

Using Exploratory Factor Analysis to Explore Writing Test Anxiety Factors Among EFL Learners

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Abstract

Writing test anxiety is prevalent among English as a Foreign Language (EFL) learners and may negatively affect their writing performance. However, the dimensional structure of writing test anxiety remains under-investigated in EFL contexts. Therefore, this study aimed to identify the underlying factors of writing test anxiety among EFL learners. A quantitative research design was employed, and data were collected from 375 EFL learners using a writing test anxiety questionnaire. The questionnaire responses were analyzed using exploratory factor analysis (EFA). The data were suitable for factor analysis (KMO = 0.913; Bartlett's test of sphericity, $p < 0.001$). Six underlying factors were identified: Writing-Induced Emotional Strain (WIES), Cognitive Strain in Writing (CSW), Writing Accuracy and Evaluation Stress (WAES), Performance Evaluation Anxiety (PEA), Time-Pressure Writing Anxiety (TPWA), and Sociocultural Feedback Response (SFR). Together, these factors explained 60.420% of the total variance. The findings contribute to the understanding of the multidimensional nature of writing test anxiety and suggest practical implications for language teachers and curriculum designers to develop instructional strategies and supportive learning environments that may help reduce anxiety and enhance EFL learners' writing performance.

Keywords: Exploratory factor analysis, writing test anxiety, EFL learners, factor analysis

1. Introduction

Writing tests play a crucial role in evaluating students' academic performance and English language proficiency, especially for English as a Foreign Language (EFL) learners. They also foster the skills necessary for effective communication and organization of information, which cultivate critical thinking (Hyland, 2003). In addition, writing tests evaluate writing fluency and allow students to organize and articulate their thoughts and use correct vocabulary and grammar (Grabe & Kaplan, 1996; Hyland, 2016). Nevertheless, writing tests, in spite of the benefits, can also induce writing anxiety, especially in the case of EFL learners.

For Thai EFL learners, learning and mastering in English writing is challenging (Chatdecha & Liangpanit, 2023; Chuanpipatpong, 2025; Prapobratanakul, 2024; Puengpipattrakul, 2020). Compared to other skills, including listening, speaking, and reading, writing is perceived as the most difficult of the four language skills because it requires control of vocabulary and grammar, awareness of the audience's expectations, and the ability to organize thoughts and ideas (Hyland, 2003). Writing is also a time-consuming, tedious, and tiresome activity (Chatdecha & Liangpanit, 2023; Puengpipattrakul, 2020). Nevertheless, writing receives significant emphasis in the Thai educational setting and curriculum, with most assessments and tests focused on writing ability. A single writing exercise can determine a learner's placement in school or their ability to graduate. Due to the time-constrained nature of writing tasks and their evaluative aspect, such tasks may evoke worry and fear, leading many learners in the Thai educational system to experience writing anxiety and increased stress (Cheng, 2004; Sabti et al., 2024; Sarason, 1984). Writing anxiety negatively affects learners' academic performance, motivation to write, and overall academic success (Horwitz, 2001).

Previous research has explored writing anxiety from a variety of perspectives. Cheng (2004) proposed three dimensions of writing anxiety, namely, somatic anxiety, cognitive anxiety, and avoidance behavior. Other studies have investigated sources of writing anxiety. Fear of negative evaluation was indicated by Yan and Horwitz (2008). Lee and Krashen (2002) also associated anxiety with lack of prior knowledge or negative past experiences. Recent studies reported sources of writing anxiety such as fear of negative feedback from teachers, anxiety under time pressure, lack of writing skills, unfamiliarity with writing, and anxiety related to perfectionism and the multiple writing assignments required (Chatdecha & Liangpanit, 2023; Chuanpipatpong, 2025; Prapobratanakul, 2024; Talasee & Poopatwiboon, 2025).

Yet, despite the amount of research that has been done on writing test anxiety, many aspects of this anxiety are underexplored. In an attempt to fill this gap, the present study used exploratory factor analysis (EFA) to determine the underlying factors and their respective factor structures (Costello & Osborne, 2005). This approach will clarify the underlying structure of writing test anxiety and the relative contributions of its dimensions. The findings of the study will contribute to the understanding of the multi-dimensionality of writing anxiety and provide a rationale for enhancing writing instruction and assessment practices in EFL contexts.

