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Foreign Language Listening Anxiety among Chinese Tertiary EFL Learners

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Abstract: Foreign language listening anxiety (FLLA) significantly affects learners' listening performance but remains less explored compared to other language anxieties. This study surveyed 702 Chinese tertiary EFL learners across 22 faculties to investigate key dimensions of FLLA, gender differences, and their relationship with English proficiency. Through exploratory and confirmatory factor analyses, four distinct dimensions of FLLA were identified: Situational Listening Anxiety (SLA), Self-perceived Cognitive Load (SC), Self-perceived Affective Load (SA), and Listening Processing Anxiety (LP). Among them, LP emerged as the most influential, indicating that real-time processing challenges outweigh emotional or contextual stress. Gender was not a significant predictor of FLLA, suggesting that anxiety stems more from cognitive and situational challenges than from demographic factors. Interestingly, English proficiency was weakly but positively correlated with SLA and SA, implying that more proficient learners may experience slightly heightened anxiety due to increased expectations or task complexity. The findings highlight the need for pedagogical strategies that target cognitive processing and listening-specific training rather than focusing solely on emotional or demographic considerations.

Keywords: Foreign language listening anxiety; Chinese tertiary EFL learners; Gender differences; English proficiency

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1. Introduction

FLLA refers to the feelings of helplessness, apprehension, and loss of control that learners often experience when listening to a foreign language, particularly in contexts where they cannot influence the topic or pace of speech [1]. This anxiety arises from a range of interrelated factors, cognitive, affective, linguistic, and situational, such as incomprehensibility, low confidence, task difficulty, and fear of negative evaluation [2]. These conditions frequently cause learners to feel anxious and reluctant to participate in listening tasks [3].

While foreign language anxiety has been widely examined, especially in the domains of speaking, reading, and writing, listening anxiety has received comparatively limited attention [4]. Yet, previous research consistently demonstrates that reducing language learning anxiety improves learners' motivation, comprehension, and long-term acquisition [5]. Therefore, gaining a deeper understanding of FLLA is vital for enhancing language instruction and learner outcomes. This study aims to examine FLLA in the context of Chinese tertiary EFL learners by addressing the following objectives:

(1) Identifying the key measurement factors of FLLA in the Chinese-language context.

(2) Investigating how students experience different factors of FLLA.

(3) Exploring the influence of gender on FLLA.

(4) Assessing the correlation between FLLA and English proficiency.

By addressing these research questions, this study contributes to the theoretical refinement of FLLA and offers practical implications for anxiety-sensitive language instruction.

2. Literature review

2.1. The factors of FLLA

Research on FLLA can be traced back to Horwitz *et al.* (1986), who recognized the anxiety learners experience in listening and speaking situations through the Foreign Language Classroom Anxiety Scale [6]. However, its listening component was limited to only two items, insufficient to capture the full scope of listening-related anxiety. In response, Kim (2000) developed a 33-item Foreign Language Listening Anxiety Scale, which became a widely used tool in subsequent studies [7]. Elkhafaifi (2005) adapted the Foreign Language Reading Anxiety Scale by replacing "reading" with "listening" [8], and Zhang *et al.* (2011) further validated this adaptation using exploratory and confirmatory factor analyses [9]. Zhang (2013) expanded on these frameworks by identifying three core dimensions: listening anxiety, self-belief, and decoding skills, factors that have since been foundational in measuring FLLA [10].

More recent studies have continued to refine this model. Liu *et al.* (2015) found that low self-perceived competence significantly heightened FLLA among Chinese learners [11], while Liu (2016) highlighted the role of decoding difficulties [12]. Similarly, Wang *et al.* (2019) emphasized cognitive overload as a major contributor. Other researchers have proposed expanding the construct [13]. Kimura (2017) introduced social anxiety as a critical factor in interaction-based tasks [14], and Ji *et al.* (2022) emphasized test-related stress in high-stakes contexts [15]. These findings suggest that existing FLLA models may be incomplete and point to the need for a more holistic framework that integrates cognitive, affective, and situational components.

2.2. Gender differences in FLLA

Gender-based patterns in FLLA have yielded mixed findings. Several studies reported higher anxiety levels among female learners, attributing this to greater academic pressure and self-imposed expectations. However, Wang (2023) found no significant gender differences, attributing earlier discrepancies to cultural norms and self-reporting biases. This inconsistency highlights the importance of context in interpreting gender effects and underscores the need for further investigation within specific learner populations, such as Chinese EFL students.

