

THE INTERCORRELATION OF ANXIETY AMONG LANGUAGE SKILLS

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Abstract

Anxiety in learning English as a Foreign Language (EFL), particularly in listening, speaking, reading, and writing, is a key concern affecting student performance. Anxiety in one skill can influence others, impacting overall language proficiency. This study aims to measure anxiety levels across the four language skills, explore their interrelationships, and examine whether one form of anxiety can predict another. Using a quantitative, descriptive-correlational design, data were collected from 30 fourth-semester students of the English Education Study Program at the University of Islam Malang. Instruments used included four validated questionnaires: FLLAS, FLCAS, FLRAS, and SLWAI. Data were analyzed using SPSS version 20, applying descriptive statistics, Pearson correlation, and multiple regression analysis. Results showed that all types of anxiety were at moderate levels, with writing anxiety being the highest, followed by speaking, reading, and listening. Significant correlations were found between listening and both writing and speaking anxiety. However, reading anxiety did not correlate significantly with any other skill. Regression analysis revealed that writing and speaking anxiety significantly predicted listening anxiety, and listening anxiety also predicted both speaking and writing anxiety. These findings highlight that listening anxiety plays a central role in influencing productive skills, while reading anxiety appears independent. The study emphasizes the need for holistic teaching approaches that take into account students' emotional well-being. Language educators are encouraged to create emotionally supportive environments and apply strategies that boost learners' self-confidence to help manage language anxiety effectively.

Keywords: EFL; listening anxiety; speaking anxiety; reading anxiety; writing anxiety

INTRODUCTION

This study focuses on the interrelationship and predictive effects among four types of foreign language anxiety: listening, speaking, reading, and writing. Rather than examining each skill in isolation, this research investigates how these anxieties are connected and how one type may influence another. Foreign language anxiety (FLA) has long been recognized as a major challenge for EFL learners, negatively impacting their language competence and performance (Horwitz et al., 1986). According to MacIntyre and Gardner (1994), anxiety can disrupt the input, processing, and output stages of language learning, making it essential to examine how anxiety functions across all language skills.

Each skill is affected by anxiety in unique ways. Listening anxiety arises from difficulties such as unfamiliar accents or fast speech and may hinder comprehension and participation (Rajitha & Alamelu, 2020; Vogely, 2008). Speaking anxiety often stems from fear of negative evaluation or making mistakes, which can reduce students' confidence and oral performance (Horwitz et al., 1986; Dana & Aminatun, 2022). Reading anxiety, linked to complex texts or unfamiliar vocabulary, can lower comprehension and lead to avoidance behaviors (Kim, 2000). Writing anxiety is commonly associated with fear of grammatical errors and poor organization, which may result in reduced self-confidence and performance (Jawas, 2019; Cheng, 2004; Aida, 1994).

Although various studies have addressed anxiety in individual skills, limited research has explored the collective relationship between all four skills. Previous studies mainly focused on correlations between two types of anxiety (e.g., Jawas, 2019; Shahbaz et al., 2021; Li, 2022). However, EFL learners often engage in multiple language skills simultaneously, and anxiety in one domain can influence others. For instance, listening anxiety affects speaking or reading anxiety, influencing writing. This study aims to measure anxiety levels in all four skills and analyze their interrelationship using correlation and regression methods. Understanding these links can provide insights into the holistic nature of language anxiety and support more integrated approaches in EFL instruction.

Therefore, this study specifically focuses on measuring anxiety levels in the four English language skills of listening, speaking, reading, and writing, as well as exploring the relationship between the four skills and whether they influence each other through correlation and regression analysis.

This study is guided by the following research questions:

1. What are the levels of listening, speaking, reading, and writing anxiety among language learners?
2. Is there any significant correlation among listening, speaking, reading, and writing anxiety?
3. Does one form of language anxiety significantly predict the others?

METHOD

Research Design

This study employed a quantitative method with a descriptive and correlational. The quantitative method was chosen for its ability to objectively analyze numerical data and examine relationships between variables (Creswell, 2014). The descriptive design was used to identify the levels of anxiety in listening, speaking, reading, and writing, while the correlational design addressed the relationships among these anxieties and the predictive influence of one type over another.

Population and Sample

The population of this study consisted of 39 fourth-semester EFL students at Universitas Islam Malang during the 2024/2025 academic year. Using a convenience sampling technique (Etikan et al., 2016), 30 students voluntarily participated in the study. This method was selected due to time and resource limitations, yet it allowed for the inclusion of participants from diverse regional backgrounds in Indonesia. The participants, aged 19–21 years, included 12 male and 18 female students. The sample size met the minimum requirement for correlational analysis, as suggested by VanVoorhis and Morgan (2007).

