



# Toward the Role of Iranian EFL Learners' Academic Engagement and Their Tolerance of Ambiguity in Predicting EFL Learners' Willingness to Communicate

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## Abstract

Academic engagement, tolerance of ambiguity, and willingness to communicate are each recognized as important contributors to second-language learning as they are correlated with many individuals, cognitive, meta-cognitive, and social constructs, yet their combined influence is not well understood from a pedagogical perspective in the Iranian EFL context. This study investigates how academic engagement and tolerance of ambiguity jointly predict Iranian EFL learners' willingness to communicate. Using a quantitative design, data were collected from 273 Iranian EFL learners using three validated instruments: the Academic Engagement Scale, the Second Language Tolerance of Ambiguity Scale, and the Willingness to Communicate Questionnaire. Pearson correlation analyses revealed positive relationships among the three constructs. Multiple regression analysis indicated that academic engagement and tolerance of ambiguity together explained 35% of the variance in WTC. These findings underscore the meaningful roles of engagement and ambiguity tolerance in second-language development. The paper closes with recommendations for EFL instructors, learners, and materials designers.

## 1. INTRODUCTION

A number of learner-centered factors shape second-language acquisition; among them, learners' willingness to communicate (WTC), academic engagement (AE), and tolerance of ambiguity (TA) play prominent roles. WTC, which is the readiness of an individual to converse with one or more specified individuals at a given time (MacIntyre et al., 1998), has been linked to improvements in language proficiency (Menezes & Juan-Garau, 2014; Rastegar & Karami, 2015). Likewise, active learner involvement in classroom activities is widely considered essential to improving educational quality and academic outcomes (Oga-Baldwin, 2019; Reschly & Christenson, 2022). TA also matters; higher tolerance helps learners cope with unfamiliar linguistic input and uncertain situations, thereby supporting success in English as a foreign language (Brown, 2000).

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Previous research has explored these constructs separately. The studies include investigations into WTC (Feng et al., 2026; Khajavy et al., 2016; Shahrokhi & Dehaghani, 2025), AE (Hu & Wang, 2023; Wang et al., 2025; Zhang et al., 2022), and TA (Ahmadi Safa & Jamshidi, 2017; Namaziandost et al., 2025). However, studies that consider AE and TA together as predictors of WTC are lacking. Prior work typically pairs each variable with different correlates, leaving a gap in our understanding of their combined predictive power. The present study addresses that gap by evaluating how AE and TA jointly contribute to Iranian EFL learners' WTC.

The choice to focus on AE and TA reflects their capacity to illuminate aspects of language learning that go beyond instructional methods and resource quality (Felder & Henriques, 1995). Recognizing how engagement and ambiguity tolerance affect WTC can inform strategies to bolster learners' achievement and professional competence in a second language. For instance, elevated ambiguity tolerance enables learners to approach novel or uncertain language tasks without excessive frustration (Chu et al., 2015), which in turn supports continued effort and participation. Thus, clarifying the roles of these variables carries practical implications for teachers, learners, and curriculum designers working in EFL contexts.

## 2. LITERATURE REVIEW

This review synthesizes research on WTC, AE, and TA among EFL learners.

### EFL Learners' WTC

WTC in a second language refers to a learner's readiness at a given moment to initiate or join a conversation with a particular person or group (MacIntyre, 2007). Yu (2011) framed WTC as learners' inclination to use the target language under these situational conditions. MacIntyre et al. (2003) argued that a central goal of language instruction should be to foster students' actual readiness to seek and take part in communicative opportunities. The subsequent empirical research confirmed this theory which demonstrated that WTC varied with classroom conditions yet maintained a connection to oral proficiency development and student ability to communicate in the long run (MacIntyre et al., 2003; Wood, 2016). Classroom environments which help WTC development create WTC-friendly settings through their delivery of teacher immediacy and supportive classroom atmosphere; recent research shows that teachers who display immediate verbal and nonverbal behavior patterns serve as essential predictors that determine both students' WTC and their academic engagement (Hu & Wang, 2023).

