

THE RELATIONSHIP BETWEEN WILLINGNESS TO COMMUNICATE AND CRITICAL THINKING

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ABSTRACT

Willingness to communicate in second language (L2) has become an essential concept in second language learning and communication due to the growing emphasis of modern language pedagogy on meaningful communication. The present study aims to investigate the relationship between willingness to communicate (WTC) and critical thinking (CT) of intermediate and advanced EFL learners. 246 intermediate and advanced English students were selected from four different universities in Zanjan, Iran. From the total participants, 109 were males and 137 were females. Three types of instrument were employed to collect the necessary data, a test on CT, a questionnaire on WTC, and a proficiency test for determining the proficiency level of students. The findings of the study indicated that there is no significant correlation between CT and WTC of intermediate students. However, a moderate positive correlation was found between CT and WTC of advanced students. Further interpretations of the results revealed that some other extraneous factors might directly or indirectly shed some light on WTC. The practitioners, active in increasing WTC, can benefit more from the current study.

KEYWORDS: critical thinking, willingness to communicate, intermediate students, advanced students

INTRODUCTION

The use of the target language is one of the dominant goals in learning a second language (L2) for many L2 learners, and it has mostly been assumed that successful L2 acquisition (SLA) occurs within a context of the use of target language. Researchers have identified that the application of the target language plays an important role in SLA (Seliger, 1977; Swain, 1998).

Long before the advent of communicative language teaching, the primary goal of language learning was to master the structure of the language and to develop linguistic competence. However, in recent years, the goal of teaching English has changed the way from the mastery of structure to the ability to use language for communicative purposes. Therefore, in recent decades, many attentions have been paid to the communication aspect of teaching English.

According to Swain (2000), language use and language learning co-occur, and it is the language use that mediates the language learning. Thus, it is crucial to determine the factors which both constrain and promote language learners' opportunities to use language to communicate and to acquire language through meaningful interaction and communication. According to MacIntyre and Charos (1996) communication is an important goal in itself which focuses on the authentic use of L2 as an essential part of L2 learning. This authentic use of language has led to a growing amount of research into the willingness to communicate (WTC) which is an important construct in the field of L2 learning.

On the other hand, thinking is a process that we use all the time to make sense of our lives and of the world we live in. Successful thinking makes it possible for us to solve the problems, to make intelligent decisions, and to achieve the goals that give our lives purpose. Thus, critical thinking (CT) is an activity that is crucial for acquiring qualitative education and being successful in developing L2. Lipman (2003) indicated that it was the responsibility of teachers to develop CT in their students other than pushing them from one educational level to the next. Brown (2004) proposed that the objectives of a curriculum in an ideal academic English program ought to go beyond linguistic factors and to develop the art of CT.

LITERATURE REVIEW

Willingness to communicate

Studies of WTC in L1 have established investigation on WTC in L2. Moreover, most of the models of WTC that were applied to measure WTC in L1 are used in measuring WTC in L2 as well. However, there are some differences between WTC in L1 and L2. In L1, WTC was seen as trait variable which was heavily influenced by Socio-Educational model (Gardner, 1985). MacIntyre et al. (2001) defined WTC in L2 as "the intention to initiate communication, given a choice" (p. 375). The choice of speaking or not speaking occurs in specific moments in time and particular situations during communication in L2 among individuals from differing language groups.

Furthermore, the conditions in various contexts have different impact on the individuals' WTC. In the social context in which L2 communication is conducted, psychological (such as individuals' thoughts, feelings, and perspective toward related language) and sociopolitical process will effect on the creation of individuals' WTC. The social context has an essential role in WTC of L2 speakers, such as determining the locally spoken languages, individuals' orientation towards those languages, the demographic and power relationships among groups, and the ethno linguistic vitality of the L1 and L2 (Bourhis, el-Geledi & Sachdev, 2007; Allard & Landry, 1994). Moreover, the extension of WTC to situations of L2 communication indicates that WTC is not just limited to trait-like variable because the application of L2 potentially takes place in an environment with significant situational differences based on wide variations in competence and inter-group relations (MacIntyre, Clément, Dörnyei, & Noels, 1998).

