirm the proposed structural theory. Before testing a structural model, all latent variables should be validated using CFA (Hair, Anderson, Tatham, & Black, 1998).

First, we used data screening to examine missing data, outliers, and normality. To deal with missing data, we used an expectation–maximization algorithm in which a missing score is replaced by a predictive distribution (Kline, 2011). The two types of outliers (univariate and multivariate) were also examined. We examined univariate outliers by standard scores and used Mahalanobis D^2 to identify multivariate outliers. A case is a multivariate outlier if the probability associated with its D^2 is 0.001 or less. D^2 follows a chi-square distribution with degrees of freedom equal to the number of variables included in the calculation (Tabachnick & Fidell, 2007). Following this, all the outliers were identified and deleted, leaving data from 202 valid cases for SEM analysis. All the skewness and kurtosis values were within the range of -1 to $+1$, which shows the normal distribution of the data. Descriptive statistics and a correlation matrix of all variables can be seen in Table 2.

In order to examine the validity of the measurement models, we used CFA for the six latent variables. We examined the validity of the measurement models using goodness-of-fit indices (Kline, 2011). There are several fit indices that show the adequacy of the measurement models. In the present study, we used χ^2/df , goodness-of-fit index (GFI), Tucker-Lewis index (TLI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). A value of normed χ^2 less than 3 is considered acceptable (Tseng & Schmitt, 2008). Generally, a model is considered acceptable when fit indices are $\geq .90$ (Hu & Bentler, 1999). For RMSEA, values $\leq .06$ are considered indicative of good fit, $\leq .08$ of fair fit (MacCallum, Browne, & Sugawara, 1996). Because some measurement models did not show adequacy to the data, we made some modifications on the models. These modifications included the removal of two L2WTC items, two communication anxiety items, and one external regulation item due to low loadings. Error terms of two WTC items were correlated because both of these items refer to asking a question of a classmate. Error terms of two perceived communicative competence items were correlated because both items involve role playing in the classroom.

TABLE 2
Descriptive Statistics and Correlation Matrix

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. WTC-f	3.94	1.40											
2. WTC-m	4.44	1.57	.48**										
3. Anxiety	3.10	1.29	-.15*	-.02									
4. Perceived	71.41	20.37	.31**	.09	-.51**								
5. RAI	24.34	5.89	.16*	.17*	-.14*	.16*							
6. Teacher	5.20	.98	.06	.14*	-.15*	.12	.22**						
7. Task	4.74	1.20	.19**	.29**	-.09	.09	.30**	.40**					
8. Student	5.61	0.91	.27**	.12	-.21**	.20**	.24**	.33**	.24**				
9. Attitudes	6.18	0.79	.28**	.21**	-.26**	.33**	.40**	.30**	.31**	.37**			
10. Speaking	17.42	1.59	.18**	.09	-.51**	.41**	.01	-.09	.09	-.01	.14*		
11. Reading	17.25	1.55	.09	.12	-.27**	.27**	.05	.01	.06	.06	.09	.38**	
12. Writing	17.28	1.89	-.01	.00	-.25**	.25**	.11	.01	.10	.11	.06	.13*	.38**

Note. WTC-f = WTC in form-focused activities; WTC-m = WTC in meaning-focused activities; RAI = Relative Autonomy Index.

* $p < .05$, ** $p < .01$.

Moreover, the error terms of two stimulation (intrinsic motivation) items were covaried because both items refer to the joy of learning English. Finally, two items of attitudes are related to positive perceptions toward learning English, so their error terms were correlated. After doing these revisions, all models indicated acceptable fit to the data (Table 3).

Model Testing

AMOS 20 was used to test the proposed model with the maximum likelihood procedure and variance-covariance matrices as input. Assessment of the model did not show a good fit to the data (Table 4). For example, GFI, TLI, and CFI were all below the cutoff point of .90. Hence, modifications were used to improve the model fit. Modification indices showed a direct effect of classroom environment on attitudes toward learning English. Based on this, we added a path from classroom environment to attitudes toward learning English. The modification process is shown in Table 3 and the final model is shown in Figure 2.

