



## **Structural Equation Model of Teachers' Mindsets, Self-Efficacy, and Emotional Experiences and Iranian EFL Learners' Willingness to Communicate and L2 Motivational Self System**

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### **ARTICLE INFO:**

Document Type: **Research Paper**

Received date:

**2021.09.29**

Accepted date:

**2021.11.5**

Print ISSN: **2251-7995**

Online ISSN: **2676-6876**

### **Abstract**

This study aimed at investigating the interrelationships between EFL teachers' mindsets, self-efficacy, and emotional experiences and Iranian EFL learners' willingness to communicate (WTC) and L2 motivational self system (L2MSS). The participants of this study were 100 Iranian teachers and 501 students of the same EFL teachers, both male and female randomly selected from high schools. To fulfill the purpose of the study, teachers were asked to complete four questionnaires to measure their implicit theories of intelligence, efficacy, and emotional experiences including their burnout symptoms. Learners were required to complete two questionnaires to measure their willingness to communicate and L2 motivational self system. The results of Structural Equation Modeling (SEM) revealed a significant structural relationship among all variables. Results also indicated that motivation was the strongest direct predictor of willingness to communicate. WTC was also indirectly correlated with teachers' implicit theories, efficacy, and emotional experiences through the mediating effect of L2MSS.

### **Keywords:**

EFL Teachers' Implicit Theories of Intelligence, Self-Efficacy, Emotional Experiences, EFL Learners' Willingness to Communicate, L2 Motivational Self System

DOI: **10.22034/ELT.2021.48218.2448**

Citation: Amirian, Z., Shayanfar, M., Rezazadeh, M. (2021). Structural Equation Model of Teachers' Mindsets Self-efficacy and Emotional Experiences and Iranian EFL Learners' Willingness to communicate and L2 Motivational Self System. *Journal of English Language Teaching and Learning*, 13(28), 1-17. Doi: 10.22034/ELT.2021.48218.2448

## 1. Introduction

Over recent years, the advantages of communicative language teaching approach (CLT) have been discussed in academic studies and discussions (Suksawas, 2011). Accordingly, CLT has become a dominant approach in teaching English as a foreign or second language in many countries. The premise of CLT is "the engagement of language learners in communication to enhance learners' communication competence" (Savignon, 2005, p. 653); therefore, it can be stated that CLT is strongly related to the oral interaction of the language learners in the target language (Suksawas, 2011).

EFL teachers employ a communicative approach to focus on meaningful communication during the process of language learning and teaching, and it is what Brown (2000) considered as the characteristics of communicative language use (Suksawas, 2011). Communication is addressed as the main reason for language learning by McIntyre and Charos (1996). Therefore, those language learners who want to learn a language, need to be an active participant in communicative events (Gass, 2003).

Even the explicit advantages of meaningful interactions in CLT approach may not still cause some learners not to be limited in their tendency to communicate with each other (Suksawas, 2011). In SLA studies, learners' tendency to communicate is an individual variable which can lead to L2 acquisition (MacIntyre, Clement, Dornyei, and Noels, 1998; Wen & Clement, 2003; Yu, 2009) and classroom participation.

Willingness to communicate is one of the basic tendencies toward communication introduced to the literature of L2 learning and acquisition as one of the individual differences (ID) variables (MacIntyre *et al.*, 1998). Due to the importance of WTC in the process of language learning and teaching, some scholars believe that generating and enhancing WTC should be the ultimate goal of language instructions (Kang, 2005; MacIntyre *et al.*, 1998). Kang (2005) claimed that learners with high levels of WTC will be more autonomous learners who will be able to develop their learning opportunities both inside and outside of the classroom.

In spite of an extensive body of research on willingness to communicate, it seems that there is still a gap in exploring those factors that predict WTC which needs to be dealt with. Motivation, among many antecedents of L2 WTC, is a remarkable variable (Peng, 2014) causing learners to "reach a decision point that Dornyei (2005) calls crossing the Rubicon where a language learner commits to taking action" in L2 communication (MacIntyre, 2007, p. 567). One of the most recent approaches, initiated by Dornyei (2005), has been the introduction of a new L2 motivation construct, the L2 motivational self system that "offers a synthesis of two recent conceptualizations of motivation by Noels (2003) and Ushioda (2001), as well as research on possible selves, identity, self-regulatory processes, and self-discrepancy theory" (Taguchi, Majid, & Papi, 2009, p. 66).

This model includes three main parts, namely ideal L2 self, ought-to L2 self, and L2 learning experience. The ideal L2 self is "the L2-specific facet of one's ideal self" (Dornyei, 2005, p.106). The ought-to self is similar to what is known as the extrinsic or instrumental motivation because it refers to those factors that one considers he or she has to possess and the L2 learning experience as the third concept of the Dornyei's model, refers to those factors that come from some special learning situations (Hummel, 2014).

In addition, in the EFL (English as a Foreign Language) classroom context, teachers undeniably have significant effects on learners' engagement and WTC and experts suggest teacher's attitude, involvement, and teaching style significantly affect learners' involvement and WTC (Wen & Clement, 2003; Peng, 2007; Cao, 2011; MacIntyre & Legatto, 2011 as cited in Zarrinabadi, 2014). Given the central role of teachers in pedagogy, one strand of analysis has targeted on those teacher variables that might be involved in generating and developing learners' WTC and motivation. Although those studies have been helpful in introducing different teacher variables, few studies have addressed teachers' implicit theories, self-efficacy, and emotional experiences that may influence learners' motivation and their willingness to use a second or foreign language.

In general, Teaching is a dynamic process involving interactions between teachers and their students as the primary medium to form relationships with students, and improve engagement and learning (Williams, 2012). Underlying these important interactions are teachers' implicit theories, or self theories (Dweck, 1999). These implicit beliefs may influence teachers' behavior, thoughts, and feelings (Dweck, Chiu, & Hong, 1995). Therefore, teachers' implicit theories may also have positive or negative effects on students' motivation, participation, and WTC in L2/FL inside the classroom. However, these theories are unconscious and teachers may repeat the administration of these beliefs despite their positive or negative effects on the quality of their teacher-student relationships (Chang & Davis, 2009 as cited in Williams, 2012).