2.3. The relationship between FLLA and English proficiency

Most studies have shown a negative correlation between FLLA and English proficiency. Learners with higher anxiety often score lower on listening comprehension tasks, as shown in IELTS-based studies and course assessments. Conversely, high-proficiency learners tend to report lower anxiety levels due to better lexical and syntactic processing skills. However, few studies differentiate how various FLLA dimensions relate to proficiency, limiting the ability to pinpoint which types of anxiety are most affected by skill level. Addressing this gap, the present study disaggregates FLLA into distinct factors and examines their relationships with proficiency.

3. Research questions

To bridge the gap, this study aims to refine FLLA measurement and examine its impact on Chinese tertiary EFL learners. The following research questions were formulated:

(1) What are the key measurement factors of FLLA in the Chinese EFL context?
(2) How do learners with different FLLA factors experience listening anxiety?
(3) How does gender influence FLLA?
(4) How do the identified FLLA factors correlate with English proficiency?

4. Research methodology

4.1. Research design

This study was conducted in two phases. The first focused on developing and validating a Foreign Language Listening Anxiety Scale (FLLAS) using a modified version of Meerah *et al.*'s (2012) five-phase model for questionnaire construction [16]. The second phase applied the finalized scale to examine FLLA among Chinese tertiary EFL learners, specifically addressing factor structure, gender influence, and its relationship with English proficiency.

4.2. Scale development

4.2.1. Phase 1: Literature review and item generation

A literature review identified key instruments for measuring FLLA. Since the FLCAS [6] acknowledged listening anxiety, later studies developed more targeted scales, including the 33-item FLLAS and the adapted FLRAS. These tools have been widely applied, especially in studies on Chinese EFL learners. Research by Wang *et al.* (2019) linked cognitive load to increased listening anxiety, while Ji *et al.* (2022) highlighted the impact of test-related stress, particularly in high-stakes exams.

Additionally, studies such as Vafaee *et al.* (2019) have employed various measurement tools to examine different factors of FLLA [17]. These findings emphasize the complexity of listening anxiety and the need for a comprehensive framework incorporating cognitive, affective, and situational factors.

4.2.2. Phase 2: Construct definition and item drafting

Based on Ji *et al.* (2022), three core factors of FLLA were identified: psychological (worry and emotionality), social (receiver apprehension), and situational (general listening and test anxiety). Additional themes include anxiety sources, learner characteristics, and physiological symptoms. To ensure comprehensive coverage of these factors, the researcher collaborated with subject matter experts. A total of 39 initial items were developed, adhering to best practices in survey design, particularly avoiding double-barreled questions [18]. For example, the item "I feel relaxed if there are pictures or videos provided when I listen to English" was revised to separate "pictures" and "videos" as distinct conditions. All items were to be rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

4.2.3. Phase 3: Content validity evaluation

Content validity was evaluated by a panel of five experts in educational psychology and foreign language education. Experts assessed the clarity, relevance, and appropriateness of each item. Items deemed ambiguous, such as those referring to "English culture and history," were removed. After revisions, a 31-item questionnaire was finalized for pilot testing. To ensure accessibility for Chinese learners, the questionnaire was translated into Chinese through a three-step process: forward translation, back translation, and expert review. A preliminary version was tested on five college students for cognitive validation.

4.2.4. Phase 4: Pilot study and psychometric analysis

A pilot study was conducted to evaluate the reliability and validity of the scale. A sample of 300 first-year college students from 3 majors (accounting, civil engineering, graphic design) participated. Following data cleaning, responses were analyzed using exploratory factor analysis (EFA) to confirm the scale structure. A total of 286 questionnaires were gathered in the pilot study. A cleaning process was conducted based on the following criteria:

(1) Highly Repetitive Responses: Responses with the same option selected for ≥80% of Likert scale items (5-point scale) were removed.
(2) Excessive Missing Data: Questionnaires with ≥10% missing responses were excluded.
(3) Anomalous Responses: Extremely short completion times (e.g., less than 60 seconds) led to exclusion. 224 copies were left for analysis. Of these, 103 (45.98%) were from male students and 121 (54.02%) from female students. SPSS 29 was used to assess the instrument's validity and reliability.

