



A SEM Analysis of Motivational Intensity, Enjoyment, Boredom, and WTC among Iranian EFL Learners

Reza Bagheri Nevisi ¹ *

Zahra Adibrad ²

Abstract

Motivational intensity and enjoyment are considered two incentives that boost Willingness To Communicate (WTC), while boredom diminishes it. However, going through the existing literature, almost no studies have ever explored these interrelationships among the four variables -Boredom, WTC, Enjoyment, and Motivational Intensity- in the Iranian setting. To address this gap, 300 high schoolers between the ages of 11 and 19 took part in the study. Of those, 83 were beginners, 107 were intermediates, and 110 were advanced learners based on the results obtained from OPT (Oxford Placement Test). All the participants were surveyed using questionnaires administered via Google Docs. The study used Partial Least Squares Structural Equation Modeling (PLS-SEM) to interpret these statistics, revealing mediation effects and showing direct and total effects between motivational intensity, enjoyment, boredom, and WTC. Statistics confirmed that boredom had a notable direct impact on WTC, though its indirect effect through enjoyment was insignificant. In contrast, motivational intensity positively influenced the WTC through both direct and indirect pathways. The study suggests boosting motivation and enjoyment in second-language classrooms would dramatically enhance the learners' WTC in formal and informal settings. Teachers should be initiative and creative in designing fascinating and new classroom tasks, transform the class into a lively environment in which all students are actively involved in the interesting classroom activities in a relaxed manner, and promote a friendly and humorous group-work atmosphere so that classroom becomes a welcoming space where students learn without boredom or anxiety.

Keywords: WTC, Enjoyment, Boredom, Motivational Intensity

In the language instruction domain, understanding the interplay among motivation, emotions, and WTC is essential for designing instructional strategies. As a result, linguistic accuracy is emphasized, and learners' readiness is enhanced in real-world interaction activities (MacIntyre & Vincze, 2017). Effective second language (L2) instruction relies on three crucial competencies: grammatical competence, communicative competence, and interactional competence. First, linguistic competence, introduced by Chomsky (1965), focused on

* Review History:

Received: 27/11/2024

Revised: 19/04/2025

Accepted: 03/05/2025

1. Associate Professor, Department of English Language and Literature, Faculty of Humanities, University of Qom, Qom, Iran; (Corresponding Author) re.baghery@gmail.com

2. MA Graduate, Department of English Language and Literature, Faculty of Humanities, University of Qom, Qom, Iran. adibzahra61@gmail.com

How to cite this article:

Bagheri Nevisi, R. and Adibrad, Z. (2025). A SEM Analysis of Motivational Intensity, Enjoyment, Boredom, and WTC among Iranian EFL Learners. *Teaching English as a Second Language Quarterly (Formerly Journal of Teaching Language Skills)*, 44(3), 27-54. doi: 10.22099/tesl.2025.51787.3358



grammatical knowledge. However, it has been criticized for its narrow scope by [Hymes \(1972\)](#) and [Canale and Swain \(1980\)](#) for being too narrow, which led to [Hymes' \(1972\)](#) development of communicative competence, emphasizing achieving communicative goals in socially appropriate ways. Expanding on these ideas, [Young \(2013\)](#) introduced interactional competence, which involves knowing how to interact in various social situations while considering interpersonal dynamics. As a result, a focus on language teaching has shifted from linguistic to communicative competence. Therefore, it is essential to consider learners' interactional competencies.

One central concept in this area is WTC (WTC), which [McCroskey \(1992\)](#) refers to as a person's inclination to engage in an interaction. Importantly, WTC is not limited to spoken interaction but also includes written communication. Moreover, beyond the act of communication itself, various affective and psychological factors, such as motivation, significantly influence WTC ([MacIntyre et al., 1998](#)). As [Gardner \(1986\)](#) maintains, L2 motivation is a complex, multi-faceted concept with different perspectives. These range from behaviorists' focus on reward expectancy ([Brown, 2000](#)) to constructivists' emphasis on intrinsic motivation ([Brown, 2000](#)). Furthermore, empirical research has demonstrated that motivation is vital to L2 learners' WTC. For instance, [Amiryousefi \(2016\)](#) found that students with higher motivation and interest in an Iranian context demonstrated greater levels of WTC. Similarly, [Pasban and Narafshan \(2020\)](#) and [Lee and Lee \(2020\)](#) reported findings that highlighted the link between educational motivation and WTC in both Iranian and Korean settings.

Psychologists ([Fredrickson, 2001](#); [Pekrun, 2006](#)) have categorized emotions into two broad factors: negative (boredom) and positive (enjoyment, happiness). In particular, negative emotions, such as boredom, often hinder communication. Boredom, which can be defined as a state of apathy, significantly affects motivation. In contrast, enjoyment, a positive emotion, fosters engagement and enhances L2 proficiency. Enjoyment arises from overcoming challenges and achieving success ([Fredrickson, 2001](#); [Pekrun, 2006](#)). Indeed, studies such as [Zhao et al. \(2023\)](#) have demonstrated that enjoyment and motivation are strong predictors of L2 proficiency, while boredom diminishes these effects. Additionally, research by [Li et al. \(2022\)](#) has shown that enjoyment encourages active participation, whereas boredom disrupts motivation and can lead to disengagement. In spite of the fact that previous inquiries have delved into the role of motivation and emotions in willingness to engage in communication, there still exists a gap in understanding how these factors truly affect each other in real-world contexts. To date, almost all studies have considered each of these aspects -such as motivation alone or emotion alone without taking into account their holistic effect on pupils' willingness to engage in interaction. Furthermore, while some studies have investigated these associations in other contexts, such as Korea, their results may not be completely transferable. In light of these gaps, this research seeks to analyze the relationship among L2 motivation, boredom, enjoyment, and WTC, building on previous research to offer a more thorough insight.

Moreover, it seeks to offer practical insights for educators, suggesting that integrating enjoyable and motivating activities into classrooms can enhance learners' WTC and reduce negative emotions, such as boredom.

Literature Review

WTC

WTC in another linguistic setting could be referred to as the discourse initiation eagerness with a certain individual at a particular moment and within a particular setting ([MacIntyre & Vincze 2017](#)). The concept of willingness to interact has received significant focus because it is a fundamental factor in second language acquisition and facilitates acquiring a new language. Following the previous inquiries, the higher the WTC pupils possess, the more learning experience they would obtain both in the mini-society, such as the classroom, and in the real world ([MacIntyre, et al. 1998](#)). Numerous language learners' personality types influence communication capabilities in non-native languages. Regarding communication and interaction, some outgoing learners eagerly seek opportunities to engage in conversation, while more reserved learners tend to miss such a chance. Due to this fact, various investigators from diverse regions across the globe have been curious to find well-founded answers to these questions: What causes some students to remain silent during classroom interaction, or what factors affect their participation? The students' reluctance to participate in classroom discussions has led to new investigations regarding WTC, which has preoccupied the mind of numerous researchers ([Ghonsooly et al., 2012](#); Khatib & Nourzadeh, 2014; [MacIntyre & Vincze, 2017](#)). The WTC construct has two subcategories. In other words, WTC would be based on either meaning or form ([Peng & Woodrow, 2010](#)). There are many factors affecting WTC. Some of these could be emotions, social factors, motivation, and affective factors ([MacIntyre et al., 1998](#)). [Fredrickson \(2001\)](#) proposed that emotion itself could be divided into two subcategories such as negative emotions (shyness, anger, fear, rejection, boredom) and positive emotions (interest, enjoyment, joy, gratitude, happiness, love).

Motivation

Based on the Self-Determination Theory (SDT), put forward by [Deci and Ryan \(1985\)](#), the motivation construct could be categorized into two distinct kinds: internal and external. Internal motivation is defined as having inner satisfaction, pleasure, and enjoyment for doing a task rather than having reward expectations. Intrinsically or inherently motivated individuals usually perform a task for pleasure or entertainment rather than doing it in hopes of getting a reward or prize or due to force or compulsion. In other words, intrinsic motivation means that most of one's motivation stems from an individual's inherent enjoyment of fulfilling a task or activity.

Having internal motivation, or, better say, natural, innate motivation, has been considered a significant criterion for achievement to the extent that it has drawn numerous investigators' minds to study it as an important factor influencing individuals and leading them toward

achieving their final accomplishments. Intrinsic motivation could also lead to superior learning and ingenuity. The first experimental investigation regarding intrinsic motivation was conducted on animal behavior ([White, 1959](#)). In the human being, intrinsic motivation is innate from birth. Taking advantage of our innately curious nature allows us to explore covered realities or phenomena or discover something new without expecting any external motivation, such as a prize or reward. Put another way, intrinsic motivation is a factor that incites our curiosity. This innate, natural motivation helps people uncover many new things about themselves in their social, cognitive, and physical environment. For example, learning a second language is a good example of intrinsic motivation since it is pursued just to enjoy accumulating new knowledge.