As seen in Table 4, the goodness-of-fit of the model improved substantially after modification. χ^2/df is less than the cutoff point of 3; RMSEA is less than .08; and GFI, CFI, and TLI are all above the suggested cutoff point of .90. Solid lines in Figure 2 indicate the

TABLE 3
Fit Indices of the Measurement Models

	χ^2	<i>df</i>	χ^2/df	GFI	CFI	TLI	RMSEA
WTC in English	36.76	18	2.04	.95	.97	.96	.07
Communication confidence	186.57	75	2.48	.91	.92	.91	.08
Motivation	220.65	103	2.14	.90	.92	.91	.07
Attitudes	15.98	8	1.99	.97	.98	.96	.07
Classroom environment	103.10	62	1.66	.92	.95	.93	.06
L2 achievement	20.05	7	2.86	.96	.94	.92	.07

TABLE 4
Revision Steps for Proposed WTC Model

	χ^2	<i>df</i>	χ^2/df	GFI	CFI	TLI	RMSEA
Acceptable fit			< 3	> .90	> .90	> .90	< .08
Initial model	302.56	112	2.70	.85	.88	.84	.08
Revision: Add a path from classroom environment to attitudes	264.67	111	2.38	.93	.94	.92	.07

Note. bold numbers are within the acceptable range.

