



## RESEARCH ARTICLE

## Cracking Test Anxiety Behavior: Exploring the Relationship Between Identity Orientations and Test Anxiety Behavior

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ARTICLE INFO	ABSTRACT
Received: Dec 29, 2025	<p>This correlational study investigated the relationship between identity orientations and test anxiety behavior among Iranian English as a Foreign Language (EFL) learners. The study had four principal objectives: the function of the relationship between test anxiety behavior and identity orientations, the predictive power of identity orientations in test anxiety levels, and the association of gender and age on the relationship between identity orientation and test anxiety. 200 EFL university students completed two scales: The Aspects of Identity Questionnaire (AIQ-IV) and the Test Anxiety Behavior Scale (STABS). Data analysis employed SmartPLS3 with a two-stage higher-order model, as well as multi-group analysis. In addition, the reliability of the questionnaires was assessed using Cronbach's alpha and composite reliability. Convergent and discriminant validity, on the other hand, were also checked by the Average Variance Extracted (AVE) and the Fornell-Larcker criterion. The findings report a moderate negative correlation between test anxiety behavior and identity orientation, though it was not statistically significant. Contrary to this, identity orientations were found to be significantly associated with test anxiety behavior, thus indicating that they are good predictors in Iranian EFL learners. As a major moderating factor, Gender differences revealed that the relationship between identity orientation and test anxiety differs in male and female participants. In addition, age, being one of the main moderators, varies with young learners (18-22) and old learners (above 22). Overall, the present study entails pedagogical significance in terms of psychological factors that affect language acquisition. Additionally, it proposes the importance of identity in understanding test anxiety among Iranian EFL learners.</p>
Accepted: Feb 21, 2026	
<b>Keywords</b>	
Identity Aspects of Identity Test Anxiety Behavior EFL Learners	
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### 1. INTRODUCTION

English as a Foreign Language (EFL) has been recognized worldwide as an important field of study due to its significant role in academic mobility, global communication, and career progression (Mohamed, 2024; Rose et al., 2019; Rose & Galloway, 2021; Wu & Shafait, 2024). Global analysis has also revealed that English proficiency remains an important strategic resource in the global education system and the global workforce (Galloway & Rose, 2025; Jenkins, 2024). Consistent with the increasing significance of EFL education, the need for understanding psychological factors that may affect the academic performance and success of students has been emphasized in recent literature (Nasir et al., 2023). Among these psychological factors, anxiety-related behavioral responses have been recognized as an increasing concern in modern psychological literature (Dewaele et al., 2024; Teimouri et al., 2025).

Test anxiety behavior is recognized as an important global academic concern with significant implications for academic achievement (Akinsola & Nwajei, 2013; Lee et al., 2024; Ugwuanyi et al., 2020). Modern conceptualizations of test anxiety have moved beyond emotional responses and include observable behavioral responses, such as avoidance, procrastination, and performance withdrawal (Putwain et al., 2023; Schoenfeld et al., 2025). Such observable responses are particularly detrimental, as they act as moderators between test anxiety and academic underperformance (McIntyre et al., 2024; von der Embse et al., 2018). EFL learners, in particular,

may experience test anxiety due to the cognitive and sociocultural challenges associated with the acquisition of a foreign language, which may exacerbate test anxiety responses due to communicative pressure, fear of negative evaluation, and identity-related vulnerability (Botes et al., 2022; Dewaele et al., 2024).

Significantly, substantial research evidence supports the notion that test anxiety is negatively related to academic achievement and may result in the underestimation of students' real potential (Cassady & Johnson, 2002). More recent longitudinal research also revealed that test anxiety-related behavioral avoidance, such as reduced preparation time and academic withdrawal, is related to lower academic achievement (Nguyen & Tran, 2024; Putwain et al., 2023). Furthermore, the social context, which includes teachers' and peers' social influences, is also an important factor in understanding students' sense of belonging and emotional regulation (Williams et al., 2021; Zhao et al., 2024). Social identity factors in classroom contexts may also affect students' understanding and management of test anxiety (Haslam et al., 2021).

Identity orientations, which include personal, social, and cultural identity, may be core factors in understanding students' behavioral responses to test anxiety. According to identity-based motivation theory, identity factors may affect students' motivation and coping responses (Oyserman, 2015). When academic success is related to personal identity, test anxiety may be appraised as an identity threat, which may lead to stronger test anxiety-related behaviors (Anderson et al., 2024). Although identity factors have been recognized in recent years in the field of educational psychology, relatively few studies have explored the role of identity factors in understanding test anxiety-related behaviors in EFL learners (Botes et al., 2022; Kim et al., 2025; Yu & Zhou, 2022).

Therefore, the present study aimed to investigate the relationship between identity orientations and test anxiety behavior in Iranian EFL learners. The study intended to contribute to a more profound understanding of the psychological process underlying academic performance by examining the relationship between personal, social, and cultural identity aspects and behavioral anxiety reactions. In addition, the moderating effect of gender and age was explored in the present study due to the increasing evidence suggesting the potential influence of these demographic factors on identity salience and anxiety reactions in academic settings (Lee et al., 2024).

Consequently, the researchers of this study attempted to answer the following research questions:

1. Is there any significant relation between Iranian EFL learners' identity orientations and their test anxiety behavior?
2. Can Iranian EFL learners' identity orientations predict their level of test anxiety behavior?
3. Is there any significant relation between Iranian EFL learners' gender, identity orientation, and their test anxiety behavior?
4. Is there any significant relation between Iranian EFL learners' age, identity orientation, and their test anxiety behavior?

## 2. LITERATURE REVIEW

Anxiety is a term used to describe a psychological state that is expressed in the behavior and activities of a person. This state is described as having various dimensions and is associated with different outcomes. In modern psychology, the state of anxiety is described as a multidimensional construct consisting of cognitive, emotional, physical, and behavioral factors that contribute uniquely to performance outcomes (Spielberger & Vagg, 1995; Putwain et al., 2023; Teimouri et al., 2025). These dimensions of the anxiety state have been found to impact performance in various academic settings, particularly in evaluation settings such as examinations. In modern psychology, the state of anxiety is viewed as a dynamic regulatory process in which cognitive worry, emotional tension, and behavioral avoidance combine to regulate academic performance (Putwain & von der Embse, 2026; Kim et al., 2025). This state of anxiety is normally accompanied by physical, mental, and behavioral problems in the process of preparing for the test or the actual test-taking process. However, some level of anxiety is normally present before the process of taking an examination, which may either positively or negatively impact the motivational states of a person. According to studies, moderate levels of anxiety have been found to positively impact alertness and engagement in a task according to the Yerkes-Dodson Law (Yerkes & Dodson, 1908; von der Embse et al., 2025).