After three rounds of exploratory factor analysis (EFA), the final scale comprised 25 items distributed across four factors, following the deletion of three items due to high cross-loadings or low factor loadings. The Cronbach's alpha coefficients for the overall scale and the four factors were 0.841, 0.924, 0.871, and 0.792, respectively, indicating good reliability.

4.3. Data collection procedure

After the pilot study, the final questionnaire for the large-scale investigation was constructed by incorporating the newly developed FLLA scale with additional demographic items (e.g., gender, major, English scores from the college entrance examination). This instrument was then administered in regular class sessions to freshmen from 22 faculties at a university in central China near the end of the semester. To minimize potential response bias, students were explicitly informed that their responses would remain confidential and that the results would have no impact on their College English course assessments. Data collection was conducted via Wen Juanxing, a widely used online survey platform in China.

4.4. Data analysis

A total of 803 responses were collected, of which 702 (299 from males and 403 from females) valid responses remained based on the same criteria in the pilot study. All data were analyzed using SPSS 29. The following statistical techniques were applied: EFA with varimax rotation and CFA to determine the scale structure (Research Question 1). Descriptive statistics (mean, standard deviation) were used to assess overall anxiety levels, while potential subgroup differences were explored through comparative analysis (Research Question 2). To examine gender differences in FLLA, Mann-Whitney U tests (for non-normally distributed data) or Independent Samples t-tests (for normally distributed data) were conducted, alongside regression analysis to assess gender's predictive effect (Research Question 3). Finally, correlational analyses were performed to examine relationships between English proficiency and FLLA factors, with additional regression modeling used where applicable (Research Question 4).

4.5. Ethical considerations

The research was conducted following ethical guidelines for educational research. All participants were provided with informed consent forms before completing the survey. Participation was voluntary, and anonymity was ensured to encourage honest responses.

5. Results

5.1. The FLLA scale

To establish the psychometric properties of the FLLAS and address the four research questions, a two-stage approach was adopted. The dataset was randomly divided into two equal halves: Exploratory Factor Analysis (EFA) was performed on one half to explore the latent factor structure, while Confirmatory Factor Analysis (CFA) was conducted on the other half to validate the proposed model.

5.1.1. Results of EFA

To identify the underlying factor structure of the initial 25-item FLLAS, an EFA was conducted using Principal Axis

Factoring with oblique rotation. Prior to factor extraction, sampling adequacy was evaluated using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity. The results indicated that the KMO value was 0.937, exceeding the recommended threshold of 0.80 [19], suggesting that the sample was well-suited for factor analysis. Furthermore, Bartlett's test of sphericity was significant ($\chi^2 = 3783.549$, $p < 0.001$), confirming that the data met the assumption of sufficient inter-item correlations for factor analysis.

Table 1. KMO test and Bartlett's test of the initial 25-item FLLAS ($n = 351$)

KMO value		0.937
Bartlett's test of sphericity	Approximate chi-square	3783.549
	df	300
	P	0.000***

Note: ***, **, and * represent the significance levels of 1%, 5%, and 10%, respectively.

An initial factor extraction revealed four distinct factors, accounting for 60.94% of the total variance. Three items (Item 5, 15, and 19) were removed due to high cross-loadings (> 0.40) on multiple factors or low factor loadings (< 0.50), resulting in a final 22-item scale. The remaining items demonstrated strong factor loadings and conceptual coherence. With 22 items left, seven items reflected the first factor, named Situational Listening Anxiety, which refers to the heightened anxiety learners experience in specific listening situations, such as classroom settings, oral interactions, and high-stakes assessments. 5 items indexed the second factor, named Self-perceived Cognitive Load, which refers to an individual's perception of the mental effort required to process and comprehend auditory input in a foreign language. 4 items comprised the third factor, named Self-perceived Affective Load, which refers to the emotional burden associated with self-doubt, low self-efficacy, and negative social comparison in listening comprehension. 6 items formed the fourth factor named Listening Processing Anxiety, which includes challenges in real-time processing of spoken input. The results are summarized in **Table 2**.

