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Autonomy-Supportive Teaching, Willingness to Communicate in English, Motivation, and English Speaking Self-Efficacy among EFL Learners: A Structural Equation Modelling Study

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Abstract

This study examines the potential connections among learners' willingness to communicate (WTC) in English, their perceptions of autonomy-supportive teaching and two individual difference variables, i.e. motivation and English speaking self-efficacy. Two hundred and five Iranian EFL learners responded to four questionnaires. The data obtained from the collected instruments were subjected to structural equation modeling (SEM). The findings revealed significant positive paths from autonomy-supportive teaching to motivation, WTC in English, and English speaking self-efficacy. Further significant paths were found leading from motivation to WTC and from English speaking self-efficacy to motivation. The findings also indicated that autonomy-supportive teaching style and English speaking self-efficacy could indirectly affect learners' WTC through the mediation of motivation. Furthermore, autonomy-supportive teaching was found to indirectly predict learners' motivation through the mediating role of self-efficacy. The implications of the study for teachers and teacher educators are discussed.

Keywords: Autonomy-supportive teaching; Willingness to communicate; Motivation; English speaking self-efficacy

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I. Introduction

Globalization has brought about worldwide interconnectedness in all aspects of human life (Held, 2000). This interconnectedness has offered implications for English as a lingua franca. English, as an international language, is widely spoken by individuals in diverse geographical settings. In addition, the ongoing developments in communication technologies require individuals to be second language literate. Globalization and progressive information technology developments have offered implications regarding the goals of language education. Language teaching which was hitherto concerned principally with mastering the bits and pieces of language experienced a paradigm shift toward a communication-oriented language education. Therefore, the goals of language learning have come to encompass developing the learners' communicative competence in the target language. The communication-focused approaches to second language teaching embraced the belief that learners have to use language to learn it (MacIntyre & Charos, 1996). In order to become proficient second language users, learners need to use it in communicative settings. However, language learners are different in their tendencies toward speaking in L2 either in classroom or in other social settings. This individual difference in intention to communicate is referred to as willingness to communicate (WTC). MacIntyre, Clement, Dornyei, and Noels (1998) defined the construct as "a readiness to enter into discourse, at a particular time with a specific person or persons, using L2" (p. 547; as cited in Peng, 2007). The reconceptualization of our second language (L2) education to recognize the centrality of communicating in a language for the sake of learning it has inspired L2 researchers to investigate the notion of WTC and its association with other variables in the context of second language learning.

The studies, conducted mainly in ESL contexts, have focused on L2 learners who had the opportunity to communicate with English native

speakers. In foreign language contexts, however, the opportunity to use the second language is often limited to the classroom context. In this context, besides the significance of individual variables influencing learners' WTC, the classroom climate, and the teachers' practice and teaching style can also play important roles in motivating students to communicate in the classroom. One of the factors which plays a key role in encouraging or inhibiting learners' WTC is their perceptions of the classroom environment. The relevant literature suggests that learners' perceptions of classroom climate can influence their WTC (Joe, Hiver, & Al-Hoorie, 2017). A substantial body of research has also documented the positive impact of individual variables, such as motivation and attitudes toward learning English on learners' WTC (e.g. MacIntyre et al., 1998; Noels, Pelletier, Clement, & Vallerand, 2000)

Integrating various contextual and individual variables is conducive to understanding the reasons for individuals' practices in particular contexts as a function of their participation in social practices (Joe et al., 2017). Despite growing research on L2 WTC, there is still a need to investigate individual as well as situational variables affecting learners' WTC particularly in less explored contexts of foreign language learning. In an attempt to investigate EFL learners' WTC in instructional settings, this study takes a situated perspective which yields a comprehensive overview of the relationship between individual as well as contextual variables (Peng, 2014; Yashima, 2012). Within the situated perspective, self-determination theory (SDT) has been considered as the core model which integrates situational variables including the classroom environment into a complex framework for explaining individuals' practices in L2 formal classroom settings (Noels, 2009). Using this framework, the aim of the present research is to examine the relationship between learners' WTC, their perceptions of classroom environment and individual variables of

motivation to learn English and self-efficacy by providing a structural model to see the subsequent impact of these individual and situational variables on WTC.

2. Review of the Literature

2.1. SDT and autonomy-supportive teaching

SDT is a comprehensive framework of human motivation and personality. The theory describes intrinsic as well as extrinsic sources of motivation and identifies the role these sources of motivation play in human cognitive and social development. One of the main constructs defined by the theory is autonomy which is individuals' basic psychological need, helping them to govern and own their actions. Autonomous behavior emanates from an individual's internal interests and personal importance. Furthermore, as Deci and Ryan (2002) stated, autonomous motivation develops in contexts in which individuals' three basic psychological needs i.e. the needs for competence, relatedness, and autonomy are satisfied. Autonomy-supportive contexts lead to increased intrinsic motivation, less pressure and tension, more creativity, higher self-esteem, and better physical and psychological health than controlling environments (Deci & Ryan, 1987).

According to SDT, autonomy support, which is considered a dimension of teachers' motivating style, is a crucial element in the learning process (Deci & Ryan, 2012). Teachers are perceived to have an influential role in building a supportive classroom setting (Lee, 2009). Autonomy-supportive teaching is manifested in encouraging learners' willingness to take autonomous actions and defined as having five dimensions including (a) providing meaningful choices for students to make decisions about the organizational and procedural aspects of classroom, (b) encouraging relevance and providing rationales, (c) being adaptive through responsiveness, (d) helping students to own their ideas, thinking, and

learning, and (e) providing informational feedback to students through open communication (Wallace & Sung, 2016). Recent empirical research has revealed the advantages of autonomy-supportive teaching for students' academic outcomes, higher engagement, and greater achievements (e.g. Assor, 2012; Reeve, 2009). Further studies on teachers' autonomy-supportive practice point to its benefits for the students' intrinsic motivation to learn, and experience more self-directed and self-regulated learning (e.g. Jang, Kim, & Reeve, 2012; Wang, Ng, Liu, & Ryan, 2016).