[MacIntyre and Gregersen \(2012\)](#) stated that the motivation concept should not be confined to intrinsic motivation but include extrinsic motivation. In the second-language classroom, motivated non-native language learners are inclined to contribute more to class interaction and communication. The exact opposite of Intrinsic motivation is extrinsic motivation. The extrinsic motivation construct, in classical literature, has been categorized as a poor, pale, and impecunious type of motivation ([Dewaele et al., 2022](#)). Extrinsic motivation, on the other hand, does not stem from the enjoyment or pleasure of doing an activity, so it is not autonomous. It exists only for the sake of praise or reward. According to the literature, it is confirmed that the motivation concept impacts non-native language confidence, non-native language fluency, WTC, and attainment ([Alrabai, 2022](#); [Khajavy et al., 2016](#); [Peng & Woodrow, 2010](#); [Yashima, 2002](#)). In language development, the concept of "emotion" has been regarded as a cornerstone of motivation, acting as an initiator and intensifier that provides energy and motive for desired behavior ([MacIntyre & Gregersen, 2012](#)).

Enjoyment

Affective Filter Hypothesis, proposed by [Krashen \(1982\)](#), provides an explicit explanation for learning or failing to learn a second/foreign language. Krashen's Affective Filter describes positive or negative emotions in the classroom environment. Students' affective filters could be blocked or unblocked based on different situations in the classroom. For instance, when there is a threat, anxiety (before an exam or regarding results), boredom, shyness, shame, fear, or self-doubt, the affective filter is unconsciously boosted, and as a result, students' learning abilities decrease dramatically. On the other hand, if students experience the sensation of happiness, relaxation, pride, motivation, joy, enjoyment, enthusiasm, and confidence, "the affective filter decreases, allowing students to get the educational materials more easily and even more quickly. In this mindset, experiencing "enjoyment" and boosting this emotion could facilitate the capability for acquiring input in a non-native language. Regarding the literature, [MacIntyre and Gregersen \(2012\)](#) coined the idea behind "positive psychology for the first time. Later, [Dewaele et al. \(2022\)](#) expanded the previously coined notion and introduced the idea of "second or foreign language enjoyment," which describes positive emotions related to foreign

language learning. According to [MacIntyre and Gregersen \(2012\)](#), enjoyment can be understood as a pleasant sensation that occurs after internalizing or learning a challenging task that motivates the learners to fulfill another similar task to preserve their sense of achievement.

The concept of enjoyment, as well as the association between positive emotions (pleasure, joy, and enjoyment) and WTC, has received insufficient attention from scholars recently ([Alrabai, 2022](#); [Dewaele & Dewaele, 2018](#); [Khajavy et al., 2018](#); [Li et al., 2022](#)). It has been observed that second language learners with high levels of enjoyment and a pleasant sensation feel more secure and certain about their capabilities. In other words, it assures them to fulfill all tasks accurately, appropriately, and completely ([Dewaele & MacIntyre, 2014](#); [MacIntyre & Vincze, 2017](#); [Zhang et al., 2022](#)). Previous research shows enjoyment directly affects motivation ([Dewaele et al., 2022](#); [Khajavy et al., 2016](#); [MacIntyre & Vincze, 2017](#)). Another investigation examined the association between enjoyment and achievement, and the results revealed the fact that enjoyment predicts second linguistic accomplishment both directly and indirectly ([Dewaele & Dewaele, 2018](#); [Khajavy et al., 2018](#); [Li et al., 2022](#)). In an investigation led by [Khajavy et al. \(2018\)](#), the association between WTC and classroom emotions was examined, and it was found that the enjoyment concept is strongly connected to the Willingness to engage in Communication. The more enjoyable the trainees feel, the higher their WTC with others. In a nutshell, in the classroom, teachers should increase the students' sense of enjoyment and pave the way for them to learn materials more easily.

Boredom

Boredom could be defined as a negative sensation that comes into existence due to insufficient enjoyment, enthusiasm, purpose, and motivation. Another definition of "boredom" is failing to gather, focus, concentrate, and direct attention on a particular activity so that this negative sensation hinders individuals from participating in activities ([Harris, 2000](#)). Most of the time, instructors tend to overlook the students' boredom since it does not result in any obstacles to classroom disciplinary rules and regulations. "Boredom" has a negative impact on motivation and instructional tactics, resulting in poor accomplishment. For example, [Zhao et al. \(2023\)](#) found that students who are bored during lessons do not desire to be involved in classroom activities, which leads to poor pedagogical performance. Similarly, [Li et al. \(2021\)](#) conducted a study and found that boredom obstructs learning processes, ultimately leading to low accomplishment. Furthermore, bored learners might not be able to concentrate on their tasks or get pleasure from doing a special activity ([Zawodniak et al., 2023](#)). Among all the different aspects of emotions, "boredom" has received more attention from investigators ([Li et al., 2022](#)). Regarding the presence of "enjoyment" and "boredom," [Li et al. \(2022\)](#) conducted an experiment to understand the correlation between "enjoyment" and "boredom." The investigators asked 868 undergraduate students to cooperate in the research. Statistical analysis revealed a strong inverse association between the presence of "enjoyment" and "boredom." [Dewaele, et al. \(2022\)](#) stated that learners who possess a high "enjoyment" level experience a

significantly lower degree of both "anxiety" and "boredom." From this inquiry, it could be concluded that the learners who find the second/foreign language classroom enjoyable experience less boredom. Conversely, when the classroom is boring for students, their enjoyment of learning decreases.

Second Language WTC has been an interesting topic for empirical research over different decades. Discovering associations among second or foreign language WTC, affective factors, social factors, cognitive factors, communicative factors, and negative and positive emotions has been regarded as a top subject line for an inquiry ([Dewaele et al., 2022](#); [Lan et al., 2023](#); [Shirvan et al., 2019](#)). Empirically diverse investigations have been conducted about the impact of the various affective factors on the second language's WTC. In line with these investigations, one can refer to [Amiryousefi \(2016\)](#), who considered students' motives for interaction with their teacher and their interest to be two main predictors influencing their speaking skill instructors and their second/ foreign language WTC. The study was performed in an Iranian setting and involved 300 learners. The results revealed that students with stronger motivation and interest were more willing to communicate.

[Khajavy et al. \(2016\)](#) investigated the WTC in a non-native language context, utilizing equation-based modeling to examine its statistical findings. The connection between WTC and several other elements was explored, including enjoyment, motivation, anxiety, communicative confidence, attitude, classroom environment, and achievement in English. The study involved 243 University participants, and the questionnaires were distributed among them. The outcomes indicated that the educational setting strongly predicted second language WTC, while communication self-confidence significantly affected motivation and WTC. Additionally, motivation was directly influenced by the classroom environment, communication confidence, and attitude. It also demonstrated that attitude indirectly influenced WTC through communication, confidence, and motivation. Multiple regression analysis revealed that enjoyment directly predicted motivation, whereas anxiety negatively influenced motivation. This study highlights the intricate interactions between various factors in the classroom environment and their impact on pupils' second language willingness to interact.

[Khajavy et al. \(2018\)](#) undertook an inquiry involving 1,528 Iranian middle school students to assess the connection between willingness to engage in communication, emotion, and the educational setting. The findings revealed that when the educational setting was positive, trainees' WTC and enjoyment increased significantly. Furthermore, this positive environment led to a notable reduction in students' anxiety. Consequently, one can conclude that enjoyment significantly contributes to enhancing learners' WTC, while anxiety acts as a deterrent. Therefore, enjoyment boosts WTC in junior high school students, whereas anxiety hinders it.

[Kruk \(2020\)](#) conducted a study involving two Polish participants developing English proficiency as a second language in Poland, investigating factors including anxiety, WTC, boredom, and motivation. Data were gathered by using both qualitative and quantitative approaches. It was revealed that boredom had a negative impact on both WTC and motivation.

Key factors contributing to boredom included reluctance to engage in conversation, recalling past negative experiences with learning, and unproductive group interactions. Additionally, the study found that decreased anxiety and boredom levels were associated with an increase in WTC levels. The results highlighted the significance of reducing boredom and anxiety to foster better communication in second-language classrooms.

Numerous personal, mental, emotional, social, and situational factors can greatly impact WTC in a second language. For example, teaching communication methods can significantly improve pupils' WTC while learning a foreign language. In a study conducted by [Peng \(2020\)](#) in a Chinese setting, the investigator scrutinized the instructors' communication strategies effects, such as full-class discussions, pair or group work collaboration, and instructional techniques like inferential questions, gestures, and pantomime, on Chinese university students' WTC. The research results demonstrated no significant variation in WTC between full-class discussions and pair or group work, suggesting that interaction strategies are equally effective across different classroom settings. Thus, incorporating these strategies can effectively promote students' WTC in all second-language classes.

Research undertaken by [Lee and Lee \(2020\)](#), utilizing both numerical and descriptive approaches in a Korean setting, examined the effect of foreign language motivational self-systems on willingness to engage in communication. Using a mixed-methods approach, they initially collected numerical data utilizing questionnaires and subsequently obtained non-numerical data via interviews. The statistical analysis showed that secondary high school students with a strong sense of their idealized second-language self and ought-to-self exhibited greater WTC in practical situations and in the classroom. In other words, a more developed ideal second language self correlates with a stronger WTC.