2. Literature Review

2.1 Time-Related Pressure and Task Conditions

Writing anxiety is often caused by time-related demands, particularly in high-stakes testing situations (Cassady & Johnson, 2002; Chatdechcha & Liangpanit, 2023; Ho, 2016; Talasee & Poopatwiboon, 2025). Test-takers experience anxiety around time in general and probably experience performance anxiety when they see their fellow test-takers finish the exam earlier (Zeidner, 1998). Writing under time constraints requires planning, drafting, editing, and language control, all of which take time and compete for memory (Kellogg, 2008). With time limited, students might skip important steps such as planning, leading to significant mental blocks and disrupting the flow of ideas. Time-related pressure is intensified by vague instructions, unknown topics, and unstructured methods of assessment (Ho, 2016; Pekrun, 2006). This can cause further mental blocks. The writing tasks that the learners consider very important and out of their control increase anxiety and create more pressure on the emotional and cognitive resources of the learners.

2.2 Cognitive Processing and Idea Generation Difficulties

Writing tests demands a high level of cognitive effort in managing working memory, maintaining attention, and retrieving the appropriate words in the act (Kellogg, 2008; Onwuegbuzie et al., 2000). Anxiety compounds these cognitive demands by impeding vocabulary retrieval, sequencing, and concentration and can lead to mental blocks and incoherent writing (Eysenck et al., 2007). Even skilled writers struggle to produce high-quality written responses when their cognitive resources are depleted. The challenges are even greater for EFL learners because they need to generate, develop, and organize ideas coherently and then express them accurately in a second language (Do, 2023). Hence, writing is a difficult task for EFL learners. Both planning and revision are important components of the writing process, but anxiety could hinder learners' ability to successfully participate in these processes, thus hindering the organization, refinement, and development of ideas in writing (Sasaki, 2000).

2.3 Linguistic and Structural Concerns

EFL learners' anxiety comes from concerns over linguistic accuracy and the formal requirements of academic writing (Chatdechcha & Liangpanit, 2023; Sabti et al., 2024). Such concerns are particularly evident among learners who are not well-prepared for written examinations (Horwitz et al., 1986). According to Weigle (2002), when writing in a foreign language, learners have to control content ideas and master the form. They often feel insecure when they are asked to use the complex sentence and phrase patterns expected in academic papers, even for those who are competent at grammar, spelling, vocabulary, punctuation, and sentence structure. As accuracy and clarity are important criteria in the assessment of written work, learners often obsess over every possible error in the hope of achieving the best possible grades. Therefore, to reach this goal, learners opt to retreat to familiar, simple formulas and run the risk of becoming boring to avoid being penalized—a decision that can compromise both quality and originality (Hyland, 2003).

2.4 Apprehension of Being Judged and Evaluated

A major cause of writing test anxiety is the fear of negative evaluation from teachers or peers (Horwitz et al., 1986; Wahyuni & Umam, 2017). In an EFL context, writing is not only a means of communication but also an indicator of academic performance. As a result, learners often consider writing as a reflection of their level of intelligence, effort, and other personal characteristics, which increases the pressure to meet the expectations and not receive negative feedback so as to avoid being judged (Akaraphattanawong et al., 2024; Cheng, 2004; Horwitz, 2001). Learners with a well-defined ideal self or high standards are especially sensitive to this pressure. Moreover, in Thailand, family expectations are the reason for writing anxiety, as academic success is the pride (Yan & Horwitz, 2008). Pekrun (2006) notes that the excessive self-monitoring of the students themselves may impede the flow of ideas, take up working memory, and lead to emotional and cognitive problems from fear of negative evaluation. Therefore, learners may be unable to fully express their ideas under the pressure of being negatively evaluated in writing tests.

2.5 Sociocultural and Institutional Influences

The sociocultural context of EFL learning generates particular forms of writing test anxiety due to learners' cultural values, educational backgrounds, and relationships with teachers. From a sociocultural perspective, learning and feedback are influenced by the social and cultural contexts in which they occur (Vygotsky, 1978). Consequently, students' cultural backgrounds shape their expectations of feedback, correction, and teacher roles. When feedback practices do not align with learners' sociocultural expectations, students may develop negative perceptions of writing evaluation, which may lead to increased writing anxiety (Carless, 2006; Hyland & Hyland, 2006). In addition, institutional practices may further influence writing test anxiety. In many Thai educational settings, teachers are often perceived as authority figures and the main provider of knowledge (Kaur et al., 2016; Paschal, 2025), while students are subjected to examination-oriented learning environments. The emphasis on grammar-based instruction and high-stakes testing can restrict students' chances to engage in process-based writing tasks such as planning, developing ideas, and organizing them. Consequently, learners might not be adequately prepared for writing tasks that require independent thinking and extended responses, thus increasing writing test anxiety.