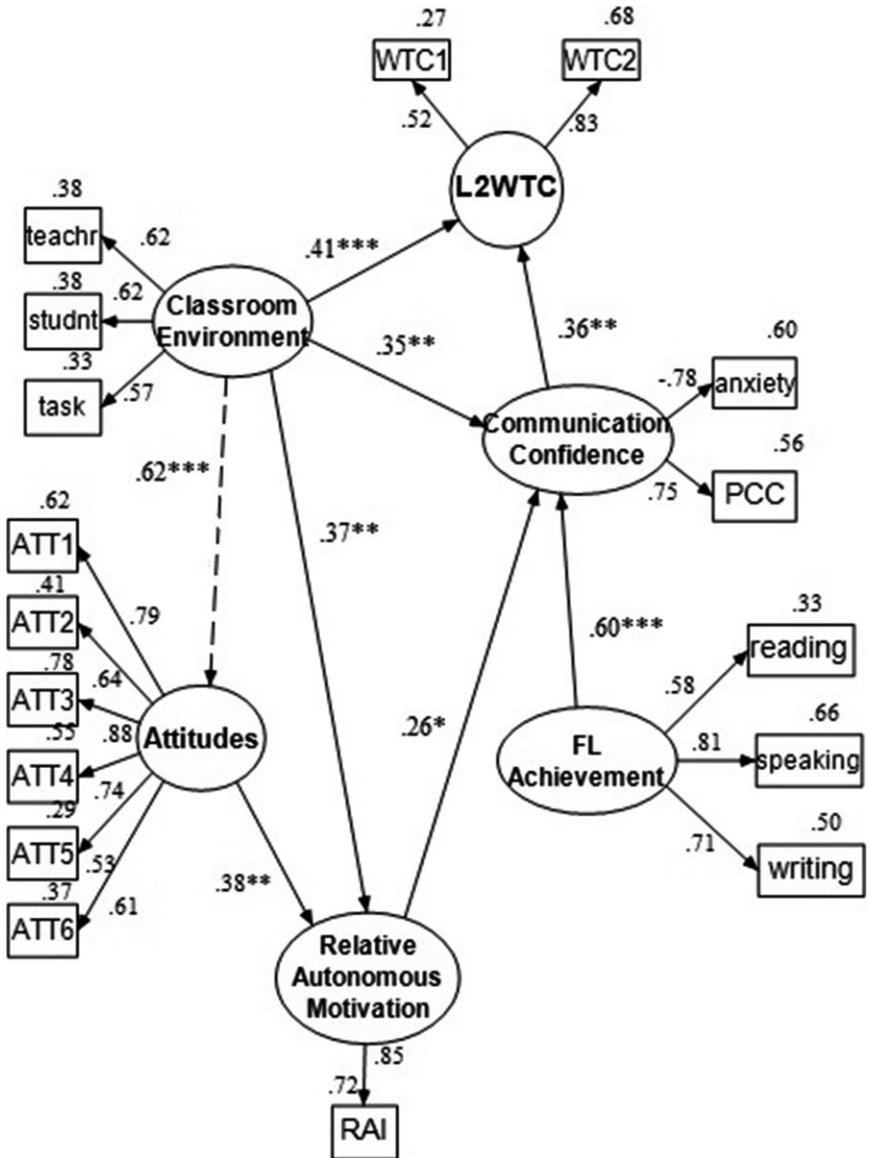


FIGURE 2. Final model of WTC in English.

Note. *Teachr*= teacher support, *Studnt*= student cohesiveness, *Task*= task orientation, *WTC1*= WTC in meaning-focused activities, *WTC2*= WTC in form-focused activities, *PCC*= perceived communicative competence, *RAI*= Relative Autonomy Index.

originally hypothesized paths, and the broken line indicates the data-driven path. The regression coefficients for the paths in this model are all significant at the level of .05 or below.

Effect size (ES) was measured to help the interpretation of the data. Cohen's f^2 was used for calculating ES. The equation for computing f^2 is $f^2 = R^2/1 - R^2$. Interpretation of f^2 is the following: $f^2 = 0.02$ small effect; $f^2 = 0.15$ medium effect; and $f^2 = 0.35$ large effect (Cohen, 1992). Table 5 summarizes ES estimates for latent endogenous variables.

As can be seen in Table 5, this model accounted for 37% of the variance of L2 WTC ($f^2 = .58$), 61% of the variance of communication confidence in English ($f^2 = 1.56$), 34% of the variance of autonomous motivation in English ($f^2 = .51$), and 38% of the variance of attitudes toward learning English ($f^2 = .61$). ES for all of these variables was of a large effect. This shows that this model significantly and practically explains the variance of WTC, communication confidence, autonomous motivation in English, and attitudes toward learning English inside the English classroom.

As can be seen in Figure 2, classroom environment and communication confidence were two significant predictors of WTC inside the classroom. Classroom environment was the strongest direct predictor of WTC ($\beta = .41, R^2 = .16, f^2 = .19$, medium ES). Communication confidence also directly predicted WTC ($\beta = .36, R^2 = .13, f^2 = .15$, medium ES). Both of them were moderate predictors of WTC. Moreover, classroom environment affected L2WTC indirectly through communication confidence, motivation, and attitudes ($\beta = .35 \times .36 + .37 \times .26 \times .36 + .62 \times .38 \times .26 \times .36, R^2 = .03, f^2 = .03$, small ES).

Autonomous motivation was a weak predictor of communication confidence ($\beta = .26, R^2 = .06, f^2 = .06$, small ES) and indirectly affected WTC through communication confidence ($\beta = .26 \times .36, R^2 = .008, f^2 = .008$, small ES) which was a weak effect.

The path from L2 achievement to communication confidence was also significant ($\beta = .60, R^2 = .36, f^2 = .56$, large ES). L2 achievement also indirectly predicted WTC via communication confidence ($\beta = .60 \times .36, R^2 = .04, f^2 = .04$, small ES). Therefore, L2 achievement was a strong predictor of communication confidence and an indirect weak predictor of WTC.