High levels of anxiety have been found to negatively impact performance by leading to avoidance behavior and cognitive interference (Putwain et al., 2023; Teimouri et al., 2025).

Anxiety behavior, as defined by Abe & Gbenro (2024), pertains to a behavioral expression of anxiety, such as avoidance, procrastination, or disengagement. It emerges as a significant feature in the lives of people, especially in the context of academic settings such as universities. Recent research findings have revealed that the behavioral expressions of anxiety mediate the relationship between emotional distress and underachievement in academics (McIntyre et al., 2024; Nguyen & Tran, 2024; Putwain & von der Embse, 2026). The behavioral expressions of anxiety, such as disengagement, withdrawal, or decreased investment in cognitive processes, have reliably predicted underachievement in evaluation settings (Kim et al., 2025). Research findings have established the impact of anxiety behavior on English as a Foreign Language learners in the context of universities in foreign language settings (Balakrishnan et al., 2020; Miao & Vibulphol, 2021; Wang & Zhang, 2021; Masrul & Erliana, 2024; Zarei et al., 2024). In linguistically challenging settings, anxiety behavior in test settings can emerge as a function of fear of negative evaluation, linguistically related insecurities, and social comparison processes (Botes et al., 2022; Dewaele et al., 2024; Teimouri et al., 2025). Longitudinally, anxiety behavior in test settings emerges as a function of repeated exposure to evaluation settings, especially in second language learners (Kim et al., 2025; Putwain & von der Embse, 2026).

Research suggests that language anxiety behavior manifests more strongly compared to regular concerns regarding one's language ability (Holbrook & Hirschman, 1993; Gaudry et al., 1975, as cited in Ulme et al., 2022). The process of language acquisition can be associated with language anxiety behavior, particularly when the individual incorporates evaluative pressure into their self-concepts (Alderson-Day & Fernyhough, 2015; Fenyvesi, 2024; Uztosun & Kök, 2024). Recent research highlights the interrelated nature between language anxiety behavior and individual vulnerabilities associated with their academic identity (Teimouri et al., 2025; Kim et al., 2025). Recent research studies on language anxiety behavior indicate that it affects the overall educational and professional pathways that students take (Kim et al., 2025; Teimouri et al., 2025; Putwain & von der Embse, 2026). Recent research highlights the importance of examining the antecedents of language anxiety behavior, such as academic performance pressure, social comparison, and level-related expectations (Rabbi et al., 2024; Xue, 2023; Zhao et al., 2024; von der Embse et al., 2025).

Moreover, several studies suggest that identity includes several dimensions in the process of language learning (Daud et al., 2022; Fisher et al., 2020; Forbes et al., 2021). The current identity literature conceptualizes identity as a dynamic, socially constructed, and contextually negotiated construct in the context of an educational environment (Ward & Szabó, 2023; Negru et al., 2023; Singh & Marston, 2025; Kaplan & Flum, 2023). The identity dimensions are related to the personal identification processes and social role commitment of an individual (Brubaker & Cooper, 2000; Stets et al., 2009, 2020). The recent literature also emphasizes the role of identity threat as an important psychological trigger that activates the self-regulation, emotions, and physiological anxiety responses in an individual (Anderson et al., 2024; Caletti et al., 2025; Putwain & von der Embse, 2026). The identity threat also predicts the anxiety responses in the academic test context, such as avoidance, self-silencing, and performance withdrawal (Caletti et al., 2025). The identity also includes the internalized self-blame, self-evaluative thoughts, and physiological responses related to the identity failure (Parker Duarte, 2024; Wang et al., 2018; Kaplan & Flum, 2023). The identity-related vulnerability may increase the test anxiety behavior in the EFL context when the language performance is closely related to the learner's academic or professional identity (Teimouri et al., 2025). The learning processes may also be related to the identity construction and test anxiety behavior among the EFL university students (Werang & Harrington, 2022; Werang et al., 2024; Lopez et al., 2024; Singh & Marston, 2025). The recent 2026 literature also emphasizes the role of identity coherence and academic self-guides in the prevention of maladaptive test anxiety behavior (Putwain & von der Embse, 2026; Kim et al., 2025).

## **2.1 Research on Test Anxiety Behavior in Educational Settings**

Recent explorations of the essence of test anxiety represent an important area of academic research that has garnered much attention in recent years, as noted by Zwettler et al. (2018). Theoretical accounts of test anxiety have evolved to suggest that it is a multidimensional phenomenon that

entails cognitive, affective, physiological, and behavioral components (Putwain et al., 2023; von der Embse & Putwain, 2025). More recent meta-analytic studies have revealed that behavioral expressions of anxiety, such as avoidance, procrastination, and underpreparedness, are critical mediators that bridge internal emotional states and performance outcomes (Schoenfeld et al., 2025; Kim & Putwain, 2026). Although recent studies have continued to follow this tradition of research, recent investigations have focused on behavioral avoidance as an important factor that influences anxiety, as revealed by Putwain et al. (2023) and Schoenfeld et al. (2025). Recent longitudinal studies have revealed that repeated experiences of high-stakes evaluative situations contribute to avoidance-based anxiety that has negative implications for academic performance (Teimouri et al., 2025; von der Embse & Becker, 2026).

Alia and Talib (2015) studied the levels of test anxiety among students using the Children's Test Anxiety Scale. The authors measured the differences in test anxiety means from a gender perspective in relation to the three dimensions of test anxiety. The findings showed a significant level of anxiety as well as gender differences. Recent research inquiries have continued to reveal gender differences in anxiety. However, recent research findings suggest that gender differences in anxiety are influenced by factors such as self-concept, identity, and sociocultural factors rather than biology (Anderson et al., 2026; Singh & Marston, 2025). In addition, recent research in psychology suggests that test anxiety, specifically off-task behavior and cognitive interference, is a more robust predictor of underperformance compared to physiological symptoms (Lee et al., 2024; Kim & Putwain, 2026).