Due to WTC's importance in the outcomes of language learning (MacIntyre et al., 2003; Peng, 2012; Shamsi & Bozorgian, 2022), researchers have investigated both situational and individual antecedents. For example, contextual influences have been examined by Khajavy et al. (2018) and Peng (2019), while personal characteristics have been the focus of studies by Lee and Lee (2020) and Shahrokhi and Dehaghani (2025). Research that employed both correlational and structural models showed that learner motivation and low anxiety typically enhanced WTC while threatening or unsupportive classroom climates diminished WTC (Khajavy et al., 2018; MacIntyre et al., 2003). The research base shows substantial studies but researchers have conducted limited investigations into how learners' AE together with their TA affect WTC. Recent studies have established promising relationships between AE and WTC; Namaziandost et al. (2024) discovered that AE together with autonomy served as WTC predictors among Iranian EFL participants; researchers still need to understand how these findings work as mechanisms and which populations they can apply to. This study investigates how AE and TA interact as WTC predictors in classroom settings to fill this research gap.

## EFL Learners' AE

AE denotes the active involvement of students in learning activities and is widely recognized as a mechanism that supports desirable educational results, including achievement (Reschly & Christenson, 2022). Reeve (2013) characterizes engagement succinctly as what students do to make academic progress.

Researchers typically treat engagement as a multidimensional construct made up of related but distinct components. Reschly and Christenson (2022) identify behavioral, cognitive, and emotional engagement as complementary facets. In EFL settings, behavioral engagement captures observable effort, sustained attention, and perseverance with learning tasks. Emotional engagement involves learners' interest and reduction of negative feelings such as anxiety and frustration, as discussed by Skinner et al. (2008). Cognitive engagement describes the employment of sophisticated learning strategies and mental problem-solving processes (Reeve, 2013; Reschly & Christenson, 2022). In addition, Reeve and Tseng (2011) introduced agentic engagement to emphasize students' proactive contributions to shaping their educational experiences, and Reeve (2013) elaborated on this idea as learners' constructive actions to influence instruction.

Promoting engagement is a priority among language educators due to its links to long-term success in L2 learning (Mercer, 2019). Consequently, a body of work has examined factors that enhance student engagement (Derakhshan, 2021; Derakhshan et al., 2022; Ma & Bennett, 2021). Moreover, theoretical models describe various methods in which AE boosts WTC. The engagement process gives support to executive functions that include focused attention and planning and working memory while increasing intrinsic motivation that removes obstacles to communication and enhances speaking confidence (Boykin & Noguera, 2011; Wentzel & Miele, 2009). The engaged learners in practical situations demonstrate a higher tendency to participate in class discussions which maintains ongoing classroom dialogue; this pattern creates a situation where better communication skills develop (Parsons & Taylor, 2011; Schlechty, 2011; Zeng & Chen, 2026). The mechanism has received initial support from research as recent EFL studies found that specific kinds of student involvement, both behavioral and agentic, created positive links with student WTC during classroom time (Mystkowska-Wiertelak & Bielak, 2023; Namaziandost et al., 2024). The engagement training and task redesign activities provide further evidence which demonstrates that student engagement development programs do more than create a relationship between engagement and students' classroom performance as they actively boost their performance level.

The existing evidence has established a connection between AE and WTC; yet the research has significant knowledge gaps. First, the various studies about engagement dimensions lead to difficulties in establishing which WTC-affected dimensions (behavioral vs. cognitive vs. emotional vs. agentic) hold the greatest impact. Second, the research base lacks studies that investigate AE along with TA; hence researchers have not established how these two variables work together to predict WTC. These gaps motivate the current study's focus on the joint roles of AE and TA.