Table 2. Varimax rotated loading of 22 FLLAS items in the final EFA model ($n = 351$)

Factors	Item	Factor1	Factor2	Factor3	Factor4
SLA	1	0.728			
	6	0.687			
	4	0.683			
	7	0.632			
	2	0.61			
	3	0.584			
	8	0.566			
SP	13		0.777		
	12		0.745		
	10		0.719		
	25		0.624		
	9		0.511		
SA	16			0.773	

Table 2 (Continued)

Factors	Item	Factor1	Factor2	Factor3	Factor4
	17			0.733	
	11			0.694	
	14			0.595	
LP	23				0.88
	22				0.872
	21				0.797
	20				0.744
	24				0.721
	18				0.616

Then, the results for the final 22 FLLAS items in the KMO test show that the value of KMO is 0.933 (**Table 3**). At the same time, the results of the Bartlett's sphericity test show that the significant *P* value is 0.000***, showing significance at the level, rejecting the null hypothesis, and there is a correlation between the variables. Factor analysis is valid, and the degree is appropriate. Meanwhile, the contribution rate of the variable explanation rose from 60.942% to 62.961%. The refined 22-item scale was subsequently subjected to CFA to validate its structural integrity.

Table 3. KMO test and Bartlett's test of the final 22-item FLLAS (*n* = 351)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.933
Bartlett's Test of Sphericity	Approx. Chi-Square	3323.425
	df	231
	P	0.000***

Cronbach's alpha coefficient was calculated for the revised 22-item model, yielding an overall value of 0.945. This indicates excellent internal consistency (**Table 4**).

Table 4. Reliability statistics of the final 22-item FLLAS (*n* = 351)

	Cronbach's alpha coefficient	Standardized Cronbach's alpha coefficient	Number of items
SLA	0.871	0.872	7
SC	0.841	0.842	5
SA	0.792	0.791	4
LP	0.924	0.925	6
Total	0.945	0.947	22

5.1.2. Results of CFA

To confirm the factor structure, a CFA was conducted using Maximum Likelihood Estimation on the second half of the dataset. The four-factor model demonstrated acceptable fit, with fit indices presented in **Table 5**. The model demonstrated an acceptable fit: χ^2/df = 4.95, CFI = 0.945, TLI = 0.905, IFI = 0.923, GFI = 0.928, RMSEA = 0.075 (90% CI: 0.070 –

0.080), SRMR = 0.04. These results indicate that the model fits the data well, confirming the construct validity of the FLLAS.

Table 5. Model fit indices for the four-factor CFA model (n = 351)

Model	χ^2/df	CFI	TLI	IFI	GFI	RMSEA (90% CI)	SRMR
Four-factor	4.95	0.945	0.905	0.923	0.928	0.075 (0.070 – 0.080)	0.04

Factor loadings were examined to assess the strength of relationships between items and their respective factors. The standardized factor loadings, composite reliability (CR), and average variance extracted (AVE) are presented in **Table 6** and **Table 7**. Both CR (> 0.70) and AVE (> 0.50) confirm high internal consistency and convergent validity.

Table 6. Standardized factor loadings for the final 22-item FLLAS (n = 351)

Factor	Item	Standardized Factor Loading (λ)	Standard Error (S.E.)	Critical ratio (C.R./ t-value)	p-value
SLA (Situational Listening Anxiety)	SLA1	0.725	0.033	21.97	***
	SLA2	0.71	0.034	20.94	***
	SLA3	0.684	0.035	19.54	***
	SLA4	0.693	0.037	18.65	***
	SLA6	0.677	0.036	18.79	***
	SLA7	0.632	0.038	16.58	***
SC (Self-perceived Cognitive Load)	SC1	0.665	0.036	18.47	***
	SC2	0.511	0.04	15.23	***
	SC3	0.643	0.037	17.38	***
	SC4	0.501	0.042	14.91	***
	SC5	0.665	0.038	18.02	***
SA (Self-perceived Affective Load)	SA1	0.694	0.035	19.83	***
	SA2	0.595	0.04	17.31	***
	SA3	0.773	0.033	22.41	***
	SA4	0.733	0.037	20.32	***
LP (Listening Processing Anxiety)	LP1	0.667	0.026	22.91	***
	LP2	0.831	0.027	30.78	***
	LP3	0.798	0.029	27.52	***
	LP4	0.825	0.028	29.46	***
	LP5	0.842	0.025	32.68	***
	LP6	0.772	0.03	25.73	***

Table 7. Results of CR and AVE (n = 351)

Factor	Items	AVE	CR
SLA	SLA1 – 7	0.56	0.89
SC	SC1 – 5	0.52	0.87
SA	SA1 – 4	0.57	0.88
LP	LP1 – 6	0.62	0.91

The 22-item FLLAS model exhibited strong factor structure, good fit, and high reliability, supporting its validity as an instrument for measuring Foreign Language Listening Anxiety.