TABLE 5
Standardized Parameter Estimates for the Structural Model

Latent variable	R^2	f^2
WTC in English	.37	.58
Communication confidence	.61	1.56
Autonomous motivation	.34	.51
Attitudes toward learning English	.38	.61

Classroom environment not only affected WTC, but also was a moderate predictor of communication confidence ($\beta = .35$, $R^2 = .12$, $f^2 = .13$, medium ES), a moderate predictor of autonomous motivation ($\beta = .37$, $R^2 = .13$, $f^2 = .15$, moderate ES), and a strong predictor of attitudes toward learning English ($\beta = .62$, $R^2 = .38$, $f^2 = .61$, large ES).

Attitudes toward learning English had an indirect weak effect on WTC through autonomous motivation and communication confidence (attitudes \rightarrow motivation \rightarrow communication confidence \rightarrow WTC). The regression weight for this indirect effect was $.38 \times .26 \times .36$ ($R^2 = .001$, $f^2 = .001$, small ES).

DISCUSSION

Results of the SEM indicated that communication confidence is one of the two significant predictors of L2WTC (Figure 2). It shows that when Iranian EFL learners perceived themselves competent to communicate in English and had a low level of anxiety for communication in English, they were willing to communicate in English inside the language classroom. This finding is in line with the L2WTC model of MacIntyre et al. (1998) and previous empirical studies across different contexts in Japan (Yashima, 2002), South Korea (Kim, 2004), Turkey (Cetinkaya, 2005), and China (Peng & Woodrow, 2010).

Autonomous motivation also affected L2WTC indirectly through communication confidence. Many studies have shown that motivation is an indirect predictor of WTC through communication confidence (Cetinkaya, 2005; Ghonsooly et al., 2012; Kim, 2004; Peng & Woodrow, 2010; Yashima, 2002). This implies that those students who had a higher level of autonomous motivation perceived themselves more competent and felt less anxious, and in turn were more willing to communicate in English. This finding is consistent with a previous study done in the Iranian context (Ghonsooly et al., 2012) in which motivation was an indirect predictor of L2WTC through communication confidence among non-English major university students. It should be noted that in Ghonsooly et al.'s (2012) study, motivation was assessed with Gardner's (1985) socioeducational model. Results of the present study shed more light on the motivational preferences of Iranian university students. First, as conceptualized by the socioeducational model or SDT framework, motivation is an indirect predictor of L2WTC in the Iranian context. Second, consistent with Ghonsooly et al.'s study in Iran, the same indirect effect of motivation on WTC through communication confidence was also found for

English-major students. The reason for this finding is that, in EFL contexts like Iran where students do not need to speak English to meet their everyday life needs, learning English for communicative purposes did not seem very important. Even for English-major students, it is mainly a matter of passing the examinations, most of which are in a written form.

Attitudes toward learning English had an indirect effect on WTC through autonomous motivation and communication confidence (attitudes → motivation → communication confidence → L2WTC). The findings of the present study indicate that Iranian EFL learners' attitudes toward learning English play a very significant role in shaping their motivational preferences. This finding supports previous studies in which attitudes affect motivation (Ghonsooly et al., 2012; MacIntyre & Charos, 1996; Yashima, 2002), and it implies that those students who had positive attitudes toward learning English were more autonomously motivated to learn this language. This motivation then led to a higher self-perception of their communicative competence and a lower level of anxiety, which in turn increased their willingness to communicate in English inside the classroom. In this study, attitudes were measured only in terms of learning English in order to be operationalized for the EFL context of Iran, because the application of integrativeness in the Iranian EFL context, where people have little or no contact with the target language community, is not considered to be relevant (see Clément et al., 1994; Peng & Woodrow, 2010; Yashima, 2002).

L2 achievement was a strong predictor of communication confidence, which in turn affected L2WTC. It implies that those students who have a higher level of L2 achievement perceive themselves as more competent to communicate in English and feel less anxious to communicate inside the classroom. This finding is in line with MacIntyre et al.'s (1998) pyramid model in which L2 achievement is among the factors that indirectly affects L2WTC. However, Yashima (2002) did not find a significant effect of L2 achievement on communication confidence. Yashima explains that the reason for her finding may be that, because speaking was not included in the achievement score, the path from achievement to communication confidence was not significant. Speaking was, however, included in the present study.