According to Yashima, Nishide, and Shimizu (2004) WTC was a conceptual model in which L2 proficiency was not a goal to be achieved through L2 learning rather it was a means to gain

interpersonal/intercultural goals. Léger and Storch (2009) acknowledged that perceived communication and communicative anxiety was two early models of WTC. This model indicated high levels of perceived competence with low levels of anxiety resulted in higher WTC and a higher probability of communicative interactions in L2. On the other hand, many factors such as social and individual contexts, affective and cognitive factors, motivational propensities, situated antecedents, and behavioral intention were interrelated to influence WTC in L2 and in L2 use (MacIntyre et al., 1998).

Some researchers (e.g., McCroskey & Richmond, 1990) denoted that WTC depended on specific situations; therefore, in order to measure WTC both the personality variables as well as situational variables should be considered.

A recent study by L. McCroskey, Fayer, J. McCroskey, and Richmond (2007) investigated communication traits of learners in Spanish and English in Puerto Rico. It included a discussion about relationship between communication traits in Spanish and English as well as the differences and similarities of these traits in Spanish and English.

Furthermore, Zarrinabadi and Addi (2011) investigated on the relation of the Iranian EFL learners' WTC inside and outside the classroom and their language orientation. The result of their study indicated that language orientations correlated more closely with WTC outside rather than inside the classroom.

Many researchers who have worked on WTC made an attempt to identify effective factors on WTC. Among those researchers was Riasati (2012) who conducted a study on Iranian EFL learners' perception of factors that influenced their willingness to speak English in language classrooms. He found out that factors such as topic of discussion, interlocutor, teacher, class atmosphere, personality and self-perceived speaking ability effected on the WTC of the Iranian EFL learners.

In another study by House (2004), it was revealed that factors such as the role of physical locality, perceived politeness, presence of opposite sex, learners' mood, and topic of discussion influenced the WTC of learners in the environment of classroom.

Cao and Philp (2006) found out four major factors that had effect on WTC of the learners: self-confidence, group size, familiarity with interlocutors, and interlocutor participation in the conversation. In another study, Cao (2009) demonstrated that other factors such as topic, task type (pair, group and team work), interlocutor and teacher also had influence on learners' WTC in classrooms. Baker and MacIntyre (2000) explored the effect of the context on learners' WTC. His study revealed that the context of the study had impact on learners' WTC to a great deal. Along with MacIntyre et al. (1998), many L2 researchers, such as Wen and Clément (2003) have employed more situated variables.

Critical thinking

Thinking plays a crucial role in human life. CT is one of the many ways of thinking. According to Paul and Elder (2008), the concept of CT has its root in Greek: "kriticos" which means

meticulous judgment and "kriterion" which means criteria. Therefore, etymologically, the word refers to the development of "meticulous judgment based on criteria". On the other hand, according to the Webster's New World Dictionary (2003) the concept of CT is defined as "careful analysis and judgment". It is also noted that "critical in its strictest sense implies an attempt at objective judgment so as to determine both merits and faults".

One of the central goals of education is learning to think. Dewey (1910) noted that habits of reflective thoughts were 'not a gift of nature' but could and should be 'cultivated' by education (Dewey, 1910). Dewey's (1910) concept of habits of reflective thoughts was closely related to current concepts of CT, which was defined as "purposeful, self-regulatory judgment, which result in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based". (Facione, 1990, p. 2). The CT of students should foster during education (Bok, 2006; Facione, 1990; Halpern, 1998; Siegel, 1989). However, the CT of the undergraduate students do not seem to improve during their college years (Arum & Roksa, 2011), and subsequently graduate with poor thinking skills (Flores, Matkin, Burbach, Quinn, & Harding, 2012). This is quite problematic, because the development of CT is closely related to being successful in the intricate 21st century world (Pellegrino & Hilton, 2012). CT enables learners to make sound, logical, and unbiased decisions (Facione, 1990; Paul, 1990), facilitates learning during life (Halpern, 1998), cultivates responsibility and competencies for good democratic citizenship (Nussbaum, 2006), and leads to better learning and transfer (e.g., Helsdingen, Van Gog, & Van Merriënboer, 2010).

However, despite the educators' attempts to foster CT skills in students, most of the higher education graduates demonstrate unsatisfactory improvement in CT. One of the reasons of this phenomenon is inexplicit teaching of CT (Davies, 2013; Paul, 2004). Research has demonstrated that CT skills would not develop as a by-product of education (e.g., Abrami et al., 2008; Arum & Roksa, 2011; Bangert-Drowns & Bankert, 1990; Marin & Halpern, 2011). However, it is still unclear how CT skills can be best taught (e.g., Niu, Behar-Horenstein, & Garvan, 2013). Furthermore, engaging in unbiased reasoning which is one the crucial aspect of CT has received little attention in educational research (West, Toplak, & Stanovich., 2008).