SDT researchers take on a universalist point of view on human autonomy and believe that autonomy support has universal beneficial impacts on the academic motivation of all individuals across nations and cultures (Chirkov, 2009). Chirkov (2009), in his arguments for the crucial role of motivational autonomy in individuals' functioning and learning, referred to various studies which provided empirical evidence for the efficiency of autonomy support for students' learning and their cognitive, moral, and psychological development in various Eastern as well as Western educational contexts (e.g. Chirkov, Ryan, & Willness, 2005; Sheldon et al., 2004). However, debates still exist on whether autonomy-supportive approaches have the same advantages for individuals in Eastern cultural contexts as those in Western countries (Chirkov & Ryan, 2001; Robertson & Jones, 2013). Cross-cultural studies have been conducted to prove the benefits of autonomy-supportive teaching environments across cultural contexts. Zhang, Skilling, and Bobis (2016), in their study in three different countries including China, United Kingdom, and Australia found similarities regarding the effect of teachers' autonomy support on students' learning in these contexts. Their findings, particularly, suggested the efficiency of autonomy-supportive approach in the Chinese educational context similar to the other Western countries.

On the other hand, there are arguments raised by cultural determinists against the universal role of autonomy-support in learning and education. The main argument is that some cultures appreciate submissiveness to authority, rigid control, and a hierarchical, authoritarian relationship between teachers and students. In these contexts, it is believed that autonomy-supportive teaching, providing students with choices, and confirming their feelings, thoughts, and opinions will not be valued and, even worse, will work against their efficient learning and optimal achievement (Miller, 1999). Reeve et al. (2014) investigated the effect of collectivist and individualist cultural orientations on the teachers' beliefs about autonomy-supportive versus controlling teaching styles and their selection of each motivating styles. They found that teachers in collectivist nations described their motivating teaching styles as being controlling because they considered it to be a culturally normative classroom practice. They concluded that culture can affect teachers' beliefs about their teaching styles.

The existing controversies regarding the perceived efficiency of autonomy-supportive teaching require more research on the relationship between this motivating teaching style and students' academic performance in contexts which are assumed to consider students' support of autonomy and choice- giving as less normative teaching practices. In contrast to individualist values which include autonomy, collectivists value compliance and try to improve interpersonal relationships which promote group harmony through obligations (Ghorbani, Bing, Watson, Davison, & LeBreton, 2003). Therefore, it might be supposed that in Iran, as a collectivist society, autonomy-supportive classroom environment may not be a cultural norm and controlling teaching style is mostly practiced. The mixed results regarding the effects of autonomy-support in learners'

academic practices in collectivist societies provide the motive for further explorations of this variable in various cultures and contexts.

Furthermore, as Zhang, Beckmann, and Beckmann (2018) suggest, previous studies have focused on objective physical aspects of learning situations and studied the effect of persons, activities, locations, and time constituting a situation on students' language learning (e.g. Freiermuth & Jarrell, 2006; Rauthmann, Sherman, & Funder, 2015). There is a growing interest in the investigation of the learners' subjective perceptions and feeling of situations as being supportive or not. Due to this importance associated with studying learners' perceptions of the classroom situation, the present study investigates the interrelationships among EFL learners' perceptions of autonomy-supportive teaching, their WTC, motivation and English speaking self-efficacy.

2.2. L2 WTC

WTC has served as an alluring construct for L2 learning researchers due to its significant role in improving language learning. High WTC leads to increased language use and interaction which is subsequently conducive to successful L2 development (Joe et al., 2017). The construct was first conceptualized as a stable personality trait of first language speakers which indicated their tendency to enter into or avoid communication with others (McCroskey, 1992). As the first attempts to operationalize the construct in L2, MacIntyre (1994) proposed a model of L2WTC which included dynamic contextual factors as well. L2WTC was not only an individual trait, but it was also described at both trait and state levels (MacIntyre et al., 1998). Therefore, it was not only defined as the learners' stable tendency toward communication in L2, but a complex situational variable which resulted from an integration of various linguistic, communicative, and social variables. According to Zhang et al. (2018), future research in this field

needs to take on a dynamic perspective to studying WTC at the state level, in which various situational contributing factors are taken into account in addition to the psychological ones. Determining the contextual factors leading to WTC helps build a classroom atmosphere conducive to language learning. Following the proposal of WTC as an integration of personality and contextual elements, many researchers became interested in investigating the association between WTC and other individual as well as contextual variables in diverse ESL contexts (e.g. MacIntyre, Baker, Clement & Conrod, 2001; MacIntyre, Baker, Clement, & Donovan, 2002). In these contexts, the focus was on learners' integrative motivation (Gardner, 1985) which was not applicable to EFL (English as a foreign language) contexts, in which communication in L2 is restricted to contacts with teachers and peers in the classroom. Therefore, studies were conducted on WTC by researchers in foreign language contexts to explore those features of L2 classroom settings which support or hinder learners' WTC (e.g. Fallah, 2014; Khajavy, Ghonsooly, Hosseini Fatemi, & Choi, 2014; Peng & Woodrow, 2010).

Ruthmann, Sherman, and Funder (2015) have divided aspects of situation into three levels of situation classes (i.e. types of situations like study situations), characteristics (i.e. the students' perceptions of various situations like their perceptions of teachers' support), and cues (i.e. physical aspects of a situation like tasks, and class size). Different studies have investigated the influence of these various situation levels on students' L2WTC. For example, situational cues like interlocutors, group size, and cultural background have been found to affect L2WTC (Cao & Philp, 2006; Kang, 2005). Teacher support, student cohesiveness, and task orientation have also been found in previous literature to directly and strongly predict WTC (Peng & Woodrow, 2010; Khajavi et al., 2014).

Other studies have indicated that students' perceptions of positive classroom atmosphere as a situational characteristic which is created by supportive teaching styles affect students' WTC (e.g. Eddy-U, 2015; Lee, 2009; Zarrinabadi, 2014). Research has also suggested that learners' perceptions of positive classroom social climate can influence their effort, engagement, and achievement in the classroom and positively predict their WTC (Joe et al., 2017). It is believed that the learners' perception of supportive teaching and not necessarily the actual supportive behavior of the teachers is the factor which significantly affects students' WTC in the classroom (Zhang et al., 2018).

Complementary to studies on the effect of situational factors on L2WTC, a substantial body of empirical research has also investigated the relationship between WTC and a number of individual variables such as perceived communicative competence in L2 (Khajavi et al., 2014; Yashima, 2002), communicative apprehension (Fallah, 2014), and attitudes and motivation toward learning English (Joe et al., 2016; Noels et al., 2000).