Popovska Nalevska et al. (2024) studied test anxiety levels among university students. The authors also investigated the effects of test anxiety on academic performance. The findings showed that anxiety leads to physical and psychological problems, reduces motivation, leads to decreased engagement in class, and causes errors in performance. Recent research findings have supported the findings of the study. The findings showed that anxiety affects working memory capacity, attentional control, and self-regulatory processes during examinations (Putwain et al., 2023; von der Embse & Putwain, 2025). Neurocognitive research in this area suggests that anxiety leads to cognitive load effects, thereby affecting working efficiency as well as increasing performance monitoring errors (Schoenfeld et al., 2025).

The recent studies on anxiety and academic performance suggest that behavioral disruptions associated with anxiety are more important predictors of academic performance than emotional distress (McIntyre et al., 2024; Lee et al., 2024). These recent findings support the self-regulation and control-value theories of achievement emotions, which suggest that behavioral avoidance is a proximal mechanism that links negative emotions to academic underachievement (Pekrun et al., 2025; Kim & Putwain, 2026). Moreover, cross-national studies conducted on a large scale in 2026 supported that behavioral avoidance associated with anxiety is an important predictor of grade decline, course dropout, and academic non-persistence even when prior achievement and socio-economic factors are controlled (von der Embse & Becker, 2026). These recent findings support that behavioral components of test anxiety are important explanatory mechanisms of academic performance outcomes, rather than epiphenomena of emotional distress.

Thus, in summary, the emerging picture of the evidence supports the argument that test anxiety in educational contexts can best be viewed as a multidimensional and dynamic construct, with behavioral avoidance and disengagement serving as critical mediators between underlying anxiety experiences and educational outcomes.

## 2.2 Identity Aspects

Significantly, considerable research has investigated the relationships between identity dimensions and other variables in diverse socio-educational settings with mixed and controversial findings (Razmjoo, 2010). Past research on EFL learners' identity dimensions emphasized the significance of further research to reveal the relationships between personal, relational, social, and collective identities with life orientations such as education outcomes and well-being (Ward & Szabó, 2023; Negru et al., 2023). The modern identity research views identity as a dynamic, context-dependent, and developmentally dynamic system rather than a trait-like entity (Kaplan & Flum, 2023; Singh & Marston, 2025). In the domain of educational psychology, identity now serves as a regulative framework influencing motivation, emotional states, goal commitment, and behavioral responses in socioeducational settings (Oyserman, 2025; Anderson et al., 2026).

To exemplify, Razmjoo (2010) and Rashidi & Mansurian (2015) investigated the relationships between identity dimensions and English language achievements in Iranian university students. In parallel, they investigated the relationships between demographic variables and language achievements with identity dimensions in Iranian EFL learners. The findings revealed that there was no significant relationship between language achievements and identity dimensions. Among demographic variables, only gender predicted personal and relational identities. Recent longitudinal and multilevel research findings suggest that identity dimensions can have indirect effects via potential mediators such as academic self-concept, motivational regulation, anxiety behavior, and so forth (Teimouri et al., 2025; Kim & Putwain, 2026), while the evolution in findings reflects the shift in the domain of educational psychology from linear predictive models to complex interdependent models in which identity dimensions have dynamic effects.

In the same vein, research on individual sense of identity conducted through experimental designs revealed positive outcomes in self-esteem and educational achievement. Luyckx et al. (2013) conducted a study on the interrelation between identity processes and self-esteem in high school and college students. The study revealed that high self-esteem is a resource in dealing with identity-related problems in these age groups. Recent research corroborates the positive impact of coherent identity development. Identity clarity predicts positive outcomes in resilience, coping, and academic engagement (Negru et al., 2023; Oyserman, 2025). Identity coherence in higher education institutions was also related to low maladaptive perfectionism and performance avoidance orientations (Singh & Marston, 2025). Meanwhile, more attention may be directed toward the interpersonal dimension of identity in relation to social relationships, which may have considerable implications for success and anxiety-related experiences (Holt-Lunstad, 2022; Regan et al., 2022). Recent research revealed that relational and social identity dimensions significantly predicted emotional regulation in evaluative situations (Anderson et al., 2026). If identity threats, whether social or academic, are perceived by the student, anxiety-related behavior in the form of performance withdrawal may manifest (Putwain & von der Embse, 2026). In EFL settings, identity-related vulnerability, especially in situations where language competence is salient in self-definition, was found to exacerbate anxiety-related behavior.

In addition, recent research on the consequences of the pandemic revealed that students' identity dimensions affected their happiness levels (Magklara et al., 2022; Karampas et al., 2023). Recent post-pandemic research continues to confirm that the disruption to students' identity continuity affects their mental and academic outcomes (Ward & Szabó, 2023). Recent research on students' identity stability and future-oriented academic self-guides in the 2025-2026 academic years highlights that these factors protect students against emotional distress and anxiety in academic settings (Oyserman, 2025; Kim & Putwain, 2026). The overall body of recent research suggests that students' identity dimensions can be considered a multidimensional construct that affects their self-esteem, academic motivation, emotional responses, and anxiety-related behaviors. As a result, it can be argued that students' identity orientations may be considered a construct that provides deeper insight into their test anxiety and academic outcome behaviors.

In summary, recent research on students' identity dimensions suggests that this construct affects students' self-esteem, academic motivation, and anxiety-related behaviors via a multidimensional pathway. As a result, it can be argued that students' identity orientations may be considered a construct that provides deeper insight into their test anxiety and academic outcome behaviors.

