Construction and validation of an English writing anxiety questionnaire and development of a scale to measure learners' anxiety levels

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Article Info

ABSTRACT

Writing anxiety is a significant barrier to developing proficient English writing skills among EFL learners, particularly in the Iranian context. The present study was an attempt to address (i) EFL writing anxiety by developing and validating a context-specific writing anxiety questionnaire for Iranian EFL learners and (ii) the limitations of the existing measurement scales that are not tailored to the Iranian EFL context. To this end, the results of previous research on the attitudes of EFL learners were used to construct the EFL Writing Anxiety Questionnaire (EFLWAQ), which capture the multifaceted nature of writing anxiety, encompassing emotional, cognitive, and behavioral dimensions. A sample of 1061 EFL learners were selected from among EFL learners studying English language at five institutes of Kabir Academy, Kandoo, Gama, Pazhuhesh, and Sedaye Tabriz starting on April, 2023. The sample was divided into two separate samples: one for exploratory factor analysis (n = 232) and the other for confirmatory factor analysis (n = 829). The study was based on the correlational research design. An initial pool of items was refined through content validity analysis, achieving acceptable CVR and CVI scores. The initially validated questionnaire was then distributed to EFL learners in order to find the main factors of Iranian language learners' writing anxiety. The factor-analytic approach revealed a multi-dimensional structure of writing anxiety, identifying the key factors of Behavioral, Physiological, Cognitive, Maladaptive, and Emotional. It also confirmed the model fit, with all factors demonstrating high internal consistency. Findings indicate that the EFLWAQ is a reliable and valid instrument for measuring writing anxiety among EFL learners. The study's outcomes provide valuable insights for educators, researchers, and policymakers to enhance English writing instruction and support learners in overcoming writing anxiety.
Keywords: Writing anxiety, English language, questionnaire construction, questionnaire validation, measurement scale development.

1. Introduction

O ver the past few decades, language researchers and educators have extensively studied learner

characteristics, particularly affective variables like attitude, anxiety, interest, motivation, inhibition, and self-esteem, to enhance ESL/EFL teaching and learning. Among these variables, anxiety has increasingly become a focal point of interest (Alrabai, 2015; Getie, 2020; Kim, 2000; Szyszka, 2017). When related to language learning, anxiety is termed language learning anxiety, which can significantly hinder the acquisition, retention, and production of a new language (MacIntyre & Gardner, 1991).

Horwitz et al. (1986) identified three components of foreign language anxiety (FLA): communication apprehension, test anxiety, and fear of negative evaluation. The Foreign Language Classroom Anxiety Scale (FLCAS) was therefore developed to measure this anxiety, with subsequent studies highlighting specific dimensions like speaking, writing, reading, and listening anxiety (MacIntyre & Gardner, 1994).

Writing anxiety, a subset of communication apprehension, can profoundly affect performance and is reflected in writers' behaviors, attitudes, and written products (Cheng et al., 1999; Hassan, 2001). High levels of anxiety can also lead to avoidance and poor satisfaction with writing tasks (Johnson & VanBrackle, 2012; Graham, 2018). Despite the growing recognition of writing anxiety as a significant factor influencing the performance of EFL learners, there remains a scarcity of research specifically addressing this issue within the Iranian EFL context. Writing anxiety can severely impede students' ability to express their thoughts clearly and effectively, leading to diminished writing quality and overall academic performance (Cheng, 2004; Horwitz et al., 1986). While studies in other contexts have illustrated the detrimental effects of writing anxiety on learners' confidence and motivation (Cheng, 2004), Iranian EFL learners have received insufficient attention in this regard.

Existing measurement scales, such as the Foreign Language Classroom Anxiety Scale (FLCAS) developed by Horwitz, Horwitz, and Cope (1986) and the Second Language Writing Anxiety Inventory (SLWAI) created by Cheng (2004), have been widely utilized to assess anxiety levels among language learners. However, these instruments may not adequately capture the unique contextual and educational dynamics present in Iranian classrooms. Research indicates that contextual factors significantly influence anxiety levels and coping mechanisms among learners (Oxford, 1990; MacIntyre & Gardner, 1991). Consequently, the applicability of these scales to Iranian learners is questionable, as they may not account for specific contextual variables such as pedagogical practices and students' prior experiences with writing in English.

Moreover, previous studies have highlighted the need for culturally relevant instruments that reflect the specific challenges faced by Iranian EFL students (Tavakoli et al, 2014; Zeinivand, et al., 2015). For instance, the pressure to achieve high academic standards and the fear of negative evaluation can add to writing anxiety among these learners (Jebreil et al., 2015). As a result, the development of a tailored measurement instrument for writing anxiety that considers these contextual factors is essential for accurately assessing and addressing the needs of Iranian EFL learners. After several runs of literature review, it became evident that Firouzi et al.'s (2024) recent grounded-theory study identified three themes related to EFL writing anxiety in the Iranian EFL context. Their qualitative analysis revealed that the core category of EFL writing anxiety consists of three main themes: physiological arousal, dysfunctional thoughts, and maladaptive behaviors.