[Pasban and Narafshan \(2020\)](#) conducted a study with both undergraduate and graduate students pursuing degrees in translation, literature, English language teaching, and linguistics, totaling 372 students. This investigation examined the connection between trainees' WTC and their educational motives. The correlation analysis demonstrated that students with higher educational motives tended to exhibit greater WTC in the classroom. Additionally, the findings suggested that intrinsic and extrinsic factors could enhance students' motivation.

[Lee \(2022\)](#) conducted a study to analyze enjoyment and grit's influence on willingness to engage in communication within an EFL educational setting. This research sought to investigate the association between grit and willingness to interact inside a second language classroom, revealing a positive correlation between these two factors among English majors in Indonesia and Taiwanese students from other disciplines. Enjoyment, viewed as a beneficial extrinsic factor, provides students with satisfaction, while grit is considered an intrinsic factor. Both variables in this study are framed within the scope of positive psychology in language learning. This study involved 647 individuals, and the outcomes illustrated how classroom enjoyment and grit are key factors influencing second language willingness to interact. However, the grit construct alone was not a consistent predictor of WTC for all participants. Consequently, the

research recommends that teachers foster a supportive learning environment to enhance the trainee's openness to communicate in English. These results correspond to the increasing emphasis on incorporating positive psychology into foreign language instruction and learning procedures.

[Li et al. \(2022\)](#) examined the effects of three variables—boredom, enjoyment, and anxiety—on second/foreign language achievement among junior high school students. This study is categorized as a longitudinal study, where various questionnaires and achievement data were meticulously analyzed over different periods. A large statistical population was involved, and the analysis involved Equation-based modeling. The research highlighted that enjoyment is the only direct predictor of achievement; specifically, higher enjoyment levels are linked to lower boredom levels. Conversely, as students' anxiety increases, so does their boredom. Ultimately, from the study's statistical analysis, it could be determined that there was no notable connection between anxiety and enjoyment, indicating that enjoyment presence does not necessarily eliminate the presence of anxiety.

[Arabai \(2022\)](#) explored the link between trainees' motivation, WTC, enjoyment, and emotions (such as anxiety and boredom). The research particularly emphasized the connection between WTC and positive emotions (grit and motivation). Altogether, 328 Saudi Arabian learners participated in the inquiry. The information was gathered by applying questionnaires. The investigator applied statistical modeling to analyze direct and indirect connections among variables. Findings revealed that nearly all emotions, except boredom, significantly predicted second language WTC. Among these predictors, motivation emerged as the strongest, followed by anxiety. Additionally, the study suggested that grit directly influences motivation, while enjoyment serves as a mediator in the connection between second language WTC and motivation.

[Peng and Wang \(2022\)](#) administered a study at a Chinese university. The data was collected utilizing questionnaires that inserted both open-ended and closed-ended survey questions. These questionnaires were distributed among 132 university learners who participated in a spoken English class in China. The study examined the influence of anxiety, WTC, and enjoyment on trainees' achievement in English speech courses. The analysis through multilevel regression modeling revealed that foreign language enjoyment is the only significant factor influencing the desire to engage in a second-language interaction.

Numerous studies have examined the connection between second language proficiency, enjoyment, and boredom in China. In their investigation, [Zhao et al. \(2023\)](#) examined three variables: motivational intensity, enjoyment, and boredom, as second language proficiency predictors. Statistical results obtained using the PROCESS macro software indicated that motivation is a second language proficiency predictor. Conversely, boredom presence weakens the connection between enjoyment and second language motivation. Additionally, foreign language enjoyment enhances the link between proficiency and second language motivation.

[Sadoughi and Hejazi \(2023\)](#) examined how the second language motivation-focused self-system influences WTC among Iranian EFL pupils. Their study focused on the roles that foreign language anxiety and enjoyment play in shaping trainees' motivation to engage in communication. Employing statistical modeling, investigators discovered that ought-to-self, learning experiences, and ideal-self positively impact Willingness to engage in Communication. Anxiety in learning a foreign language served as an additional facilitator between willingness to interact and the ideal self, as well as between WTC and educational experiences, while also serving as a competitive mediator between WTC and ought-to-self. Additionally, enjoyment facilitated the connection between WTC and the ideal self, along with WTC and learning experiences, but it did not influence the association between WTC and the ought-to-self.

Using statistical modeling, [Lu \(2024\)](#) explored the interconnections among speech flow, WTC, and emotions in Chinese English language trainees. The investigator aimed to explore the interplay among second language acquisition enjoyment, learners' negative and positive emotions, and their WTC. This research engaged 378 University students in the Chinese context, and the analysis demonstrated that enjoyment in acquiring a foreign language serves as an important factor influencing both communication flow and WTC. Conversely, foreign language anxiety negatively predicted the flow and rate of second/foreign language communication.

[Fallah et al. \(2024\)](#) delved into the effect of teacher enthusiasm on foreign language learners' readiness to communicate, focusing specifically on enjoyment and boredom. Two hundred and ninety-one non-native English language learners participated by completing questionnaires that were validated for reliability. The information was examined through statistical modeling. The statistics suggested that enjoyment in acquiring a second language is a positive predictor of WTC, while boredom, mediated by enjoyment, can indirectly affect this willingness. Additionally, the findings showed that enjoyment in a foreign language, rather than boredom, facilitated the link between teacher enthusiasm and willingness to be involved in communication.

[Yu and Ma \(2024\)](#) examined the date and the L2 enjoyment impact on willingness to engage in a new language concurrently considering a growth-oriented mindset role. Additionally, grit, a facet of positive psychology, was investigated as a potential mediator. The study involved 2,426 students from 29 universities who completed an online questionnaire distributed via a Google Forms link, structured around a Likert scale. The results showed that enjoyment in learning a foreign language has both direct and mediated influence on second-language willingness to engage in communication, with grit serving as a significant mediator in this relationship.

[Tang et al. \(2024\)](#) studied anxiety, enjoyment, and boredom as mediators among the foreign language motivational self-system, L2 skill level, and cross-cultural communication ability using a multi-group structural equation modeling approach with 2,713 Chinese English

trainees. The research demonstrated that learning experiences and the ideal self positively influenced second language proficiency and intercultural communication competence, while the ought-to-self had a negative effect. Additionally, enjoyment, boredom, and anxiety significantly affected the connections among the motivational self-system, language proficiency, and intercultural communication competence, with second language proficiency positively impacting intercultural communication competence. Notably, the analysis indicated no significant differences between English majors and students from other fields, suggesting that their majors did not moderate these relationships.

It could be asserted that only a few investigations ([Bensalem, 2022](#); [MacIntyre & Gardner, 1991](#)) have addressed the emotional impact on WTC or foreign language learning ([Dewaele et al., 2022](#)). To date, the literature has seen few studies concentrating on the negative emotional consequences, namely anxiety and boredom in relation to second-language speaking or WTC. However, positive emotions like enjoyment, joy, and love have attracted extensive attention ([Dewaele et al., 2022](#)). Meanwhile, only a few researchers have examined negative and positive emotions regarding WTC ([De Smet et al., 2018](#)). Within the Iranian context, it can be stated that almost no research has examined the interaction between negative emotions (boredom) and positive emotions (enjoyment) and affective factors (motivational intensity) in relation to WTC. Thus, this investigation aimed to explore the associations among Iranian EFL learners' enjoyment, boredom, WTC, and motivational intensity.

RQ1: Does Motivational Intensity positively predict WTC?

RQ2: Does Boredom negatively predict WTC?

RQ3: Does Enjoyment positively predict WTC?

RQ4: Does Enjoyment mediate the relationship between Motivational Intensity and WTC?

RQ5: Does Boredom mediate the relationship between Motivational Intensity and WTC?

Method

Participants

To conduct the current inquiry, the researchers used a pre-made Google Forms link to distribute questionnaires to 300 participants via email or Telegram. The participants were selected from three language-learning institutes: the Iran Language Institute (ILI), Safir Institute, Jihad Daneshgahi, and a junior high school (Beyhaghi) in Kermanshah province. Regarding the selection procedure, it should be noted that there was no random selection. Instead, participants were selected based on their registration in specific language institutes or junior high schools in Kermanshah. The attendees varied in age between 11 to 19 years old. Of the total number, 83 were senior high school students, 107 were at an intermediate level, and 110 were at an advanced level. The language institutes (Iran Language Institutes, Safir Institute, Jihad Daneshgahi) offered structured courses for different proficiency levels (beginner, intermediate, advanced) according to standardized teaching materials to enhance English

language proficiency. The Beyhaghi Junior High School students also followed the national curriculum, which aligns with the language proficiency standards. This ensures that all students were instructed at the same educational levels and were suitable for inclusion in the study. The result revealed that of the 83 high school students, 37 were at an intermediate proficiency level and the remaining were at an advanced proficiency level.

Instruments

Four questionnaires were utilized in the present research as follows: WTC in the second language (L2 WTC), boredom in the second language (L2 BD), second language enjoyment (L2 EN), and second language motivation intensity (L2 MI).