According to Dweck and colleagues' implicit theory framework, when teachers believe that certain students are not capable enough to have an acceptable language performance, they are regarded as the entity theorists and may not take steps to help their students develop their potential (Dweck, 2010). On the other hand, teachers with an incremental theory believe that their students can have a better performance, so they encourage them to try harder, and give them their specific feedbacks (Dweck, 2010). Dweck (2010) claimed:

For the educator with a fixed mindset, learning is the students' responsibility. If students don't have what it takes, so be it. But for an educator in a growth mindset, learning is a collaboration in which the teacher has great responsibility. In other words, growth mindsets focus on effort and try to support and motivate students to overcome challenging work and setbacks. (p.120)

Self-efficacy as the other teacher variable, refers to the teachers' beliefs that they hold about their teaching capabilities inside the classrooms. Findings also highlight the important role of teachers' sense of self-efficacy as the other teacher variable for interactive and communicative English language teaching contexts (Chio & Lee, 2017). Beliefs that teachers hold about their teaching abilities have been associated with student behaviors including their motivation (Caprara, Barbaranelli, Steca, & Malone, 2006; Robertson & Dunsmuir, 2013). Students of self-efficacious teachers are found to be more engaged and motivated in their academic work inside the classroom (Mojavezi & Tamiz, 2012). Thus, given the importance of teachers' sense of self-efficacy, there is a need for investigating variables underlying teaching efficacy.

Teaching efficacy is usually divided into three components: efficacy for classroom management, student engagement, and instructional strategies (Tschannen-Moran & Wolfolk Hoy, 2001). Therefore, in the present study, teachers' efficacy for classroom management,

student engagement, and instructional practice will be of focus in order to investigate how teachers' implicit theories might be related to learners' willingness to communicate and their L2 motivational self system. The above-mentioned concepts of teachers' efficacy have been chosen because of their expected relation to the other variables of this study including teachers' implicit theories and learners' motivation and WTC.

Dweck and Leggett (1988 as cited in Williams, 2012) addressed the important role of emotion as the other teacher variable, in indicating how teaching efficacy functions differently in entity versus incremental theorists. "It might be also a variable aspect of the teaching motivation process "(Williams, 2012, p. 84).

According to the recent studies, self-efficacious teachers might experience more positive emotions such as feeling relaxed, enjoyment and optimistic; on the other hand, teachers with low levels of efficacy might feel more negative emotions like anxiety, sadness, anger or guilty, and over a sustained period of time, such teachers are more likely to experience symptoms of burnout and depression (Hammen & Demayo, 1982; Winegrad, 2003; Zembylas, 2007). These negative emotions are not only unhealthy for teachers, but also they can harm the teacher-student relationship, which can have effects on student motivation and learning process as well (Williams, 2012).

Overall, the present study is a shot to extend Dweck's model by investigating the relationship between teachers' implicit theories of intelligence, self-efficacy, and emotional experiences and Iranian EFL learners' tendency to communicate and L2 motivational self system. To this end, teachers' implicit theories will be combined with their effectuality and emotional experiences.

To analyze the connection between WTC and the afore-mentioned variables, this study addressed two general questions:

- 1- To what extent are Iranian EFL learners' willingness to communicate and L2 motivational self system related to teachers' implicit theories of intelligence, self-efficacy, and emotional experiences?
- 2- How can these relationships be modeled?

## **2. Method**

The process of data collection was done in a number of high schools in Isfahan, Iran. Participants were one hundred high school teachers who teach English as a foreign language. Convenience sampling was used in order to select the participants of this study. Available teachers were asked to participate in this study after obtaining the principals' permission. In this study, the researcher added a short section to the beginning of one of the teacher questionnaires to gather information about teachers' background variables. The questions asked about teachers' age, gender, years of teaching experience, teaching level, major, and their educational level.

Another group of participants in this study were students of the same EFL teachers, ranging in age from 15 to 18 (both male and female). They were 501 high school students leaning English as a foreign language in different grades (7<sup>th</sup> to 12<sup>th</sup> of high school). The participants completed the following questionnaires.

## 2.1. Instruments

### 2.1.1. Teachers' Theories of Student Intelligence Scale (TTSI)

Teachers' Theories of Student Intelligence Scale (Dweck & Handerson, 1989) was used to measure teachers' implicit theories about students' intelligence. It is a six-item scale. Responses are from 1 (strongly agree) to 6 (strongly disagree). To validate this scale for this study, the researcher made use of Cronbach's alpha. The alpha reliability estimate for this scale in the present study was calculated. It was  $\alpha = 0.83$ . Items reflecting an incremental theory are not included in this measure because in a number of previous studies, (Boyum, 1988; Leggett, 1985; Henderson, 1990) "respondents were given the implicit theory of intelligence measure and asked to explain their answer. Those who disagreed with the entity statements gave clear incremental theory justifications for their responses" (Dweck et al., 1995, p.270).

### 2.1.2. Teachers' Sense of Efficacy Scale (TSES)

The Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy (2001) was used. The long form of this scale involves 24 items that measures teachers' efficacy using 3 subscales of efficacy for instructional strategies (8 items), classroom management (8 items), and student engagement (8 items). Using this scale, the readers answer from 1 (nothing) to 9 (a great deal) to rank teachers' self-efficacy. It is considered as a reliable and valid instrument (overall long form  $\alpha = .94$ , Management = .90, Engagement = .87, Instruction = .91). The alpha reliability estimates for this scale in the current study was calculated. The estimates are as follows: Instructional strategies (8 items,  $\alpha = .85$ ), Classroom management (8 items,  $\alpha = .89$ ), Student engagement (8 items,  $\alpha = .85$ ).