3. Methods

This study employed a quantitative research design to investigate the underlying dimensions of writing test anxiety among Thai EFL learners using exploratory factor analysis (EFA). The following sections describe the participants, research instrument, data collection, and data analysis.

3.1 Participants

The sample for the current study was 375 undergraduate students from public universities in Thailand, randomly selected during the second semester of the 2024 academic year. The questionnaire consisted of 27 observed variables. Hair et al. (2019) indicated that a sample of 5 to 20 respondents per variable is sufficient for EFA. Using a target ratio of 15 respondents per variable, the minimum sample required was 405 participants. The target sample size was 445 to compensate for some loss of sample or incomplete questionnaires. Finally, 375 complete questionnaires were retained for analysis, which represented 84.27% of the targeted sample. Although the final sample size was lower than the targeted size, it was an acceptable sample size and adequate to conduct EFA since it was above the minimum threshold of 300 cases suggested by Comrey and Lee (1992).

3.2 Research Instrument

A 27-item questionnaire was developed based on a synthesis of factors associated with EFL writing test anxiety identified in previous studies (e.g., Carless, 2006; Cassady & Johnson, 2002; Cheng, 2004; Daly & Miller, 1975; Horwitz et al., 1986; Hyland, 2003; Hyland & Hyland, 2006; Onwuegbuzie et al., 2000; Rosenfeld et al., 2001; Sarason, 1984). The instrument assessed participants' perceptions of writing test anxiety using a four-point Likert scale without a neutral response option to encourage respondents to make a clear choice (Plengkham et al., 2025). To ensure clarity and minimize misinterpretation, the questionnaire was translated into Thai.

To measure the validity, the questionnaire was given to three experts to review and evaluate based on the Item–Objective Congruence (IOC) Index. The IOC values ranged from 0.67 to 1.00, showing acceptable content validity. Following this, a pilot study was conducted with 30 participants to test the reliability of the instrument (Sukserm, 2024). The instrument's Cronbach's alpha coefficient was 0.898, which shows high internal consistency. Data for the main study were collected through the validated and reliable questionnaire after the pilot study.

3.3 Data Collection and Data Analysis

The data were collected for three months in the second semester of the academic year of 2024. The questionnaire was sent through Google Forms online to enable the participants to fill out the survey at their convenience and thus improve the response rate. This study obtained ethical approval from the Ethical Review Board for Research with Human Subjects (IRB No. 233/67).

This study used exploratory factor analysis (EFA) to explore the underlying dimensions of EFL learners' writing test anxiety. This method was considered appropriate as it detects latent dimensions by examining the shared variance among observed variables (Costello & Osborne, 2005; Fabrigar et al., 1999; Gorsuch, 1983; Hair et al., 2019). Principal axis factoring was chosen as the extraction method because it can identify common factors even when some assumptions of the data are violated. Varimax rotation was applied because it was anticipated that the factors related to writing test anxiety would be uncorrelated. Before factor extraction, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were used to assess the appropriateness of the data for factor analysis. Factors were retained if they had eigenvalues greater than 1.0, appeared clearly on the scree plot, and were theoretically interpretable.

The quality of each item was evaluated by means of factor loadings, communalities, Cronbach's alpha coefficients, and corrected item-total correlations. Factor loadings were used to examine the strength of each item's relation to its factor. Loadings of factors ≥ 0.40 were considered acceptable. Communalities of ≥ 0.40 were deemed acceptable to establish the proportion of variance explained by the retained factors. Cronbach's alpha coefficients were calculated to evaluate the internal consistency of the total scale and each extracted factor. Individual item contribution to the respective factors was assessed using the corrected item-total correlations. The evaluation criteria were developed on the basis of the recommendation of the literature on exploratory factor analysis and scale development (Costello & Osborne, 2005; Fabrigar et al., 1999; Hair et al., 2019; Nunnally & Bernstein, 1994).