Despite the growing research on L2 WTC (e.g. Fallah, 2014; Khajavi et al., 2014; Peng & Woodrow, 2010), there is still a need to investigate learners' WTC particularly in the less explored contexts, such as EFL in instructional settings and its relationship with the less examined individual as well as situational variables, such as English self-efficacy and autonomy-supportive teaching style. It is hoped that this study sheds more light on the construct of L2WTC and provides more empirical support for previous research findings with more robust statistical methods.

2.3. L2 Motivation

Motivation has been investigated as one of the crucial factors in learners' success or failure in second/foreign language learning (Gardner, 1985). It has also been found as a significant predictor of learners' tendency toward communication in L2 and particularly their WTC (Dörnyei & Kormos,

2000; MacIntyre et al., 2002). L2 motivation was conceptualized in Gardner's (1985) socio-educational model of second language acquisition as having two categories of integrative and instrumental orientation. According to this model, integrative orientation refers to learners' aspirations to learn a second language for the purpose of communication with the L2 group and integrating or identifying with them. In contrast, an instrumental orientation describes learners' tendency to learn the L2 for the achievement of practical goals, such as getting a job or passing an examination (Noels et al., 2000). It has been suggested that integrative motivation leads to higher competence in an L2. However, researchers following Gardner's model came to conflicting results in their studies, some of which found instrumental orientation as a more powerful predictor of L2 successful outcomes (e.g. Gardner & Lambert, 1972). Clément and Kruidenier (1983) associated the inconsistencies in research findings with the failure of the model to take into account the important effect of social contexts. It was also suggested that the socio-educational model of Gardner had little relevance to learners' motivation in the context of foreign language learning (Dörnyei, 1990), as in EFL contexts, language learners have fewer opportunities to communicate with the members of L2 community and their communication is limited to classroom contexts. Therefore, in EFL contexts, learners might not form attitudes toward the target community.

The limitations of this model, therefore, led researchers to investigate L2 motivation from the perspective of alternative models, one of the most salient of which was self-determination theory (Deci & Ryan, 1985). Noels et al. (2000) were the first who studied motivation in second language (L2) learning on the basis of self-determination theory by developing an intrinsic and extrinsic motivation scale for L2 learning.

SDT makes a distinction between intrinsic and extrinsic types of motivation. Intrinsic motivation (IM) is described in the theory as the

learners' desire to do a pleasing and satisfying activity. When given choice, individuals will perform interesting and challenging activities through which they develop a sense of competence. Intrinsic motivation has been defined as having three components of knowledge (motivation for performing an activity for the sake of knowledge development and idea exploration), accomplishment (the desire to achieve a goal or manage doing a task), and stimulation (motivation to do a task because it stimulates feelings of aesthetic appreciation or fun and excitement) (Noels et al., 2000). On the other hand, extrinsic motivation refers to the aspirations for carrying out activities for instrumental purposes. There are four types of extrinsic motivation: external, introjected, identified, and integrated regulation. These motivation types do not lack self-determination, but as Deci and Ryan (1985) proposed, they are different in their degree of being self-determined. External motivation has the least degree of self-determination and refers to the activities that are not internal to the individual like a real advantage or disadvantage. Introjected regulation, with a higher degree of self-determination, describes reasons for doing a task as a reaction to some internal pressures, such as reducing guilt not due to a person's freewill. The third type of extrinsic motivation and the more internally determined one is referred to as identified regulation which emerges when individuals choose to do an activity to achieve personally valued goals. The last and the most self-determined extrinsic motivation is integrated regulation that is "where one fully assimilates an activity to one's values, beliefs, or the self" (Peng & Woodrow, 2010, p. 839). According to Noels et al. (2000), previous research on motivation could not easily distinguish between identified and integrated regulations probably because their participants were too young to develop an integrated sense of self regarding their studies. They also associate integrative regulation with advanced language users. Therefore, in

studies which investigated motivation among less advanced or younger language learners, this type of extrinsic motivation is excluded.

Various studies investigated the effect of motivation on L2WTC in the EFL context from both socio-educational view point and SDT perspectives. Fallah (2014) using Gardner's model of integrative motivation found that motivation was a significant predictor of Iranian EFL learners' WTC. However, other researchers did not find motivation as leading to L2WTC in EFL learners (Ghonsooly, Khajavi, & Asadpour, 2012; Peng, 2007; Yashima, 2002). There are also studies with a SDT perspective which found the indirect effect of motivation on L2WTC (e.g. Khajavi et al., 2014; Peng & Woodrow, 2010). This study tries to provide more confirming evidence for any relationship between motivation and WTC in the context of EFL from the point of view of self-determination theory.

2.4. English speaking self-efficacy

Individuals' successful academic performance is dependent upon various individual variables as well as contextual factors. Among individual variables, self-efficacy has been considered among the most influential in human thought, affect, motivation, and behaviors (Bandura, 2006). The construct of self-efficacy was first conceptualized within the social cognitive theoretical framework by Bandura as "beliefs in one's capabilities to organize and execute the courses of actions required to produce given levels of attainments" (Bandura, 1998, p. 624). Self-efficacy was found to be a more significant predictor of human behavior and achievement than any other individual variable as it is an influential mediator of human agency and decision making (Bandura, 1997). According to Bandura (1986), students' self-efficacy beliefs are strong predictors of their future capability to complete tasks or succeed in the activities. Self-efficacy determines why people behave differently in doing tasks when they have similar levels of knowledge. Bandura (1997) further hypothesized that self-

efficacy can affect an individual's choice of activities, decision making, and their effort and persistence in accomplishing activities. Individuals with a low sense of efficacy in doing a task might avoid it, while those who are highly efficacious and confident about their ability would participate willingly, work harder, and persist longer in the face of difficulties.

Self-efficacy is also viewed as a motivational construct (Bandura, 1997). In the development of Motivated Strategies for Learning Questionnaire (MSLQ), Pintrich and De Groot (1990) found academic self-efficacy as one of the sub-constructs of motivation. According to Pajares (2001), self-efficacy beliefs are the foundations of human motivation and significantly affect the maintenance of motivation.

Many studies on the effects of students' self-efficacy beliefs have found a positive correlation between this construct and academic achievement (e.g., Bong & Skaalvik, 2003; Wen & Johnson, 1997). This positive relationship between students' achievement and their self-efficacy was found among students from diverse backgrounds (Wang, Kim, Bai, & Hu, 2014). The positive effect of self-efficacy was also consistent across genders and in various subject areas, such as mathematics, social studies, and EFL (Pintrich & De Groot, 1990).