### 2.1.3. Assessment of Teacher Enjoyment, Anxiety, and Anger Related to Teaching Scale

Assessment of Teacher Enjoyment, Anxiety, and Anger Related to Teaching Scale (ATEAA: Frenzel, Goetz, Stephens, and Jacob, 2009 adapted from the Achievement Emotions Questionnaire; Pekrun, Goetz, & Frenzel, 2005; Pekrun, Goetz, & Perry, 2005) was used to measure teachers' emotional experiences. Each subscale of the ATEAA scale involves 4 items (original scale reliability: Enjoyment = .92, Anger = .89, Anxiety = .86). Scores are Likert-type and range from 1 (strongly disagree) to 4 (strongly agree). The ATEAA was used because these three positive and negative academic feelings represent major emotional aspects of teachers' experiences (Sutton & Wheatley, 2003). The alpha reliability estimates for this scale in the present study are as follows: Enjoyment (4 items,  $\alpha = .86$ ), Anger (4 items,  $\alpha = .82$ ), Anxiety (4 items,  $\alpha = .73$ ).

### 2.1.4. Maslach Burnout Inventory- Educator Survey (MBI-ES)

The Maslach Burnout Inventory- Educator Survey (MBI-ES) was used to measure teachers' emotional experiences. The MBI includes three questionnaires- the human services survey, the general survey and the one this study is based on, the educator survey. The ES is used in education. MBI- ES was developed by Maslach, Jackson, Schwab (1996). The 3 subscales of this scale are Emotional Exhaustion (EE, 9 items), Depersonalization (DP, 5 items), and Personal Accomplishment (PA, 8 items). Responses on each item of the MBI range from 0 (never) to 6 (every day). The estimates for the present study are as follows: EE (9 items,  $\alpha = .90$ ), DP (5 items,  $\alpha = .76$ ), PA (8 items,  $\alpha = .87$ ).

### 2.1.5. Willingness to Communicate (WTC) Questionnaire

The Willingness to Communicate (WTC) Questionnaire (Gol, Zand-Moghadam, and Karrabi, 2014) was used to examine the participants' WTC inside the classroom. It is a 25-item scale. The participants showed their tendency to communicate in each type of situations by scoring from 0 (never) to 4 (almost always). The advantage of this new questionnaire in comparison with the other questionnaires such as that of McCroskey (1992) is that it is only developed for EFL contexts. Based on this questionnaire, 7 factors are involved in developing the construct of WTC in EFL contexts (student's self-perceived communicative competence = 6 items, external pressure = 5 items, classroom climate = 4 items, teacher immediacy = 3 items, student's perceived self-efficacy = 3 items, group size = 2 items, and topic of discussion = 2 items). The alpha reliability estimate for this scale in the present study was .81.

### 2.1.6. L2 Motivational Self System Questionnaire

Ideal L2 self was measured by 6 items used by Papi (2010) ( $\alpha=.77$ ). These items indicate the participants' desired L2 images. Ought-to L2 self was operationalized by another 6 items adapted from Papi (2010) ( $\alpha=.71$ ). These items examine the participants' sense of obligations. Another 6 items from Papi (2010) was used to measure English learning experience ( $\alpha=.85$ ). Scores for statement-type items are from 1 (strongly disagree) to 6 (strongly agree) and scales for question-type items are from 1 (not at all) to 6 (very much). The questionnaire was developed by Papi (2010) following Dornyei's (2003) guidelines. The estimates for this scale in this study are as follows: Ideal L2 self (6 items,  $\alpha=.86$ ), Ought-to L2 self (6 items,  $\alpha=.87$ ), English learning experience (6 items,  $\alpha=.93$ ).

## 3. Data Analyses & Results

Participants' responses to the questionnaires were analyzed using a number of statistical processes. First, the collected data were submitted to SPSS (version 24.0) in order to show participants' demographic information and to apply the required descriptive statistics (mean, SD, frequency, and percentages). The collected data were also submitted to SPSS 24.0 to make them ready as usable input data for conducting Structural Equation Modeling (SEM) analysis using Analysis of Moment Structures (Amos) software (version 24.0) to represent the possible direct or indirect causal relationships among the latent variables of this study (willingness to communicate, L2 motivational self system, teachers' implicit theories of intelligence, self-efficacy, and emotional experiences including burnout symptoms).

### 3.1. Structural Equation Modeling

In this section, the statistical processes used to explore the relationships between variables, have been demonstrated. The structural model revealing the relationship among different latent variables has been addressed as well.

In order to answer the research questions and to show the possible model of the latent variables, structural equation modeling was employed. To do that, first, the relationships between the variables of the study were examined. As represented in Table 12, there was a significant relationship between WTC and L2MSS (at 99% confidence level).

**Table 1.** Results of Spearman test for finding the relationship between WTC and L2MSS

			WTC	L2MSS
Spearman's rho	WTC	Correlation Coefficient	1.000	.691**
		Sig. (2-tailed)	.	.000
		N	501	501
	L2MSS	Correlation Coefficient	.691**	1.000
		Sig. (2-tailed)	.000	.
		N	501	501

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Based on the results represented in Table 13, there was also a significant relationship between teachers' implicit theories of intelligence, self-efficacy, and emotional experiences (at 99% confidence level).

**Table 2.** Results of Spearman test for finding the relationship between TTSI, self-efficacy, and emotional experiences

			TTSI	Emotional experiences	Self-Efficacy
Spearman's rho	TTSI	Correlation Coefficient	1.000	.248*	-.493**
		Sig. (2-tailed)	.	.013	.000
		N	100	100	100
	Emotional experiences	Correlation Coefficient	.248*	1.000	-.242*
		Sig. (2-tailed)	.013	.	.015
		N	100	100	100
	Self-Efficacy	Correlation Coefficient	-.493**	-.242*	1.000
		Sig. (2-tailed)	.000	.015	.
		N	100	100	100

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### 3.1.1. Examining the Observed Variables

Table 3 is a summary of critical ratio (CR), standard error (SE), the average variance extracted (AVE), and significance level of sub-scales of "teachers' self-efficacy", "emotional experiences", "learners' L2MSS", and "WTC" and the results of reliability of each factor using Cronbach alpha. All items had factor loading above 0.5. Based on the results of this study and the amount of Cronbach's alphas shown in Table 3, a good internal consistency of the instrument items was reported.