Classroom environment was the strongest predictor of L2WTC. The only previous empirical study (Peng & Woodrow, 2010), which used SEM to examine the role of classroom environment in L2WTC, found a different result. In that study, although both communication confidence and classroom environment were direct predictors of the L2WTC, communication confidence was a stronger predictor of L2WTC. In the present study, consistent with Peng and Woodrow

(2010), communication confidence and the classroom environment were the two direct predictors of the L2WTC; however, the classroom environment was a stronger predictor of L2WTC in the Iranian context. The reason for this difference, as Peng and Woodrow state, may be that the lower effect of the classroom environment for the Chinese context is not generalizable to other contexts due to some cultural and educational features of this context. Therefore, it can be said that the effect of the classroom environment on L2WTC in the Iranian EFL context is crucial. This finding indicates that the way teachers help students, students' support of each other, and the tasks done in the language classrooms all have the strongest effect on L2WTC.

Among the three composite variables of the classroom environment, teacher support and student cohesiveness had the highest loadings. Teachers play an influential role in learners' behavior in the classroom. Not only does their teaching style and immediacy affect learners' engagement in the classroom, but teachers exert a major effect on the tasks, classroom atmosphere, students' motivation, topics, and pair/group work (Cao, 2013; Wen & Clément, 2003). The way students support and help each other in the classroom also influences their interaction (Wen & Clément, 2003). Previous research indicates that group size affects L2WTC (e.g., Cao, 2011; Kang, 2005). Three interactional patterns have been proposed: whole class, small group, and dyad (Cao & Philp, 2006). It is suggested that using small groups and dyads decreases anxiety and competition among students, leading to a friendlier and more comfortable classroom environment (Cao, 2011). Task orientation is another important factor affecting learners' L2WTC. Moderately challenging, meaningful, communicative, and attractive tasks were found to increase students' L2WTC (Cao, 2011; Peng & Woodrow, 2010). These reasons support our finding that classroom environment is the strongest predictor of L2WTC in comparison with other variables. It should be mentioned that classroom environment also influenced L2WTC indirectly through communication confidence, motivation, and attitudes (see Figure 2).

Classroom environment also had a direct effect on communication confidence. The results show that a supportive classroom environment increases students' self-perceptions of their communicative competence and decreases their anxiety in the classroom. This finding is in line with previous studies, which showed that the classroom environment affects communication confidence (Peng & Woodrow, 2010), anxiety (Wu, 2003), and perceived competence (Palacios, 1998). Therefore, the classroom environment has an impact on psychological factors of students and, as mentioned above, teachers and students' behaviors, and tasks in the classroom directly influence students' anxiety and perceptions of their communicative competence.

A data-driven path was found from the classroom environment to attitudes toward learning English. This indicates that an encouraging classroom environment allows students to have positive attitudes toward learning English. Therefore, tasks, teachers, and students are important factors in shaping Iranian EFL learners' attitudes. Providing a class in which the teacher is supportive, students help each other, and the tasks are interesting and challenging leads to forming positive attitudes for learning English inside the classroom. This finding is in line with prior research in educational psychology (e.g., Lee & Fraser, 2002; Telli, Cakiroglu, & Rakici, 2003) and language learning (e.g., Hussain, 2010) that found a positive relationship between attitudes and the classroom environment.