In addition to the positive significant effects of self-efficacy on different variables, research has found the construct to be influenced by various factors, one of which is the teacher's role (e.g. Wang & Pape, 2005; Wang et al., 2016). Wang et al. (2016), in their investigation of the effectiveness of an autonomy-supportive intervention on students, found the positive effect of teachers' motivating style on students' self-efficacy beliefs. The students who were taught by autonomy-supportive teachers indicated significant positive changes in their self-efficacy. The results showed that students in the autonomy supportive classrooms were more self-efficacious and autonomous in their learning than those in the controlling environments.

This study confirmed the previous research suggesting that autonomy-supportive teachers affect students' self-efficacy beliefs positively (Wigfield, Guthrie, Tonks, & Perencevich, 2004). In another study by Williams, McGregor, Zeldman, Freedman, & Deci (2004), autonomy-supportive teaching style was shown to have an indirect effect on students' achievements through their self-efficacy beliefs.

Self-efficacy is a context-specific construct (Bandura, 1986). Therefore, different researchers sought to investigate the effect of self-efficacy beliefs in particular contexts. One of the areas which explored the specific application of the construct is the context of second/foreign language learning. In EFL/ESL contexts, self-efficacy is defined as "one's beliefs about how well he/she can successfully perform a task in English based upon his/her past experiences" (Wang et al., 2014, p. 25). L2 research revealed the influential role of self-efficacy in different aspects of second language learning.

Previous research has provided evidence for the influence of learners' perceived self-efficacy on their WTC in the teacher-led contexts. In an attempt to provide a model of WTC, Zhong (2013) indicated that three belief categories, including behavioral beliefs, normative beliefs, and control/self-efficacy beliefs, influence learners' WTC. Zhong defines control/self-efficacy beliefs as the learners' confidence in their capability to complete a task, such as speaking in public, groups, and/or pairs. Likewise, other researchers emphasized the role of individual variables, such as a perception of communicative competence and self-efficacy on English learners' WTC (e.g. Subtirelu, 2013).

Despite the research attention given to efficacy in EFL/ESL contexts, paucity of research is felt regarding the interrelationship or the mediated relationships among students' self-efficacy beliefs, and other individual difference variables, such as motivation, and WTC, which are two important

factors in students' success in communication. There is also a need for further exploration into the effects of learning context on this construct which is dealt with in the present study.

3. Hypothesized model

Drawing on previous theoretical frameworks and empirical research, the present study proposed a structural model to explore the interrelationship among the selected variables, i.e. learners' perceptions of autonomy-supportive teaching, motivation to learn English, English speaking self-efficacy, and WTC.

The provided empirical evidence for the universal beneficial effects of autonomy-supportive teaching on students' motivation (Assor, 2012; Reeve, 2009) and the supportive literature on the relationship between positive classroom environment and students' motivation to learn L2 (Fallah, 2014; Jang et al., 2012; Khajavi et al., 2014; Peng & Woordow, 2010; Wang et al., 2016) resulted in drawing a hypothesized path from autonomy-supportive teaching to learners' motivation.

There are supports in the literature regarding the important role of the teachers and students' positive relationship as well as the students' perceptions of a positive and autonomy-supportive social climate on their engagement and particularly WTC in L2 classrooms (Fallah, 2014; Joe et al., 2017, Khajavi et al., 2014; Peng & Woodrow, 2010). Accordingly, a path was drawn from autonomy-supportive teaching to WTC.

Furthermore, previous research found motivation to be a significant predictor of learners' WTC (Dörnyei & Kormos, 2000; MacIntyre et al., 2002; Peng, 2007; Peng & Woodrow, 2010). Therefore, a path was added leading from motivation to L2WTC.

Previous research revealing positive changes in students' self-efficacy beliefs due to their teachers' autonomy-supportive teaching styles (Wang et

al., 2016; Williams et al., 2004) led to hypothesizing the next path from autonomy-supportive teaching to students' self-efficacy.

Evidence, provided in the literature, for the influence of learners' self-efficacy on their WTC (Subtirelu, 2013; Zhong, 2013), helped the researchers to postulate another path from self-efficacy to WTC.

The final path was depicted from self-efficacy to motivation due to theoretical and empirical supports which identify this construct as one of the most influential individual factors affecting human motivation (Bandura, 2006; Pajares, 2001). The concluding hypothesized model is displayed in Figure 1.

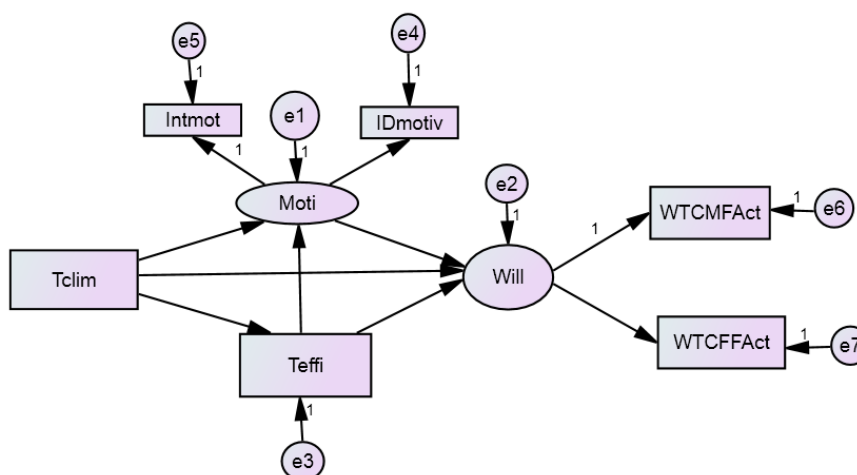


Figure 1. The hypothesized model.

Note: Will: L2WTC; Tclim: autonomy-supportive teaching; Teffi: English speaking self-efficacy; Moti: motivation to learn English; IDmotiv: Identified regulation; Intmot: Intrinsic motivation.