Various studies have demonstrated that CT can be affected by many factors. Moon (2008) investigated the effect of emotion, language, and curiosity on CT. She argued that CT might be affected by emotion which in turn can be affected by the way students work with the materials of learning. Furthermore, she pointed to the crucial role of curiosity in CT. As a matter of fact, curious individuals tried to ask more questions in order to find out about issues. They could not easily accept various ideas. On the other hand, King, Wood, and Mines (1990) demonstrated in their studies that gender was an essential factor in the rate of CT development. They argued that educational experiences led to high motivation in men to develop their CT. Also, educational level was another factor in increasing the CT ability.

According to the investigation of Keeley, Browne, and Kreutzer (1982), it was revealed that the level of college students impact on their CT ability. In another word, seniors performed better

than fresher in CT. Thus, studying in college was one way of developing CT. The other way to improve CT was the use of meta-cognitive strategies (Ku & Ho, 2010). It was claimed that meta-cognitive strategies assisted the individuals to have control on their behaviors involving CT. Planning, monitoring, and evaluating were three different categories of meta-cognitive strategies. It was also claimed that meta-cognitive skills had positive influence on CT (Magno, 2010).

Many investigations were carried out to discover the relationship between CT and different scope of language. For instance, Mirzai (2008) tried to find out the relationship between CT and lexical inferencing of Iranian EFL learners. The results of this study revealed that students with high CT ability outperformed the students with low CT ability in lexical inferencing.

Additionally, Kamali and Fahim (2011) studied about the relationship between CT ability, resilience, and reading comprehension of texts containing new words. It was concluded that different levels of CT ability impacted on the scores of the participants on the resilience scale and on the participants' comprehension of texts with new words significantly. It also revealed that the levels of resilience had great impact on the participants' comprehension of texts with new words. Also, Myers and Dyer (2006) conducted a study on the impact of learning style of students on CT. To this end, 135 students of agriculture and life sciences leadership courses were chosen from the University of Florida. The Gregorc Style Delineator as well as Cornell Critical Thinking test were administered to assess the preferred learning style of each student and to determine the CT of students respectively. No clear difference of CT was found between men and women. However, students with deeply embedded abstract sequential learning style preferences demonstrated significant high scores in CT. There was no difference in CT ability between students of other learning styles. To date, as of writing this article, no published work has addressed the correlation of WTC and CT.

RESEARCH QUESTIONS

- 1) Is there any significance relationship between CT and WTC of intermediate EFL learners?
- 2) Is there any significant relationship between CT and WTC of advanced EFL learners?

METHODOLOGY

Participants

In order to gather the required data and meet the goal of the present study, 246 EFL learners ranging in age from 18 to 30 were selected from among males and females studying English as a foreign language at different universities in Zanzan, Iran. These participants were selected through Nelson proficiency test. Concerning the obtained results from the proficiency test, they were divided in to two groups. 123 of the participants were intermediate and the other 123 of them were advanced students. The participants' mother tongues were Turkish and Persian language.

Instruments

In this study one questionnaire named willingness to communicate was applied which has 27 Likert Scale items. The participants express their belief about their desire to communicate through reading, speaking, and writing. They also indicate the degree of their comprehension. The Likert Scale items will use a scale ranging from 1 (strongly disagree) to 5 (strongly agree). This questionnaire had an index reliability of Cronbach's Alpha = .79

Moreover, a test called California Critical Thinking Test (CCTST) is applied in order to measure the CT of the participants. This test is a standardized, norm-referenced test that assesses CT skills in authentic problem solving situations (Facione, 1998). The skills that are examined in this test are based on an interdisciplinary definition of CT by the Delphi research project (Facione, 1990). These skills are inferences, deduction, interpretation, evaluation of argument. The reliability of the test was established with a Kuder Richardson value of 0.75.

Moreover, Nelson Test is applied in order to estimate the language proficiency of the participants. This test includes 50 items which is a widely used standardized instrument. The language proficiency of the participants in vocabulary, grammar, and reading comprehension are examined through multiple choice questions which have four options each. The reliability of the test was established with a Kuder Richardson value of 0.79.

Procedure

A group of university students were selected by Nelson proficiency test in order to participate in the current study. Then, participants were asked to answer 27 items of MacIntyre's two parts WTC questionnaire carefully. The items were ranging from 1 to 5 (almost never willing- almost always willing). Participants indicated that how much they were willing to communicate in class tasks concerning all four language skills. At last, California Critical thinking test was conducted among participants in order to collect the required data on critical thinking.