5.2. Learners' levels of listening anxiety across different factors

Descriptive statistics and frequency distributions were analyzed to assess students' FLLA levels across the four dimensions. **Table 8** summarizes the percentage distribution of students' responses for each FLLA item, while **Table 9** presents the mean scores and standard deviations for each of the four FLLA factors.

Table 8. Students' response frequencies in percentages for FLLAS items (n = 702)

Factors	Item	SD	D	N	A	SA
SLA1	1	50	139	224	175	114
SLA2	2	61	177	216	194	54
SLA3	3	18	62	113	252	257
SLA4	4	44	197	237	157	67
SLA5	5	28	119	190	235	130
SLA6	6	28	113	194	224	143
SLA7	7	16	96	186	267	137
SC1	8	18	76	232	264	112
SC2	9	31	121	187	248	115
SC3	11	12	37	144	311	198
SC4	12	20	111	212	243	116
SC5	22	8	84	196	300	114
SA1	10	78	183	208	161	72
SA2	13	21	113	235	233	100
SA3	14	125	274	182	83	38
SA4	15	128	267	173	107	27
LP1	16	17	81	182	305	117
LP2	17	12	34	119	341	196
LP3	18	12	65	182	316	127
LP4	19	6	40	147	346	163
LP5	20	3	30	104	383	182
LP6	21	6	44	166	332	154

The frequency distribution of responses across the FLLA scale suggests considerable variation in learners' experiences of listening anxiety. Responses to SLA items were widely distributed, with some students experiencing minimal stress while others reported substantial anxiety. Notably, SLA3 exhibited the highest levels of agreement, with 252 students selecting "Agree" and 257 selecting "Strongly Agree", indicating that a significant proportion of learners experience test-related stress and worry about their listening performance. Similarly, items like SLA7 (267 "Agree") and SLA5 (235 "Agree") suggest that many students feel anxious when they cannot understand every word or when nervousness affects their ability to retain information.

Responses to self-perceived cognitive load showed noticeable variability, with SC3 standing out due to its high level of agreement (311 "Agree", 198 "Strongly Agree"). This finding suggests that a considerable number of students are dissatisfied with their current listening comprehension skills, possibly perceiving listening as the most challenging aspect of language learning. Additionally, SC4 (243 "Agree", 116 "Strongly Agree") supports this observation, emphasizing that students recognize listening comprehension as a cognitively demanding task.

Compared to cognitive and processing difficulties, affective factors appeared to be less dominant in shaping students' listening anxiety. Responses to SA3 and SA4 were particularly polarized, with a significant proportion of students disagreeing or remaining neutral. This suggests that while some students may feel emotionally burdened by listening tasks, many do not perceive affective factors as a major obstacle. Additionally, SA1 (161 "Agree", 72 "Strongly Agree") indicates that some students attribute their listening test performance to luck rather than their actual ability, reflecting a lack of confidence rather than purely emotional distress.

Listening processing anxiety exhibited the highest levels of agreement, suggesting that real-time auditory processing poses a major challenge for learners. LP5 and LP4 recorded the highest agreement frequencies, with 383 and 346 students selecting "Agree," respectively, underscoring difficulties in keeping up with fast speech and processing information when passages are played only once. Similarly, LP6 (332 "Agree", 154 "Strongly Agree") highlights the importance of having preparation time before listening tasks, reinforcing the notion that processing constraints rather than comprehension difficulties are a primary source of listening anxiety.

To further analyze FLLA levels across different dimensions, Table 9 presents the mean scores and standard deviations of each factor.