### 3.1.2. Measuring Models: Confirmatory Factor Analysis and Validation of Scales

In order to validate the four sub-scales, "ATTSI", "self-efficacy", "emotional experiences", and "L2MSS" as the factors influencing willingness of language learners in English classes, first, four confirmatory one-factor analysis (CFA) models were developed and analyzed by Amos Graphics.

Fitting indices for each measurement model was indicated. These fitting indices represented in Table 4 are some criteria for confirmation of measurement models identified. These indices are shown in three groups involving Absolute Fit Indices (Chi-square  $X^2$ , RMR: Root Mean Squared Residual and GFI: Goodness-of-Fit Index), Comparative Fit Indices (NFI: Normed Fit Index and CFI: Comparative Fit Index) and Parsimonious Fit Index (RMSEA: Root Mean Squared Error of Approximation and PRATIO: Parsimony Ratio). As represented in Table 4,

the fitness of the model is acceptable and there are reasonable relations between the variables of the research.

According to Hair, Anderson, Babin, and Black (2010), if three or four indicators among the total number of the above indicators are shown to be appropriate, the model would be also appropriate regarding its fitness. As shown in Table 4 and according to the data, all of the seven indices confirm the fitness and validity of the four measurement models of the study. Therefore, it is possible now to design and examine the main model of the research.

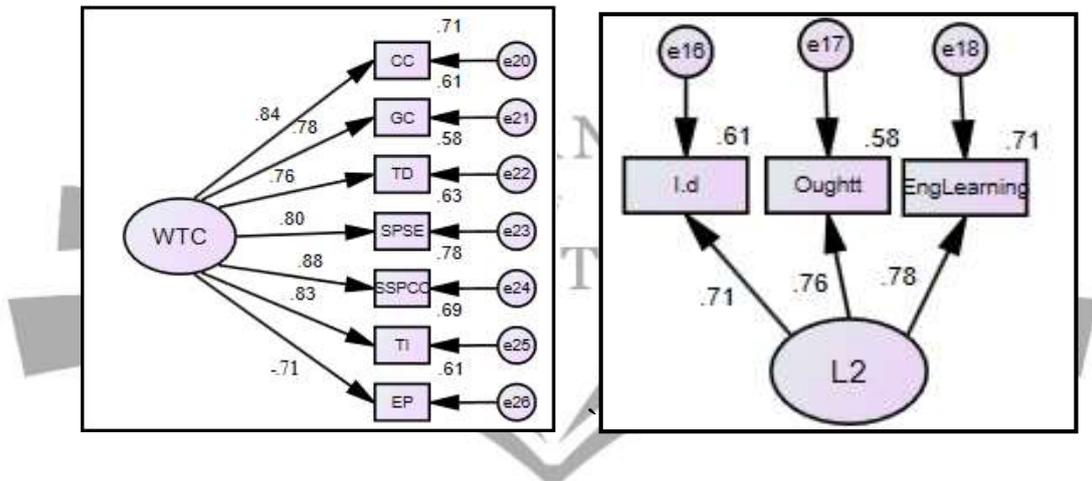
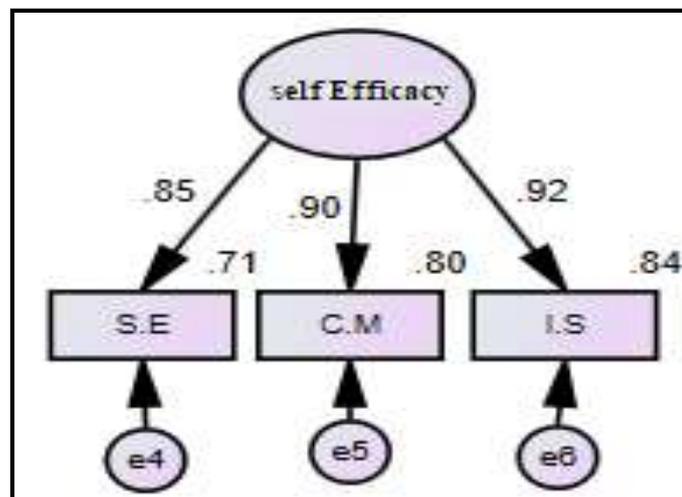
**Table 3.** Description of the items and observed variables of the sub-scales effective in WTC

Sub-scales	Item	Regression weights			Cronbach's Alpha	AVE	W	L2M	Emotional Experiences	Self-Efficacy	TTS
		Estimates	S.E.	C.R.							
WTC	CC	1									
	GC	0.948	9.23***	0.103							
	TD	0.921	8.89***	0.104							
	SPSE	0.96	9.51***	0.101	0.721	0.547	1	0.69*	0.241**	0.209	0.19
	SSPCC	1.19	11.2***	0.107				*		*	7*
	TI	1.08	10.21**	0.106							
	EP	-0.845	-2.8**	0.123							
L2M	Ideal L2	1			0.794	0.651	*	1	-0.215*	0.23*	0.24
	Self						*				*
	Ought-to	-0.92	8.67***	0.106			0				
	L2 Self English Learning Experiences	0.947	9.37***	0.101			.96				
Emotional Experiences	P.A	1			0.81	0.629	*	-	1	0.2*	-
	Anxiety	-0.277	-	0.063			*	0.215			0.27
			4.43***				0	*			**
	Enjoyment	0.401	7.27***	0.055			.2				
	E.E	-0.889	-	0.133			4				
			6.69***			1					
	D.P	-0.776	-	0.116							
			6.67***								
	Anger	-0.29	-6.3***	0.064							
Self-Efficacy	I.S	1			0.74	0.615	*	0.23*	0.2*	1	0.47
	C.M	1.2	12.73**	0.098			0				**
			*				.				
	S.E	0.853	11.61**	0.073			2				
			*				0				
							9				