4. Method

4.1. Participants

The participants in the present study included 205 Iranian EFL learners from various private institutes in Iran. Out of this number, 107 (52%) were female and 98 (48%) were male, whose age ranged from 15 to 43 years ($M = 20.56$, $SD = 6.14$). The English proficiency level of the students as determined by the institutes was from intermediate to advanced level. All the participants had previous English education from 3 to 16 years either at school or university. The reason behind choosing the subjects from among English private institutes was that in the educational system of Iran, English is taught through traditional methods at schools. Therefore, students do not develop a functional English proficiency as their English class time is limited to learning grammar and vocabulary. Thus, due to the purpose of the study which was investigating learners' WTC, it was decided to select the sample among language learners in institutes in which the focus is on teaching language to communicate. Furthermore, the students' proficiency level was decided to be not less than intermediate as it was supposed that in intermediate to advance language classes, the learners have more opportunity to speak in English; therefore, they can have a sounder evaluation of their WTC as well as their L2 speaking self-efficacy.

4.2. Instrument

Four scales were used in this study to collect the data regarding the variables in the study (see Appendix A). All the questionnaires were translated into Persian and then back-translated by an expert translator to ensure the accuracy of the translation. Further, the translated items and the original English items were examined by another researcher to check any inaccuracies in translation or any ambiguities in the wording of the items.

The internal consistency reliability of each scale was then calculated, as presented in Table 1.

Table 1
Internal reliability of the scales

Variable	Subscale	Cronbach's α
Autonomy-supportive teaching		0.84
Willingness to communicate	WTC meaning-focused	0.76
	WTC form-focused	0.84
Motivation to learn L2	Intrinsic motivation	0.93
	Identified motivation	0.83
English speaking self-efficacy		0.91

4.2.1. Perceived autonomy-supportive teaching

The short version of the Learning Climate Questionnaire (LCQ; including 6 items) adapted from Williams and Deci (1996) was utilized to measure the EFL learners' perceptions of their English teachers' autonomy-supportive teaching style. The students answered the questions on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The students were asked about the degree to which their English teacher supports their autonomy (e.g., *My English teacher listens to how I would like to do things*).

4.2.2. WTC

EFL learners' L2WTC was measured through ten items from Peng and Woodrow (2010, adapted from Weaver, 2005). Peng and Woodrow (2010) found a two-factor solution for the scale: WTC in meaning-focused activities (e.g., *giving a speech in the classroom*; including six items), and WTC in form-focused activities (e.g., *asking the meaning of a word*; including four items). The participants rated the items on a 7-point scale regarding how much they are WTC in English in specified classroom situations.

4.2.3. Motivation to learn English

Twelve items from Noels et al. (2000) were used to measure the learners' extrinsic and intrinsic motivation on a 7-point Likert scale. The intrinsic motivation part was shown to have three underlying factors (knowledge, accomplishment, and stimulation) and included 9 items. The extrinsic motivation subpart in Noels et al.'s (2000) study included 9 items and three underlying factors (external, introjected, and identified regulation). The three underlying items of identified regulation factor were used in this study as the factor was found to be the most self-determined extrinsic orientation. The students rated the items specifying the degree to which the proposed reasons for learning English were true. Higher scores from the scale indicated higher correspondence between the proposed reasons and the students' reasons for learning English.

4.2.4. English speaking self-efficacy

To measure students' self-efficacy in English, eight items were adapted from the Questionnaire of English Self-Efficacy (QESE) by Wang (2004). The advantage of this scale to other general self-efficacy scales was that QESE was developed particularly to measure English language learner's self-efficacy with items referring to tasks and activities in the context of

learning English as a second/foreign language. For the purpose of this study, only the speaking subpart was employed. The items asked students to evaluate their capabilities to accomplish particular tasks using English in various speaking contexts in EFL classrooms on a 7-point Likert scale from 1 (*I am totally unable to do this*) to 7 (*I am able to do this well*).

4.3. Procedure

Before the data collection, the researchers sought permission from the institutes' administrators and English teachers. The Persian versions of the questionnaires used to collect the data were then administered by the teachers of each classroom to the students. The students were assured that their responses to the data collection instruments would be kept confidential and not subjected to any academic assessment. They were also informed of the required time to fill out the four questionnaires (about 10-15 wholly).

To conduct descriptive statistics, reliability analyses of the scales, and inter-correlations between the variables under investigation, SPSS 24 was utilized. Furthermore, structural equation modelling (SEM) analysis was run using Analysis of Moment Structures (AMOS) software (version 20). The validity of the proposed model was examined using goodness-of-fit indices (Kline 2011). There are several fit indices that show the adequacy of 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). All model estimation was conducted using Maximum Likelihood (ML) estimation.

5. Results

The mean, standard deviation, Cronbach's α and correlation matrix for the variables of the study are shown in Table 2. As shown, all the variables were significantly interconnected with one another. To check the outliers (univariate and multivariate) standard scores and Mahalanobis D2 were

used. According to the statistics, a multivariate outlier has the probability associated with its D2 as 0.001 or less. D2 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 crossed out, leaving data from 195 valid cases for SEM analysis. Also to check normality of the data, all the skewness and kurtosis values were checked and indicated to be within the range of -1 to +1, which shows the normal distribution of the data.

Table 2. Correlation matrix (n=205)

Variables	M/SD	A	1	2	3	4	5	6
Autonomy-support	34.63/6.01	.83	1.00					
WTC (meaning-focused)	33.02/6.21	.75	.41**	1.00				
WTC (form-focused)	22.62/4.78	.83	.31**	.56	1.00			
Intrinsic motivation	54.23/9.37	.92	.28**	.47	.54	1.00		
Identified motivation	18.85/2.83	.81	.22**	.40	.39	.71	1.00	
Speaking self-efficacy	48.22/6.59	.90	.28**	.27	.22	.27	.20	1.00

Further, the factor loadings of the items constructing all the variables were checked and shown to be greater than .5 (see Figure 2).