Table 9. Descriptive statistics of the factors in the FLLA scale

	N	Mean	Std. Deviation
SLA	702	3.3897	0.72669
SC	702	3.5895	0.71211
SA	702	2.828	0.80999
LP	702	3.8298	0.64898

Among the four FLLA factors, Listening Processing Anxiety (LP) recorded the highest mean score (M = 3.83, SD = 0.65), suggesting that real-time processing challenges pose the most significant anxiety source for learners. In contrast, Self-perceived Affective Load (SA) had the lowest mean score (M = 2.83, SD = 0.81), implying that emotional stress contributes relatively less to overall FLLA.

5.3. Gender difference in the FLLA

To examine potential gender differences in Foreign Language Listening Anxiety (FLLA), statistical tests were conducted across four FLLA dimensions. Before performing inferential statistical analyses, the assumption of normality was tested for each FLLA factor across gender groups using Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (S-W) tests. As shown

in **Table 10**, all variables significantly deviated from normality ($p < 0.001$), indicating a non-normal distribution for both male and female participants. Given this violation of normality, a Mann-Whitney U test, a non-parametric alternative to the independent samples t-test, was employed to compare gender differences across the four FLLA factors.

Table 10. Normality tests for FLLA factors by gender

	Gender	Kolmogorov-Smirnova			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
SLA mean	Male	0.08	299	< 0.001	0.978	299	< 0.001
	Female	0.069	403	< 0.001	0.985	403	< 0.001
SA mean	Male	0.078	299	< 0.001	0.982	299	< 0.001
	Female	0.091	403	< 0.001	0.985	403	< 0.001
SC mean	Male	0.073	299	< 0.001	0.981	299	< 0.001
	Female	0.073	403	< 0.001	0.985	403	< 0.001
LP mean	Male	0.077	299	< 0.001	0.98	299	< 0.001
	Female	0.106	403	< 0.001	0.978	403	< 0.001

The Mann-Whitney U test results (**Table 11**) revealed no statistically significant gender differences across any of the four FLLA dimensions. While Self-perceived Affective Load (SA) exhibited a marginal difference ($p = 0.075$), it did not reach the conventional significance threshold ($p < 0.05$).These findings suggest that if gender differences in FLLA exist, they are minor and not statistically meaningful within the present sample ($n = 702$).

Table 11. Mann-Whitney U test results for FLLA factors

Variable	U	Z	*p* (2-tailed)
SLA	57,342.50	-1.096	0.273
SC	59,691.00	-0.211	0.833
SA	55,544.00	-1.779	0.075
LP	56,506.00	-1.414	0.157

To further examine the influence of gender on FLLA, a multiple regression analysis was conducted with gender as the independent variable and four factors of FLLA (SLA, SC, SA, LP) as dependent variables, while controlling for English proficiency.

Table 12. Regression coefficients for gender predicting FLLA factors

Dependent variable	Predictor	B	Std. Error	Beta	*t*	*p*
SLA (Situational Listening Anxiety)	Gender	-0.014	0.055	-0.009	-0.246	0.806
SC	Gender	0.027	0.049	0.019	0.551	0.582
SA perceived Affective Load)	Gender	-0.031	0.061	-0.015	-0.508	0.612
LP (Listening Processing Anxiety)	Gender	-0.017	0.046	-0.013	-0.37	0.712

The regression results (**Table 12**) confirmed that gender was not a significant predictor of any FLLA factor ($p > 0.05$). Even after accounting for English proficiency, gender remained non-significant across SLA (β = -0.009, $p = 0.806$), SC (β = 0.019, $p = 0.582$), SA (β = -0.015, $p = 0.612$), and LP (β = -0.013, $p = 0.712$). These results align with the Mann-Whitney U test findings, further supporting the conclusion that gender does not play a substantial role in influencing Foreign Language Listening Anxiety levels.

5.4. Correlations between students' FLLA level and FL proficiency

To explore the relationship between English proficiency and FLLA factors, a Pearson correlation analysis was performed (**Table 12**). This analysis examined the strength and direction of associations between proficiency levels and the four dimensions of FLLA: SLA, SC, SA, and LP. Additionally, multiple regression analysis was conducted to determine whether proficiency serves as a significant predictor of these factors while accounting for gender as a control variable.