\*: confidence level of 95%, \*\*: confidence level of 99%, \*\*\*: error level: 0.001

**Table 4.** Results of conformity of measuring models with fitness indicators

Index	X <sup>2</sup> /df	IFI	RMR	CFI	GFI	RMSEA	PRATIO
Suggested criterion	≤3	0.9≤	≤0.08	0.9≤	0.9≤	≤0.08	0-1
WTC	0.793	0.98	0.069	0.99	0.984	0.04	0.667
L2MSS	1.41	0.997	0.074	0.99	0.915	0.035	0.4
Emotional Experiences	2.603	0.905	0.072	0.991	0.91	0.059	0.6
Self-Efficacy	0.63	0.983	0.074	0.983	0.95	0.051	0.591
TTSI	1.63	0.974	0.069	0.974	0.93	0.04	0.722

**Figure 1.** Standard estimation of confirmatory model for validating learners' L2MSS and WTC measurement scales

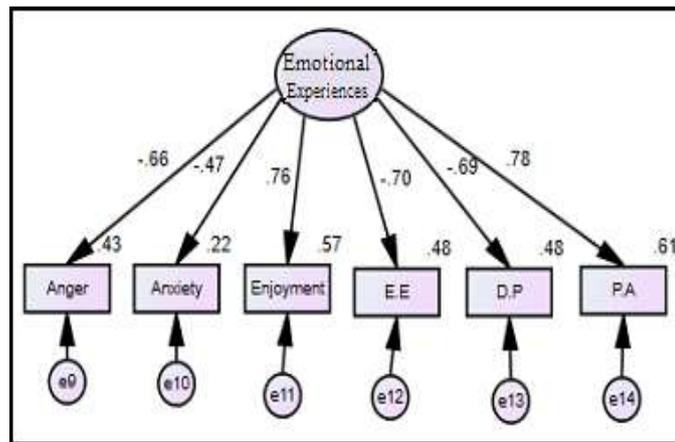


Figure 2. Standard estimation of confirmatory model for validating teachers' self-efficacy and emotional experiences measurement scales

### 3.1.3. Structural Equation Modeling for Analyzing the Latent Variables

A structural equation model that includes a combination of route models (structural relations) and confirmatory factor models (measurement relations) was applied after applying first-order confirmation factor analysis and considering the causal effects in the conceptual model of the research, and in order to study the significance of the effect of each of the main latent variables and the ranking of these variables based on their effect on the development of the final structural model and the results have been indicated in Figure 3 and Tables 5 , 6, and 7.

Figure 3 represents the standard coefficients of the path between hidden variables with each other and the observed variables with hidden variables which is the main part of all the performed analyses.

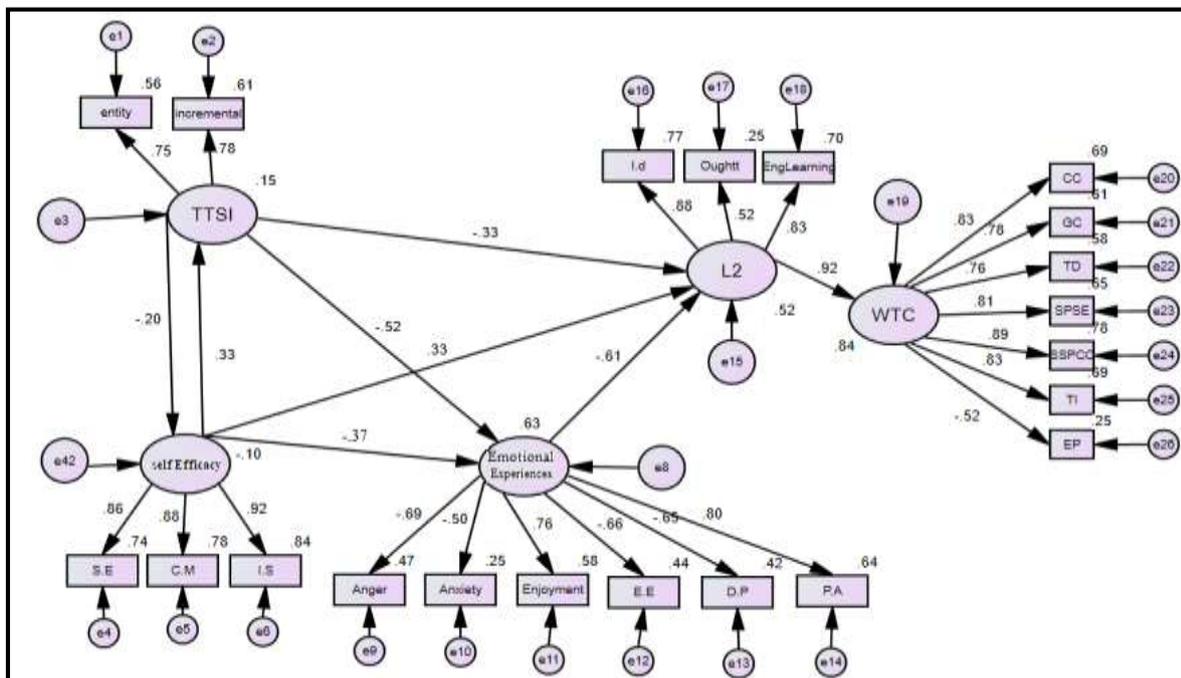


Figure 3. Standard estimates of route coefficients in the final structural model

**Table 5.** Results of the conformance of structural model with fitness indicators

Index	X <sup>2</sup> /df	IFI	NNFI	RMR	CFI	GFI	PRATIO	RMSEA
Recommended criteria	≤3	0.9≤	0.9≤	≤0.08	0.9≤	0.9≤	0-1	≤0.08
Reported value	1.36	0.946	0.904	0.076	0.945	0.936	0.867	0.06

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Alternative fit indices were evaluated and all showed a very good fit for the model, so it can be claimed that the final model in Figure 3 reflects an adequate representation of the research data. Table 5 presents fit indices of this model and criterion values for assessment. The fit indices for the final model are as follows: GFI=0.936, NNFI=0.904, RMSEA=0.06 which address a good fit for the base model. Therefore, it can be stated that all the independent variables would significantly predict the dependent variables in the final structural model.