### **2.3 The Interplay between Identity Aspects and Test Anxiety Behavior**

The interplay of personal, social, relational, and collective identity has shown significant correlations to assess anxiety-related behaviors, as supported by recent literature (Eum & Rice, 2011; Soomro et al., 2023; Agah et al., 2021). Recent advancements in identity theories support that identity orientations provide a regulatory framework that guides individuals' cognitive appraisals, affective responses, and behavioral actions in evaluative situations (Oyserman, 2025; Singh & Marston, 2025). Recent structural modeling studies conducted in 2026 supported that identity coherence and identity centrality predict variations of avoidance-oriented anxiety behaviors, especially within academic testing situations (Kim & Putwain, 2026). Theoretical models suggest that identity orientations may be associated with test anxiety symptomatology (Li et al., 2022; Tibbetts, 2022). Recent identity-based theories of motivation suggest that when academic performance is identity-

relevant, perceived identity threat is associated with increased anxiety-related behavioral withdrawal (Oyserman, 2025). The interplay of self-regulation and emotional stability within this environment illustrates how identity orientations of students are associated with responses to test anxiety (Wood, 2021). Recent studies support that self-regulation failure mediates the relationship from identity threat to behavioral expressions of test anxiety, such as behavioral withdrawal and cognitive interference (Pekrun et al., 2025; von der Embse & Becker, 2026).

These relationships have been studied from a variety of theoretical perspectives. For instance, Martos et al. (2018) emphasized the importance of perceptions of sensitive issues such as sexual health and contraception in the school setting, and the complexity of the relationship between knowledge and behavior. This is in accordance with the evidence that variables related to personal identity, such as self-criticizing perfectionism and emotional dysregulation, mediate the relationship between identity orientations and emotional experiences, including test anxiety. Recent evidence suggests that emotion dysregulation is strongly associated with dissociative symptomatology and illustrates the role of fundamental emotional processes in the mediation of the effects of identity on psychological processes (Caletti et al., 2025). Building on these findings, recent studies conducted in 2025–2026 have demonstrated that the ability to regulate emotions moderates the relationship between identity insecurity and the behavioral manifestations of anxiety, indicating that students who have a fragmented structure of identity may be more prone to avoidance-based coping during test situations (Anderson et al., 2026; Kim & Putwain, 2026). Cross-cultural studies conducted in EFL contexts have demonstrated that the salience of identity increases the fear of negative evaluation, and thus test anxiety, by increasing self-monitoring and decreasing attentional control (Teimouri et al., 2025).

Other studies have employed the Suinn Test Anxiety Behavior Scale (STABS) to measure test anxiety behavior (Saigh & Mukallid, 1983; Suinn, 1969). The combined body of research with these measures helps to reveal the identity dimensions most predictive of test anxiety behavior while providing estimates of potential barriers to policy implementation (Clayton & Karazsia, 2020). Recent advances in test psychometrics highlight the value of examining behavioral components of anxiety rather than emotional distress to more accurately capture identity-related behavioral regulation (Kim & Putwain, 2026; von der Embse & Becker, 2026). In addition, emerging research on test anxiety interventions in 2025-2026 suggests that identity-related affirmation strategies significantly reduce avoidance-related test anxiety behavior, with significant implications for educational psychology and EFL settings (Oyserman, 2025; Pekrun et al., 2025).

The combined body of research in 2025-2026 further supports the assertion that identity dimensions are not peripheral correlates of anxiety but rather critical psychological processes underlying the cognitive, emotional, and behavioral expression of test anxiety in education settings.

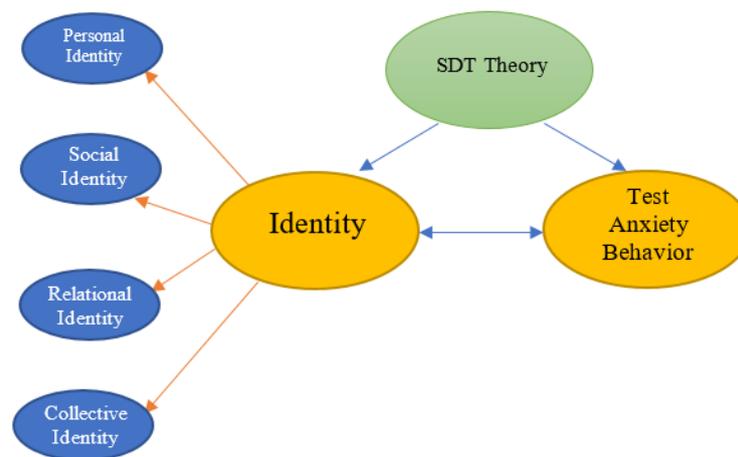
## 2.4 Theoretical Framework of the Study

SDT offers a methodological foundation for investigating the relationship between identity factors and student motivation and perceptions, and their subsequent relationship with test-related behavioral anxieties (Ahmetovic et al., 2020). More recent studies from 2025-2026 extend the identity-based theory of motivation and apply it to the framework of SDT, indicating that identity centrality influences the level of task internalization and autonomous regulation (Oyserman, 2025; Kim & Ryan, 2026). Where academic achievement is central to identity, perceptions of test threat may influence competence satisfaction and result in anxieties that promote avoidance (Pekrun et al., 2025; Vansteenkiste et al., 2026).

The current study, following from the foundation laid by the 2020 study by Spadafora et al., assumes that identity factors may significantly correlate with test anxieties and subsequent test anxiety behaviors among students. Longitudinal studies suggest that identity coherence predicts autonomous motivation, reducing the behavioral manifestations of test anxieties (Jang et al., 2025; Kim & Ryan, 2026). More recent intervention studies from the 2026 extension of the SDT framework suggest that competence-supportive and autonomy-supportive learning environments significantly reduce avoidance-related test anxieties among university student samples (Howard et al., 2025; Vansteenkiste et al., 2026).

In brief, it can be stated that the Self-Determination Theory offers a scientific basis to explore the relationship between the different dimensions of identity and test anxiety behaviors in EFL university students (Weng & Liu, 2024). The theoretical model explains that students' academic attitudes and level of test anxiety depend on the satisfaction of their psychological needs and social dimensions of the learning experience (Black & Deci, 2000; Asmoro, 2024; De Jonge et al., 2020).

Recent extensions of this model suggest that students' identity orientations play a crucial role in interpreting competence feedback, social comparison, and evaluation of performance, which directly influences the perception of test anxiety as a motivating or debilitating experience (Ryan & Deci, 2025; Pekrun et al., 2025). As shown in Figure 2.1, the proposed model attempts to reveal the complex interrelationship between different dimensions of students' identity—personal, social, relational, and collective—and their test anxiety behaviors. The plausibility of this model is also confirmed by the SDT-based structural model that reveals the indirect relationship between students' identity orientations and their anxiety behaviors (Jang et al., 2025; Kim & Ryan, 2026).