According to Firouzi et al. (2024), physiological arousal refers to the physical reactions that learners experience when faced with writing tasks, such as increased heart rate, sweating, and tension. These bodily responses are typically triggered by anxiety, leading to a heightened state of alertness that can overwhelm students and hinder their ability to concentrate and write effectively. Dysfunctional thoughts encompass the negative cognitions and beliefs that often plague anxious writers. These may include fears of failure, self-doubt about writing abilities, or catastrophic predictions regarding the consequences of poor performance. Such thoughts can create a vicious cycle, where anxiety and self-criticism undermine confidence, ultimately impairing writing quality and performance. Maladaptive behaviors are the actions learners take in response to their anxiety. Common maladaptive behaviors include avoidance of

writing tasks, procrastination, and seeking excessive reassurance. These behaviors serve as coping mechanisms but often increase anxiety over time and impede the development of necessary writing skills.

Together, these themes illustrate the multifaceted nature of EFL writing anxiety and underscore the complexities that Iranian learners face when engaging with writing in a foreign language. Addressing these issues is crucial for helping students control their anxiety and improve their writing abilities. Based on the foregoing, this research aimed to create a contextually appropriate writing anxiety measurement instrument. By understanding the specific sources and manifestations of writing anxiety among Iranian EFL learners, educators can implement targeted interventions to control for anxiety, thereby enhancing writing outcomes and improving the overall learner experience in Iranian EFL classrooms (Ahmadian, 2012). Given the purposes of the study, this investigation was informed by Firouzi et al.'s (2024) work and sought to address the overarching research question below:

RQ. Can the previously-identified factors affecting Iranian EFL learners' writing anxiety help in developing a scale to yield results that accurately reflect the level of writing anxiety?

1.1. Method

1.2. Research Design
The present study was conducted based on a correlational research design as it investigated the association between the EFLWAQ items and the underlying constructs that the instrument captures.

1.3. Participants
A sample of 1061 EFL learners were selected from among EFL learners studying English language at five institutes of Kabir Academy, Kandoo, Gama, Pazhuhesh, and Sedaye Tabriz starting on April 2023. Participants were male and female learners with varying proficiency levels and in the age range of 20 to 33. Persian was the participants' official language. They were divided into two separate samples: one for exploratory factor analysis (EFA) and the other for confirmatory factor analysis (CFA). The EFA sample was used to identify the underlying factor structure of the measurement model, while the CFA sample was employed to validate the previously identified structure and test the hypothesized relationships. Specifically, a group of EFL learners (n = 232) selected through convenience sampling took part in the present study for initial validation of the designed questionnaire. Then, the initially-validated questionnaire was distributed to 829 EFL learners for advanced validation of the questionnaire. The sample size was established following the guidelines provided by Mundfrom et al. (2005) for structural equation modeling (SEM). They recommend a minimum sample size of 130 to achieve a high level of criteria for 40 observable variables and five factors, while a minimum of 80 is sufficient for a good level of criteria. Consequently, this study adheres to the suggestion of using a sample size of 130 participants and above.

1.4. Instrument
To collect the required data for the present study, the EFLWAQ was used. The initial EFLWAQ consisted of the sections that matched the three themes obtained from the qualitative data analysis in Firouzi et al.'s (2024) research. To be specific, the initial 3-factor EFLWAQ included 30 items with a set of Likert-scale responses, ranging from 'strongly agree' to 'strongly disagree'. The range of the scale is 1 to 4, i.e., 4 = strongly agree, 3 = agree, 2 = disagree and 1 = strongly disagree. Scores range from a low of 64 to a high of 95 with higher scores reflecting greater perceived EFL writing anxiety. The EFLWAQ also included a section for instructions and respondents' demographic information.

Data Collection Procedure
After coordinating with English language institutes in Tabriz, the study commenced on April 2023. The researchers carried out the study across five institutes in Tabriz, namely Kabir Academy, Kandoo, Gama, Pazhuhesh, and Sedaye Tabriz. Before participating, all individuals received detailed information about the study's purpose and procedures. Written informed consent was obtained from all EFL learners, confirming that they agreed to participate voluntarily. During the item generation phase of the EFLWAQ, a panel of four experts in EFL writing assisted the researchers in evaluating the content validity of the initial draft. Following this, the researchers administered the preliminary set of questionnaire items to a pilot group of respondents to gauge the clarity and relevance of each item. This assessment was crucial for refining the questionnaire. Subsequently, EFA and CFA were conducted to examine the psychometric properties of the EFLWAQ, ensuring its reliability and validity for future research.