The direct and indirect effects of each of the four variables on WTC were examined. The direct effect of L2MSS on WTC was 0.92. The indirect effects of TTSSI, self-efficacy, and emotional experiences on WTC were - 0.04, 0.024, and -0.555 respectively. Moreover, Standard Error Estimates, Critical Ratios, and Significance Levels also indicate that the standard estimates of all the variables are 99% significant. Table 6 represents the direct and indirect effects of all the observed variables and the subscales of the main latent variables.

**Table 6.** General effects (direct and indirect) of the observed variables and subscales on the assessment of the willingness to communicate

	TTSSI	Self-Efficacy	Emotional Experiences	L2MSS	WTC
TTSSI	-0.675	0.573	-	-	-
Self-Efficacy	-0.383	-0.675	-	-	-
Emotional Experiences	-0.314	-0.56	-	-	-
L2MSS	-0.044	0.026	-0.606	-	-
WTC	-0.04	0.024	-0.555	0.916	-
Incremental Entity	0.253	0.446	-	-	-
Anger	0.216	-0.123	-0.687	-	-
Anxiety	0.158	-0.09	-0.504	-	-
Enjoyment	-0.238	0.135	0.759	-	-
E.E	0.208	-0.118	-0.664	-	-
D.P	0.202	-0.115	-0.645	-	-
P.A	-0.25	0.142	0.797	-	-
S.E	-0.329	0.28	-	-	-
C.M	-0.339	0.288	-	-	-
I.S	-0.35	0.298	-	-	-
English Learning Experience	-0.037	0.022	-0.506	0.835	-
Ought-to L2 self	0.009	-0.005	0.12	-0.198	-
Ideal L2 self	-0.0339	0.023	-0.533	0.878	-
EP	0.011	-0.007	0.158	-0.26	-0.284
TI	-0.033	0.02	-0.462	0.762	0.832
SSPCC	-0.036	0.021	-0.492	0.811	0.886
SPSE	-0.032	0.02	-0.447	0.738	0.806
TD	-0.031	0.018	-0.423	0.697	0.761
GC	-0.032	0.019	-0.435	0.717	0.783
CC	-0.033	0.02	-0.461	0.761	0.831

As shown in Table 7, significance level for all final direct effects is below 0.01; therefore, with 99% confidence, it can be concluded that all direct effects gained in this research are meaningful.

**Table 7.** Summary of the results of structural model

	Estimates of standardized	Estimate	S.E.	C R	P
Emotional Experiences<--- Self Efficacy	-.375	-.295	.091	-3.235	.001
Emotional Experiences<--- TTSI	-.524	-.725	.194	-3.731	.000
L2MSS<--- Emotional Experiences	-.606	-.617	.244	-2.529	.011
L2MSS<--- TTSI	-.33	-.466	.105	-4.438	.000
L2MSS<--- Self Efficacy	.331	.265	.128	2.078	.038
WTC<---L2MSS	.916	.677	.075	8.988	.000
CC<--- WTC	.831	.951	.112	8.491	.029
GC<--- WTC	.783	.966	.105	9.192	.000
TD<--- WTC	.761	.934	.106	8.817	.000
SPSE<--- WTC	.806	.985	.103	9.587	.000
SSPCC<--- WTC	.886	1.22	.109	11.142	.000
TI<--- WTC	-.284	1.1	.109	10.075	.000
EP<--- WTC	-.52	-.348	.124	-2.798	.005
Ideal L2 self<--- L2MSS	.878	.893	.174	5.132	.002
Ought-to L2 self<---L2MSS	-.54	-.601	.106	-5.669	.000
Eng Learning experience<--- L2MSS	.835	.941	.091	10.311	.000
I.S<--- Self Efficacy	.915	1.137	.309	3.679	.009
C.M<--- Self Efficacy	.884	1.23	.097	12.799	.000
S.E<--- Self Efficacy	.86	.869	.072	12.148	.000
P.A<--- Emotional Experiences	.797	.819	.139	5.892	.000
D.P<--- Emotional Experiences	-.645	-.705	.109	-6.472	.000
E.E<--- Emotional Experiences	-.664	-.829	.124	-6.692	.000
Enjoyment<--- Emotional Experiences	.759	.394	.05	7.811	.000
Anxiety<--- Emotional Experiences	-.504	-.29	.059	-4.914	.000
Anger<--- Emotional Experiences	-.687	-.297	.043	-6.965	.000
Entity<--- TTSI	.751	.897	.121	7.143	.000
incremental<--- TTSI	.778	1.1	.188	5.86	.000
Self Efficacy<--- TTSI	.33	-.407	.201	-2.02	.000
TTSI<--- Self Efficacy	-.2	-.341	.108	-3.157	.000

\*\* . P<.01

\*. P<.05

In sum, based on the obtained results in this part, there was a significant structural relationship model of teacher variables and EFL learners' willingness to communicate and L2 motivational self system.

#### 4. Discussion

The present study addressed the structural relationship among teachers' implicit theories of intelligence, self-efficacy, emotional experiences and learners' WTC and L2MSS and then a model for this relationship was developed.

As shown in Figure 4, L2MSS was the strongest direct predictor of WTC inside the classroom. The significant and direct path from L2MSS to WTC shows that the results obtained in previous studies are acceptable. The findings are compatible with the results of the study conducted by Peng (2014), in which the researcher asked 1013 Chinese university students to

answer some questionnaires. Two of them were related to the examination of the three components of L2MSS and L2 WTC. It was revealed that English learning experience as one component of L2MSS predicted WTC inside the classroom.