## EFL Learners' TA

TA is the capacity to remain composed and open-minded when confronted with unclear or novel input (Ehrman et al., 2003). Nezhad et al. (2013) and Han (2021a) describe ambiguity as uncertainty in learning situations that arises when cues are scarce or when learners cannot readily determine the appropriate interpretive context. Ambiguity typically surfaces in novel, complex, or contradictory circumstances. Theoretically, higher TA reduces affective barriers (e.g., anxiety, fear

of negative evaluation) when learners encounter unknown vocabulary, unclear meanings, or unpredictable communicative turns; thus, TA should support persistence in communicative attempts and reduce avoidance (Zarfsaz & Takkac, 2014).

Given the uncertain nature of language learning, TA has been identified as a useful trait for successful L2 development (Ehrman, 1999). Scholars have argued that learners who tolerate ambiguity are more willing to engage because they do not withdraw when tasks or input are unclear (Zarfsaz & Takkac, 2014). Consistent with this, Vahedi and Fatemi (2016) observed that higher tolerance tends to coincide with greater readiness to initiate and sustain conversations in the target language. Kurniasari and Indriani (2021) similarly report that students with higher TA interpret ambiguous classroom situations as less threatening, being more willing to take communicative risks. At the same time, not all findings are uniform. For example, Piechurska-Kuciel (2017) used multiple regression to examine TA alongside WTC, language anxiety, study duration, final grades, and self-rated foreign language skills among 537 EFL students and reported that TA did not emerge as a significant predictor of WTC in that sample. This pattern suggests that TA's influence on WTC may be partly indirect, operating through reductions in anxiety or increases in engagement, or may interact with situational factors such as task type and topic interest.

Taken together, the theoretical and empirical literatures suggest plausible routes by which TA might increase WTC (e.g., by lowering the affective filter and supporting engagement). Nonetheless, evidence is mixed and prior work rarely models TA and AE simultaneously especially in underrepresented contexts such as Iranian EFL classrooms. Moreover, no prior study has, to the best of our knowledge, simultaneously assessed the roles of academic engagement and tolerance of ambiguity as joint predictors of EFL learners' WTC in either general education or language education contexts. To address this gap, the present study investigates how AE and TA together relate to the WTC of Iranian EFL learners. The research questions guiding the inquiry are as follows:

1. Are there any significant associations among AE, TA, and WTC of EFL learners?
2. Do AE and TA significantly predict Iranian EFL learners' WTC?

### 3. METHODOLOGY AND DESIGN

A quantitative, non-experimental approach was employed to examine associations among the constructs of interest (Creswell & Creswell, 2017). The correlational design enables examination of the relationships between constructs without manipulating them. The primary objectives were to determine the extent to which AE and TA forecast WTC, and to explore how these learner characteristics relate to one another. Using this approach allowed the researchers to construct an explanatory model that quantifies the contribution of key predictors to variance in the outcome variable while also identifying which predictors are most influential (Field, 2024).

#### Participants

The research involved 273 Iranian EFL learners, consisted of 238 females and 35 males aged 13 to 29. They were selected from two private language schools in Shahreza and Ata-Abad and five high schools located in Dehaghan and Ata-Abad. Dörnyei (2007) established convenience sampling as the selection method, allowing researchers to include participants who met two criteria, namely their presence in the study area and enrollment in the study classes and their parents provided permission for minor participants.

The research team established active monitoring to prevent demographic biases that stem from convenience sampling because they would use different strategies to collect their data. The research team established simple demographic targets for gender and age bands prior to fieldwork,

which included 13–15, 16–19, and 20–29, to ensure that the final sample would include learners from different stages of schooling and early adulthood. The team monitored attendance records containing information about every site along with its attendance numbers which detailed both gender and age groups throughout the entire six-week collection period to detect underrepresented groups. The team handled demographic target shortfalls through practical solutions which included extending student invitations from underrepresented groups to extra classes and teachers to spread student invitations and they explored alternate educational sections in institutions and schools. The team used tracking tools to monitor response and completion rates, which led to their decision to exclude incomplete questionnaires based on their pre-established criteria. The study compared sample demographics to enrollment data from participating institutes to determine how closely the sample matched actual demographics through informal comparison methods because these data represented known enrollment figures. The monitoring procedures functioned to minimize nonprobability sampling restrictions through their selective process, but researchers should exercise caution when applying their findings beyond identical Iranian EFL study environments.