Results
After the item generation phase, the researchers calculated the content validity ratio (CVR) and critical validity index (CVI) of the initial draft. First, a panel of four EFL writing experts evaluated a draft questionnaire to assess EFL writing anxiety. They rated each item as "Essential," "Useful but not essential," or "Not necessary" using a 3-point scale. The researchers then calculated the Content Validity Ratio (CVR) for each item. A CVR value ranges from -1 to +1, with positive values indicating that more than half of the panel agreed on the item's essentiality. Based on the results of CVR, out of 38 questions, 33 questions with the highest CVR values (indicating higher consensus among experts that the items were essential) were confirmed and 5 questions (Q3, Q8, Q9, Q11, and Q32) with relatively lower CVR (i.e.,

below zero) values were excluded. This reduced the questionnaire to 33 items while prioritizing items with higher CVR values as more essential according to the panel of experts' ratings.

The researchers also focused on assessing the content validity of the initial EFLWAQ using the Critical Validity Index (CVI). The same panel of four experts rated each item in the initial questionnaire draft on a 4-point Likert scale, where ratings ranged from "Not relevant" (1) to "Highly relevant" (4). The individual item CVI (I-CVI) was calculated by dividing the number of experts rating an item as 3 or 4 by the total number of experts. The overall CVI for the scale (S-CVI) was evaluated using two methods: S-CVI/Ave, which is the average of I-CVI scores, and S-CVI/UA, which measures the proportion of items rated as relevant by all experts. In this study, I-CVI and S-CVI scores were calculated after recoding relevance ratings into binary values. The results showed that the S-CVI/Ave for 33 items was 0.93, and the S-CVI/UA was 0.91. Both scores exceeded the threshold of 0.80, indicating that the questionnaire had strong content validity based on expert evaluations.

1.5.   Exploratory Factor Analysis
Next, to statistically discover the factor structure of the EFLWAQ, it was necessary to conduct EFA and CFA on the scale. For EFA, a principal component analysis (PCA) was first performed through SPSS; then, CFA was conducted using SmartPLS. Using the above statistical procedures, we

were also able to estimate the internal consistency (reliability) and construct validity.

Before the factor analysis, the initial pool of questionnaire items was administered to a pilot group of 21 respondents to assess clarity, comprehensibility, and relevance. Based on the respondents' suggestions, 3 items excluded and the entire questionnaire items were reduced to 30. It is noteworthy that EFA results were established in a smaller sample ($n = 232$) and validated in a larger sample using CFA ($n = 829$). The primary assumptions of EFA, i.e., correlation matrix, the Kaiser–Meyer–Olkin (KMO) and Bartlett's test of sphericity for sampling adequacy, were first checked. Moderate correlations among the items were obtained; also, neither the KMO nor Bartlett's test were violated.

Results showed that the communalities for each item after extraction on the questionnaire were above .50, indicating the ability of the determined factors to explain the variance of the study variables. PCA helped to identify the number of latent factors. Table 1 shows the results of determining the number of latent factors in terms of eigenvalues. The eigenvalues column introduced 5 factors with an eigenvalue higher than 1, so the proposed structure had 5 factors, and these 5 factors explained about 78.58% of variance. Factors were extracted using PCA and varimax rotation.

Table 1
Total variance explained by extracted factors

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.462	41.542	41.542	12.462	41.542	41.542	6.286	20.954	20.954
2	4.877	16.257	57.799	4.877	16.257	57.799	6.179	20.597	41.552
3	2.669	8.897	66.696	2.669	8.897	66.696	4.812	16.040	57.591
4	2.226	7.420	74.116	2.226	7.420	74.116	3.895	12.984	70.575
5	1.339	4.463	78.579	1.339	4.463	78.579	2.401	8.004	78.579
6	.915	3.050	81.629						
7	.750	2.498	84.128						
8	.696	2.320	86.448						
9	.619	2.062	88.510						
10	.602	2.006	90.516						
11	.507	1.691	92.207						
12	.463	1.543	93.750						
13	.366	1.219	94.968						
14	.306	1.020	95.988						
15	.213	.709	96.698						
16	.183	.609	97.307						
17	.142	.475	97.782						
18	.135	.450	98.232						
19	.099	.329	98.562						
20	.092	.308	98.869						
21	.070	.233	99.102						
22	.064	.213	99.315						
23	.060	.199	99.514						
24	.047	.155	99.670						
25	.038	.127	99.797						
26	.026	.088	99.884						
27	.017	.058	99.942						
28	.011	.035	99.977						
29	.006	.020	99.997						

30	.001	.003	100.000

Extraction Method: Principal Component Analysis.