Moreover, the participants were asked to fill out the questionnaires with great care. Before administering the questionnaires, the participants were provided with some general information about the aim and importance of the research. Additionally, the researcher provided the participants with descriptions about the unclear or difficult items in order to prevent the probable misunderstandings.

RESULTS AND DISCUSSION

The present research had two main hypotheses:

H01. There is no significance relationship between CT and WTC among intermediate EFL learners.

H03. There is no significant relationship between CT and WTC among advanced EFL learners. In order to confirm or reject each of these hypotheses, they are attempted separately.

Testing the First Research Question

The first question of the current thesis tackle the issue that if there is any relationship between CT and WTC among intermediate EFL learners. In order to answer this question, the Pearson product-moment correlation is run to detect the kind and degree of the relationship between the CT and WTC among the intermediate students.

Table 1: Two-Tailed Pearson Correlation between Scores of WTC and CT

		Intermediate CT	Intermediate WTC
Intermediate CT	Pearson correlation	1	.052
	Sig.(2-tailed)		.789
	N	123	123
Intermediate WTC	Pearson correlation	.052	1
	Sig.(2-tailed)	.789	
	N	123	123

As the output illustrated, the significance was (0.789) which is more than (0.05) (p value > 0.05). Therefore, there was no significant relationship between these two variables. In other words, there was no association between CT and WTC among intermediate participants. Accordingly, the first null hypothesis was confirmed.

Testing the second Research Question

The second question is that if there is any significant relationship between CT and WTC among advanced EFL learners.

Table 2: Two-Tailed Pearson Correlation between Scores of WTC and CT

		Advanced CT	Advanced WTC
Advanced CT	Pearson Correlation	1	.403
	Sig. (2-tailed)		.033
	N	123	123
Advanced WTC	Pearson Correlation	.403	1
	Sig. (2-tailed)	.033	
	N	123	123

Table 2 illustrated that there was a moderate relationship between CT and WTC among advanced participants because the significant level was 0.033 which is less than 0.05 (p value < 0.05). Moreover, as the correlation coefficient equaled to 0.403 ($r=0.403$, $n=123$, $p=0.033$), there was a moderate positive correlation between CT and WTC advanced participants. Accordingly, the third null-hypothesis tackling the relationship between CT and WTC among the advanced participants was rejected.

CONCLUSION AND DISCUSSION

The main concern of the current study was to investigate the strength and direction of the relationship between CT and WTC among intermediate and advanced EFL learners. The outcomes indicated that there was no significant relationship between CT and WTC among intermediate EFL learners. Moreover, the results indicated that there was a moderate positive

relationship between CT and WTC in advanced group of participants. Using the results of this study, EFL teachers will be able to apply the capability of their learners in CT in order to increase the learners' WTC. Learners' WTC is an essential factor in initiating and maintaining communication. Additionally, in learning a foreign language, the need to increase WTC in learners becomes more apparent. Thus, CT can be employed as a tool to achieve this goal. However, teachers should be aware of the begging time of teaching CT. According to the findings of this study, it became clear that advanced learners employed their CT in a way that their WTC increased. Therefore, CT instruction in advanced level will enhance the capability of language learners in initiating communication.

Moreover, the findings of this study can be applied in designing curriculum, syllabus, and materials of education in a way that make them more effective. Also educational plans as well as teaching-learning activities can be altered to enhance their quality.

Also, the findings can be extended not only in oral communication but also in written form communication. Teachers can also increase the skills of the learners through communication. Teachers can make the language learners think critically about the sentences, grammars, vocabularies, spelling, and meanings while they tend to initiate a communication. When the learners feel that their face is secure during communication, they will more eager to initiate a communication. The finding of this study can be very motivated for those adult people who think that they cannot learn a language anymore or it is very difficult to learn a foreign language in their age. They can advantage CT in learning the rules and employ it in communication.

Finally, this study might yield a new insight about nature of CT as well as WTC for the researchers. Employing the results of this study and similar studies in this field, researchers can develop the body of knowledge in this domain and produce new ideas. In a nut shell, findings of this research can act as background information for those who desire to do innovative investigations in this realm.