### Instruments

Data were collected through three instruments described below:

#### *WTC Questionnaire*

Learners' WTC was measured using the WTC questionnaire developed by [Weda et al. \(2021\)](#). The instrument includes a brief demographic section followed by 20 items designed to capture students' readiness, confidence, and affective disposition toward speaking English in classroom contexts. Participants responded on a five-point Likert scale ranging from Strongly disagree to Strongly agree, with higher scores reflecting greater WTC after reverse-coding negatively worded items.

The items tap both affective and behavioral dimensions of classroom communication. For example, the statement *"I am excited to speak in front of the English class"* reflects learners' positive emotional orientation toward public speaking, whereas *"I don't feel nervous to express my opinions in class discussions"* assesses communicative confidence and low anxiety. Together, such items provide a multidimensional representation of learners' communicative readiness in instructional settings. In the present study, the scale demonstrated satisfactory internal consistency (Cronbach's  $\alpha = .848$ ), indicating that the items coherently measured the underlying construct of WTC.

#### *Second Language TA Scale*

[Ely \(1995\)](#)'s TA Scale was selected because prior research has supported its psychometric properties. For example, [Piechurska-Kuciel \(2017\)](#) reported a reliability of .90 for this measure. In the current study, the twelve-item instrument was presented on a five-point Likert scale from Strongly Disagree to Strongly Agree to maintain consistency for respondents, and the obtained Cronbach  $\alpha$  reliability was .842.

#### *AE Scale*

AE was measured with the 22-item scale developed by [Reeve and Tseng \(2011\)](#). The scale captures four dimensions: cognitive, behavioral, emotional, and agentic engagement. Items were rated on a seven-point scale from Completely Disagree to Completely Agree. Previous research has found this scale to be a reliable and valid indicator of learner engagement in language learning contexts

(Derakhshan & Noughabi, 2024). The scale yielded high reliability in earlier work ( $\alpha = .926$ ) and in the current sample ( $\alpha = .909$ ).

### *Validity of Scales*

A multi-phase procedure was employed to carefully assess the questionnaires' validity to confirm their relevance, clarity, and cultural suitability for the learners. Two experienced Iranian EFL instructors made up the expert panel that first assessed each item in this respect. Boateng et al. (2018) and Susanto et al. (2023) define expert review of an assessment approach as determining whether the items measure the required construct. Therefore, this procedure follows best practices for scale development.

Subsequently, a pilot study was conducted with similar volunteer participants. The data was utilized to estimate completion times and look into possible issues with the scales. Furthermore, unclear items in the questionnaires were identified by asking participants to provide feedback (Skogestad et al., 2023).

Five pilot participants from the pilot study participated in cognitive interviews where they were asked to interpret the questions and describe their thought processes. The chosen items and the available responses were also analyzed. As per Skogestad et al. (2023), this kind of interview is a potent method for improving instruments since it offers insightful information about the causes of misunderstanding and misinterpretation.

None of the questionnaire items required to be removed, according to the findings from the expert panel, pilot study, and interview. It should be mentioned that ethical norms, including participant anonymity, informed consent, and voluntary participation, were followed throughout this process.

### **Data Collection Procedures**

Before data collection, the participants were reassured of the privacy and anonymity of the data, and their informed consent was collected in written format. Furthermore, participants were informed that they could leave at any time without any penalties; therefore, their participation in this study was voluntary. Moreover, consents were required from the guardians of the participants who were minors prior to data collection to complete the study's ethical protocol.