Another way to determine the number of factors is the scree plot shown in Figure 1. This figure also shows 5 latent factors related to the final model, which is defined according to the point before it breaks on the horizontal axis.

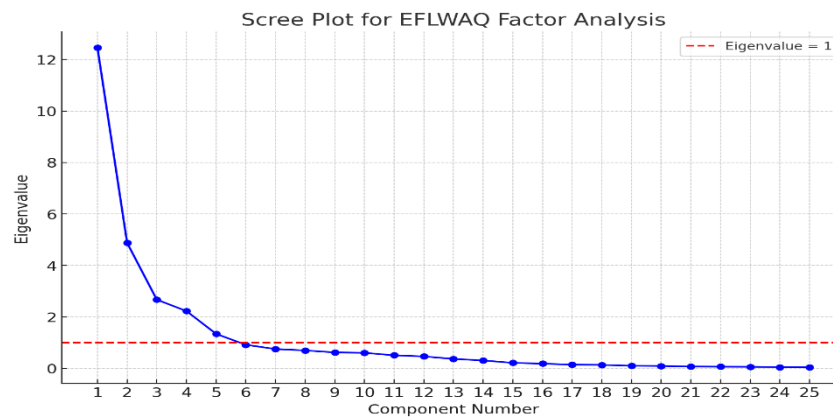**Figure 1**

Scree Plot for EFLWAQ Factor Analysis

By relying on the values of the factor loadings with the varimax rotation of the factors, it is possible to identify and examine the variables that have the highest factor loading on the factors. According to the results of Table 2, it is possible to examine the variables that have the highest factor loadings on the factors obtained for Iranian language learners' writing anxiety. According to the background of the research, these factors were named under the following headings: Factor 1. Behavioral; Factor 2. Cognitive; Factor 3. Physiological; Factor 4. Maladaptive; and Factor 5. Emotional (See Appendix 1).

Table 2 *Matrix of factor loadings after rotation*

Rotated Component Matrixᵃ					
	Component				
	1	2	3	4	5
Q1			.864		
Q2			.749		
Q3			.761		
Q4			.895		
Q5			.901		
Q6				.631	
Q7				.669	
Q8	.863				
Q9	.889				
Q10	.683				
Q11	.651				
Q12	.893				
Q13					.629
Q14		.918			
Q15					.770
Q16					.889
Q17	.841				
Q18	.833				
Q19				.604	
Q20				.684	
Q21				.777	
Q22		.583			
Q23				.664	
Q24	.799				
Q25		.891			

Q26	.877			
Q27	.922			
Q28	.895			
Q29	.593			
Q30			.602	

1.6. Confirmatory Factor Analysis

CFA, as a two-stage approach, was performed through SmartPLS. This analysis allows for the assessment of the measurement model and the structural model. In the measurement model, we assessed the psychometric characteristics of the EFLWAQ.

The Measurement Model

The construct validity of the newly developed questionnaire (EFLWAQ) was calculated through assessing the convergent, discriminant, and criterion validities. After obtaining the composite reliability (CR), and outer loadings for each factor, the AVE for each factor was calculated to assess convergent validity. AVEs for Factor 1, 2, 3, 4 and 5 were found to be 0.60, 0.55, 0.70, 0.65, and 0.70 respectively. After obtaining the AVE values for each factor, they were compared with the squared correlations between factors to assess convergent validity. As depicted in Table 3, the squared correlations among the identified factors were less than each corresponding factor, indicating good convergent validity.

Table 3

Comparison of AVE values with squared correlations between factors

Factor	AVE Value	Squared Correlation with Factor A	Squared Correlation with Factor B	Squared Correlation with Factor C	Squared Correlation with Factor D
A	0.60	-	0.35	0.25	0.30
B	0.55	0.35	-	0.40	0.20
C	0.70	0.25	0.40	-	0.45
D	0.65	0.30	0.20	0.45	-
E	0.70	0.25	0.40	0.30	0.25

As shown in Table 4 and Table 5, the discriminant validity estimation of the EFLWAQ through Fornell-Larcker Criterion and HTMT for each pair of constructs were performed.

Table 4

1.6.1. *Discriminant Validity of EFLWAQ based on Fornell-Larcker Criterion*

	EFL WRITING ANXIETY	Factor 1. Behavioral	Factor 2. Cognitive	Factor 3. Physiological	Factor 4. Maladaptive	Factor 5. Emotional
EFL WRITING ANXIETY	0.643					
Factor 1. Behavioral	0.750	0.848				
Factor 2. Cognitive	0.707	0.247	0.867			
Factor 3. Physiological	0.751	0.375	0.467	0.901		
Factor 4. Maladaptive	0.851	0.524	0.596	0.529	0.801	
Factor 5. Emotional	0.685	0.488	0.503	0.542	0.414	0.887

The Fornell-Larcker criterion analysis indicated that all the constructs demonstrate sufficient discriminant validity as each AVE was lower than its square root. Considering the results in Table 5, since all HTMT values were below 0.90, discriminant validity has been established among the five factors, as well.