In addition, the findings of this study confirm those reported by Ganizadeh, Eishabadi, and Rostami (2016) who stated that among a variety of motivational factors which affect language learners' willingness to communicate, ideal L2 self was the strongest predictor.

The direct path from teachers' implicit theories of intelligence to students' L2MSS is also in line with previous research done by Rattan, Good, and Dweck (2012) who evaluated the instructors' implicit theories. It was shown that the instructor's entity theory led math students to report lower levels of motivation and lower expectations for their own performance.

Results of the SEM also revealed a direct path from self-efficacy to L2MSS (Figure 3). It shows that teachers with high levels of self-efficacy who believe in themselves can help students deal with challenging activities better. In this way, they can turn their students into more motivated students who will have a better English learning experience.

In addition, the study conducted by Shen, McCaughtry, Martin, and Fahlman (2015) revealed the effect of teachers' emotions in general and teachers' burnout in particular on their students' sense of motivation. 1302 high school students and 33 teachers were the participants in this study. The results of multilevel analyses showed a significant negative relationship between teachers' burnout and students' motivation.

Based on the findings of the present study, there was a significant structural relationship among teacher variables, namely teachers' implicit beliefs, teaching efficacy, and emotional experiences including both positive and negative emotions and symptoms of burnout. This result confirms the study done by Williams (2012).

## 5. Conclusion & Implications

In sum, this study was an attempt to reveal the interrelationships among teachers' implicit theories of intelligence, self-efficacy, emotional experiences, and learners' WTC & L2MSS in an EFL context.

Data analysis using Structural Equation Modeling also revealed a structural relationship model of teachers' variables and EFL learners' WTC and L2 MSS. This model showed direct or indirect causal relationships between teachers' variables and students' WTC and L2MSS.

The current study provides a structural model that shows the mechanisms of the implicit theories of teachers and their relationships with other teacher variables. It also shows the possible direct and indirect relationships among teachers' mindsets about whether students are capable enough to develop their academic status, their self-efficacy and emotional experiences and learners' WTC and L2MSS. Therefore, this model is helpful for teacher education system and students.

The results of the study help the EFL teachers know the significant role of WTC and motivation in language learning and teaching. They also need to be aware of the concepts that affect learners' engagement, motivation and learning outcomes.

The present study is also an attempt to make teachers, material developers and curriculum designers cognizant of the significant effect of incorporation of WTC and L2MSS into their teaching syllabi and activities.



## References

- Boyum, L. A. (1988). *Students' Conceptions of Their Intelligence: Impact on Academic Course Choice*. Unpublished master's thesis. Urbana: University of Illinois.
- Brown, D. (2000). *Teaching by Principles: An Interactive Approach to Language Pedagogy*. London, UK: Pearson.
- Cao, Y. (2011). Investigating situational willingness to communicate within second language classroom from an ecological perspective. *System*, 468-479.
- Capara, G. V., Barbaranelli, C., Steca, P., & Malone, P.S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44(6), 473-490.
- Chang, M., & Davis, H. A. (2009). Understanding the role of teacher appraisals in shaping the dynamics of their relationships with students: Deconstructing teachers' judgements of disruptive behavior/ students. In P. A. Schutz & M. Zembylas (Eds.), *Advances in teacher emotion research*. New York: Springer.
- Choi, E., & Lee, J. (2017). EFL teachers' self-efficacy and teaching practices. *ELT Journal*, 72(2), 175-186.
- Dornyei, Z. (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA: Taylor and Francis/ Psychology Press.
- Dweck, C. S. (2010). Mind-Sets and Equitable Education. *Principal Leadership*. 10(5),26-29.
- Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*, 6(4), 267-285.
- Dweck, C. S., & Henderson, V. L. (1989). *Theories of intelligence: Background and measures* (Report No. PS 018317). Champaign, IL: University of Illinois, Champaign-Urbana. (ERIC Document Reproduction Service No. ED 312 057)
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256-273.
- Frenzel, A. C., Goetz, T., Stephens, E. J., & Jacob, B. (2009). Antecedents and effects of teachers' emotional experiences: An integrated perspective and empirical test. In P. A. Schutz & M. Zembylas (Eds.), *Advances in Teacher Emotion Research: The Impact on Teachers' Lives* (pp. 129-152). New York: Springer.
- Gass, S. (2003). Input and interaction. In C. Doughty & M. Long (Eds.), *The Handbook of Second Language Acquisition* (pp. 2224-255). Oxford: Blackwell.
- Ghanizadeh, A., Eishabadi, N., & Rostami, S. (2016). Motivational dimension of willingness to communicate in L2: The impacts of criterion measure, ideal L2 self, family influence, and attitudes to L2 culture. *International Journal of Research Studies in Education*, 5(3), 13-23.
- Gol, M., Zand-Moghadam, A., & Karrabi, M. (2014). The construct of willingness to communicate and its relationship with EFL learners' perceived verbal and nonverbal teacher immediacy. *Issues in Language Teaching*, 3(1), 135-160.
- Gold, Y. (1984). The factorial validity of the Maslach Burnout Inventory in a sample of California elementary and junior high school classroom teachers. *Educational and Psychological Measurement*, 44(4), 1009-1016.
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate Data Analysis: A Global Perspective* (Vol. 7). Upper Saddle River, NJ: Pearson.
- Hammen, C. L., & deMayo, R. (1982). Cognitive correlates of teacher stress and depressive symptoms: Implications for attributional models of depression. *Journal of Abnormal Psychology*, 91(2), 96-101.