WTC Scale

[Lan et al. \(2021\)](#) and [Nikitina et al. \(2022\)](#) developed the WTC questionnaire that was employed to understand individuals' WTC in the classroom environment. The questionnaire included 5 items on a Likert-based scale, ranging from strongly agree to strongly disagree (1=Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). Willingness to Engage in Interaction Scale included these factors. First, communication confidence showed the degree of confidence the students possess while speaking in the classroom in front of other students. Second, perceived competence, which is pupils' estimation of their own capabilities. Third, anxiety level, a construct that reveals the students' anxiety levels while interacting in the classroom. Fourth, social motivation, which is the influence of social factors on second-language interaction, and fifth, situational WTC, which deals with the physical classroom environment's influence on interaction. According to previous studies, Cronbach's alpha's highest value would range between 0.80 and 0.88, which confirms its reliability. Furthermore, validity analyses revealed high correlations between WTC and other constructs, such as self-confidence as well as motivation ([Lan et al., 2021](#)).

L2 Boredom Scale

[Li et al. \(2021\)](#) boredom questionnaire used in this research project. It was a five-item questionnaire displaying various levels of participants' learning boredom. The questionnaire included 5 items on the Likert-based scale, ranging from strongly agree to strongly disagree (1=Strongly Disagree, 2= Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). Various second-language boredom dimensions can be identified using this scale. First, lack of interest, which is the feeling that impedes learners from taking part in classroom activities. Second, monotony occurs when the pedagogical materials are uneventful and uninteresting. Third, lack of challenge happens when the task lacks a balance between ability and difficulty. Fourth, task disengagement occurs when pupils do not like to be involved in the mental processes of task-solving. Fifth, negative affect refers to hopelessness and apathy resulting from boredom. Previous studies ([Li et al., 2021](#)) pinpointed that Cronbach's alpha has a satisfactory reliability range between 0.82 and 0.86. The current study scale demonstrates high construct validity, as it correlates negatively with motivation and enjoyment.

L2 Enjoyment Scale

[Li et al. \(2018\)](#) formulated the adopted questionnaire for this variable, encompassing five components. The questionnaire included 5 items on the Likert-based scale, ranging from strongly agree to strongly disagree (1=Strongly Disagree, 2= Disagree, 3=Neutral,4=Agree,5=Strongly Agree). The Enjoyment Scale has five components. First, perceived competence, which deals with the feeling of satisfaction and achievement that students experience while communicating in a second language. Second, sense of accomplishment, which is students' pride and progress after achieving second-language learning. Third, enjoyment of classroom activities is achieved through students' involvement and participation in second-language activities. Fourth, teacher support is the teacher's role in encouraging pupils to complete tasks. Finally, social engagement refers to students' enthusiasm when interacting with their classmates. The Enjoyment Scale demonstrates high psychometric properties, with Cronbach's alpha ranging between 0.85 and 0.90 ([Li et al., 2018](#)). Furthermore, it showed strong construct validity, as it positively correlates with motivation and second-language enjoyment.

L2 Motivational Intensity Scale

The participants' motivational intensity for learning English was assessed using a survey containing five questions adopted from Yashima (2002) and [Feng and Papi \(2020\)](#), which was designed to assess the second-language learners' motivation to study English in Iran. The questionnaire included 5 items on the Likert-based scale, ranging from strongly agree to strongly disagree (1=Strongly Disagree, 2= Disagree, 3=Neutral,4=Agree,5=Strongly Agree). Motivational Intensity assesses pupils' persistence and effort in learning a second language. It has five components as well. First is effort investment, which refers to the amount of time pupils spend learning. Second, persistence describes learners' perseverance in studying. Third is the desire to improve, as well as the pupils' internal motivation toward second-language achievement. Fourth is self-regulation, which is the ability to maintain motivation throughout the learning process. Fifth is goal orientation, which is the significance of second-language learning in the learners' perspective. Previous research on reliability analysis revealed that when Cronbach's alpha exceeds 0.80, it indicates strong internal consistency ([Feng & Papi, 2020](#); [Yashima, 2002](#)). A high positive correlation between WTC and L2 enjoyment confirms strong motivational intensity.

Oxford Placement Test

This placement test was employed to determine whether students had similar levels of language proficiency. The Oxford Placement Test (OPT) was implemented before the questionnaires were distributed. Therefore, the categorization of high school students into intermediate and advanced levels was simplified by using the OPT.

Data Collection Procedure

First, the students were assured that their shared information would remain private and anonymous. They were also informed that their participation in this study was entirely voluntary. Second, the OPT was administered to Bayhaghi High School students to confirm their English proficiency levels before distributing the questionnaires. However, taking OPT was unnecessary for students at the Iran Language Institute, Safir, and Jihad Daneshgahi, as they already had pre-established proficiency records. Finally, questionnaires designed to assess second language motivational intensity, enjoyment, boredom, and WTC were prepared and distributed via a pre-made Google Forms link. The data collection process took place over three months, from September 22, 2024, to December 21, 2024, allowing sufficient time to gather participants' responses.

Data Analysis

Partial Least Square Structural Equation Modeling (PLS-SEM) was used to analyze the data and investigate the relationships among the variables. While covariance-based structural equation modeling has been widely used in L2 and education research, PLS-SEM was selected in our study due to the fact that PLS-SEM is well-suited to investigate complex models, analyzing the structural and measurement model at the same time ([Hair et al., 2019](#)). Several criteria were applied to assess the measurement model's reliability and validity, including AVE, Composite reliability, rho-a, and Cronbach's alpha, all of which met the recommended thresholds, indicating good reliability. The Fornell-Larcker criterion and HTMT ratio were used for discriminant validity to ensure the constructs were distinct. Outliers were identified using a z-score, and inattentive responses were filtered based on response time and consistency. After these exclusions, 291 valid responses were retained for further analysis. Model fit was assessed using SRMR and NFL values. An SRbMR value of 0.07 indicated a good fit (values below 0.08 are acceptable) because it reveals that the difference between the observed and predicted covariance is small; it also shows a close fit between the data and the model ([Hu & Bentler, 1999](#)), and an NFI value of 0.83 suggested a good comparative fit. This threshold is considered a good fit because it explains a significant portion of the covariance in the data while taking into account the degree of freedom ([Bentler & Bonett, 1980](#)). These results confirmed the adequacy of the measurement model. Significant relationships between motivational intensity, WTC, boredom, and enjoyment were found through path coefficients, with enjoyment positively influencing WTC and boredom having a negative effect on WTC. These findings highlight the importance of emotions in shaping students' communication behaviors.

Results

The following section presents the findings from the Partial Least Square Structural Equation Modeling (PLS-SEM) analysis performed with the SmartPLS-3 software package to

investigate the relationships between Motivational Intensity (MI), Enjoyment (Enjoy), Boredom (Boredom), and WTC among English as a Second Language (EFL) learners.

Preliminary Analysis

Since the data were collected online, and filling out every item was mandatory for participants, there was no missing value in the final dataset, allowing for further analysis without imputation. After initial analysis, some cases were removed as extreme responses (outliers), careless responses with little or no variance, and irrational responses. Finally, 291 cases were used for the final analysis which was done via SmartPLS due to its capability to handle complex models. Our analysis employed specific criteria to remove outliers and careless responses to ensure data quality. We identified outliers using the Z-score method with a threshold of absolute 3 ($> |3|$). This involved excluding data points exceeding 3 standard deviations from the mean. This led to the removal of 4 cases. Moreover, careless responses were identified based on variance values, which identified 5 cases with straight responses (e.g., straight 3 throughout all items) and 2 cases with the same response for nearly the first half of the questionnaire, and another same response for the second half indicating insufficient engagement with survey items. Additionally, the researchers checked for inconsistency across related questions and excluded participants showing patterns indicative of lack of effort or attention, which resulted in the removal of three cases after consulting with one statistician and one expert in this area of research

Table 1

Descriptive Statistics of Indicators

	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
V10	2.134	2.000	1.000	5.000	1.287	-0.257	0.945
V11	3.653	4.000	1.000	5.000	1.112	0.219	-0.984
V12	3.842	4.000	1.000	5.000	1.162	0.386	-1.090
V13	3.821	4.000	1.000	5.000	1.202	0.286	-1.095
V14	4.107	4.000	1.000	5.000	1.090	1.337	-1.413
V15	4.096	4.000	1.000	5.000	1.089	1.116	-1.315
V16	2.629	2.000	1.000	5.000	1.357	-0.923	0.646
V17	2.186	2.000	1.000	5.000	1.207	0.025	0.959
V18	1.928	1.000	1.000	5.000	1.198	0.141	1.153
V19	1.942	2.000	1.000	5.000	1.216	0.504	1.266
V20	2.079	2.000	1.000	5.000	1.242	0.015	1.038
V21	1.983	2.000	1.000	5.000	1.183	0.051	1.024
V22	1.749	1.000	1.000	5.000	1.304	1.102	1.596
V6	2.058	2.000	1.000	5.000	1.207	0.076	1.054
V7	2.024	2.000	1.000	5.000	1.236	0.043	1.084
V8	2.117	2.000	1.000	5.000	1.276	-0.134	0.996
V9	2.100	2.000	1.000	5.000	1.334	-0.248	1.029

Measurement Model

The results from the measurement model provide us with helpful insight into validity and reliability, which can inform our approach to analyzing the relationships between constructs. This confirmation of a reliable construct validity allows us to test our hypotheses related to the effect of Motivational Intensity on WTC and the mediating role of Boredom and Enjoyment. The measurement model was evaluated through outer loadings, average variances extracted (AVE), composite reliability (CR), rho-a, and Cronbach's alpha coefficient, and the results are summarized in Table 1.