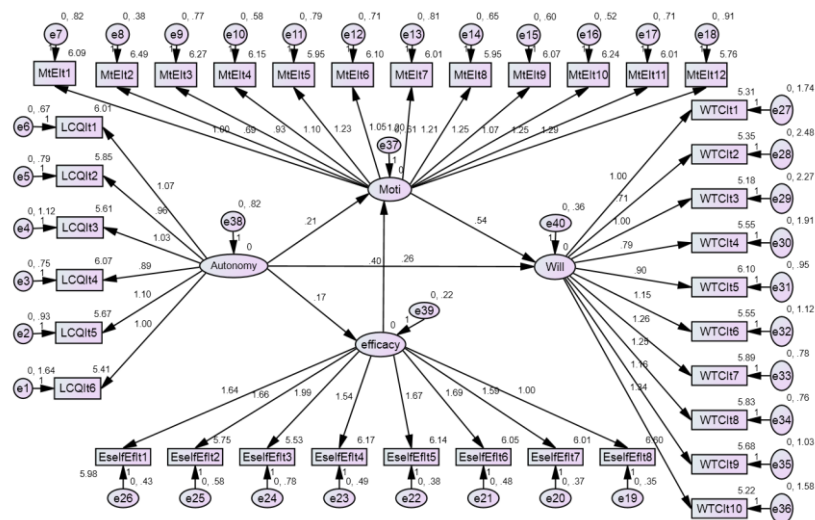


Figure 2. The representation of the association between variables with item loadings

To examine whether the model fits the data, first, chi-square (χ^2) statistic was checked. It was significant ($\chi^2 = 7.485$, $p < .05$), indicating that the model failed the chi-square test. Therefore, other goodness-of-fit measures in AMOS were utilized. Following the criteria for these fit statistics ($GFI > .90$, $AGFI > .90$, $CFI > .90$, $\chi^2/df < 3$, and $RMSEA < .06$) set by Hooper, Coughlan, and Mullen (2008) and Wheaton, Muthen, Alwin, and Summers (1977), it was found that the model exhibited acceptable good fit to the data set as follows: $\chi^2/df = 1.49$, $GFI = .98$, $AGFI = .95$, $CFI = .99$, $RMSEA = .04$. One path in the model was shown to be not statistically significant. This non-significant path (English self-efficacy \rightarrow L2WTC) was omitted. The goodness-of-fit measures were reanalyzed for the revised model. As shown in Table 3, the fit indices did not change.

Table 3
Modification process of the structural model

Model	Df	χ^2/df	GFI	AGFI	CFI	TLI	RMSEA
Base model	5	1.49	.988	.950	.99	.980	.049
Revision: deleting the insignificant path	6	1.44	.986	.952	.99	.982	.047

The final measurement model again exhibited a very good fit: $\chi^2/df=1.44$, GFI = .98, AGFI = .95, CFI = .99, RMSEA = .04. The schematic representation of the final structural model with standardized path coefficients is given in Figure 3.

The results of SEM analysis indicated significant paths leading from autonomy-supportive teaching to hypothesized destinations of motivation ($\beta=.34$), WTC ($\beta=.23$) and English speaking self-efficacy ($\beta=.32$). Positive significant effect of motivation was found on WTC ($\beta=.33$). A significant effect of English speaking self-efficacy on motivation was indicated ($\beta=.3$); however, the hypothesized path from English speaking self-efficacy to WTC turned out to be non-significant ($p \leq .05$). However, it was indicated that self-efficacy could predict WTC through the mediation of motivation.

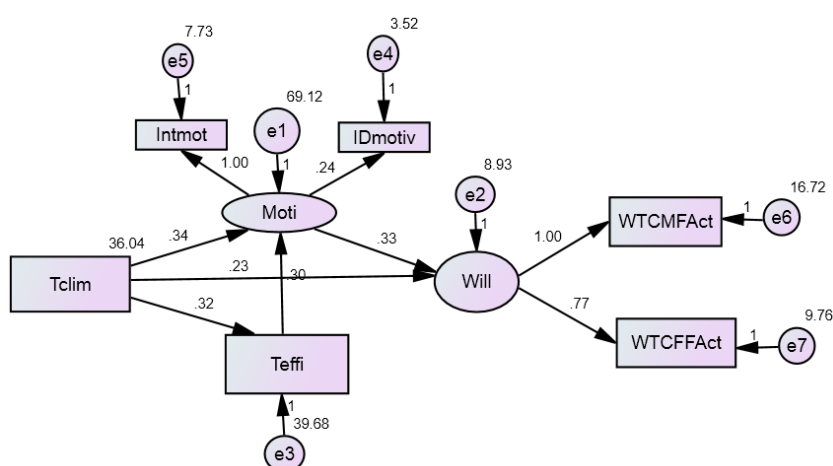


Figure 3. Revised model after removing the insignificant path

6. Discussion

In its initial conceptualization, the construct of L2WTC has been identified as a “complex system” including multiple components (MacIntyre et al., 1998, p. 547). Further attempts to provide models of L2WTC consistently found the impact of contextual and psychological factors on L2 learners’ WTC (e.g. Fallah, 2014; Khajavy, Ghonsooly, Hosseini Fatemi, & Choi, 2014; Peng & Woodrow, 2010; McIntyre et al., 2001, 2002; Zarrinabadi, 2014). The main purpose of this study was to add to previous research by examining empirically the relationships between the contextual and individual factors influencing L2 learners’ WTC. Taking a situated perspective and following SDT framework, the current study could prove the hypothesis that characteristics of instructional settings, as one of the most influential contextual factors (Peng, 2014) on learners’ academic engagement, can influentially encourage learners’ WTC. The study’s overarching goal has been to examine the contribution of learners’ perceptions of autonomy-supportive classroom environment to their

motivation, self-efficacy, and more importantly WTC, as WTC is often referred to as the most fundamental goal of language instruction due to its significant role in promoting successful L2 achievement (MacIntyre et al., 2002).

As explained previously, SDT, the underlying framework of the study, is a theory of human motivation. According to this theory, autonomy-supportive environments significantly lead to individuals', and particularly students' higher intrinsic and autonomous motivation and encourage them to be willing to engage in classroom activities (Deci & Ryan, 2002). The significant path from autonomy-supportive teaching as perceived by students to their intrinsic motivation to learn English was in line with the self-determination theorists' proposal of the universal positive effects of supportive environments on students' motivation (Assor, 2012; Reeve, 2009). As Dornyei (2007) stated, long-term language learning takes place in educational environments which 'provide enough enjoyment and encouragement to create motivation in the learners' (p. 719). The structural model of this study confirmed the positive and supportive teaching behavior and classroom environment as important variables in stimulating and encouraging learners to learn English in EFL contexts (Fallah, 2014; Khajavi et al., 2014; Peng & Woordow, 2010; Wang et al., 2016). Therefore, despite the collectivist culture of Iranian society and the presupposed orientation of Iranian learners to control teaching styles, the findings of this study indicate that providing EFL learners with autonomy and self-fulfillment in the classroom would be a predicting factor of their motivation to learn another language.