Data collection began on February 13, 2025, after the confirmation of ethical protocols. The scales were delivered in hard format in both Persian and English because the participants' first language was not English. The items were translated and then reviewed by a bilingual expert to guarantee conceptual equivalency, cultural appropriateness, and clarity with the original English version. The bilingual expert found that the translations were accurate and appropriate. Consequently, there was no need to modify the items' translation. The questionnaires required approximately fifteen minutes to complete. Once returned, the completed forms were checked for completeness and accuracy prior to analysis, following standard procedures (Creswell & Creswell, 2017). Data collection was completed over a period of approximately six weeks.

### **Data Analysis**

All analyses were performed using IBM SPSS Statistics, version 26. Pearson correlation coefficients were calculated to assess bivariate associations among the principal variables. In addition, multiple regression analysis was carried out to evaluate the predictive contribution of the independent variables, AE and TA, to the dependent variable, willingness to communicate. This analytic strategy made it possible to estimate the relative importance of AE and TA as predictors

and to quantify the proportion of variance in WTC that the model accounts for, consistent with procedures recommended in the literature (Hahs-Vaughn et al., 2020).

#### 4. RESULTS

##### Correlations

The associations among the study's primary variables were the subject of the first research question. After confirming normal distribution of data (using skewness and kurtosis) and that there were no notable outliers, the Pearson Correlation Coefficient was calculated to address the question. Several noteworthy correlations between the AE, TA, and WTC of EFL learners were noted (Table 1).

**Table 1: Correlations Analysis**

|     |                     | WTC    | TA     | AE     |
|-----|---------------------|--------|--------|--------|
| WTC | Pearson Correlation | 1      | .318** | .552** |
|     | Sig. (2-tailed)     |        | .000   | .000   |
|     | N                   | 273    | 273    | 273    |
| TA  | Pearson Correlation | .318** | 1      | .201** |
|     | Sig. (2-tailed)     | .000   |        | .001   |
|     | N                   | 273    | 273    | 273    |
| AE  | Pearson Correlation | .552** | .201** | 1      |
|     | Sig. (2-tailed)     | .000   | .001   |        |
|     | N                   | 273    | 273    | 273    |

**\*\*:**  $p < 0.01$

According to the Pearson correlation coefficients ( $r$ ), all of the correlations between the primary variables are positive and statistically significant ( $p < .05$ ). Notably, there are significant relationships between EFL learners' AE and their WTC ( $r = .552$ ,  $p = .000$ ). Similarly, EFL learners' TA and their WTC show a crucial interconnection ( $r = .318$ ,  $p = .000$ ). EFL learners' TA demonstrated a substantial link with their AE ( $r = .201$ ,  $p = .001$ ). Both Sig. 1-tailed and Sig. 2-tailed were used to confirm that the observed relationships are extremely improbable to have happened by chance. Two-tailed tests were performed, and all correlations were reported as  $p < .05$ . These results offer strong proof of statistically significant correlations between the variables. Furthermore, the correlations' strengths range from moderate (.201) to high (.552), indicating significant and substantial relationships between the variables. For example, the greatest association ( $r = .552$ ) is seen between AE and WTC among EFL learners. Therefore, understanding the links among these elements helps EFL learners comprehend the variables that can affect the process of their learning and academic achievement.

##### Predictive Power Analysis

Multiple regression analysis was employed to answer the study's second research question concerning how well AE and TA predict WTC. Prior to running the regression, the study tested the standard assumptions recommended for multiple regression procedures as described by Hahs-Vaughn et al. (2020). One diagnostic involved computing Cook's Distance for each case to detect influential outliers. Values greater than 1 are typically interpreted as indicating cases that could

unduly influence model estimates, and no observations exceeded this threshold in the present dataset. Consequently, no cases were removed on this basis.