4. Results

To investigate the factor structure of writing test anxiety among EFL learners, exploratory factor analysis was conducted. Prior to factor extraction, the suitability of the sample was determined using the Kaiser–Meyer–Olkin measure of sampling adequacy and Bartlett's test of sphericity.

Table 1. KMO and Bartlett's Test

Kaiser–Meyer–Olkin Measure of Sampling Adequacy.		0.913
Bartlett's Test of Sphericity	Approx. Chi-Square	4721.092
	df	351
	Sig.	0.000*

$p < 0.05^*$

As shown in Table 1, the KMO value was 0.913, which exceeded the recommended threshold of 0.60 (Kaiser, 1974); therefore, factor analysis was considered appropriate. This also indicated that the variables shared sufficient common variance to justify factor analysis. With regard to Bartlett's test, a chi-square value of 4721.092, $p < 0.001$, suggested that the correlation matrix was not an identity matrix (Bartlett, 1950). Overall, these results indicated that this dataset was highly suitable for EFA. Table 2 presents the total variance explained by the extracted factors in the exploratory factor analysis.

Table 2. Total Variance Explained

Factor	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	10.073	37.306	37.306	10.073	37.306	37.306	3.444	12.757	12.757
2	1.646	6.097	43.402	1.646	6.097	43.402	3.417	12.654	25.411
3	1.363	5.049	48.451	1.363	5.049	48.451	3.236	11.985	37.396
4	1.163	4.309	52.759	1.163	4.309	52.759	2.311	8.560	45.956
5	1.057	3.913	56.673	1.057	3.913	56.673	2.142	7.932	53.888
6	1.012	3.747	60.420	1.012	3.747	60.420	1.764	6.532	60.420
7	0.951	3.521	63.942						
...	...	...	...						
26	0.230	0.851	99.187						
27	0.220	0.813	100.000						

Table 2 presents the total variance explained by the factors extracted. Six factors were retained using the eigenvalue criterion as each factor had an initial eigenvalue greater than 1.00. The first factor had the highest initial eigenvalue (10.073) and accounted for 37.306% of the total variance. The eigenvalues for the second to sixth factors were 1.646, 1.363, 1.163, 1.057, and 1.012, respectively. The six factors explained 60.420% of the total variance, which was considered an acceptable level of explained variance for exploratory factor analysis (Hair et al., 2019). After rotation, the variance was distributed more evenly across the six factors, and the factor structure became more interpretable (Costello & Osborne, 2005; Fabrigar et al., 1999).

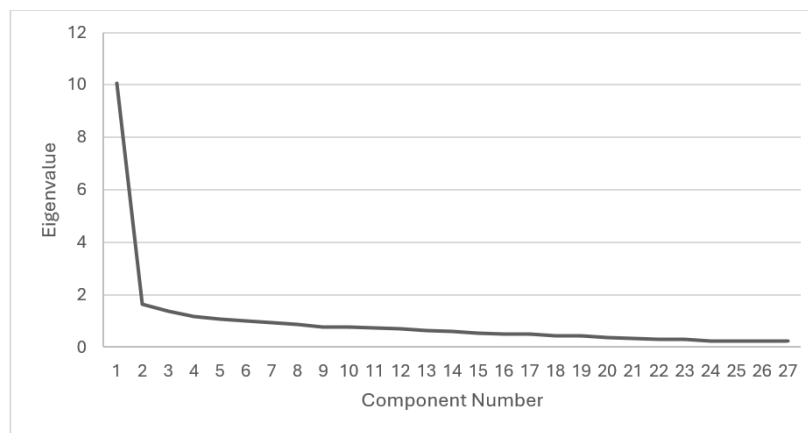


Figure 1. Scree Plot

Figure 1 shows the scree plot, which also informed the factor-retention decision. The scree plot indicated a steep drop after the first factor and then a slower decline. The first factor was dominant, but six factors had eigenvalues > 1.00 and were considered meaningful. The six-factor solution was thus retained.

Table 3 shows the rotated factor matrix, obtained from an exploratory factor analysis with varimax orthogonal rotation. The matrix below presents the factor loadings of individual items on the six factors identified after rotation.