1.6.2. Table 5

    1.6.3. *Discriminant Validity of EFLWAQ based on Heterotrait-Monotrait Ratio (HTMT)*

	EFL WRITING ANXIETY	Factor 1. Behavioral	Factor 2. Cognitive	Factor 3. Physiological	Factor 4. Maladaptive	Factor 5. Emotional
EFL WRITING ANXIETY						
Factor 1. Behavioral	0.765					
Factor 2. Cognitive	0.793	0.260				
Factor 3. Physiological	0.778					
Factor 4. Maladaptive	0.781					
Factor 5. Emotional	0.744					

Table 6

Composite Reliability (CR) of EFLWAQ

Factor	*Composite Reliability (CR)*	*Outer Loadings*
A. Behavioral	0.85	0.60 - 0.85
B. Cognitive	0.80	0.55 - 0.80
C. Physiological	0.90	0.65 - 0.90
D. Maladaptive	0.84	0.65 - 0.84
E. Emotional	0.82	0.70 - 0.88

Further, different types of reliability were assessed initially assessing the internal consistency (Cronbach's Alpha) of the global scale as well as its five subscales. The Composite Reliability (CR) and Outer Loadings of the EFLWAQ were also calculated.

To determine Cronbach's alpha of the EFLWAQ, composite reliability (CR), and outer loadings, the data was properly formatted for SmartPLS 4.0. The correlation estimates for the five identified factors were 0.75, 0.71, 0.75, 0.85 and 0.69, respectively. The correlations among these latent variables provide insights into how these factors interrelate and contribute to the overall writing anxiety construct. The Cronbach's alpha of the global scale was estimated to be 0.95 indicating good reliability. Composite Reliability (CR) was also calculated using SmartPLS (Table 6).

As depicted in the above table, the Composite Reliability (CR) for the identified factors of A, B, C, D, and E were found to be higher than 0.70, that is, 0.85, 0.80, 0.90, 0.84, and 0.82, respectively. At the same time, the Outer Loadings for items on Factor A, Factors B, Factor C, Factor D, and Factor E were discovered to be ranging from 0.60 to 0.85, 0.55 to 0.80, 0.65 to 0.90, 0.65 to 0.84, and 0.70 to 0.88, respectively.

1.7. The Structural Model

In the context of CFA for the development of the EFLWAQ, it is crucial to evaluate the model fit of the structural model. This evaluation involves several fit indices provided by SmartPLS, including the Standardized Root Mean Square Residual (SRMR), Normed Fit Index (NFI), d_ULS, and Chi-Square (χ^2) statistics. Below is an analysis of these fit indices.

Table 7

Fit indices to assess the validity of the CFA model for the EFLWAQ

	Saturated Model	**Estimated Model**
SRMR	0.052	0.068
NFI	0.91	0.93
d_ULS	14.449	65.878
Chi Square	1.85	2.13

Table 7 presents fit indices used to assess the validity of a CFA model for the EFLWAQ. Specifically, it provides fit values for the Saturated and Estimated models. SRMR is an index used to measure the discrepancy between the observed correlations and the model's predicted correlations. An SRMR value below 0.08 generally indicates a good model fit. In this analysis, both the Saturated (0.052) and Estimated (0.068) models fall within the acceptable range, suggesting a well-fitting model overall. The Saturated model has a slightly better fit than the Estimated model, but both are within acceptable limits.

The Normed Fit Index (NFI) values were found to be 0.91 for the Saturated Model and 0.93 for the Estimated Model. Since an NFI above 0.90 is generally considered acceptable, both models demonstrate a good fit. The Estimated Model, with a higher NFI of 0.93, shows a slightly better fit in this regard. At the same time, d_ULS represents the unweighted least squares discrepancy, showing the difference between the observed and model-implied matrices. Lower values are generally preferable, indicating a smaller discrepancy. Here, the Saturated Model has a much lower d_ULS value (14.449) compared to the Estimated Model (65.878), suggesting that the Saturated Model fits the data better.

The Chi-Square statistic, as another fit index for assessing the validity of the CFA model for the EFLWAQ, was used to assess how closely the model fit the observed data. Lower chi-square values indicate a better fit, though it is sensitive to sample size. Both the Saturated and Estimated models have low chi-square values, indicating a reasonable fit. The Saturated Model, with a slightly lower value (1.85), suggests a marginally better fit than the Estimated Model (2.13).