Instruments

The questionnaires were adapted from established language anxiety instruments: the Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz et al. (1986), the Foreign Language Listening Anxiety Scale (FLLAS) by Kim (2000), the Foreign Language Reading Anxiety Scale (FLRAS) by Saito et al. (1999), and the Second Language Writing Anxiety Inventory (SLWAI) by Cheng (2004). While the original scales were developed in English, this study used the Indonesian versions to enhance the clarity and accuracy of participant responses. All items used a five-point Likert scale, ranging from "Strongly Disagree" (1) to "Strongly Agree" (5).

Data Collection

Data were collected through both online and offline questionnaire distribution. Official permission was obtained from the university prior to data collection. Online forms were shared via WhatsApp using Google Forms, while printed questionnaires were distributed directly in class.

Participation was voluntary, anonymous, and based on informed consent. Participants were given 30–40 minutes to complete the questionnaire. Responses were then organized using Microsoft Excel and analyzed with SPSS for further statistical processing.

Data Analysis

Data analysis was performed using SPSS version 2.0. To answer RQ1, descriptive statistics (mean, standard deviation, min-max scores, and frequencies) were used to determine anxiety levels in each skill, categorized as low, moderate, or high based on Cheng (2004) classification. For RQ2, Pearson correlation was applied to examine relationships among the four anxiety types, interpreted using Schober et al., (2018) correlation scale. To answer RQ3, multiple regression analysis was conducted to assess whether one form of anxiety could predict another. Before these analyses, the Shapiro-Wilk test confirmed that all data were normally distributed ($p > .05$), allowing the use of parametric tests.

FINDINGS

1. Descriptive Statistics Foreign Language Anxiety

This study measured four types of foreign language anxiety among 30 participants. Descriptive analysis was conducted to determine the minimum, maximum, mean, and standard deviation of listening, speaking, reading, and writing anxiety scores experienced by students in class.

Findings should be clear and concise.

TABLE 1. Descriptive Statistic

	N	Minimum	Maximum	Mean	Std. Deviation	Interpretation
Writing	30	2.14	3.73	2.89	0.47	Moderate
Speaking	30	1.97	3.91	2.88	0.39	Moderate
Reading	30	1.90	3.60	2.82	0.44	Moderate
Listening	30	1.67	4.20	2.59	0.61	Moderate
Valid N (listwise)	30					

The descriptive analysis revealed that students experienced moderate levels of anxiety across all four language skills: listening, speaking, reading, and writing. Among them, writing anxiety emerged as the highest, with a mean score of 2.89 ($SD = 0.47$), indicating that students generally perceived writing tasks to be the most challenging and emotionally demanding. This could be attributed to the high cognitive load involved in organizing ideas, applying grammar rules, and selecting appropriate vocabulary, all under evaluative pressure.

Speaking anxiety followed closely with a mean score of 2.88 ($SD = 0.38$). Despite being slightly lower than writing anxiety, this result suggests that many students also felt considerable pressure when speaking in English, likely due to fear of negative evaluation, making mistakes in pronunciation, or speaking. Reading anxiety recorded a mean of 2.82 ($SD = 0.44$), reflecting a moderate level of discomfort when students were asked to engage with written texts.

Lastly, listening anxiety had the lowest mean score among the four, at 2.59 ($SD = 0.60$), though it still fell within the moderate category. This finding indicates that while some students found listening manageable, others still experienced apprehension, especially during tasks involving fast-paced or unfamiliar spoken input. The wider range of scores (1.67 to 4.20) suggests that listening anxiety varied significantly among individuals.

2. Correlation of Foreign Language Anxiety

To examine the interconnection among the four types of language anxiety (listening, speaking, reading, and writing), a Pearson correlation analysis was conducted. This analysis aimed to determine whether one form of anxiety is significantly related to another. The results helped reveal the emotional linkages across language skills and are summarized in Table 2

TABLE 2. Pearson Correlation Analysis

		Listening	Speaking	Reading	Writing
Listening	Pearson Correlation	1	.511**	.344	.790**
	Sig. (2-tailed)		.004	.063	.000
	N	30	30	30	30
Speaking	Pearson Correlation	.511**	1	.388*	.307
	Sig. (2-tailed)	.004		.034	.099
	N	30	30	30	30
Reading	Pearson Correlation	.344	.388**	1	.286
	Sig. (2-tailed)	.063	.034		.126
	N	30	30	30	30
Writing	Pearson Correlation	.790**	.307	.286	1
	Sig. (2-tailed)	.000	.099	.126	
	N	30	30	30	30