Moereover, in most of survey studies, the participants of studies required sufficient time to respond the offered questions. Applying CCTST along with WTC questionnaire as data collection tools in this study forced the researcher to specify adequate time for the participants to answer the questions. However, it was quite a challenge for researchers to ask the professors of universities to give full-time of their classes to administer the tests and the questionnaire. Their professor did not accept to ignore a session of their classes because they claimed that they did not have enough time to cover the syllabuses. When the professors permitted the EFL learners to participate in the study, some of them gave back the questionnaire and test papers to the researcher immediately because they were not in mood of responding to them. Therefore, these questionnaires were put aside because they could not to be the representative of CT and WTC of the participants.

REFERENCES

- Abrami, P. C., Bernard, R. M., Borokhovski, E., Wade, A., Surkes, M. A., Tamim, R., & Zhang, Dai. (2008). Instructional interventions affecting critical thinking skills and dispositions: *A stage 1 meta-analysis. Review of Educational Research*, 78(4), 1102–1134.
- Allard, R., & Landry, R. (1994). Subjective ethnolinguistic vitality viewed as a belief system. *Journal of Multilingual and Multicultural Development* 7, 1-12.
- Arum, R. & Roksa, J. (2011). *Academically Adrift: Limited Learning on College Campuses*. Chicago: University of Chicago Press.
- Baker, C., & MacIntyre, P. (2000). The role of gender and immersion in communication and second language orientations. *Language Learning*, 50, 311-341.
- Bangert-Drowns, R., & Bankert, E. (1990). *Meta-analysis of effects of explicit instruction for critical thinking*. Boston: American Educational Research Association.
- Bok, D. (2006). *Our underachieving colleges: A candid look at how much students learn and why they should be learning more*. Princeton, NJ: Princeton University Press.
- Bourhis, R.Y., El-Geledi, S. & Sachdev, I. (2007). Language, ethnicity and intergroup relations. In: A Weatherall, B. (Eds.) Watson, & C. Gallois *Language, Discourse and Social Psychology* (pp. 15-50). New York: Palgrave MacMillan.
- Brown, H. D. (2004). Some practical thoughts about students- sensitive critical pedagogy. *The Language Teacher*, 6(23), 23-27.
- Cao, Y., (2009). Temporal fluctuation in situational willingness to communicate in a second language classroom. *New Zealand Studies in Applied Linguistics*, 12(2), 1-6.
- Cao, Y., & Philp, J. (2006). Interactional context and willingness to communicate: A comparison of behavior in whole class, group and dyadic interaction. *System*, 34, 480– 493.
- Davies, W. M. (2013). Critical Thinking and Disciplines Reconsidered. *Higher Education Research and Development*, 32(4): 529–544.
- Dewey, J. D. (1910). *How we think*. Boston: D.C. Heath.
- Facione, P. A. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction*. Millbrae, CA: California Academic Press.
- Facione, P. A. (1998). *Critical thinking: What it is and why it counts*. San Francisco: Academic Press.
- Flores, K. L., Matkin, G. S., Burbach, M. E., Quinn, C. E., & Harding, H. (2012). Deficient Critical Thinking Skills Among College Graduates: Implications for Leadership. *Educational Philosophy and Theory*, 44(2). doi:10.1111/j.1469-5812.2010.00672.x
- Gardner, R. (1985). Social psychology and second language learning. *Second Language Research*, 3(2), 180-182.
- Halpern, D. F. (1998). Teaching critical thinking for transfer across domains: Dispositions, skills, structure training, and metacognitive monitoring. *American Psychologist*, 53, 449–455, doi:0003-066X/98/\$2.00.
- Helsdingen, A. S., Van Gog, T., & Van Merriënboer, J. J. G. (2010). *The effects of practice schedule on learning a complex judgment task*. doi:10.1016/j.learninstruc.2009.12.001
- House, A. (2004). *Learner perceptions of willingness to communicate*. Unpublished master's thesis. New Zealand: The University of Auckland, Auckland.