Table 3. Rotated Factor Matrix of Writing Test Anxiety Items

Statements	Communalities	Corrected Item-Total Correlation	Factors					
			WIES	CSW	WAES	PEA	TPWA	SFR
18. I feel tense when the writing test is about a topic I am not familiar with.	0.637	0.628	0.677					
8. I feel a lot of pressure when the writing test is a significant part of my final grade.	0.583	0.564	0.659					
17. I feel stressed when I don't understand the writing test instructions.	0.584	0.591	0.634					
4. I feel uneasy when the writing	0.532	0.542	0.594					

Statements	Communalities	Corrected Item-Total Correlation	Factors					
			WIES	CSW	WAES	PEA	TPWA	SFR
test requires me to write in a style I am not comfortable with.								
24. I feel nervous when I have to write about unfamiliar topics during the test.	0.651	0.639	0.511					
15. I feel worried about running out of ideas during the writing test.	0.711	0.612		0.746				
13. I feel anxious about organizing my thoughts quickly during the writing test.	0.604	0.518		0.721				
12. I feel my mind goes blank during the writing test.	0.622	0.621		0.684				
14. I feel stressed when I can't think of the right words to use in the test.	0.607	0.640		0.582				
23. I feel stressed when I have to revise my writing multiple times during the test.	0.530	0.489		0.448				
10. I feel nervous about spelling errors in my writing tests.	0.692	0.597			0.766			
9. I feel worried about making grammatical mistakes in writing tests.	0.643	0.538			0.742			
11. I feel anxious about using complex sentence structures in the writing test.	0.600	0.600			0.567			
21. I feel tense when I know the writing test will be graded by a strict teacher.	0.560	0.573			0.531			
22. I feel anxious about the formatting requirements of the writing test.	0.602	0.630			0.472			
16. I feel worried that I haven't prepared enough for the writing test.	0.589	0.663			0.464			
2. I am afraid of receiving a low grade on writing tests.	0.655	0.640				0.600		
3. I am pressured to perform well on writing tests to meet my own expectations.	0.549	0.541				0.597		
1. I feel worried that others will judge my writing ability based on my test performance.	0.589	0.530				0.582		
20. I feel nervous before writing exams.	0.614	0.657				0.490		
5. I feel anxious about not being able to finish the writing test on time.	0.638	0.440					0.749	
6. I feel nervous when I have to write under timed conditions.	0.614	0.595					0.584	
19. I feel worried about the length of the writing test and whether I can complete it in time.	0.598	0.674					0.457	
7. I feel anxious when I see other students finish their writing tests before me.	0.504	0.502					0.444	
26. Personal relationships with teachers affect how I receive feedback on my writing.	0.570	0.309						0.691
25. My cultural background influences how I perceive feedback on my writing.	0.671	0.410						0.674

Statements	Communalities	Corrected Item-Total Correlation	Factors					
			WIES	CSW	WAES	PEA	TPWA	SFR
27. I feel that the educational environment in my home country affects my writing anxiety.	0.564	0.473						0.606

The rotated factor matrix revealed six underlying factors of writing test anxiety among Thai EFL learners. The factors were interpreted according to the pattern of factor loadings. Items with high factor loadings on the same factor were considered to represent a common underlying dimension of writing test anxiety.

Firstly, Writing-Induced Emotional Strain (WIES) reflected emotional discomfort related to unfamiliar writing topics, performance pressure, and preferences for particular writing styles. One of the highest-loading items, “*I feel tense when the writing test is about a topic I am not familiar with*” (Item 18, loading = 0.677).

Secondly, Cognitive Strain in Writing (CSW) reflected the cognitive load experienced during writing tests, especially for learners who generated and organized ideas under time constraints. The item “*I feel worried about running out of ideas during the writing test*” (Item 15, loading = 0.746) was the highest-loading item on this factor.

Thirdly, Writing Accuracy and Evaluation Stress (WAES) referred to anxiety associated with writing accuracy and concerns about evaluation. The item with the highest loading was “*I feel nervous about spelling errors in my writing tests*” (Item 10, loading = 0.766),

Fourthly, Performance Evaluation Anxiety (PEA) represented the anxiety caused by the perception of evaluative judgement through grading, peer comparison, and self-comparison. The statement “*I am afraid of receiving a low grade on writing tests*” (Item 2, loading = 0.600) had one of the highest loadings.