**Figure 2.1. The hypothesized model of interrelationship of identity aspects and test anxiety behavior**

### 3. METHODOLOGY

#### 3.1. Setting and Participants

The study employed a random sampling procedure to recruit 200 Persian-speaking participants from the undergraduate EFL population at the Islamic Azad University of Mashhad, Iran. Interested students who met the inclusion criteria were invited to participate, and informed consent was obtained before data collection. Their ages were between 18 and 45 years. Participants from different linguistic and cultural backgrounds were utilized in generalizing the results. Full demographic information of the participants is presented in Chapter 4 of the current research.

#### 3.2 Instrumentation

To collect the data, the researchers of the present study used two instruments: The Aspects of Identity Questionnaire (AIQ-IV) and the Test Anxiety Behavior Scale (TABS). Each questionnaire is explained fully in the following sections.

##### 3.2.1 Aspects of Identity Questionnaire (AIQ-IV)

The Aspects of Identity Questionnaire (AIQ-IV) was developed by Ceek and Briggs in 2013. More specifically, the AIQ-IV was used to quantify four different identity aspects: Personal Identity Orientation (PI), Relational Identity Orientation (RI), Social Identity Orientation (SI), and Collective Identity Orientation (CI). Each scale score was the sum of the answers (1-5) given to those items. Participants answer each item by selecting a number from 1 (Not important to my sense of who I am) to 5 (Extremely important to my sense of who I am).

The reliability of the AIQ-IV has been consistently demonstrated across studies. Cheek and Briggs (2013) reported internal consistency reliability (Cronbach's alpha) coefficients ranging from .70 to .83 for the four subscales (Personal Identity (PI):  $\alpha = 0.84$ ), (Relational Identity (RI):  $\alpha = 0.92$ , (highest reliability)), (Social/Public Identity (SI):  $\alpha = 0.86$ ), Collective Identity (CI):  $\alpha = .68$ ), and Total Scale

(translated versions):  $\alpha \approx 0.9$ . The reliability of the instrument in the Iranian Context was estimated, and the results are presented in Chapter 4.

### 3.2.2 Test Anxiety Behavior Scale (STABS)

The Test Anxiety Behavior Scale (STABS) developed by Suinn (1969) consists of 50 items that describe situations that might trigger different levels of test anxiety in people. The scale words each item to portray a behavior or situation, allowing therapists to pick items that seem important and use them as the person's anxiety hierarchy. The scale asks people to rate themselves on how much anxiety each item causes, so each item gets a rank and can become part of the hierarchy. The scale includes a broad range of behaviors and situations to make it useful for many different people. To calculate a total test anxiety score, you give a value from 1 to 5 based on the anxiety level checked (with 1 meaning "not at all" anxious, and 5 meaning "very much" anxious). High scores show high levels of anxiety about taking tests. Test-retest reliability coefficients were found to be 0.74 after a six-week time interval for sample 1, and 0.78 after a four-week delay for sample 2 (Sahin, 2021). In the present study, the reliability of the scale and the Cronbach's alpha for the Test Anxiety Behavior Scale (STABS) in the Iranian context were calculated at 0.93, demonstrating a high reliability.

### 3.3 Design of the Study

The primary purpose of the correlational research design employed in this research was to investigate and predict the interrelations between identity orientations and test anxiety behavior among Iranian EFL learners without implying causality. By applying standardized and psychometrically sound instruments (AIQ-IV and TABS), the present research sought to adequately assess the quantity and quality of relationships among major psychological constructs, identity orientation, gender, and age, used as independent variables, and test anxiety behavior as the dependent variable. This approach allowed the investigation of the psychological aspects leading to anxiety in the EFL context and the measurement of the likely predictors and moderators of test anxiety through statistical analysis such as structural equation modeling (SEM). The correlational design, hence, provided valid data concerning the interplay of identity and anxiety behavior among the study population.

### 3.4 Data Collection and Analysis

The strategy for data collection and investigation in this study aims to produce significant outcomes that enhance the understanding of the correlation between identity aspects and test anxiety behavior in EFL university students. By applying standardized questionnaires such as AIQ-IV and TABS and statistical evaluations by Structural Equation Modeling (SEM), the goal of the study is to give a thorough look at these factors in the setting of EFL teaching. Before conducting the statistical analysis, the researcher checked the preliminary analysis, such as outliers and normality.

The researcher employed a two-step higher-order model and multi-group analysis to examine the research questions using SmartPLS3. The researchers used Cronbach's alpha and composite reliability to measure the constructs' reliability. In addition, the study examined the convergent validity by the Average Variance Extracted (AVE) and discriminant validity by the Fornell-Larcker criterion and cross-loadings.

## 4. RESULTS

### 4.1 Demographic Characteristics of Respondents

Table 4.1 illustrates the participants' demographic information. The present study included 200 participants, 37 (18.5%) male and 163 (81.5%) female. Most participants were aged 18-22 (142, 71%), followed by 45 (22.5%) aged 23-27, 8 (4%) aged 28-32, 1 (0.5%) aged 33-38, and 4 (2%) over 38. In terms of teaching experience, 118 (59%) had less than one year, 72 (36%) had 2-5 years, 7 (3.5%) had 6-10 years, 1 (0.5%) had 11-15 years, and 2 (1%) had 16-20 years. Educationally, 192 (96%) held a bachelor's degree, 6 (3%) had an associate degree, and 2 (1%) had a master's degree. Regarding their field of study, 141 (70.5%) specialized in TEFL, while 59 (29.5%) studied English Literature.

**Table 4.1. Demographic characteristics of respondents (n=200)**

Demographic Characteristics	Category	Frequency	%
Gender	Male	37	18.5
	Female	163	81.5
Age	18-22	142	71
	23-27	45	22.5
	28-32	8	4
	33-38	1	0.5
	Above 38	4	2
Teaching Experience (Year)	Below 1	118	59
	2-5	72	36
	6-10	7	3.5
	11-15	1	0.5
	16-20	2	1
Education Level	B.A.	192	96
	M.A.	2	1
	Associate	6	3
Field of Study	TEFL	141	70.5
	English Literature	59	29.5

## Preliminary Analysis

### 4.2.1 Outliers

The data analysis recognized several outliers across the constructs: one outlier for personal identity orientation (Observation 193), two outliers for relational identity orientation (Observations 135 and 165), and only one outlier for social identity orientation (Observation 135). However, the researchers identified no outliers for collective identity orientation. Observations 15 and 183 were outliers for special items, and Observations 117 and 175 for test anxiety behavior. Before conducting further analysis, the researcher removed these outliers to confirm more reliable results.