Taking on a situated perspective helped to include the important contextual variable of autonomy-supportive classroom environment in the model proposed in this study. The positive direct path leading from autonomy-supportive teaching to students' WTC was consistent with the

proposal of self-determination framework in that support of autonomy encourages learners' willingness to take actions in the classroom (Joe et al., 2017) and significantly predicts their WTC (Eddy-U, 2015; Khajavi et al., 2014; Lee, 2009; Peng & Woodrow, 2010; Zarrinabadi, 2014). Also consistent with Zhang et al. (2018), who believed that the learners' perceptions of supportive teaching, specifically, lead to their WTC in the classroom, the present findings indicated that the learners' perceptions of their teachers' autonomy-supportive style can significantly predict their WTC. This finding, furthermore, supports Dornyei's (2007) claim that teaching style and the teacher's practice are among the important factors improving WTC. Joe et al. (2017) have found that classroom environment contributes positively to the learners' WTC through the satisfaction of their basic psychological needs. This finding is also in line with Khajavi et al.'s (2014) study that demonstrated the classroom environment as the strongest predictor of L2WTC in the Iranian context. The results make it clear that the effect of the classroom environment on L2WTC in the Iranian EFL context is crucial. However, the results are different from what Peng and Woodrow (2010) found in their research on Chinese EFL learners. They came up to a small effect size of the relationship between classroom environment and WTC and justified the result with regard to some cultural and educational features of the Chinese context, such as endorsing "the notion of hierarchy" (p. 857).

The findings also indicated that the students' perceptions of autonomy-supportive learning climate contributed to their L2WTC indirectly through affecting their motivation. Thus, motivation not only has a direct positive effect on students' WTC, but it also mediates the effect of teaching style on promoting learners' tendency to talk in English classrooms. Therefore, following the proposal of self-determination motivation theory, through

supporting their students' autonomy, teachers can motivate their students so that their increased motivation leads to higher WTC.

Previous research has investigated the effect of motivation within Gardner's (1985) socio-educational model of learning a second language, more specifically the integrative motivation construct. The studies yielded inconsistent results, some of which found motivation as a positive predictor of other variables including WTC (Fallah, 2014), while others did not find integrative motivation as leading to L2WTC (Ghonsooly, Khajavi, & Asadpour, 2012; Peng, 2007; Yashima, 2002). The present study extended the literature in that it lent support to the positive impact of motivation on WTC as measured within the intrinsic and extrinsic motivation framework of SDT. Other researchers who investigated motivation in this framework found the indirect effect of motivation on L2WTC through communication confidence (e.g. Dörnyei & Kormos, 2000; MacIntyre et al., 2002; Peng & Woodrow, 2010; Yashima, 2002). In studies conducted on Iranian EFL learners (Ghonsooly et al., 2012; Khajavi et al., 2014), the indirect effect of motivation on L2WTC through communication confidence has been discussed and related to the motivational preferences of Iranian university students. It is proposed that in EFL contexts like Iran, students learn English for externally motivating purposes like passing examinations in a written form. Thus, learning English for communicative purposes does not seem very important to them. The significant direct path from motivation to WTC in this study is in contrast to this justification. The motivation variable included in the proposed model consisted of intrinsic motivation with three underlying factors of knowledge, accomplishment, and stimulation and identified regulation factor which was found to have the most self-determined extrinsic orientation (Noels et al., 2000). Therefore, the learners' high intrinsic self-determined motivation led to their WTC in the classroom. One reason for this new finding might be the different context of the present

study, which is EFL learning in private language institutes, from the previous ones. Mostly Iranian students who desire to learn English communicatively or want to go abroad participate in English classrooms in private institutes in which the teaching methodology is communicative and the focus is less on formal language teaching and passing exams. Therefore, it can be said that the participants in this study had high motivations in learning English for communicative purposes and as a result, their heightened motivation exerted direct influence on their tendency to communicate in English.

The further significant path from autonomy-supportive teaching to English speaking self-efficacy confirmed previous findings which provided evidence for the effect of teachers' autonomy-supportive practices on their students' self-efficacy (Wang et al., 2016; Williams et al., 2004). As proposed by self-determination framework, autonomy-supportive environments lead to enhancing self-efficacy and autonomy in individuals (Deci & Ryan, 2002; Wang et al., 2016). Thus, by providing students with autonomy, they increase confidence in their ability to accomplish academic tasks goals, such as speaking in another language and it subsequently results in a boosted WTC in the classroom.

The positive path from self-efficacy to motivation supports previous studies which claimed that self-efficacy plays crucial roles in increasing and maintaining motivation (Bandura, 2006; Pajares, 2001). As initially conceptualized, self-efficacy is a motivational construct which has a determining effect on individuals' choice of activities and their persistence (Bandura, 1977). The significant direct effect of self-efficacy on motivation and further, the indirect path from English self-efficacy to WTC confirms previous literature results which supported the effect of this variable on students' tendency to communicate in the classroom. The confirmed connections between the construct and other variables supported the

hypothesis that increasing students' self-efficacy can result in increased motivation and lead to students' engagement and WTC (Subtirelu, 2013; Zhong, 2013).

The direct path from English speaking self-efficacy to WTC was non-significant, however. This insignificant path drives attention to the indirect effect of self-efficacy on WTC through motivation and the indirect relationship of autonomy-supportive teaching on self-efficacy which further predicts L2WTC through motivation. Therefore, it can be stated that the teachers' provision of autonomy-support changes student's self-efficacy beliefs positively. As a result of higher sense of efficacy and confidence in their abilities, students become more motivated to learn an L2 and this growth in motivation leads them to be more willing to communicate in the classroom.

Furthermore, the positive predictive effect of autonomy-supportive teaching on the learners' motivation, self-efficacy and WTC is proving evidence which argues for the Universalist point of view of SDT researchers who claimed that supporting human autonomy positively affects motivation and achievement across nations and cultures (Chirkov, 2009). Thus, the findings of this study support the positive impact of this motivating teaching style in the context of EFL in Iran.

Based on the findings of the present study, a new model of L2WTC within a situated perspective emerged. The model is based on SDT framework, which takes on classroom environment as an important situational factor determining individuals' choice and practices. The model is, therefore, proposed based on the simultaneous effects of contextual and psychological variables. It is an extension over previous studies as it investigates autonomy-supportive classroom environment as an independent variable affecting individual variables of motivation, English speaking self-

efficacy, and L2WTC. It also explores motivation as having intrinsic and extrinsic orientations from SDT perspective.