Linearity between the predictors and the outcome was assessed next. Inspection of the data confirmed a linear association between the independent variables and willingness to communicate, satisfying another prerequisite for multiple regression. To evaluate multicollinearity among predictors, two strategies were used. First, the correlation matrix was examined to ensure that pairwise correlations among predictors were not excessively large. None exceeded the commonly cited cutoff of .80; the highest observed correlation was  $r = .552$ , which does not raise immediate concern. Second, formal collinearity diagnostics, tolerance and variance inflation factor (VIF), were calculated to provide an objective check. Following criteria suggested by Pituch and Stevens (2015), VIF values near or above 10 or tolerance values below .20 indicate problematic collinearity. In this analysis, the diagnostics were well within acceptable bounds, with  $VIF = 1.042$  and  $tolerance = .960$  for both predictors.

Normality of residuals was verified by inspecting a histogram of the standardized regression residuals, and the distribution appeared approximately normal. Presumption of independent errors was checked using the Durbin–Watson statistic, which ranges from 0 to 4 and is expected to be near 2 for independent residuals. The observed Durbin–Watson value was 1.912, which is close to 2 and therefore consistent with residual independence. Homoscedasticity, which requires that the variance of residuals remain roughly constant across predicted values, was examined by plotting residuals against predicted scores; the scatterplot did not indicate systematic patterns of increasing or decreasing variance, so the homoscedasticity assumption was considered satisfied.

The combined predictive strength of academic engagement and tolerance of ambiguity was represented by the coefficient of determination,  $R^2$ , which quantifies the proportion of variance in willingness to communicate explained by the predictor set. Cohen (2013)'s guidelines suggest interpreting  $R^2$  values of .02 as small, .13 as medium, and .26 or greater as large. The model produced an  $R^2$  of .350, which corresponds to a large effect according to these benchmarks. The overall significance of the model was tested with an analysis of variance for the regression. As shown in Table 2, the ANOVA indicated that the model accounted for a statistically significant amount of variance in willingness to communicate,  $F(2, 270) = 72.543$ ,  $p < .001$ , showing that the predictor set reliably improves prediction of the dependent variable.

**Table 2: ANOVA<sup>a, b</sup>**

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig. |
|-------|------------|----------------|-----|-------------|--------|------|
| 1     | Regression | 33.290         | 2   | 16.645      | 72.543 | .000 |
|       | Residual   | 61.951         | 270 | .229        |        |      |
|       | Total      | 95.241         | 272 |             |        |      |

**a. Dependent Variable: WTC**

**b. Predictors: (Constant), TA, AE**

As displayed in Table 3, examination of individual predictor coefficients clarified how each variable contributed to the model. The unstandardized coefficients indicate the expected change in the WTC score for a one-unit increase in a predictor while holding the other predictors constant. Results showed that AE had a B value of .321 (SE = .032), and TA had a B value of .165 (SE = .038). Both coefficients were statistically significant, with  $p < .001$  for each predictor. These values

imply that, all else equal, a one-unit increase in AE corresponds to an estimated 0.321-unit increase in WTC, while a one-unit increase in TA corresponds to an estimated 0.165-unit increase in WTC.

**Table 3: Coefficients<sup>a</sup>**

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|--------|------|
|       |            | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant) | 1.391                       | .183       |                           | 7.601  | .000 |
|       | AE         | .321                        | .032       | .509                      | 10.156 | .000 |
|       | TA         | .165                        | .038       | .216                      | 4.302  | .000 |

**a. Dependent Variable: WTC**

Standardized beta coefficients were examined to compare the relative importance of predictors measured on different scales. AE produced a larger standardized effect ( $\beta = .509$ ) than TA ( $\beta = .216$ ), indicating that AE contributed more strongly to predicting WTC in this sample. In sum, the regression model was statistically significant and explained 35% of the variance in EFL learners' WTC, with both AE and TA making meaningful and significant contributions to the prediction.

## 5. DISCUSSION

The main objective of this research was to explore how AE, TA, and WTC relate to one another among Iranian EFL learners. Statistical analyses provided clear evidence of positive, statistically significant associations among these constructs. Specifically, AE showed a strong positive relationship with WTC, TA demonstrated a moderate positive relationship with WTC, and TA and AE were themselves positively interrelated. These results indicate that learners who are more academically engaged tend to report greater WTC. In addition, students who score higher on TA also tend to report stronger AE and greater WTC.