Finally, classroom environments directly affected autonomous motivation. This demonstrates that the classroom environment plays a role in the motivational processes of Iranian EFL learners. This finding is consistent with previous studies (Dörnyei, 2007; Dörnyei & Murphey, 2003; Peng & Woodrow, 2010) that have shown the effect of different classroom environment variables on motivation. According to Dörnyei (2007), long-term language learning takes place not just by providing "cognitively adequate instructional practices," but educational environments should also provide enough enjoyment and encouragement to create motivation in the learners (p. 719). Hence, providing a good classroom environment, including teacher support, cooperation among the students, and challenging tasks, give students more autonomy in learning English. In contrast to Peng and Woodrow's (2010) study, in which extrinsic and intrinsic orientations were combined as a single latent variable, the current study used RAI as an index of autonomous motivation so that a person who scores higher has a higher level of autonomy for language learning.

Based on the findings of the present study, a new model of L2WTC from an ecological perspective emerged. The model is shown in Figure 3, which is a graphical summary of the results of this study. Our model is proposed based on the simultaneous effects of contextual, psychological, and linguistic variables. It is an extension of MacIntyre et al.'s (1998) and Peng and Woodrow's (2010) models in that it includes all the contextual, psychological, and linguistic variables in one model. Our model differs from MacIntyre et al.'s model in that it includes the classroom environment (e.g., teacher, students, tasks). Classroom environments and communication confidence are two immediate precursors of L2WTC. At the next level, two other variables, foreign language achievement and motivation, affect L2WTC indirectly through communication confidence. At the bottom of the model, attitudes influence L2WTC through their effects on motivation and communication confidence. Here, attitudes are considered a distal variable.

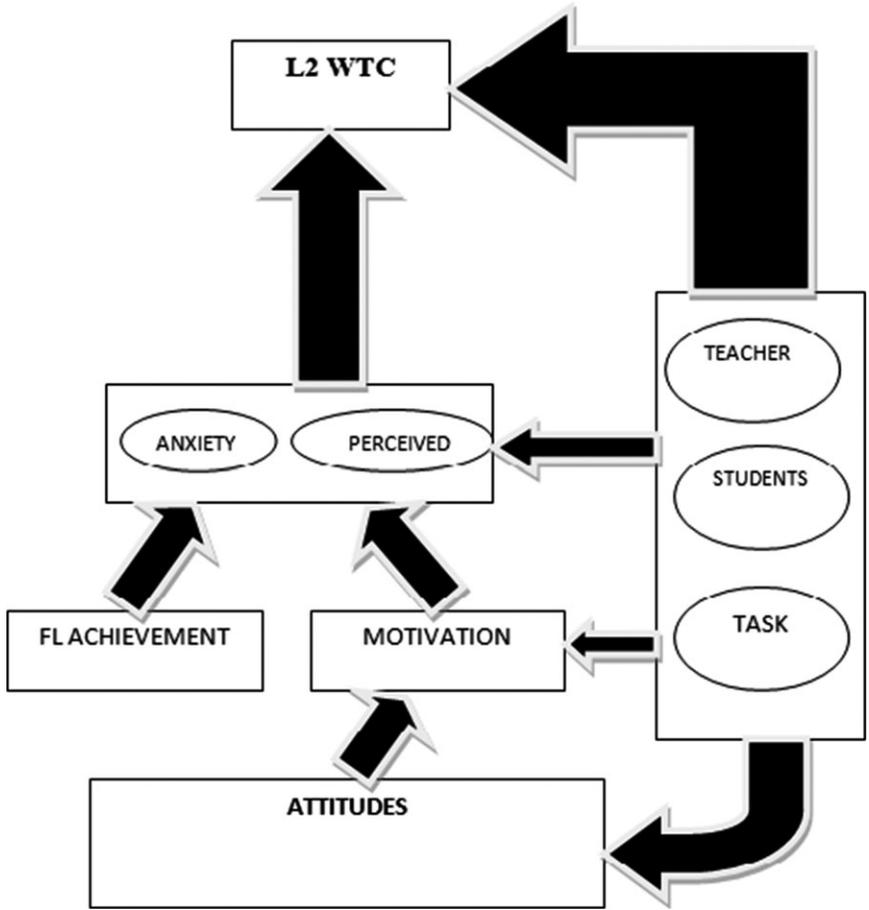


FIGURE 3. The emergent model of L2WTC in Iranian EFL context.