The overall model fit indices show that both the Saturated and Estimated models are acceptable. However, the Saturated Model generally demonstrates better fit with lower SRMR, d_ULS, and χ² values. Based on the results, the SRMR, d_ULS, and Chi-Square values favor the Saturated Model, while the NFI slightly favors the Estimated Model. While both models are acceptable, the Estimated Model's higher NFI (0.93) suggests it might better represent the model structure overall. However, considering all indices together, the Saturated Model remains competitive, especially with its lower SRMR and d_ULS values. In sum, the EFLWAQ model is generally well-fitting in both the Saturated and Estimated forms, with each model having its own strengths based on different fit indices. Depending on which indices are prioritized, one might lean slightly toward the Saturated Model for a better general fit or the Estimated Model for a more robust NFI.

Here is the visual representation of the Structural Model for the EFL Writing Anxiety Questionnaire (EFLWAQ) in SmartPLS:

Figure 8

The Structural Model of EFLWAQ
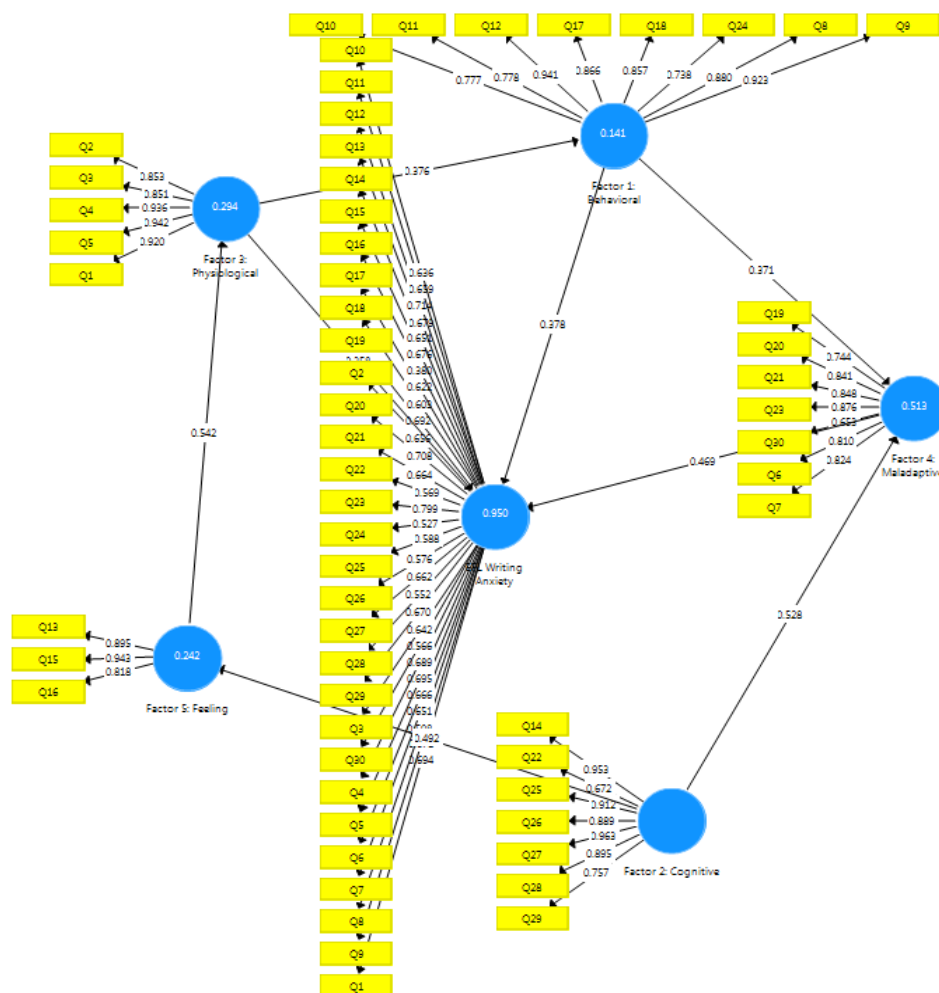
The central construct, EFL Writing Anxiety, is placed in the middle, representing the primary latent variable. The five factors (Behavioral, Cognitive, Physiological, Maladaptive, and emotional) are positioned around the main construct, each connected to EFL Writing Anxiety through directed paths (arrows). The arrows represent hypothesized relationships, indicating how each factor contributes to or influences the overall anxiety

construct. This model visually specifies the relationships in the structural phase of CFA.

The Structural Equation Model (SEM) explores the relationships between EFL Writing Anxiety as the central construct and several first-order latent variables (factors) contributing to it. Each factor is measured by several observed indicators (questionnaire items labeled as Q1, Q2, etc.). Writing Anxiety has an R² value of 0.950, meaning 95% of the variance in this construct is explained by the first-order factors (Behavioral, Cognitive, Physiological, Maladaptive, and Emotional). This indicates a strong model fit with high predictive power.