Table 2

Construct Reliability and Validity

	Cronbach's Alpha	Rho-A	Composite Reliability	Average Variance Extracted (AVE)
Boredom	0.850	0.860	0.892	0.624
Enjoy	0.730	0.865	0.824	0.569
MI	0.868	0.873	0.919	0.791
WTC	0.911	0.919	0.933	0.736

Construct reliability and validity metrics, with satisfactory levels indicated by Cronbach's alpha ≥ 0.70 , composite reliability (CR) ≥ 0.70 , and average variance extracted (AVE) ≥ 0.50 .

- All item loadings surpassed the suggested threshold of 0.70, indicating good convergent validity. ([Hair et al., 2022](#))
- Composite reliability for all constructs was above 0.70, confirming internal consistency. ([Hair et al., 2022](#))
- The AVE values for all constructs also surpassed 0.50, further supporting convergent validity. ([Hair et al., 2022](#))

Discriminant validity was analyzed through both the Fornell-Larcker criterion and Heterotrait-Monotrait Ratio (HTMT). The HTMT values were below the threshold of 0.85, confirming adequate discriminant validity among constructs ([Hair et al., 2022](#)). Except for a value of 0.893 between MI and Enjoy, which is slightly above the ideal threshold of 0.85 but remains within an acceptable range ([Garson, 2016](#)), all other values were below 0.70, as shown in Table 2.

Table 3

Fornell-Larcker Criterion

	Boredom	Enjoy	MI	WTC
Boredom	0.790			
Enjoy	-0.532	0.754		
MI	-0.549	0.777	0.890	
WTC	-0.443	0.519	0.530	0.858

Values in bold are square roots of AVE values of the constructs.

Our analysis revealed an HTMT value of 0.893 between "MI" and "Enjoy," which is slightly above the commonly recommended threshold ([Henseler, et al., 2015](#)) but still within a range that some researchers consider acceptable under specific conditions "the more liberal cutoff value $< .90$ " can be adopted ([Hair & Alamer, 2022, p 7](#)). Theoretically, MI and Enjoy are distinct yet related concepts; thus, some overlap is expected without compromising their discriminant validity entirely ([Lan, et al., 2023](#)). Despite the high correlation in our dataset, both constructs demonstrated strong internal consistency and convergent validity with other relevant measures.

Table 4

Heterotrait-Monotrait Ratio (HTMT)

	Boredom	Enjoy	MI	WTC
Boredom				
Enjoy	0.596			
MI	0.636	0.893		
WTC	0.491	0.569	0.586	

Structural Model

As for collinearity among main constructs, it was evaluated using Variance Inflation Factor (VIF) values, which ranged from 1.078 to 2.073, showing no significant collinearity among independent variables in our model. Path coefficients were calculated to determine significant relationships among the constructs. Bootstrapping with 1000 iterations was performed to estimate main and mediation effects and their statistical significance. The structural (inner) model analysis showed several significant relationships between our constructs. The constructs MI and WTC enjoyed a positive and statistically significant relationship ($\beta = 0.255$, $p < 0.05$), which indicates a rise in Motivational Intensity can increase WTC levels. Likewise, Enjoyment and WTC witnessed a positive relation ($\beta = 0.223$, $p < 0.05$), suggesting the role of Enjoyment in improving WTC.

Table 5

The R^2 Values for the Constructs

Construct	R2	R2 Adjusted	Q ²
Boredom	0.302	0.299	0.182
Enjoy	0.619	0.616	0.337
WTC	0.333	0.326	0.235

The above values suggest that the proposed model explains approximately 30% of the variance in boredom, 62% in enjoyment, and 33% in WTC. Using the blindfolding procedure, the predictive relevance of the model was also assessed. This method evaluates how well a model predicts new data through the calculation of the Q² values for each construct. The

StoneGeisser's Q2 values for Boredom (0.182), Enjoyment (0.337), and WTC (0.235) were higher than zero, which indicated the acceptable predictive ability of the suggested model.

Model Fit

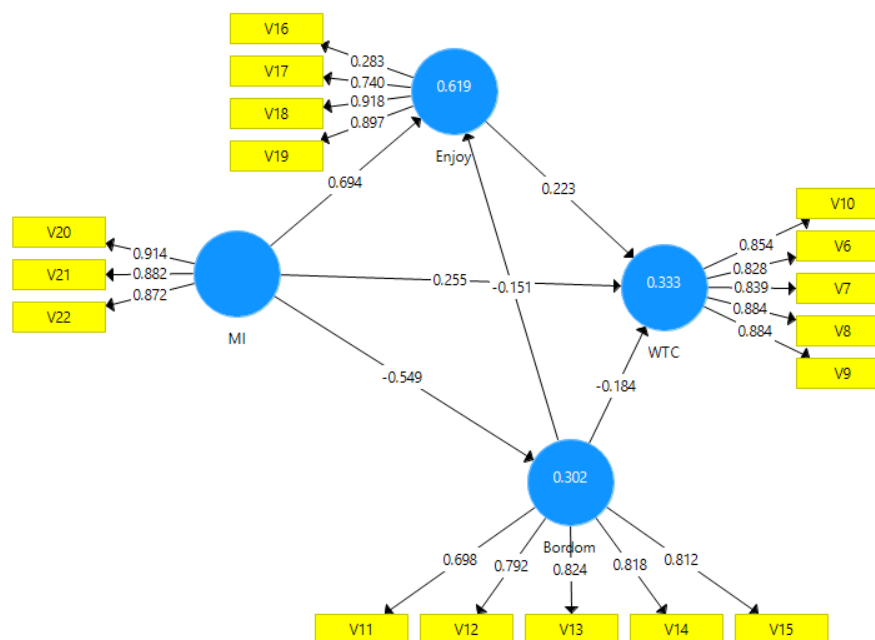
Model fit was evaluated using Standardized Root Mean Square Residual (SRMR) and other fit indices:

- SRMR value: 0.07, indicating good model fit as it is below the cutoff of .08 (Hu & Bentler, 1999).
- NFI value: 0.83, suggesting a good fit for the model.

The overall results of the PLS-SEM analysis provide compelling evidence concerning the relationships among motivational intensity, boredom, enjoyment, and WTC among Iranian EFL learners.

Figure 1

Model Fit



The outer loadings for all indicators show high relationships, with the exception of V16 under the Enjoy construct, which is 0.283, which is relatively low compared to other indicators. After two experts evaluated its wording and contribution to the model, the decision was made to maintain the item (Garson, 2016).

Mediation Analysis Report

This report outlines the mediation effects observed in the model examining the relationships between Motivational Intensity (MI), Enjoyment (Enjoy), Boredom (Boredom),

and WTC (WTC) among English as a Second Language (EFL) learners. The analysis includes direct (Table 5), indirect, and total effects among these constructs.

The path coefficients for the relationships, including direct, specific indirect, total indirect, and total effects in the structural (inner) model are illustrated in Table 6:

Table 6

Direct, Specific Indirect, Total Indirect, and Total Effects

Direct Effect	Beta	SE	<i>t</i> value	<i>P</i> value
Boredom → Enjoy	-0.151	0.065	2.308	0.021
Boredom → WTC	-0.184	0.080	2.300	0.022
Enjoy → WTC	0.223	0.096	2.322	0.020
MI → Boredom	-0.549	0.052	10.527	0.000
MI → Enjoy	0.694	0.050	13.812	0.000
MI → WTC	0.255	0.095	2.686	0.007
Specific Indirect Effect				
MI → Boredom → Enjoy	0.083	0.038	2.154	0.032
MI → Boredom → WTC	0.101	0.045	2.270	0.023
Boredom → Enjoy → WTC	-0.034	0.025	1.370	0.171
MI → Boredom → Enjoy → WTC	0.018	0.014	1.278	0.202
MI → Enjoy → WTC	0.155	0.065	2.395	0.017
Total Indirect Effect				
Boredom → WTC	-0.034	0.025	1.370	0.171
MI → Enjoy	0.083	0.038	2.154	0.032
MI → WTC	0.275	0.076	3.594	0.000
Total Effects				
Boredom → Enjoy	-0.151	0.065	2.308	0.021
Boredom → WTC	-0.218	0.078	2.799	0.005
Enjoy → WTC	0.223	0.096	2.322	0.020
MI → Boredom	-0.549	0.052	10.527	0.000
MI → Enjoy	0.777	0.024	31.791	0.000
MI → WTC	0.530	0.053	9.968	0.000

*The critical *t* value is equal to 1.96 for a two-tailed significant level of 5%.*

An indirect effect is a kind of effect produced from one variable to another that is intervened by a third variable (or more) in a causal relationship (Gonzalez et al., 2023). The analysis of indirect effects – showing how one construct influences another through a mediating variable – in this model reveals several significant pathways. Indirect effects reveal significant pathways, confirming the mediating roles of Boredom and Enjoyment. Taking our insights derived from mediation relationships, we can now examine the total effects of Motivational Intensity and Enjoyment on WTC. This comprehensive view can help understand the direct and indirect influences simultaneously. As can be seen, although the total indirect effect of boredom on WTC is not significant (*p*-value = 0.172), the total indirect effect of MI on WTC is significant (*p*-value = 0.000), with the additional observation that the total indirect effect of MI

on Enjoyment is also significant (p -value = 0.026). These results indicate several significant relationships between Motivation and Enjoyment ($\beta = 0.777$, $p < 0.05$), which help understand their interplay. Building on the mediation analysis, While Boredom has a significant direct effect on WTC (-0.184), its indirect effects through Enjoyment are not significant (-0.034, p -value = 0.172). In contrast, MI demonstrates both direct (0.255, p -value = 0.005) and indirect (0.275, p -value = 0.000) pathways that significantly enhance WTC. This suggests that interventions aimed at increasing Motivational Intensity could be more effective in improving communication willingness than solely addressing boredom or enjoyment. Moreover, considering the non-significant indirect effect of Boredom, it may be beneficial to explore additional mediating variables or contextual factors that could influence the relationship between Boredom and WTC.