### 4.2.2 Normality

The results of the normality tests for the constructs show that the data generally follow a normal distribution. For personal identity orientation, both the Kolmogorov-Smirnov ( $p = 0.195$ ) and Shapiro-Wilk ( $p = 0.200$ ) tests yielded non-significant values, suggesting normality. Similarly, the Kolmogorov-Smirnov ( $p = 0.200$ ) and Shapiro-Wilk ( $p = 0.200$ ) tests also indicated normality for relational identity orientation. The researchers observed the same results for social identity orientation (Kolmogorov-Smirnov:  $p = 0.195$ , Shapiro-Wilk:  $p = 0.283$ ), collective identity orientation (Kolmogorov-Smirnov:  $p = 0.200$ , Shapiro-Wilk:  $p = 0.175$ ), and certain items (Kolmogorov-Smirnov:  $p = 0.200$ , Shapiro-Wilk:  $p = 0.481$ ), all of which passed the normality tests. Also, for test anxiety behavior, the Kolmogorov-Smirnov test ( $p = 0.200$ ) and the Shapiro-Wilk test ( $p = 0.175$ ) showed a normal distribution. Generally, the findings propose that the data for all constructs can be considered normal.

## 4.3 Measurement Model

Two-stage higher-order model and multi-group analysis were conducted by the authors to answer research questions using SmartPLS3. Two-stage higher-order model was employed by the authors to indicate the multidimensionality of Identity Orientation, with reference to Personal, Social, Relational, and Collective Identity dimensions. Besides that, Special Items were used as lower-order constructs in a higher-order latent variable in the current study. This process made it possible to systematically explore the association between Test Anxiety Behavior and Identity Orientation. Figure 4.1 shows the final model. The model is a result of the structural equation model and is a reflection of the hypothesized association between identity orientation of the latent variables and test anxiety behavior.

Additionally, the researcher conducted a multi-group analysis through SmartPLS3 in order to examine the moderating effect of Gender and Age on these relationships, thus acquiring a deeper understanding of the impact of these demographic variables on the direction and magnitude of the found effects among various subgroups.

These advanced techniques provided significant insights into the complex inter-relationships between the research variables. Quality of instruction in this study was assessed through a measurement model, namely reliability and validity testing, to ensure consistency as well as accurate measurement.

### Reliability and Validity

The researchers assessed the constructs' reliability using Cronbach's alpha and composite reliability, as reported in Table 4.1. Cronbach's alpha values above 0.70 showed satisfactory internal consistency. Furthermore, composite reliability (CR) values above 0.70 indicated the overall reliability of the latent variables. Both measures met the recommended thresholds, ensuring reliability (Fornell and Larcker 1981; Nunnally 1978).

Convergent validity was evaluated through the Average Variance Extracted (AVE), as shown in Table 1. AVE values above the threshold of 0.50 demonstrated that the constructs captured more than half of the variance of their respective indicators, confirming adequate convergent validity (Kamdar & Dyne, 2007).

As presented in Table 4.2, the present study recognized discriminant validity utilizing the Fornell-Larcker criterion and cross-loadings. The Fornell-Larcker criterion involves the condition that AVE is higher than its correlation with other constructs, confirming that constructs are distinct and not excessively overlapping. The consequences met these criteria, indicating the constructs' discriminant validity (Kamdar & Dyne, 2007).

**Table 4.2. Reliability and validity metrics for lower order constructs**

Construct	Cronbach's alpha	CR	AVE	HSIC
Collective Identity Orientation	0.72	0.72	0.54	0.03
Personal Identity Orientation	0.73	0.71	0.52	0.06
Relational Identity Orientation	0.78	0.75	0.57	0.025
Social Identity Orientation	0.72	0.73	0.55	0.16
Special Items	0.71	0.73	0.56	0.10
Test Anxiety Behavior	0.94	0.94	0.59	0.24

**CR: Composite Reliability; AVE: Average Variance Extracted; HSIC: Highest squared inter-construct correlation**

After the first-stage lower-order constructs' reliability and validity check, the validity and reliability of the higher-order construct, identity orientation, are to be checked. The validity and reliability requirements were satisfied, as shown in Table 4.3. The composite reliability levels and Cronbach's alpha were higher than the cut point value of 0.70 and had good internal consistency. Convergent validity was confirmed by the Average Variance Extracted (AVE) values being greater than 0.50, which shows that the higher-order construct explains more than 50% of the variance of its indicators. Discriminant validity was also confirmed as the AVE for identity orientation was greater than the squared correlations with other constructs and met the Fornell-Larcker criterion. The findings confirm the robustness of the higher-order construct.

**Table 4.3. Reliability and validity metrics for higher order construct**

Construct	Cronbach's alpha	CR	AVE	HSIC
Identity Orientation	0.76	0.83	0.51	0.16

**CR: Composite Reliability; AVE: Average Variance Extracted; HSIC: Highest squared inter-construct correlation**

### 4.5 Results of Question One

In research question one, the researchers investigated whether there is any noteworthy relationship between Iranian EFL learners' identity orientations and their test anxiety behavior. In response to this question, the study examines the correlations of latent variables. The correlation of Identity Orientation and Test Anxiety Behavior is -0.436 (Table 4.4). This result indicates a moderate negative and statistically significant correlation between the two constructs ( $p < 0.001$ ). Therefore, H1 is supported.

This result suggests that Iranian EFL learners with stronger identity orientations tend to experience lower levels of test anxiety. Therefore, H1 is supported.