Fifthly, Time-Pressure Writing Anxiety (TPWA) referred to the concern about completing writing tasks within a limited time. The item “*I feel anxious about not being able to finish the writing test on time*” (Item 5, loading = 0.749) had the highest factor loading on this factor.

Finally, Sociocultural Feedback Response (SFR) reflected learners’ responses to interpersonal and sociocultural aspects of writing feedback. The highest-loading item, “*Personal relationships with teachers affect how I receive feedback on my writing*” (Item 26, loading = 0.691).

Furthermore, the more complete factor analysis report required the examination of the quality of the remaining items with factor loadings, communalities, corrected item-total correlations, and reliability coefficients. The factor loadings for the remaining items ranged from 0.444 to 0.766, indicating an adequate to strong relationship between the items and the factors. Some items had loadings below 0.50, but they were retained because those loadings were still above 0.40, the items did not show major cross-loadings, and the items were important to the theoretical meaning of the factors. Communalities for the remaining items were from 0.504 to 0.711, showing that the factors extracted explained a substantial proportion of the variance in the retained items. Corrected item-total correlations ranged from 0.309 to 0.674, indicating that the items contributed adequately to their respective factors since corrected item-total correlations of 0.30 and above are considered adequate (Nunnally & Bernstein, 1994).

Table 4. Reliability Coefficients of the Writing Test Anxiety Scale and Its Factors

Factors	Numbers of Items	Cronbach’s Alpha
Writing-Induced Emotional Strain (WIES)	5	0.808
Cognitive Strain in Writing (CSW)	5	0.806
Writing Accuracy and Evaluation Stress (WAES)	6	0.834
Performance Evaluation Anxiety (PEA)	4	0.776
Time-Pressure Writing Anxiety (TPWA)	4	0.726
Sociocultural Feedback Response (SFR)	3	0.562
Total scale	27	0.931

Cronbach’s alpha coefficients for the six factors, as shown in Table 4, ranged from 0.562 to 0.834, and total scale reliability was 0.931. The overall scale showed excellent internal consistency, whereas reliabilities for individual factors ranged from low to good. Although the Sociocultural Feedback Response (SFR) factor had the lowest alpha coefficient, it was retained because this study was exploratory in nature, the factor comprised only three items, and the items represented a theoretically meaningful construct. Since Cronbach’s alpha is influenced by the number of items, short subscales, even when the items are conceptually related, can show low alpha values. In exploratory factor analysis, the retention of items should be based on both statistical and theoretical grounds, rather than a single numerical constraint (Costello & Osborne, 2005; Fabrigar et al., 1999; Hair et al., 2019).

5. Discussion

In this study, the six factors represent different dimensions of writing test anxiety experienced by EFL learners. The results provide an empirically derived factor structure that contributes to the theoretical understanding of the multidimensional nature of writing test anxiety in EFL contexts.

5.1 Writing-Induced Emotional Strain (WIES)

Writing-Induced Emotional Strain (WIES) pertains to the anxiety experienced by EFL learners when writing about topics or genres they are unfamiliar with or find very challenging. Students who were not familiar with the assigned topics also raised concerns about obtaining low grades and being perceived as having limited language skills (Talasee & Poopatwiboon, 2025). Learners' perceptions of their familiarity with writing topics are closely associated with their writing confidence and willingness to demonstrate their language ability (Cheng, 2004; Lee & Krashen, 2002).

Among the significant psychological obstacles to productive academic writing is the anxiety stemming from unfamiliar writing tasks and the anticipation of negative evaluation. These sources of anxiety may manifest to varying degrees across learners, and when several of them are present simultaneously, writing performance may be negatively influenced. This is particularly evident among learners who perceive writing tasks as high stakes and who are unfamiliar with the assigned topics or task requirements. Therefore, the psychological aspects of academic writing should be considered when designing instructional interventions to address this dimension of writing test anxiety.

5.2 Cognitive Strain in Writing (CSW)

Cognitive Strain in Writing (CSW) refers to the cognitive load in producing, organizing, and manipulating ideas within the limitations of a writing task. This clustering is a consequence of the interrelation of the writing processes. According to Kellogg (2008), writers must process ideas and words at the same time as they create and arrange wording, grammar, and structure to compose a coherent paragraph. When EFL learners report experiencing a blank mind before a test or an inability to organize and rearrange their ideas to answer a test item, it is most likely due to a breakdown in working memory and/or executive function, which are especially vulnerable to test-related stress (Sarason, 1984; Sweller, 1988). Additionally, the linguistic processing required in writing—an L2 for most of these learners—further increases the processing burden, intensifying the sense of being overwhelmed (Sasaki, 2000).