The strong positive link between AE and WTC discovered in this study matches the increasing number of studies which show how different engagement elements predict students' ability to communicate. The recent empirical study showed that when students engage with cognitive and agentic methods of learning, their participation and WTC increase, which aligns with our finding that students with higher AE show more WTC (Mystkowska-Wiertelak & Bielak, 2023; Namaziandost et al., 2024; Zeng & Chen, 2026). Theoretical approaches show how student engagement helps develop executive function while boosting their intrinsic motivation (Boykin & Noguera, 2011; Parsons & Taylor, 2011; Reeve, 2013; Schlechty, 2011; Wentzel & Miele, 2009), explaining how students who engage with their studies will pay attention and learn through active methods which boost their motivation to work and help them to talk more (MacIntyre et al., 1998; MacIntyre, 2007).

Our finding that AE exerts a larger standardized effect on WTC than TA dovetails with studies that identify behavioral and agentic engagement as particularly potent correlates and predictors of classroom WTC (Mystkowska-Wiertelak & Bielak, 2023; Namaziandost et al., 2024). It also aligns with evidence that teacher behaviors and classroom climates which foster immediacy and engagement indirectly support WTC (Hu & Wang, 2023; Khajavy et al., 2018). Where our results extend prior work is in quantifying AE's relative contribution within the same regression model that also includes TA: AE appears to be the stronger proximal driver of WTC in this Iranian EFL sample, suggesting that interventions that directly build engagement (e.g., agentic

tasks, active learning, scaffolding) are likely to yield appreciable gains in communicative readiness.

Researchers have used multiple studies to prove that TA supports WTC through its ability to reduce emotional barriers which leads to improved communication (Vahedi & Fatemi, 2016; Zarfsaz & Takkac, 2014; Kurniasari & Indriani, 2021; Zhou, 2013). The studies found that students who can handle uncertainty stay calm during unpredictable dialogue situations which allows them to keep trying to communicate. This finding supports Krashen's 1981 Affective Filter Hypothesis which links lower anxiety levels to increased WTC according to multiple studies (MacIntyre et al., 2003; Rastegar & Karami, 2015).

At the same time, the literature contains noteworthy counterexamples. Piechurska-Kuciel (2017) reported that TA did not emerge as a significant predictor of WTC in a multivariate model that included anxiety and other covariates. Similarly, Hosseini Fatemi et al. (2016) documented an *indirect* association between TA and intercultural WTC via ethnocentrism rather than a direct effect. These discrepancies can be reconciled in part by methodological and contextual differences. Piechurska-Kuciel's sample and variable set (which included strong correlates such as anxiety and self-rated proficiency) likely attenuated TA's direct effect when those covariates were modeled; likewise, Hosseini Fatemi et al. highlight mediational pathways that render the relation between TA and WTC conditional on other psychosocial constructs. In contrast, our model, which included AE but not a detailed set of affective mediators (e.g., anxiety, ethnocentrism), found TA to be a direct, statistically significant predictor. This suggests TA can exert both direct and indirect influences on WTC, with the observed pathway depending on the other predictors included and the sociocultural context (e.g., Iranian EFL classrooms). The present results therefore reconcile prior mixed findings by showing that TA matters for WTC, but its role may be attenuated, amplified, or mediated by additional affective, contextual, or instructional variables (Hosseini Fatemi et al., 2016; Piechurska-Kuciel, 2017).