**Table 4.4. Correlation matrix of identity orientation and test anxiety behavior**

Constructs	Identity Orientation	Test Anxiety Behavior
Identity Orientation	1	
Test Anxiety Behavior	-0.436***	1

**N = 200; p < .001**

#### 4.6 Results of Question Two

The purpose of the second research question is to explore whether Iranian EFL learners' identity orientations can be a predictor of their test anxiety behavior. To accomplish this, the researcher employed PLS-SEM. The results (Table 4.5) show that the path coefficient value for identity orientation to test anxiety behavior is 0.377. The value of the T-statistic is 0.858, and the P-value is 0.04, which is lower than the 0.05 statistical significance threshold. Therefore, identity orientation hypothesizes the level of test anxiety behavior of Iranian EFL learners in this study. Therefore, H2 is true. As indicated by Figure 1, the model indicates the relationship between "Identity Orientation" and "Test Anxiety Behavior." The path coefficient of 0.377 is a positive one and makes the prediction that "Identity Orientation" has a positive correlation with "Test Anxiety Behavior" on greater levels. With a p-value of 0.04, it validates the statistical significance of this relation, evidence indicating that the established connection is not random.

Thus, identity orientation shows a significant association with test anxiety behavior among Iranian EFL learners.

**Table 4.5. PLS-SEM results for the relationship between identity orientation and test anxiety behavior**

Path	Coefficient	T Statistics	P-Value
Identity orientation → Test anxiety behavior	0.377	0.858	0.04

#### 4.7 Results of Question Three

In the third research question, the researchers examined Iranian EFL learners' identity orientation, gender, and test anxiety behavior. The researcher used multi-group analysis for this reason. Table 4.6 shows the result of this research question. The path coefficient from identity orientation to test anxiety behavior is -0.168, and the new p-value for testing the difference between males and females is 0.04. Since this p-value is smaller than the conventional significance value of 0.05, the result indicates that there is a significant difference in the relationship between identity orientation and test anxiety behavior between females and males. Therefore, H3 is supported. These findings suggest that gender plays an important part in mediating the relationship between identity orientation and test anxiety behavior in Iranian EFL learners, and that the interactions are differentiated for females and males.

**Table 4.6. Multi-group analysis results for the relationship between identity orientation and test anxiety behavior (Female vs Male)**

Path	Path coefficient-diff (female-male)	p-value 1 tailed (female vs male)	p-value new (female vs male)
Identity orientation → Test anxiety behavior	-0.168	0.03	0.04

#### 4.8 Results of Question Four

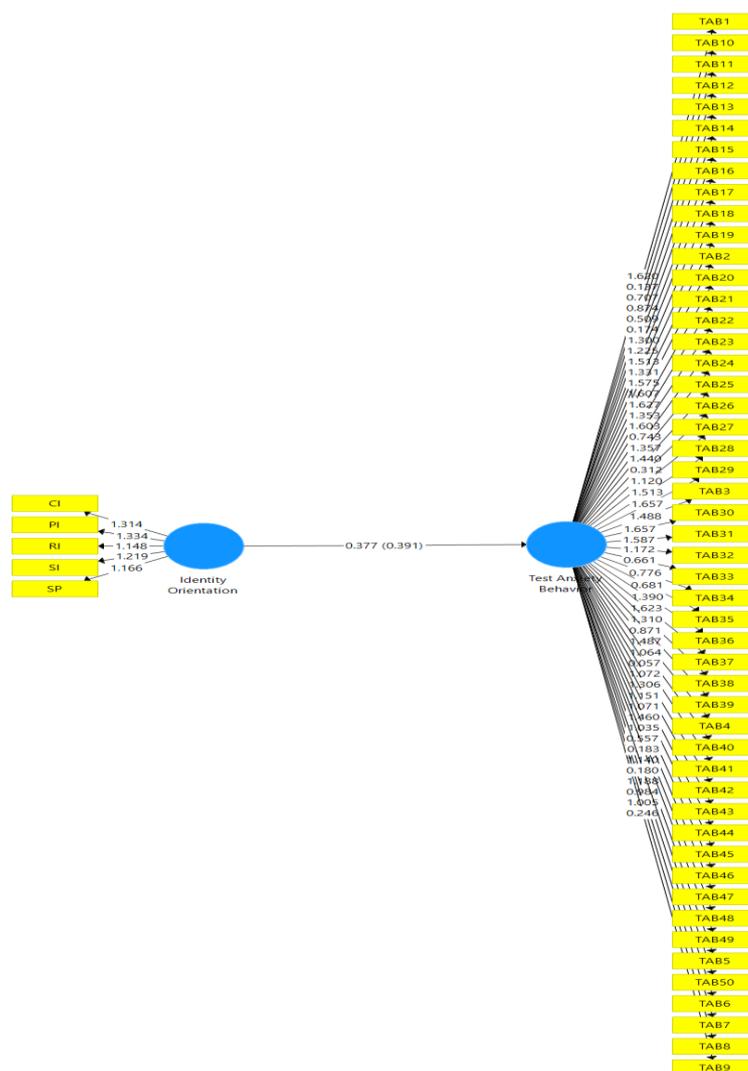
The fourth research question investigated whether there is any significant relationship between Iranian EFL learners' age, identity orientation, and test anxiety behavior. To address this research question, the researcher conducted a multi-group analysis. Table 4.7 illustrates the results of this section. The path coefficient difference for the relationship between identity orientation and test anxiety behavior across age groups (18–22 and above 22) is 0.223. The new p-value comparing the age groups is 0.03, below the standard significance threshold of 0.05. This finding shows that age significantly mediates the association between identity orientation and test anxiety behavior, supporting H4.

The study findings recommend that Iranian EFL students in the two age groups experience the relationship between identity orientation and test anxiety behavior differently. Particularly, age plays a meaningful role in moderating this relationship, indicating that the association between identity orientation and test anxiety behavior differs between younger learners and those above 22. The multi-group analysis tested the moderating function of age in the relationship between identity orientation and test anxiety behavior among Iranian EFL students in terms of a comparison between the two groups aged 18-22 and above 22.

The path coefficient difference between these two groups was 0.223, with a new p-value of 0.03, which is less than the 0.05 significance level. This indicates that age does have a significant function in moderating the relationship between identity orientation and test anxiety behavior. Specifically, the correlation is stronger for one age group than the other. Since the difference in path coefficients is positive (0.223), It suggests that identity orientation is more strongly associated with test anxiety behavior in younger learners (18-22 years old) compared to the older learners (older than 22 years old). It indicates that the relationship between identity orientation and test anxiety behavior is stronger in young EFL learners.