Discussion

The present inquiry sought to assess how motivational intensity, enjoyment, and boredom anticipate Iranian students' willingness to interact in educational settings. This suggests that students with higher motivational intensity (those who are more driven or determined) are more likely to feel willing and ready to communicate.

One possible argument for the positive correlation between willingness to interact and motivational intensity is students' internal motive and interest because these two factors are critical predictors that influence students' second/foreign language WTC. Motivation and interest are two main factors influencing second language proficiency as well as WTC ([MacIntyre et al., 1998](#); [Dornyei, 2005](#)). The complete uniformity of the current exploration's outcomes with the results of other inquiries conducted by [Amiryousefi \(2016\)](#) and [Pasban and Narafshan \(2020\)](#) is completely explicit. [Pasban and Narafshan \(2020\)](#), in line with [Amiryousefi \(2016\)](#), investigated the effects of educational motivation on the trainees' WTC and obtained findings suggesting that undergraduate students who enjoy more educational motives would exhibit greater involvement in second-language communication.

Another explanation for the direct correlation between willingness to interact and motivational intensity could be due to communicative teaching methods and strategies (Task-Based Language Teaching, Role-Play, and Simulation, Group Discussions and Debates, Scaffolded Interaction Techniques, Project-Based Learning) that boost the trainees' involvement in interaction. In this respect, [Peng \(2020\)](#) carried out an investigation and concluded that teaching strategies can positively impact students' WTC. Yet another probable justification for the positive correlation between willingness to interact and motivational intensity may stem from the fact that self-motivation frameworks, such as the ought-to self and the ideal self, may affect students' engagement in educational interactions. The present inquiry results find partial similarity with previous research conducted by [Lee and Lee \(2020\)](#) and [Sadoughi and Hejazi \(2023\)](#), who explored the self-motivation framework's effect on secondary

school pupils' willingness to interact. The results revealed that the stronger the second language ought-to self and idealized self, the greater the willingness to engage in communication.

Concerning the second investigation question regarding boredom's negative influence on willingness to interact in a foreign language, one could infer that boredom serves as a substantial barrier to willingness to interact. In the research at hand, the researchers investigated whether a high boredom level correlates with a lower WTC level. The current study's findings revealed that boredom is a discouraging or inhibiting factor that impedes students from participating in communication. One possible justification for the negative correlation between boredom and WTC might be anxiety and stress. In fact, in educational, psychological, or social contexts, affective factors, including anxiety, not only impact motivation, learning, and performance but also have a negative effect on a person's behavior, cognition, and overall mental state. As a result, students with high anxiety levels may avoid participating in classroom activities, which would, in turn, lead to their boredom. In this regard, [Kruk \(2020\)](#) conducted an inquiry examining the impact of anxiety, motivation, and boredom on willingness to engage in communication. He highlighted the fact that not only can anxiety diminish students' willingness to take part in communication, but boredom can as well. In his study, he also suggested that reflecting on previous unfavorable events and experiences may hinder students' participation in educational interaction. As a result, this passivity and disengagement among students may contribute to their feelings of boredom. Finally, [Kruk \(2020\)](#) concluded that reducing students' boredom and anxiety (through engaging in activities and topics) could enhance their communication in second-language classrooms.

Another explanation for the inverse relationship between willingness to interact and boredom may be attributed to a lower enjoyment level. Enjoyment is regarded as a key factor influencing achievement and enthusiasm for participating in communication. [Li et al. \(2022\)](#) found that increased enjoyment is connected to reduced boredom, and lower boredom levels can result in greater participation in the classroom and enhanced language skills. The third probable justification for the inverse relationship between willingness to interact and boredom could be the absence of an enthusiastic teacher. In this regard, [Fallah et al. \(2024\)](#) conducted an inquiry focusing on teacher enthusiasm's influence on learners' readiness to communicate, with an emphasis on enjoyment and boredom. Their investigation results implied that when pupils perceive their instructor as passionate about teaching a second language, they tend to feel fewer negative emotions, like boredom, and more positive emotions, such as enjoyment. Consequently, they are more inclined to participate in interaction. An enthusiastic instructor who genuinely enjoys the act of teaching can transmit that enjoyment to students, helping to reduce feelings of boredom.

To clarify the theoretical implications of the differentiations between boredom and motivational intensity in influencing WTC, these concepts can be examined through key motivation theories. According to the Self-Determination Theory, boredom has always been regarded as a blocking factor to motivation because it diminishes intrinsic motivation and

makes learners less motivated to participate in interactions ([Deci & Ryan, 1985](#)). In contrast, MI can increase motivation, as highlighted by the Expectancy-value Theory ([Eccles & Wigfield, 2002](#)), which suggests that learners' effort and engagement in interaction align with how important they perceive the task to be. This differentiation clarifies that, despite boredom leading to disengagement, motivational intensity increases WTC. Theoretical implications suggest that reducing boredom could dramatically increase motivation.

In addressing the third inquiry question concerning the positive impact of enjoyment on willingness to interact, multiple research studies have been conducted, all reaching the same conclusion: higher enjoyment levels are associated with a greater WTC. From another perspective, when students find communication tasks pleasurable, they tend to be more likely to feel driven and eager to engage in them. Consistent with the present study findings, [Arabai \(2022\)](#) found that enjoyment facilitates the association between willingness to interact and motivation, indicating that fostering enjoyment can enhance learners' willingness to communicate. Similarly, [Fallah et al. \(2024\)](#) demonstrated that foreign language enjoyment significantly predicts WTC, with teacher enthusiasm indirectly influencing WTC through enjoyment. [Zhao et al. \(2023\)](#) also revealed that enjoyment strengthens the link between second language motivation and proficiency. [Tang et al. \(2024\)](#) also emphasized the enjoyment mediating effect in the connection between language proficiency, the motivational self-system, and intercultural communication competence, suggesting that enjoyment fosters both linguistic and communicative abilities.

One probable argument for the positive correlation between enjoyment and willingness to interact may be attributed to the influence of the classroom environment, which significantly impacts enjoyment and WTC. The current study outcomes align partially with [Khajavy et al.'s \(2018\)](#) findings, which reveal that a supportive educational setting positively influences both willingness to engage in communication and enjoyment. It is evident that in an educational setting where instructors provide guidance, pupils collaborate, and tasks are both engaging and challenging, learners experience less anxiety, greater enjoyment, and higher WTC. Another possible explanation for the positive correlation between enjoyment and WTC might be related to grit. Grit can greatly influence an individual's enjoyment and WTC. It fosters resilience and determination, enabling individuals to overcome challenges and persist in communication efforts despite potential difficulties or failure. This study's results align with previous research conducted by [Yu and Ma \(2024\)](#), which found that grit factor not only promotes a growth mindset but also provides learners with the persistence needed to actively and consistently participate in communication, thereby increasing their WTC. The third probable justification for the positive correlation between willingness to engage in interaction and enjoyment could be interpreted through [Lu's \(2024\)](#) emotion-related research. He explained that one probable argument for a positive connection between enjoyment and WTC could be the role of emotions. Emotions are a constant presence in the language acquisition procedure. Acquiring a foreign language often brings emotional fluctuations. Positive emotions significantly contribute to

reducing fear and anxiety, which are known barriers to L2 WTC. They play an essential role in influencing fluctuations in WTC over time. By cultivating positive emotions, educators can enhance learners' enjoyment, which in turn fosters a stable, flow-conducive emotional state and boosts willingness to interact in communication.