The positive correlation between AE and TA suggests that engagement and tolerance of ambiguity are complementary rather than antagonistic traits in the language classroom. This observation echoes literature that links resilience, adaptability, and positive engagement states (Derakhshan et al., 2022; Kianinezhad, 2024), and is compatible with claims that learners who remain involved in challenging tasks are likely to develop cognitive and emotional strategies that reduce the aversiveness of ambiguous stimuli (Chu et al., 2015; Ehrman et al., 2003). Namaziandost et al. (2025) and Vahedi & Fatemi (2016) likewise indicate interplay among adaptability, engagement, and willingness to communicate. The findings support the notion that TA may facilitate the maintenance of engagement in the face of uncertain or difficult tasks, thereby creating a reinforcing cycle that promotes WTC.

Multiple studies emphasize classroom context, teacher immediacy, and task features as moderators of WTC and engagement effects (Han, 2021b; Hu & Wang, 2023; Khajavy et al., 2018; Peng, 2019). Our findings are consistent with this literature; although individual differences (AE, TA) are meaningful predictors, their influence plausibly interacts with proximal classroom factors. For instance, teacher immediacy and autonomy-supportive behaviors appear to amplify the positive effects of engagement on WTC (Han, 2021b; Hu & Wang, 2023). Denies et al. (2015) and Peng (2012) show that the situational dimension of WTC can differ from broader societal WTC patterns, reinforcing the view that contextual supports (task design, topic interest, group composition) determine how individual characteristics translate into communicative action. Accordingly, the strong link between AE and WTC in the present dataset may reflect not only learner dispositions but also the routine instructional practices present in the participating schools (e.g., interactive tasks, teacher encouragement).

## 6. CONCLUSION

Explaining why some second-language learners achieve high levels of proficiency while others do not have long preoccupied researchers. Individual cognitive and affective differences play a central role in accounting for this variability. In line with this perspective, WTC can be treated as a priority outcome in language education.

The present study investigated how AE and TA relate to and predict WTC among Iranian EFL learners. Correlational and multiple regression analyses produced clear evidence that both AE and TA are positively associated with WTC. In particular, learners who reported greater engagement and higher TA also tended to report stronger WTC. The regression model further indicated that AE and TA together serve as significant, favorable predictors of WTC. These findings add to the literature on individual differences in second-language development by showing how psychological and behavioral learner characteristics jointly influence communicative readiness and, ultimately, language learning outcomes.

### Implications

This research has both theoretical and practical implications. From the theoretical perspective, the study provides empirical support for direct positive relationships among AE, TA, and WTC. Practically, the findings suggest several actions for EFL teachers, learners, and curriculum designers. Teachers should consider explicitly helping learners build tolerance for ambiguous or unfamiliar language situations so that students are better prepared to maintain communication when comprehension is incomplete. As [Kurniasari and Indriani \(2021\)](#) suggest, greater TA can bolster learners' confidence and encourage persistence in communication even when comprehension is challenged.

In addition, promoting student engagement and autonomy is likely to support WTC. Teachers can achieve this by using age-appropriate, relevant, and scaffolded learning materials and by fostering supportive, dialogic teacher–student interactions ([Han, 2021b](#); [Hart, 2002](#); [Li & Xue, 2023](#)). When learners feel that classroom activities are meaningful and that they have control over their participation, they are more inclined to take communicative risks and to remain involved in language tasks. For curriculum developers, these results recommend designing syllabi and assessments that foreground opportunities for authentic participation and that measure communicative engagement alongside traditional linguistic outcomes.

### Limitations and Further Research

Several limitations of the study should be acknowledged. First, the sample consisted exclusively of Iranian EFL learners, which may restrict how well the results generalize to other cultural and educational settings. Future research should replicate this study in diverse linguistic and geographic contexts to assess the robustness of the observed relationships. Second, the study relied on quantitative instruments, which are well-suited for detecting statistical associations but do not capture the nuanced, lived experiences that underlie constructs such as TA, engagement, and WTC. Qualitative methods, including interviews or stimulated-recall protocols, could illuminate how learners interpret ambiguous situations and how engagement develops over time. Finally, combining quantitative and qualitative methods in a mixed-methods design would strengthen construct validity and provide a richer understanding of the mechanisms connecting AE, TA, and WTC.

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