**Table 4.7. Multi-group analysis results for the relationship between identity orientation and test anxiety behavior across age groups (18-22 vs above 22)**

Path	Path coefficient-diff (Age 18-22-Age above 22)	p-value 1 tailed (Age 18-22 vs Age Above 22)	p-value new (Age 18-22 vs Age Above 22)
Identity orientation -> Test anxiety behavior	0.223	0.002	0.003



**Figure 4.1. The relationship between identity orientation and test anxiety behavior: a structural equation model**

## 5. DISCUSSION & CONCLUSION

### 5.1 Discussion

This study examined whether there is a relationship between test anxiety behavior and identity orientations among Iranian EFL learners, using four primary research questions.

#### 5.1.1 First Research Question

The first research question examined whether any notable relationship between Iranian EFL learners' identity orientations and their test anxiety behavior was observed. A negative correlation was identified. This indicates that identity orientations can be related to test anxiety, but this relationship is not strong enough to make a clear conclusion. This might be due to test anxiety behavior influenced by multiple interrelated factors, such as personality, coping style, academic preparation, and social support (Barcelos, 2015). Therefore, identity by itself only explains part of the variance.

Previous research has established that identity influences emotional and cognitive responses in academic settings. For example, Zwettler et al. (2018) found adverse correlations between social identification and most emotional and cognitive symptoms of test anxiety among 108 university students who had been diagnosed with anxiety. This finding is plausible since social identification, identification with peers and academic groups, represents a source of social support and belongingness that can cushion stress and attenuate anxiety symptoms (Zwettler et al., 2018; Janke et al., 2017). Yet, since test anxiety is complex and these individuals were already diagnosed with clinically meaningful anxiety, the protective role of social identity can be there, but small. Thus, the relationship is negative but not substantial (Brancey et al., 2023; Guo et al., 2025; Maffei et al., 2025). The same trends have been observed in language learning settings, in which a stronger sense of academic or social identity can act to protect against anxiety (Almusharraf & Bailey, 2023; Wardana et al., 2024; Janke, Thomsen, & Diehl, 2017). The findings thus obtained are in line with both the present study and previous research in showing negative correlations, although the effect size is typically small, which implies that identity orientations are just one of many factors involved.

#### 5.1.2 Second Research Question

The second research question investigated whether identity orientations can predict levels of test anxiety behavior. The results revealed that identity orientation was a significant predictor, thereby supporting the hypothesis. Recent studies have provided empirical evidence for this relationship. For example, Holmes et al. (2025) explored that personality traits and perfectionism types, closely related to identity orientations, collectively accounted for significant variance in test anxiety scores among college students. Similarly, research by Ryan and Deci (2020), Fisher et al. (2024), Jesudas and Gayathri (2024), Sufi et al. (2024), and Cheek et al. (2025) emphasized the role of personal identity in predicting trait anxiety, emphasizing the importance of a stable and coherent sense of self in mitigating anxiety levels.

#### 5.1.3 Third Research Question

The third research question investigated gender variation in the association between identity orientation and test anxiety behavior. Results showed a moderation effect of gender, whereby females showed a stronger relationship between identity orientation and anxiety than males. This is consistent with literature showing that female students report higher academic anxiety (Graves et al., 2021; Bukhari & Saba, 2019). Gender variation in coping mechanisms may partially explain this trend, focusing that females engage in more emotion-focused coping, which intensifies anxiety in stressful situations.

#### 5.1.4 Fourth Research Question

The third and final research question investigated the role of age in adjusting the relationship between identity orientation and test anxiety behavior. Findings show that students between 18 to 22 years and other students (above 22) regarded this relationship. This agrees with developmental theory, which explains that younger students are still improving their identities and may be more vulnerable to productivity anxiety (Erikson, 1968; Kroger, 2018). Older students, on the other hand,

may have more established identity structures, which may buffer the emotional impact of academic testing (Fréchette-Simard et al., 2023; Zwettler et al., 2018).

## 5.2 Conclusion

The current research attempted to investigate the interaction of identity orientations and test anxiety behavior in Iranian EFL learners and examine how gender and age are related to these interactions. The findings contribute to our understanding of psychological factors associated with language learning, revealing significant insights with theoretical and practical implications. The results uncovered that there was a moderate negative relationship between identity orientation and test anxiety behavior. Although not statistically significant, it suggests that identity plays a role in anxiety levels. However, other factors may be more effective. Identity orientation was strongly associated with anxiety behavior, suggesting there is potential for intervention for teachers to address issues of identity in their practice. Moreover, the research also suggested that gender is a major moderator of the role of identity orientation in test anxiety behavior since experiences are accounted for differently by male and female students. Age was also significant since younger and older students were found to have differing dynamics in this relationship.

The results of this study reveal several pedagogical implications for teachers and learners in an educational setting. The findings underscore the importance of promoting positive identity orientations among EFL learners in an attempt to minimize test anxiety. Instruction can be guaranteed by ensuring activities within the curriculum that are conducive to self-knowledge and identity development are included. For instance, reflective practice, group discussion of one's background, and projects through which students can articulate their identities are beneficial. Also, it can help teachers in building their plans to support male and female students with an efficient strategy. Creating a supportive learning environment that recognizes and honors the individual self can lead to diminishing anxiety and enhanced learning ( Akcayoglu & Ozer, 2023; Deng & Liu, 2025; Teng, 2019; Alosaimi, 2023).

Even though the study makes significant contributions, its limitations should be considered. First, a correlational design limits causality; even though identity orientation predicts test anxiety behavior, it cannot be phrased to suggest causation. Second, the sample was drawn from Iranian EFL learners exclusively and thus could restrict the generalizability of the findings to other languages or other cultures. Lastly, the use of self-report measures has the potential to yield biases because the participants are not likely to represent their experience or sentiment regarding identity and anxiety accurately.

Later research could target the causative relationships of identity orientations on test anxiety behavior in studies of change across time. Sampling more to embrace the diversity of linguistic and cultural backgrounds would capture these dynamics elsewhere more effectively. Similarly, qualitative research such as interviewing or focus groups could enable more to be understood about students' cognition regarding their identities and experiences of anxiety. Looking at the other moderator variables, for instance, socio-economic status or past experience in language learning, can also provide more insight into test anxiety in the EFL context.

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