Table 13 presents the Pearson correlation coefficients between English proficiency and the four FLLA dimensions. The results indicate that English proficiency was weakly but significantly correlated with SLA (r = 0.146, $p < 0.01$) and SA (r = 0.171, $p < 0.01$). This suggests that students with higher proficiency levels tend to report slightly greater situational listening anxiety and affective burden. However, proficiency was not significantly correlated with SC (r = 0.003, $p > 0.05$) or LP (r = 0.005, $p > 0.05$), indicating that proficiency alone does not strongly influence self-perceived cognitive load or listening processing anxiety.

Table 13. Pearson correlation coefficients between English proficiency and FLLA factors

Variable	SLA	SC	SA	LP	Proficiency
SLA	1	0.653**	0.575**	0.568**	0.146**
SC	0.653**	1	0.597**	0.667**	0.003
SA	0.575**	0.597**	1	0.380**	0.171**
LP	0.568**	0.667**	0.380**	1	0.005
Proficiency	0.146**	0.003	0.171**	0.005	1

Note: $p < 0.05$ (*), $p < 0.01$ (**)

To further explore the impact of proficiency on FLLA, a multiple linear regression analysis was conducted. In this analysis, English proficiency was treated as the independent variable, while SLA, SC, SA, and LP were considered dependent variables. Gender was included as a control variable to account for potential confounding effects. The regression results, presented in **Table 14**, indicate that proficiency significantly predicted SLA (B = 0.102, $p = 0.001$) and SA (B = 0.118, $p = 0.001$). This suggests that students with higher proficiency levels tend to experience slightly greater situational listening anxiety and affective burden. However, proficiency was not a significant predictor of SC (B = -0.002, $p = 0.927$) or LP (B = 0.003, $p = 0.891$). This finding implies that self-perceived cognitive load and listening processing anxiety are not directly influenced by a learner's language proficiency level.

Table 14. Regression coefficients for FL proficiency predicting FLLA factors

Dependent Variable	B (Unstandardized)	Std. Error	Beta (Standardized)	*t*	*p*
SLA	0.102	0.031	0.146	3.26	0.001
SC	-0.002	0.022	-0.003	-0.09	0.927
SA	0.118	0.029	0.171	4.12	0.001
LP	0.003	0.025	0.005	0.14	0.891

6. Discussion

This study aimed to examine FLLA among Chinese tertiary EFL learners, exploring its multifactoral structure, gender differences, and its relationship with English proficiency. The findings provide significant insights into the cognitive, affective, and situational aspects of listening anxiety and challenge some commonly held assumptions in foreign language learning research.

6.1. The multifactoral nature of FLLA

Findings from factor analysis confirmed that FLLA is not a unidimensional phenomenon but consists of four interrelated components. Each of these components contributes uniquely to the overall anxiety experienced by learners, highlighting the complexity of listening difficulties in second language acquisition.

Among these factors, LP exhibited the highest mean score, indicating that real-time comprehension and processing difficulties are the most significant contributors to listening anxiety. This supports existing research suggesting that the transient nature of spoken language and the inability to revisit auditory input exacerbate learners' anxiety [20]. Items such as LP5 (concerns over fast speech) and LP4 (worry about single-exposure listening tests) recorded particularly high levels of agreement, reinforcing the idea that learners feel most vulnerable when they cannot control the pace of auditory input. These results suggest that interventions focusing on enhancing processing efficiency, improving predictive listening strategies, and increasing exposure to various accents and speech rates may help mitigate LP-related anxiety.

Conversely, SA exhibited the lowest mean score, suggesting that emotional distress, such as nervousness or self-doubt, plays a relatively smaller role compared to cognitive and processing challenges. This finding aligns with studies emphasizing the cognitive rather than purely affective nature of listening comprehension difficulties[21]. The relatively lower levels of agreement on SA items, such as SA3 (reluctance toward listening practice) and SA4 (uncertainty about improvement through practice), indicate that while some learners may experience affective discomfort, it does not dominate their listening anxiety experience.

The results suggest that helping students process information more efficiently and reduce mental strain may be more effective than just addressing their emotional anxiety.While building confidence is important, teaching methods that focus on improving memory, practicing different listening techniques, and gradually exposing students to more difficult listening materials may be more effective in improving their listening skills and reducing anxiety.