The paths from the latent variables to Writing Anxiety show varying strengths of influence. Factor 1 (Behavioral) with path coefficient = 0.141 indicates that the behavioral aspect of writing anxiety moderately contributes to the central construct. Factor 2 (Cognitive) with path coefficient = 0.528 has a strong and significant impact on Writing Anxiety. Learners' cognitive perceptions and beliefs about writing play a crucial role. At the same time, Factor 3 (Physiological) with path coefficient = 0.294 and Physiological responses (like nervousness or physical reactions) also significantly influence Writing Anxiety. Factor 4 (Maladaptive) with path coefficient = 0.513 exhibits that maladaptive behaviors strongly affect Writing Anxiety, suggesting that negative coping strategies or avoidance behaviors are central to writing anxiety. On the other hand, Factor 5 (Emotional) with path coefficient = 0.242 show that feelings associated with writing, such as emotional responses, have a moderate impact on Writing Anxiety.

As is shown in the SEM Model, Cognitive and Maladaptive factors have the strongest influence on Writing Anxiety, indicating that both thought patterns and negative coping behaviors are major contributors. Physiological and Emotional factors are also relevant but less impactful compared to Cognitive and Maladaptive factors. The Behavioral factor has the weakest influence, but it still plays a role in explaining Writing Anxiety. This model offers valuable insights for understanding the components of EFL Writing Anxiety and how different dimensions (Behavioral, Cognitive, Physiological, Maladaptive, and Emotional) interplay to form this construct.

1.8. Discussion

The present study was an attempt to develop a writing anxiety questionnaire in Iranian EFL context. The ultimate goal was to efficiently apply the validated questionnaire in the Iranian EFL context. The research question that guided the study was: RQ. Can the previously-identified factors affecting Iranian EFL learners' writing anxiety help in developing a scale to yield results that accurately reflect the level of writing anxiety? The factor-analytic approach revealed a multi-dimensional structure of writing anxiety, identifying the key factors of Behavioral, Physiological, Cognitive, Maladaptive, and Emotional. It also confirmed the model fit, with all factors demonstrating high internal consistency. The findings indicated that the EFLWAQ is a reliable and valid instrument for measuring writing anxiety among EFL learners.

The structure of the EFLWAQ, as revealed through exploratory and confirmatory factor analyses, confirms previous research on writing anxiety, particularly with the widely recognized dimensions of cognitive, somatic, and avoidance anxiety. Cheng's (2004) Second Language Writing Anxiety Inventory (SLWAI) also identified similar dimensions, suggesting that the cognitive and emotional aspects of writing anxiety are universally significant across different EFL contexts. Our findings corroborate the established understanding that cognitive anxiety – characterized by worries about writing quality and fear of negative evaluation – is a central component of writing anxiety among EFL learners.

Moreover, the somatic dimension identified in our study, which included physiological responses, such as nervousness and sweating during writing tasks, echoes the work of Atay and Kurt (2006), who also found a strong somatic component in their study on Turkish EFL learners. This consistency suggests that the physical manifestations of anxiety are a common experience for EFL learners, regardless of their cultural or linguistic background.

The avoidance behavior dimension in our EFLWAQ also mirrored findings from earlier studies, such as Rose's (1984) work on writing anxiety and writer's block, which identified a significant relationship between anxiety and the tendency to avoid writing tasks. This indicates that avoidance is a prevalent strategy employed by EFL learners to cope with their writing anxiety, further validating the relevance of this dimension in the EFL context.

While our findings are largely consistent with existing literature, some differences were observed. Notably, the relative importance of the avoidance dimension in the present study appears to be more pronounced compared to earlier studies. For instance, in Cheng's (2004) research, avoidance behavior was a less dominant factor compared to cognitive anxiety. However, in our sample, avoidance emerged as a more prominent response to writing anxiety. This could be attributed to the specific cultural and educational context of the participants in our study, where avoidance might be more socially or academically acceptable as a coping mechanism.

Another area of divergence is the relationship between self-confidence and assurance and writing anxiety. While Pajares and Johnson (1994) found a strong inverse relationship between writing self-assurance and anxiety, our findings suggest a more complex interaction. In our study, EFL learners exhibited significant levels of anxiety, particularly in the cognitive and somatic domains. This could suggest that in EFL contexts, even learners who believe they can perform well may still experience anxiety due to factors such as language proficiency or fear of negative feedback, highlighting the need for further investigation into how self-assurance and self-efficacy interacts with anxiety in EFL learners.

The quantitative results of the EFLWAQ development and validation process provided strong evidence for the multifaceted nature of writing anxiety in Iranian EFL learners. While our findings were largely consistent with previous research, particularly in identifying

cognitive, somatic, and avoidance dimensions of anxiety, the variations observed highlight the importance of considering the specific cultural and educational context in which writing anxiety occurs. Future research should continue to explore these nuances to develop more effective interventions for reducing writing anxiety in EFL learners.