- Henderson, V. L., & Dweck, C. S. (1990). Motivation and achievement. In S. S. Feldman & G. R. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 308-329). Cambridge, MA: Harvard University Press.
- Hummel, K. M. (2014). *Introducing Second Language Acquisition: Perspectives and Practices*. Chichester, UK: Wiley-Blackwell.
- Iwanicki, E. F., & Schwab, R. L. (1981). A cross validation study of the Maslach Burnout Inventory. *Educational and Psychological Measurement*, 41(4), 1167-1174.
- Kang, S. J. (2005). Dynamic emergence of situational willingness to communicate in a second language. *System*, 33, 277-292.
- Leggett, E. L. (1985). Children's entity and incremental theories of intelligence: Relationships to achievement behavior. Paper presented at the annual meeting of the *Eastern Psychology Association*, Boston.
- MacIntyre, P. D. (2007). Willingness to communicate in the second language: Understanding the decision to speak as a volitional process. *The Modern Language Journal*, 91(4), 564-576.
- MacIntyre, P.D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology*, 15, 3-26.
- MacIntyre, P.D, Clement, R., Dornyei, Z., & Noels, K.A. (1998). Conceptualizing willingness to communicate in a L2: a situational model of L2 confidence and affiliation. *The Modern Language Journal*, 82, 545-562.
- MacIntyre, P.D., & Legatto, J.J. (2011). A dynamic system approach to willingness to communicate: developing an idiodynamic method to capture rapidly changing affect. *Applied Linguistics*, 32(2), 149-171.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory Manual* (3<sup>rd</sup> ed.). Mountain View, CA: CPP, Inc.
- Maslach, C., Jackson, S. E., & Schwab, R. L. (1996). Maslach Burnout Inventory-Educator Survey (MBI-ES). In C. Maslach, S. E. Jackson, & M. p. Leiter (Eds.), *MBI Manual*. (3<sup>rd</sup> ed.). Palo Alto, CA: Consulting Psychologists Press.
- McCroskey, J. C. (1992). Reliability and validity of the willingness to communicate scale. *Communication Quarterly*, 40(1), 16-25.
- McDonough, K., & Chaikitmong Kol, W. (2007). Teachers' and learners' reactions to a task-based EFL course in Thailand. *TESOL Quarterly*, 41, 107-132.
- Noels, K.A. (2003) Learning Spanish as a second language: Learners' orientations and perceptions of their teachers' communication style. In Z. Dornyei (ed.) *Attitudes, Orientations, and Motivations in Language Learning* (pp. 97\_136). Oxford: Blackwell.
- Papi, M., 2010. The L2 motivational self system, L2 anxiety, and motivated behavior: a structural equation modeling approach. *System*, 38(3), 467-479.
- Pekrun, R., Goetz, T., & Frenzel, A.C. (2005). *Achievement Emotions Questionnaire-Mathematics (AEQ-M)-user's manual*. Department of Psychology, University of Munich, Germany.
- Peng, J.E., (2007). Willingness to communicate in the Chinese EFL classroom: a cultural perspective. In J. Liu, (Ed.), *English Language Teaching in China: New Approaches, Perspectives and Standards*. (pp. 250-269). Continuum, London.
- Peng, J. (2014). L2 motivational self-system, attitudes, and affect as predictors of L2 WTC: An imagined community perspective, *The Asia-Pacific Education Researcher*, 24(2), 433-443.
- Rattan, A., Good, C., & Dweck, C. S. (2012). "It's ok- Not everyone can be good at math.": Instructors with an entity theory comfort (and demotivate) students. *Journal of Experimental Social Psychology*, 48(3), 731-737.
- Robertson, C., & Dunsmuir, S. (2013). Teacher stress and pupil behavior explored through a rational-emotive behavior therapy framework. *Educational Psychology*, 33(2), 215-232.

- Savignon, S.J. (2005). Communicative language teaching: strategies and goals. In E. Hinkel (ed.), *Handbook of Research in Second Language Teaching and Learning* (pp.635-51). Mahwah, NJ: Lawrence Erlbaum.
- Shen, B., McCaughtry, N., Martin, J., & Fahlman, M. M. (2015). The relationship between teacher burnout and student motivation. *British Journal of Educational Psychology*, 85(4), 1-14.
- Suksawas, W. (2011). *A sociocultural study of EFL learners' willingness to communicate* (Doctoral dissertation). Retrieved from <https://ro.uow.edu.au/theses/3427>.
- Sutton, R., & Wheatley, K. F. (2003). Teachers' emotions and teaching: A review of the literature and directions for future research. *Educational Psychology Review*, 15(4), 327-358.
- Taguchi, T., Magid, M., & Papi, M. (2009). The L2 motivational self system among Japanese, Chinese and Iranian learners of English: A comparative study. In Z. Dornyei, & E. Ushioda (Eds.), *Motivation, Language Identity and the L2 Self*. (pp.66-97). Bristol, UK: Multilingual Matters.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.
- Ushioda, E. (2001) Language learning at university: Exploring the role of motivational thinking. In Z. Dornyei and R. Schmidt (Eds.), *Motivation and Second Language Acquisition* (pp. 99-125). Honolulu, HI: University of Hawaii Press.
- Wen, W.P., & Clement, R. (2003). A Chinese conceptualization of willingness to communicate in ESL. *Language, culture and curriculum*, 16(1), 18-38.
- Williams, A.Y. (2012). *Applications of Dweck's Model of Implicit Theories to Teachers' Self-Efficacy and Emotional Experiences* (Doctoral dissertation). Retrieved from <https://drum.lib.umd.edu>
- Winograd, K. (2003). The function of teacher emotions: the good, the bad, and the ugly. *Teac. Coll. Record* 105:1641-1673.
- Yu, M. (2009). *Willingness to communicate of foreign language learners in a Chinese setting*. The Florida State University.
- Zarrinabadi, N. (2014). Communicating in a second language: Investigating the effect of teacher on learners' willingness to communicate. *System*, 42(4), 288-295.
- Zembylas, M. (2007). Emotional ecology: The intersection of emotional knowledge and pedagogical content knowledge in teaching. *Teaching and Teacher Education*, 23, 355-367.