CONCLUSIONS

Pedagogical Implications

Our results indicated that the classroom environment is the strongest predictor of L2WTC in the Iranian EFL context. In the present study, the classroom environment was composed of teacher support, student cohesiveness, and task orientation. Teachers play a significant role in promoting WTC in the classroom, because they can provide a friendly and relaxed environment to facilitate proper contact with the students. Most of the classes in Iran are teacher-centered (Hashemian & Heidari Soureshjani, 2011), where teachers are the authority in the class and a distance is kept between teachers and students. Teachers

in Iran have the ability to remove this distance and make the classroom context more interesting by including jokes and humor (Peng, 2009). Incorporating communicative and challenging tasks can enhance students' participation in the classroom. Communicative tasks refer to activities that require learners to have a conversation (both listening and speaking) with other students. More learning occurs when L2 learners are engaged in relevant communicative tasks. Hence, teachers can include task-based teaching techniques to provide learners with meaningful communication and the authentic use of language (Moss & Ross-Feldman, 2003).

Moreover, enhancing cooperation, collaboration, and support among students can create a helpful and encouraging classroom environment for learning English. Research has indicated that cooperation reduces the anxiety among learners (Price, 1991) and makes the classroom environment more relaxed and enjoyable (Olsen & Kagan, 1992). According to Dörnyei (2007), the quality of the relationships between class members has an influential effect on learning and teaching. He argues that a competitive and hostile atmosphere makes the climate stressful and reduces learning effectiveness. Therefore, providing support and acceptance among EFL learners is a crucial factor for a pleasant classroom environment. Teachers can decrease language learners' anxiety by creating a supportive and relaxing learning environment, setting goals that are not too easy or too difficult, and using anxiety-reducing techniques (Dörnyei, 1994).

This study showed that motivated learners feel more competent and are less anxious about communicating in English in the classroom. This implies that developing intrinsic motivation in language learners can increase their self-confidence, which in turn increases their willingness to communicate in English. Dörnyei (1994) maintains that the tasks should be presented in a way to stimulate intrinsic motivation and to help the learners internalize extrinsic motivation by introducing the tasks as learning opportunities.

Limitations and Suggestions for Further Research

The present study was a quantitative analysis using SEM to explore L2WTC in the Iranian EFL context and depended solely on students' self-reports. The findings may be complemented with qualitative research methods, especially when the dynamic nature of L2WTC is taken into account (Cao, 2014; MacIntyre & Legatto, 2011). Future research should explore L2WTC using qualitative methods; for example, observation of students' behavior in the classroom when they are involved in actual communication (see Cao & Philp, 2006; Peng,

2012) or stimulated-recall interviews in which participants are asked to review their own recorded speaking episodes and asked to comment on their communication behaviors (Dempsey, 2010).

This study examined L2WTC within the microsystem of the Iranian EFL classroom context. However, other systems of the ecological perspective (including mesosystem, exosystem, and macrosystem) were not investigated. Future studies can explore these three systems in this context, especially using qualitative methods such as students' observation in the classroom and stimulated-recall interviews as mentioned above.

Despite these limitations, this study proposed a new model of L2WTC for the classroom context in which linguistic, psychological, and contextual variables were integrated and then provided empirical support for the model. Using a microsystem framework, this research demonstrated that within the EFL context the classroom environment plays the most significant role by making the students willing to communicate in English. Here, the role of the teacher is highlighted as the most influential factor that can promote a suitable classroom environment for L2 learning.

ACKNOWLEDGEMENTS

We would like to thank Dr. Peter MacIntyre and Dr. Jian-E Peng for reading the first draft of this article and providing us with insightful suggestions. We would also like to thank the editors and anonymous reviewers for their helpful comments.

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