- Halpern, D. F. (1998). Teaching critical thinking for transfer across domains: Dispositions, skills, structure training, and metacognitive monitoring. *American Psychologist*, 53, 449–455, doi:0003-066X/98/\$2.00.
- Helsdingen, A. S., Van Gog, T., & Van Merriënboer, J. J. G. (2010). *The effects of practice schedule on learning a complex judgment task*. doi:10.1016/j.learninstruc.2009.12.001
- Léger, D., & Storch, N. (2009). Learners' perceptions and attitudes: Implications for willingness to communicate in an L2 classroom. *System*, 37(2), 269-285. doi:10.1016/j.system.2009.01.001
- Lipman, M. (2003). *Thinking in education*. New York: Cambridge University Press.
- MacIntyre, P., Baker, S. C., Clément, R. & Conrod, S. (2001). Willingness to communicate, social support, and language-learning orientations of immersion students. *Studies in Second Language Acquisition*, 23, 369–388.
- 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. doi:10.1177/0261927X960151001
- MacIntyre, P. D., Clément, R., Dörnyei, Z., & Noels, K. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *Modern Language Journal*, 82(4), 545-562. doi:10.1111/j.1540-4781.1998.tb05543.x
- McCroskey, L., Fayer, J., McCroskey, J., & Richmond, V. (2007). Communication traits in first and second languages: Puerto Rico. *WCA 2007 Conference*, 1-11.
- McCroskey, J. C. & Richmond, V. P. (1990). Willingness to communicate: Differing cultural perspectives. *Southern Communication Journal*, 56(1), 72-77.
- Magno, C. (2010). The role of metacognitive skills in developing critical thinking. *Metacognition Learning*, 5, 137–156. doi:10.1007/s11409-010-9054-4
- Marin, L., & Halpern, D. F. (2011). Pedagogy for developing critical thinking in adolescents: Explicit instruction produces greatest gains. *Thinking Skills and Creativity*, 6, 1-13. doi: 10.1016/j.tsc.2010.08.002
- Mirzai, Z. (2008). *The relationship between Critical Thinking and Lexical Inferencing of Iranian EFL Learners* (Unpublished master's thesis). Azad University of Science and Research, Tehran, Iran.
- Moon, J. (2008). *Critical thinking: An exploration of theory and practice*. London: Routledge.
- Myers, B. E., & Dyer, J. E. (2006). The influence of student learning style on critical thinking skill. *Journal of Agricultural Education*, 47 (1), 43-52. doi:10.5032/jae.2006.01043
- Niu, L., Behar-Horenstein, L. S., & Garvan, C. W. (2013). Do instructional interventions influence college students' critical thinking skills? A meta-analysis. *Educational Research Review*, 9, 114-128.
- Nussbaum, M. (2006). Education and democratic citizenship: Capabilities and quality education. *Journal of Human Development*, 7(3), 385-395.
- Paul, R. (2004). *The state of critical thinking today: The need for a substantive concept of critical thinking*. Retrieved from <http://www.criticalthinking.org>.
- Paul, R. H. (1990). Reading between the lines in content areas using classifying reasoning. *Journal of Reading*, 34 (2), 92-97.
- Paul, R., & Elder, L. (2008). *Defining critical thinking*. Retrieved from <http://www.criticalthinking.org/DefiningCriticalThinking.html>

- Pellegrino, J.W., & Hilton, M.L. (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century*. Washington, DC: The National Academies Press.
- Riasati, M. J. (2012). EFL learners' perception of factors influencing willingness to speak English in language classrooms: A Qualitative study. *World Applied Sciences Journal*, 17 (10), 1287-1297.
- Seliger, H. W. (1977). Does practice make perfect?: A study of interaction patterns and L2 competence. *Language Learning*, 27, 263-278.
- Siegel, L. S. (1989). IQ is irrelevant to the definition of learning disabilities. *Journal of Learning Disabilities*, 22, 469-479.
- Swain, M. (1998). Focus on form through conscious reflection. In C. Doughty and J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 64-81). Cambridge: Cambridge University Press.
- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. *Sociocultural theory and second language learning*, 8(4), 97-114.
- Wen, W. P., & Clément, R. (2003). A Chinese conceptualization of willingness to communicate in ESL. *Language, Culture and Curriculum*, 16, 18-38. doi:10.1080/0790831030866665
- West, R. F., Toplak, M. E., & Stanovich, K. E. (2008). Heuristics and biases as measures of critical thinking: Associations with cognitive ability and thinking dispositions. *Journal of Educational Psychology*, 100, 930-941.
- Yashima, T., Nishide, L. Z., & Shimizu, K. (2004). The influence of attitudes and affect on willingness to communicate and second language communication. *Language Learning*, 54(1), 119-152. doi:10.1111/j.1467-9922.2004.00250.x
- Zarrinaabadi, N., & Abdi, R. (2011). Willingness to communicate and language learning orientations in Iranian EFL context. *International Education Studies*, 4, 206-214. doi:10.5539/ies.v4n4p206