The validated EFLWAQ provides a practical tool for identifying and addressing writing anxiety in learners, allowing for targeted interventions that can improve both student outcomes and teaching strategies. The study also contributed to the theoretical understanding of language learning anxiety, particularly in the context of writing. The identified dimensions offer a framework for further research and discussion within the field. This questionnaire also offers a robust tool for educators and researchers to measure and understand writing anxiety among EFL learners. By identifying specific areas of concern, educators can tailor interventions to address learner needs, potentially reducing anxiety and improving writing performance. The identification of distinct anxiety factors suggests that EFL writing anxiety is not a monolithic experience but rather a complex construct influenced by behavioral responses, cognitive perceptions, physiological reactions, maladaptive behaviors, and emotional states.

The study's findings can also inform curriculum designers to incorporate elements that address writing anxiety, such as workshops on coping strategies, writing skills, and activities that build linguistic self-efficacy. Educational policymakers can use the insights from this study to formulate policies that support EFL learners. For instance, they might include in-service training programs that equip instructors with the skills to recognize and address writing anxiety in their students.

Conclusion

Overall, it is hoped that the findings of the present study could enrich the field by contributing new knowledge about the dimensions and determinants of writing anxiety among EFL learners. This understanding can guide the development of more targeted instructional strategies that address each aspect of anxiety. The validated EFLWAQ can become a standard tool used in future research, allowing for comparisons across different contexts and populations.

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Appendix 1

Factor 1. Behavioral

Q8. I excessively rely on dictionaries or translation tools while writing in English.
Q9. I delay starting English writing assignments until the last minute.
Q10. I tend to avoid writing tasks in English to manage my anxiety about them.
Q11. I find myself making excuses or creating obstacles to avoid writing tasks in English.
Q12. I often engage in negative self-talk about my English writing abilities.

Q17. I tend to focus on my weaknesses and failures while writing in English, leading to feelings of worthlessness.
Q18. I set excessively high standards for my English writing, leading to feelings of pressure and frustration when those standards are not met.
Q24. I sometimes engage in self-handicapping behaviors, such as making excuses for poor performance in advance, deliberately not putting in full effort, or engaging in excessive self-criticism to protect my "self-esteem" when writing in English.

Factor 2. Cognitive

Q22. I often feel pressured by time constraints when writing.
Q25. I often exaggerate about potential negative outcomes related to my writing tasks in English.
Q26. I place unrealistic expectations on myself when it comes to writing in English.
Q27. Thoughts of failing in English writing tasks often afflict my mind.
Q28. I sometimes struggle to express my feelings, and I worry that my audience may misinterpret my intended message.
Q29. At the onset of writing, I often experience slight anxiety, and my thoughts may become somewhat jumbled.

Factor 3. Physiological

Q1. I experience increased anxiety levels when faced with English writing tasks.
Q2. Physical symptoms like increased heart rate and sweating negatively impact my ability to concentrate on English writing tasks.
Q3. I notice muscle tension in my body when I'm writing in English.
Q4. I find it hard to breathe properly when writing in English.
Q5. When completing writing course assignments and pushing myself to produce ideas, I often experience physical discomfort such as feeling cold and developing a headache.
Q14. When faced with difficult writing tasks in English, I tend to resort to distracting behaviors like shaking my legs or chewing my lips.

Factor 4. Maladaptive

Q6. I often imagine the worst possible outcomes when writing in English.
Q7. The pressure to perform well in English writing tasks sometimes overwhelms me.
Q19. I feel insecure about my English language skills when writing.
Q20. I am worried that my English writing will be judged harshly by others.
Q21. I worry about how my teacher or peers will evaluate my writing.
Q23. I frequently feel tense and nervous when I have to write in English.
Q30. While writing, I struggle to find more appropriate words to express my thoughts more clearly.

Factor 5. Emotional

Q13. I tend to get easily distracted and lose concentration when writing in English.

Q15. I experience interruptions while writing in English, shifting my focus to other tasks.

Q16. I feel confident in my English writing abilities overall.

<div align="center">

Appendix 2
EFLWAQ

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Q1. I experience increased anxiety levels when faced with English writing tasks.

Q2. Physical symptoms like increased heart rate and sweating negatively impact my ability to concentrate on English writing tasks.

Q3. I notice muscle tension in my body when I'm writing in English.

Q4. I find it hard to breathe properly when writing in English.

Q5. When completing writing course assignments and pushing myself to produce ideas, I often experience physical discomfort such as feeling cold and developing a headache.

Q6. I often imagine the worst possible outcomes when writing in English.

Q7. The pressure to perform well in English writing tasks sometimes overwhelms me.

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