This phenomenon also relates to learners' metacognitive awareness. Cognitive strain, especially when learners encounter questions that require higher-order thinking and have little or no time to plan and prepare (Zimmerman & Schunk, 2011), increases when they lack necessary self-regulatory or planning strategies. These factors explain why the distinct items are grouped together in the context of the factors. Therefore, to address the cognitive load caused by writing assessments, attention should be given to writing fluency, deliberate instruction in pre-writing strategies, and spontaneous idea generation (Do, 2023).

5.3 Writing Accuracy and Evaluation Stress (WAES)

Writing Accuracy and Evaluation Stress (WAES) refers to students' anxiety about making errors in word choice, grammar, or structure, their concern about correctness and clarity, and their worry about subsequent evaluation of their writing (Chatdech & Liangpanit, 2023; Sabti et al., 2024). Learners tend to be aware that complex grammatical constructions can positively impact their writing performance (Skehan, 1998), but they are often reluctant to use them. Learners try to balance linguistic complexity and accuracy when writing tests, which can negatively affect the overall quality of their writing. Therefore, learners tend to avoid making mistakes by choosing simpler or safer language structures.

Writers' perceptions of a teacher's post-draft feedback style significantly affect their post-draft feedback anxiety. A strict feedback style may intensify learners' concerns about linguistic accuracy and evaluation. Additionally, students may perceive teachers who provide highly evaluative feedback as being judgmental, leading to anticipatory anxiety about mistakes they have not yet made (Dörnyei, 2005). Hyland (2003) notes that second language writers are usually aware of evaluative writing, so even minor errors may seem to them a reflection of limited thinking.

Although the relationship between teacher feedback and concerns about linguistic accuracy may not seem immediately obvious, the findings indicate a close connection between these aspects. Learners are concerned about making errors and about how those errors will be evaluated by teachers and others. Anxiety associated with evaluation may interfere with performance even when learners possess the necessary knowledge and skills (Zeidner, 1998). The present findings thus suggest that WAES can be viewed as a manifestation of the close relationship between concerns about writing accuracy and evaluative judgment, a combination that might enhance self-awareness and reduce learners' confidence in writing tasks.

5.4 Performance Evaluation Anxiety (PEA)

Performance Evaluation Anxiety (PEA) is a specific form of anxiety that adds another dimension to writing test anxiety. PEA includes concerns about how the individual is evaluated by others such as teachers and peers as well as self-evaluation. This aligns with previous literature documenting students' anxieties about the possibility of receiving negative assessments, particularly when their written responses fail to conform to teaching instructions (Akaraphattanawong et al., 2024; Wahyuni & Umam, 2017). It suggests that the anxiety arising from self-evaluation is comparable in degree to the anxiety generated by evaluation from others.

Success in schooling in Thailand, as in other Asian countries, is closely associated with family and community pride. Because of this, mistakes in public, especially in written language, are seen as a threat to one's linguistic correctness and are anxiety-provoking. As Pekrun (2006) notes, this can consume cognitive resources and results in a general decline in writing fluency and idea generation. Overall, PEA is described as a complex psychological phenomenon that negatively affects students' motivation and self-efficacy when they undertake a writing task perceived as an evaluative threat.

5.5 Time-Pressure Writing Anxiety (TPWA)

Time-Pressure Writing Anxiety (TPWA) represents strict time limits for writing activities as the leading cause of writing anxiety for many learners. Similar results were reported in the studies (Chatdech & Liangpanit, 2023; Ho, 2016; Talasee & Poopatwiboon, 2025). During the writing process, learners are expected to generate, transform, and refine their ideas into acceptable written discourse. Even in one's native language, this process is quite time-consuming (Puengpipattrakul, 2020). For EFL learners, time becomes a much more serious limitation, as they must perform all the transformations and revisions in a foreign language (Sasaki, 2004). Time pressure is likely to interrupt some of the planning and revisions processes that weaker writers rely on to improve their writing (Zimmerman & Schunk, 2011). The disruptive effect of time pressure is likely the reason why learners report that seeing others finish first is a stressful experience. This is comparative in nature and most likely results in a loss of self-efficacy.