Focusing on the fourth investigative question regarding the mediating effect of enjoyment on motivational intensity and its impact on the WTC, multiple investigations provide partially similar invaluable outcomes ([Alrabai, 2022](#); [Khajavy et al., 2018](#); [Sadoughi & Hejazi, 2023](#); [Zhao et al., 2023](#)). The exploration of whether enjoyment serves as a bridge in how motivational intensity influences WTC is overemphasized. The focus on enjoyment as an intermediary factor needs to be reduced. From previous studies, it could be inferred that motivational intensity leads to greater enjoyment, and this enjoyment factor, in turn, increases WTC. The current study revealed that motivational intensity positively influences second-language learners' willingness to interact, with enjoyment serving as a mediating factor. These findings align with those of [Alrabai \(2022\)](#), who similarly concluded that enjoyment is mediating in the connection between willingness to interact and motivation for English as a foreign language. In another study partially consistent with the current findings, [Khajavy et al. \(2018\)](#) explored the enjoyment mediating role in the connection between pupils' willingness to interact and the classroom environment. These findings highlighted the enjoyment's significant role in fostering greater WTC, revealing a linear relationship between willingness to interact and a joyful classroom environment. According to the aforementioned research findings, one possible justification for motivational intensity having a positive impact on the second-language WTC through enjoyment might stem from a joyful classroom environment, which acts as a motivator that triggers students' enjoyment and, as a result, boosts their enjoyment in classroom participation and is consequently enhanced.

This is another study that is consistent with the present study results. It was conducted by [Sadoughi and Hejazi \(2023\)](#). Their study also examined the enjoyment mediating role in the connection between willingness to interact and the second language's motivational self-system. The outcome showed that enjoyment derived from learning facilitated the connection between all second-language motivational self-system dimensions, except for willingness to engage in communication and the ought-to self. Specifically, when learners envision themselves as proficient second-language communicators residing in an English-oriented setting and utilizing English for personal and professional reasons, they become increasingly motivated and perceive studying English as an enjoyable and rewarding experience. Another probable justification that motivational intensity positively affects the second language WTC might be due to the motivational self-system, whereby learners imagine themselves as proficient and competent second language users. This kind of imagination motivates them to pursue and engage in the class communication activities with more enjoyment. [Zhao et al. \(2023\)](#) investigation is consistent with the current study findings, which indicated that second-language enjoyment partially mediates the connection between self-perceived language proficiency and

motivational intensity. They inferred that enjoyment has the potential to enhance pupils' happiness and engagement in second-language learning. Yet another possible explanation for the positive effect of motivational intensity on foreign language willingness to interact through enjoyment mediation could stem from the fact that pupils with higher enjoyment levels during learning processes are more inclined to achieve success in language acquisition.

Concerning the final investigation question about boredom's mediating negative role in the connection between WTC and motivational intensity, numerous investigations have been implemented, and their results are in sync with the current study outcomes. They all came to the fact that boredom might mediate the relationship by reducing the positive effect of motivational intensity, thereby lowering WTC. Therefore, it could be inferred that boredom likely plays a different role - acting as a barrier rather than a mediator. A study consistent with the present findings was conducted by [Fallah et al. \(2024\)](#). They concluded that teacher enthusiasm positively influenced both foreign language enjoyment and WTC while being negatively associated with boredom. In other words, negative deactivating emotions like boredom hinder students' willingness to participate in classroom interactions by undermining their enjoyment. One possible explanation for boredom mediating a negative effect of motivational intensity on WTC could be that boredom indirectly impacts language learning outcomes by reducing engagement and weakening the effectiveness of motivational intensity. The present study results are also congruent with the investigation carried out by [Zhao et al. \(2023\)](#), which explored boredom as having both moderating and detrimental effects. Specifically, second-language boredom negatively influences the connection between second-language enjoyment and motivational intensity, meaning that higher boredom levels weaken the positive connection between enjoyment and motivational intensity. Another possible explanation for boredom mediating a negative impact of motivational intensity on willingness to interact could be its harmful impact on language learning competence, motivational behavior, and enjoyment of the English language.

In the same vein, [Khajavy et al. \(2018\)](#) explored a topic related to the variables of this study, but instead of focusing on boredom as a detrimental emotion, they examined the negative anxiety effect as a mediating factor on WTC. It shows the same result: anxiety, like boredom, negatively affects the connection between willingness to interact and the educational setting. Yet another investigation carried out by [Kruk \(2020\)](#), almost in coordination with the results of this study, examined how factors like WTC, language anxiety, boredom, and motivation affect language learning in virtual environments. High WTC and motivation, along with low anxiety and boredom, lead to better learning outcomes, while low WTC and motivation, combined with high anxiety and boredom, hinder progress. In this study, too, the destructive effect of boredom on willingness to engage in communication was confirmed. The present inquiry also confirms [Li et al. \(2022\)](#) investigation, whose investigation discovered a strong negative association between foreign language boredom and enjoyment, suggesting that pupils who take pleasure in learning English are less inclined to experience boredom, and those who experience boredom

tend to have lower levels of enjoyment. Finally, [Tang et al. \(2024\)](#) explored the same topic, with the results in line with the current study findings. They found that emotions have a critical effect on learning: positive emotions help students learn better, while negative emotions such as anxiety and boredom hinder achievement in second language acquisition and communication.

Conclusion

The current work examined the link among enjoyment, willingness to interact, motivational intensity, and boredom among Iranian EFL students, applying structural equation modeling. The results uncovered a considerable association among the variables under investigation in this study, implying that both motivational intensity and enjoyment exert a positive influence on students' communication willingness, while boredom has a negative influence. Furthermore, enjoyment was recognized as a significant predictor of greater motivational intensity and, consequently, of higher WTC. It should be highlighted that boosting an enjoyable and motivating learning atmosphere can enhance foreign language learning dramatically and simultaneously decrease the possibility of boredom.

Mastering a new language could be challenging because numerous factors, such as social, cognitive, affective, environmental, and psychological factors, interplay with each other, and their combined influence contributes to mastering the second language. Among all affecting factors, "motivation" (which is one variable under study in this investigation) is regarded as a crucial element that affects second language proficiency ([Dewaele et al., 2022](#)). Several implications could be drawn from the findings of the current study. According to the present study results, second language learners are various in their positive emotions (enjoyment), negative emotions (boredom), and affective factors (motivation), which influence their second language's WTC. These aforementioned factors may directly or indirectly be related to the second/ foreign language WTC. Being familiar with these variables and differentiating students based on their application or reluctance toward these factors could pave the way for second/ foreign language instructors to provide an appropriate communicative environment. This would promote students' speaking skill, which finally leads to greater willingness to engage in communication.

To diminish boredom levels and boost motivation among disengaged students, teachers should be initiative and creative in designing fascinating and new classroom tasks and activities, transform the class into a lively environment in which all students are actively involved in interesting classroom activities in a calm and relaxed manner, and promote a friendly and humorous group-work atmosphere so that classroom becomes a welcoming space where students learn with ease and without boredom or anxiety.

Recognizing students' affective filters ([Krashen, 1982](#)) is also highly important. School instructors should take this into account while teaching. The more instructors reduce negative affective filters-such as anxiety and boredom- the more they can make educational materials

understandable, pleasurable, and enjoyable for students. However, an anxiety-free classroom alone doesn't provide the atmosphere for students learning (. Teachers must exert a balance between "enjoyment" and "anxiety," as a mild level of anxiety is necessary since these two emotions often coexist in the educational environment. The current study also offers some beneficial insights for future investigators, suggesting they broaden their focus beyond negative constructs like stress and anxiety to incorporate both negative and positive emotions. It encourages them to conduct similar research from a broader and more detailed perspective, considering all dominating factors influencing WTC and learning to speak freely in both the classroom and the social context. The interplay of emotional, motivational, social, and cognitive factors influencing WTC suggests that educators should adopt a holistic approach when designing second language learning environments.

The main limitation concerning this investigation is the sample size and scope, as the study was conducted in just one city in Iran. This limited scope restricts the generalizability of the findings. Furthermore, the study relied solely on a quantitative methodology, a Mixed-methods approach, incorporating qualitative methods (e.g., interviews or observations), which could provide and enhance the reliability of the findings. Moreover, the study utilized a cross-sectional design, which limits the ability to draw conclusions about relationships or observe changes over time. It is recommended that future research apply a longitudinal design. Additionally, this study focused on a limited range of motivational factors. Further studies should explore other affective and cognitive factors, such as anxiety, stress, and shyness. Self-efficacy and autonomy. This would provide a more comprehensive understanding of how these psychological factors influence WTC in a foreign language. These factors align with theoretical frameworks like Self-Determination Theory (Deci & Ryan, 1985), which highlighted the role of internal motivation, and Expectancy-Value Theory ([Eccles & Wigfield, 2002](#)), which clarifies how perceived value and efforts affect behavior.

Acknowledgments

We would like to thank the editorial team of TESL Quarterly for granting us the opportunity to submit and publish the current synthesis. We would also like to express our appreciation to the anonymous reviewers for their careful, detailed reading of our manuscript and their many insightful comments and suggestions.

Declaration of conflicting interests

The authors declare no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for this article's research, authorship, and/or publication.