6.2. Gender and FLLA: A non-significant relationship

The findings challenge conventional views on gender-based differences in language anxiety. Both non-parametric (Mann-Whitney U test) and regression analyses indicated that gender did not significantly impact any FLLA factors. These results contrast with some previous studies that have reported higher anxiety levels among female learners [22] but are consistent with more recent research suggesting that gender differences in FLLA may be overstated when controlling for additional factors such as proficiency and learning strategies.

One reason why gender differences were not significant could be that listening anxiety is more influenced by individual learning habits, cognitive challenges, and experience with real-life listening than by gender itself. This suggests that teaching methods should focus on personalized learning approaches rather than generalizing based on gender.

6.3. English proficiency and its complex relationship with anxiety

Contrary to the expectation that higher proficiency would correlate with lower listening anxiety, the findings revealed a weak but significant positive correlation between English proficiency and both SLA ($r = 0.146$, $p < 0.01$) and SA ($r = 0.171$, $p < 0.01$). These results suggest that as learners' proficiency increases, they may experience slightly higher situational and affective anxiety in listening tasks.

A potential explanation for this trend is that higher-proficiency learners are more aware of comprehension challenges and may place greater expectations on themselves, leading to increased self-imposed pressure [23]. Additionally, advanced

learners are often exposed to more complex and authentic listening materials, which may induce greater anxiety despite their language competence [24].

On the other hand, no clear link was found between proficiency and either SC or LP, suggesting that cognitive load and processing anxiety are not directly tied to language skills. This means that simply improving proficiency may not be enough to reduce listening anxiety, as challenges related to mental effort and processing speed persist.

6.4. Implications for foreign language teaching

Given the findings, several pedagogical implications emerge:

(1) Focusing on Cognitive and Processing Strategies: Since SC and LP are major sources of anxiety, instructional approaches should emphasize training learners to handle cognitive overload and improve processing efficiency.

(2) Shifting from Gender-Based to Individualized Learning Approaches: Since gender differences were not significant, teaching strategies should focus on individual needs rather than gender-based approaches. teaching should focus on individual listening difficulties, such as recognizing sounds, managing memory load, and becoming familiar with different listening tasks. Providing targeted support in these areas can help students develop stronger listening skills and reduce frustration.

(3) Balancing Proficiency Development with Anxiety Management: Since being more proficient in English does not always mean feeling less anxious, teachers should gradually make listening tasks harder instead of jumping to difficult ones too quickly. At the same time, offering support and strategies to manage stress is essential. Using listening exercises that progressively increase in difficulty, along with simple anxiety-reducing techniques, such as relaxation exercises and confidence-building activities, can help students feel more comfortable as they improve their listening skills.

7. Conclusion

This study offers a comprehensive examination of FLLA among Chinese tertiary EFL learners, providing empirical evidence for its multidimensional nature and clarifying its relationship with gender and language proficiency. Through rigorous scale development and large-sample validation, four core factors were identified: SLA, SC, SA, and LP, thereby enriching the theoretical landscape of language anxiety research.

Among these, LP emerged as the most prominent anxiety trigger, highlighting the critical role of real-time processing demands in shaping learners' listening experiences. By contrast, affective elements such as nervousness and self-doubt played a comparatively minor role. These findings underscore the importance of targeting cognitive and auditory processing constraints, rather than purely emotional or gender-based factors, when designing pedagogical interventions. Notably, the study found no significant gender-based differences across FLLA dimensions, challenging commonly held assumptions and advocating for learner-centered, rather than gender-specific, instructional approaches. Additionally, a weak but significant positive correlation between proficiency and both SLA and SA suggests that as learners become more proficient, they may also become more self-aware and performance-sensitive, resulting in heightened situational and emotional anxiety.

While this study provides robust methodological and practical insights, several limitations must be acknowledged. The reliance on self-reported data introduces the possibility of perception bias. Furthermore, the cross-sectional design restricts the ability to assess how FLLA evolves. Future research should incorporate longitudinal methodologies and performance-based assessments to better understand the dynamic nature of listening anxiety and its underlying mechanisms. Additional inquiry is also warranted into contextual and pedagogical moderators that may influence the relationship between proficiency and anxiety.

In conclusion, this research contributes to a more nuanced and empirically grounded understanding of FLLA. It calls for instructional practices that focus on enhancing learners' processing capacity and adaptive strategies, ultimately

promoting more equitable and effective language learning environments.

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