7. Conclusion

The findings of this study indicated that the students' perceptions of autonomy-supportive classroom environment can directly influence their motivation, WTC, and English self-efficacy. As interaction in English has been proved to be crucial for learners to develop proficiency in L2, and due to the fact that in the foreign language context of learning a language, L2 interaction is limited to communication in the classroom, it is the crucial that teachers provide students with choice and support of their autonomy to help them with the benefits of this motivating style and increase the opportunity for all learners to communicate in the class.

The findings of this study have implications and suggestions for researchers, teacher educators as well as teachers. The results can be of significance to those who believe that supporting students' autonomy is a culture-bound phenomenon and that autonomy-supportive teaching style might not be beneficial in some contexts as it is not culturally normative. The findings of the study suggest that providing students with the benefits of autonomy-supportive versus controlling teaching styles is possible in a non-western, non-individualistic setting. Therefore, teacher education programs should help teachers to resist the cultural stereotypes and change their traditional controlling teaching style to a more motivating one by providing them with information regarding the benefits of this motivating teaching style.

As another implication of the results of this study, the teachers, teacher educators, and administrators should become aware of a collection of situational (autonomy-supportive teaching) as well as individual factors which are effective in inspiring learners and improving their WTC in

English. By enriching the environment with autonomy-supportive teaching, better language educational outcomes can be achieved.

The inclusion of a sample of EFL learners in private institutes was an improvement over previous studies which have looked at the influential factors in learners' L2WTC in academic settings. However, it can also be mentioned as a limitation of this study which constrains generalizations of the findings to other contexts. Another limitation of this study which can be improved in future research is the data collection tool which included only self-reported questionnaires. Further studies will obtain a more precise findings utilizing other data collection methods, such as interviews and observations.

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Appendix 1. Instruments used for the purpose of data collection**Instrument 1. Perceived autonomy support: The learning climate questionnaire (LCQ)**

This questionnaire has items that are related to your experience with your English teacher in this class.

Teachers have different styles in dealing with students, and we would like to know more about how you have felt about your relations with your teacher. Your answers are secret. Please be honest and candid.

Items	Strongly disagree	Disagree	Somewhat disagree	No idea	Somewhat agree	agree	Strongly agree
I feel that my instructor provides me choices and options.	1	2	3	4	5	6	7
I feel understood by my teacher.	1	2	3	4	5	6	7
My teacher conveyed confidence in my ability to do well in the course.	1	2	3	4	5	6	7
My teacher encouraged me to ask questions.	1	2	3	4	5	6	7
My teacher listens to how I would like to do things.	1	2	3	4	5	6	7
My teacher tries to understand how I see things before suggesting a new way to do things.	1	2	3	4	5	6	7

Instrument 2. Willingness to communicate in English

The following items describe the students' willingness to communicate in English classrooms. Please identify how much you are willing to communicate in English in this class.

Items	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I am willing to do a role-play standing in front of the class in English (e.g., ordering food in a restaurant)	1	2	3	4	5	6
I am willing to give a short self-introduction without notes in English to the class.	1	2	3	4	5	6
I am willing to give a short speech in English to the class about my hometown with notes.	1	2	3	4	5	6
I am willing to translate a spoken utterance from Persian into English in my group.	1	2	3	4	5	6
I am willing to ask the teacher in English to repeat what he/she just said in English because I didn't understand.	1	2	3	4	5	6
I am willing to do a role-play in English at my desk, with my peer (e.g., ordering food in a restaurant).	1	2	3	4	5	6
I am willing to ask my peer sitting next to me in English the meaning of an English word.	1	2	3	4	5	6
I am willing to ask my group mates in English the meaning of word I do not know.	1	2	3	4	5	6
I am willing to ask my group mates in English how to pronounce a word in English.	1	2	3	4	5	6
I am willing to ask my peer sitting next to me in English how to say an English phrase to express the thoughts in my mind.	1	2	3	4	5	6

Instrument 3. Motivation to Learn English

Every person learns English for a reason. Please identify the extent to which the following reasons for learning English are similar to your reasons.

I learn English...

Items	Strongly disagree	Disagree	Somewhat disagree	No idea	Somewhat agree	agree	Strongly agree
Because I choose to be the kind of person who can speak more than one language.	1	2	3	4	5	6	7
Because I think it is good for my personal development.	1	2	3	4	5	6	7
For the pleasure I experience when surpassing myself in my English studies.	1	2	3	4	5	6	7
Because I enjoy the feeling of acquiring knowledge about the English-speaking community and their way of life.	1	2	3	4	5	6	7
For the satisfied feeling I get in finding out new things.	1	2	3	4	5	6	7
For the enjoyment I experience when I grasp a difficult construct in English.	1	2	3	4	5	6	7
Because I choose to be the kind of person who can speak a second language.	1	2	3	4	5	6	7
For the satisfaction I feel when I am in the process of accomplishing difficult exercises in the second language.	1	2	3	4	5	6	7
For the pleasure that I experience in knowing more about the literature of the second language group.	1	2	3	4	5	6	7
For the “high” I feel when hearing foreign languages spoken.	1	2	3	4	5	6	7
For the “high” feeling that I experience while speaking in the second language.	1	2	3	4	5	6	7
For the pleasure I get from hearing the second language spoken by native second language speakers.	1	2	3	4	5	6	7

Instrument 4. English Speaking Self-Efficacy

Please read the following questions carefully and make an accurate evaluation of your current command of English no matter whether you are doing it or not. These questions are designed to measure your judgment of your capabilities, so there are no right or wrong answers. Please do not write your name, but you should answer all of the questions and write down your student number.

Items	I cannot do it at all.	I cannot do it	Maybe I cannot do it	Maybe I can do it	I basically can do it	I can do it	I can do it well
Can you describe your university to other people in English?	1	2	3	4	5	6	7
Can you describe the way to the university from the place where you live in English?	1	2	3	4	5	6	7
Can you tell a story in English?	1	2	3	4	5	6	7
Can you ask your English instructor questions in English?	1	2	3	4	5	6	7
Can you introduce your English instructor to someone else in English?	1	2	3	4	5	6	7
Can you discuss subjects of general interest with your fellow students in English?	1	2	3	4	5	6	7
Can you answer your English instructor's questions in English?	1	2	3	4	5	6	7
Can you introduce yourself in English?	1	2	3	4	5	6	7

Notes on Contributors:

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