It should be understood that the presence of time constraints and writing anxiety does not necessarily indicate that the learner lacks language skills. Instead, it reflects the learner's concern about responding to the task in a satisfactory and coherent manner within the time limit. Putwain (2008) found that learners' anxiety levels increased when the time available to complete a task was less than what was needed to think and create. Time constraints can make even skilled writers anxious. Findings in this area support calls to reassess the impact of time constraints on test design, especially in writing assessments, and to integrate time-management strategies into writing tasks to reduce writing anxiety among EFL learners.

5.6 Sociocultural Feedback Response (SFR)

Sociocultural Feedback Response (SFR) captures learners' writing anxiety as shaped by interpersonal relationships, feedback experiences, cultural background, and educational environments. According to Vygotsky's (1978) sociocultural theory, writing anxiety might be influenced by learning experiences, social and cultural environments, and individual characteristics. In educational contexts, interpersonal relationships between teachers and students may influence how learners interpret and respond to instructional feedback. In contexts where interpersonal harmony and relational trust are highly valued, learners' acceptance of feedback may depend on both the credibility of the feedback provider and the manner in which feedback is communicated (Carless, 2006). This may help to explain the increased sensitivity of some students to how constructive feedback is delivered and its style, even if positive feedback is present. In the Thai EFL context, teacher feedback is highly valued in writing (Prapobratanakul, 2024). Consequently, the tone, style, and delivery of feedback may influence learners' emotional responses to writing tasks and may become a source of writing anxiety for learners.

Moreover, the item referring to educational background suggests that previous schooling experiences may contribute to current anxiety. Students who have experienced high-stakes, highly exam-oriented, and teacher-directed learning environments may carry these internalized beliefs into their writing assessments. Although such beliefs are largely invisible, they can be expressed through students' cognitive and emotional engagement with writing tasks (Hyland & Hyland, 2006).

6. Conclusion

The current study utilized exploratory factor analysis (EFA) to explore the factors underlying the construct of writing test anxiety among EFL learners. Results revealed six underlying factors: Writing-Induced Emotional Strain (WIES), Cognitive Strain in Writing (CSW), Writing Accuracy and Evaluation Stress (WAES), Performance Evaluation Anxiety (PEA), Time-Pressure Writing Anxiety (TPWA), and Sociocultural Feedback Response (SFR). The results indicate that writing test anxiety is a multidimensional construct, which includes emotional, cognitive, linguistic, evaluative, temporal, and sociocultural dimensions.

From a pedagogical perspective, the six identified factors of writing test anxiety could be a useful framework for language teachers, curriculum designers, and test developers to design instructional practices and assessment strategies that address learners' anxiety. Through acknowledgement of the multidimensionality of writing test anxiety, educators can develop more supportive learning environments that can enhance learners' writing confidence and performance.

Some limitations should be acknowledged. First, only exploratory factor analysis was conducted; therefore, the six-factor structure has not been confirmed. Second, the data were collected through a self-report survey, which may reflect respondents' perceptions rather than their actual writing performance on the tests. Future studies should use confirmatory factor analysis to evaluate model fitness and to provide evidence for construct validity. Because of the sample used, the findings may only be generalizable to similar groups of EFL learners and, thus, may be limited to this EFL learner group. The six-factor model should be tested in other linguistic and ethnic settings. It would also be beneficial to use longitudinal studies and experimental designs to test the writing anxiety framework and to target specific dimensions of anxiety associated with writing.

7. Declaration of AI Use

The authors state that Grammarly, InstaText, and ChatGPT were used for grammar checks, reference formatting, and surface-level language enhancement, respectively. The authors affirm that no AI tools were used for data analysis or the interpretation of results. The authors take full responsibility for the text.

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Authors Contributions

Dr. Apapan Ruengkul and Dr. Patsawut Sukserm conceived and designed the study and prepared the supplementary research documents. All authors contributed to data analysis, interpretation of the findings, and manuscript preparation. All authors participated in drafting, reviewing, editing, and proofreading the manuscript and approved the final version for publication.

Competing Interests

The authors declare that they do not have any conflict of interest.

Informed consent

Obtained.

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The Publication Ethics Committee of the Sciedu Press.

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Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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