References

- Alrabai, F. (2022). Modeling the relationship between classroom emotions, motivation, and learner WTC in EFL: Applying a holistic approach of positive psychology in SLA research *Journal of Multilingual and Multicultural Development*, 45(7), 2465-2483.
- Amiryousefi, M. (2016). WTC, interest, motives to communicate with the instructor, and L2 speaking: a focus on the role of age and gender. *Innovation in Language Learning and Teaching*, 12(1), 1-14.
- Bensalem, E. (2022). The impact of enjoyment and anxiety on English-language learners' WTC. *Journal of Language and Education*, 8(4), 65-80.
- Bentler, R. A., & Bonett, D. G. (1980). The value of a good fit: The threshold for being considered a good fit. *Psychometrika*, 45(3), 257-266.
- Brown, H. (2000). *Principles of language learning and teaching*. Prentice Hall.
- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1-47.
- Chomsky, N. (1965). *Aspects of the theory of syntax*. MIT Press.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2), 109-134.
- De Smet, A., Mettwie, L., Galand, B., Hilgsmann, Ph., & Van Mensel, L. (2018). Classroom anxiety and enjoyment in CLIL and non-CLIL: Does the target language matter? *Second Language Learning and Teaching*, 8(1), 47-72.
- Dewaele, J.M., & Botes, E., & Greiff, S. (2022). Sources and effects of foreign language enjoyment, anxiety, and boredom: A structural equation modeling approach. *Studies in Second Language Acquisition*, 2(1), 1-19.
- Dewaele, J. M., & Dewaele, L. (2018). Learner-internal and Learner-external predictors of WTC in the FL classroom. *Journal of the European Second Language Association*, 2(1), 24-37.
- Dewaele, J.M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, 4(2), 237-274.
- Dornyei, Z. (2005). *The psychology of the language learners: Individual differences in second language acquisition*. Routledge.
- Eccles, J. S., & Wigfield, A. (2002). Motivational belief, values, and goals. *Annual Review of Psychology*, 53(1), 109-132.
- Fallah, N., Lotfi, B., & Zahedi, S. (2024). Teacher enthusiasm and EFL learners' WTC: The role of enjoyment and boredom. *English Teaching and Learning*, 1-9.
- Feng, L., & Papi, M. (2020). Persistence in language learning: The role of grit and future self-guides. *Learning and Individual Differences*, 81, 1-10.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56 (3), 218-226.
- Gardner, R. C. (1986). *Social Psychology and second language learning: The Role of Attitude and Motivation*. Edward Arnold.
- Garson, G. D. (2016). *Partial least squares. Regression and structural equation models*. Statistical Associates Publishers.
- Gonzalez, O., Valente, M. J., Cheong, J., & MacKinnon, D. P. (2023). Mediation/indirect effects in structural equation modeling. In R. H. Hoyle (Ed.), *Handbook of structural equation modeling* (pp. 409-426). Guilford Press.
- Ghonsooly, B., Khajavy, G. H., & Asadpour, S. F. (2012). WTC in English among Iranian non-English major university students. *Journal of Language and Social Psychology* 31(2), 197-211.
- Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, 1(3), 100027.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications.

- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
- Harris, M. B. (2000). Correlates and characteristics of boredom proneness and boredom. *Journal of Applied Social Psychology*, 30(3), 576- 598.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.
- Hymes, D. (1972). On communicative competence. In J.B. Pride & J. Holmes (Eds.), *Sociolinguistics: Selected readings* (pp. 269-293). Penguin.
- Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Khajavy, G. H, Ghonsooly, B., Hosseini Fatemi, A., & Choi, C. W. (2016). WTC in English: A microsystem model in the Iranian EFL classroom context. *TESOL Quarterly*, 50(1), 154-180.
- Khajavy, G.H., MacIntyre, P. D., & Barabadi, E. (2018). Role of the emotions and classroom environment in WTC: Applying doubly latent multilevel analysis in second language acquisition research. *Studies in Second Language Acquisition*, 40(3), 605-624.
- Krashen, S. (1982). *Principles and Practice in Second Language Acquisition*. Alemany Pr.
- Kruk, M. (2020). Dynamicity of perceived WTC, motivation, boredom and anxiety in second life: The case of two advanced learners of English. *Computer Assisted Language Learning*, 35(1-2), 190-216.
- Lan, G., Nikitina, L., & Woo, W. S. (2021). Ideal L2 self and WTC: A moderated mediation model of shyness and grit. *System*, 99, 1-11.
- Lan, G., Zhao, X., & Gong, M. (2023). Motivational intensity and WTC in L2 learning: A moderated mediation model of enjoyment, boredom, and shyness. *System*, 117, 103116.
- Lee, J. S. (2022). The role of grit and classroom enjoyment in EFL learners ' WTC. *Journal of Multilingual and Multicultural Development*. 43(5), 452-468
- Lee, J.S., & Lee, K. (2020). Role of L2 motivational self-system on WTC of Korean EFL university and secondary students. *Journal of Psycholinguistic Research*, 49(1), 147-161.
- Li, C., Dewaele, J.-M., & Hu, Y. (2021). Foreign language learning boredom: Conceptualization and measurement. *Applied Linguistics Review*, 1-27.
- Li, C., Dewaele, J.M., Pawlak, M., & Kruk, M. (2022). Classroom environment and WTC in English: The mediating role of emotions experienced by university students in China. *Language Teaching Research*, 1-22.
- Li, C., Jiang, G., & Dewaele, J.-M. (2018). Understanding Chinese high school students ' foreign language enjoyment: Validation of the Chinese version of the foreign language enjoyment scale. *System*, 76(3), 183-196.
- Lu, M. (2024). Exploring the relationship among emotions, WTC, and flow experience in Chinese EFL learners: a structural equation modeling approach. *Journal of Multilingual and Multicultural Development*.
- MacIntyre, P. D., Dornyei, Z., Clement, R., & Noels, K. A. (1998). Conceptualizing WTC in an L2: A situational model of L2 confidence and affiliation. *The Modern Language Journal*, 82(4), 545-562.
- MacIntyre, P. D., & Gardner, R. C. (1991). Methods and results in the study of foreign language anxiety: A review of the literature. *Language Learning*, 41(1), 85-117.
- MacIntyre, P.D., & Gregersen, T. (2012). Emotions that facilitate language: The positive- broadening power of the imagination. *Studies in Second Language Learning and Teaching*, 2(2), 193-213.
- MacIntyre, P. D., & Vincze, L. (2017). Positive and negative emotions underlie motivation for L2 learning. *Studies in Second Language Learning and Teaching*, 7(1), 61-88.
- McCroskey, J.C. (1992). Reliability and validity of the WTC scale. *Communication Quarterly*, 40(1), 16-25.

- Nikitina, L., Lan, G., & Woo, W. S. (2022). L2 motivation and WTC: A moderated mediation model of psychological shyness. *Linguistics vanguard*, 8(1), 225-235.
- Pasban, M. A. & Narafshan, M. H. (2020). The relationship between Learners' academic goal motives and L2 (second language) WTC in English Language classes: A look at academic goal motives ' orientation. *Coventry Psychology*, 7(1), 1-14.
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review*, 18(4), 315-341.
- Peng, J.- E., & Wang, Z. (2022). The predictive role of enjoyment, anxiety, and WTC on students ' performance in English public speaking classes. *International Review of Applied Linguistics in Language Teaching*, 62(2), 485-508.
- Peng, J. E., & Woodrow, L. (2010). WTC in English: A model in the Chinese EFL classroom context. *Language Learning*, 60(4), 834- 876.
- Peng, J. E. (2020). Teacher interaction strategies and situated WTC. *ELT Journal*, 74(3), 307- 317.
- Sadoughi, M., & Hejazi, S. Y. (2023). How can the L2 motivational self-system enhance WTC? The contribution of foreign language enjoyment and anxiety. *Current Psychology*, 43(3), 1-13.
- Shirvan, M. E., Khajavy, G. H., MacIntyre, P. D., & Taherian, T. (2019). A meta-analysis of L2 WTC and its three high-evidence correlates. *Journal of Psycholinguistic Research*, 48(6), 1241-1267.
- Tang, L., Zhang, C., & Chi, Y. (2024). A multi-group SEM analysis of the mediating role of enjoyment, anxiety, and boredom in the relationships between L2 motivational self-system, L2 proficiency, and intercultural communication competence. *Language Teaching Research*, 1-32.
- White, R. W. (1959). Motivation reconsidered. *Psychological Review*, 66(5), 297-333.
- Yashima, T. (2002). WTC in a second language: The Japanese EFL context. *The Modern Language Journal*, 86(1), 54- 66.
- Young, R. F. (2013). Learning to talk the talk and walk the walk: interactional competence in academic spoken English. *Ibérica*, 25(25), 15-38.
- Yu, X. & MA, J. (2024). Modeling the predictive effect of enjoyment on WTC in a foreign language: The mediating role of growth mindset and grit. *Journal of Multilingual and Multicultural Development*, 1-18.
- Zawodniak, J., Kruk, M., & Pawlak, M. (2023). Boredom is an aversive emotion experienced by English majors. *RELC Journal*, 54(1), 22- 36.
- Zhao, X., Lan, G., & Chen, T. (2023). Motivational intensity and self-perceived Chinese language proficiency: A moderated mediation model of L2 enjoyment and boredom. *Language Teaching Research*, 1-20.
- Zhang, L. J., A. Saeedian, S., & Fathi, J. (2022). Testing a model of growth mindset, Ideal L2 self, Boredom, and WTC in an EFL context. *Journal of Multilingual and Multicultural Development*, 45(8), 3450-3465.