The correlation analysis revealed several significant relationships among the four types of language anxiety. The strongest correlation was between listening and writing anxiety ($r = .790$, $p < .01$), indicating that students who were anxious about listening tasks also tended to feel anxious when writing. A moderate and significant correlation was found between listening and speaking anxiety ($r = .511$, $p < .01$), suggesting a link between receptive and productive oral skills. A weaker but still significant correlation was observed between speaking and reading anxiety ($r = .388$, $p < .05$). Other relationships, such as between listening and reading, speaking and writing, and reading and writing, showed positive but non-significant correlations, indicating weaker or inconsistent connections among those skill-based anxieties.

3. Analyses Multiple Regression

To determine whether one type of language anxiety could significantly predict another, four multiple regression analyses were conducted. In each model, one form of anxiety served as the dependent variable, while the remaining three acted as predictors. The results of these analyses are summarized in Table 3.

TABLE 3. Multiple Regression Analyses

Dependent Variable	Model Sig.	R Square	Significant Predictors	Beta	Sig.
Listening Anxiety	.000	.705	Speaking Anxiety	.285	.023
			Reading Anxiety	.035	.766
			Writing Anxiety	.693	.000
Speaking Anxiety	.012	.340	Listening Anxiety	.639	.023
			Reading Anxiety	.245	.160
			Writing Anxiety	-.268	.312
Reading Anxiety	.145	.184	Listening Anxiety	.098	.766
			Speaking Anxiety	.303	.160

			Writing Anxiety	.115	.698
Writing Anxiety	.000	.640	Listening Anxiety	.848	.000
			Speaking Anxiety	-.147	.312
			Reading Anxiety	.051	.698

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The results of the multiple regression analyses revealed several significant predictive relationships among the four types of language anxiety. When listening anxiety was treated as the dependent variable, the model was highly significant ($p = .000$), with an R^2 of .705, indicating that 70.5% of the variance in listening anxiety could be explained by speaking, reading, and writing anxiety. Among the predictors, writing anxiety emerged as the strongest and most significant predictor ($\beta = .693$, $p = .000$), followed by speaking anxiety ($\beta = .285$, $p = .023$), while reading anxiety did not have a significant effect. This suggests that learners who feel anxious about expressing themselves in writing or speaking are also more likely to feel anxious about understanding spoken input, likely due to the interconnected cognitive demands of productive and receptive tasks.

For speaking anxiety, the model was also statistically significant ($p = .012$) with an R^2 of .340, meaning that 34% of its variance could be explained by the other three anxiety types. However, only listening anxiety significantly predicted speaking anxiety ($\beta = .639$, $p = .023$), indicating a close link between comprehension and verbal production. Reading and writing anxiety did not show a significant influence in this model. This result emphasizes that learners who are anxious about listening often experience parallel anxiety when required to respond orally, likely due to the pressure of real-time communication.

In contrast, the regression model for reading anxiety was not statistically significant ($p = .145$, $R^2 = .184$), and none of the predictor variables (listening, speaking, or writing) were significant contributors. This suggests that reading anxiety tends to function more independently, potentially shaped by factors such as vocabulary difficulty, reading strategies, or unfamiliar content rather than by emotional interference from other skills.

Lastly, the model predicting writing anxiety showed strong significance ($p = .000$), with an R^2 of .640, indicating that 64% of the variation in writing anxiety was explained by the other anxieties. In this case, listening anxiety was again the only significant predictor ($\beta = .848$, $p = .000$), showing a strong influence. Neither speaking nor reading anxiety had significant effects. This finding reinforces the role of listening as a central skill influencing learners' comfort and performance in language output, especially in tasks requiring idea generation and organization, as in academic writing.

DISCUSSION

The findings of this study revealed that students generally experienced moderate levels of anxiety in all four language skills, with writing anxiety being the highest, followed by speaking, reading, and listening. Although listening anxiety had the lowest mean score, it showed the widest range, indicating greater individual variation. These results align with previous studies, such as Lee (2019) and Kormos & Trebits (2019), who emphasized the high cognitive load and self-monitoring demands of writing, contributing to higher anxiety levels. The close scores between speaking and writing also suggest shared psychological triggers, such as perfectionism and fear of negative evaluation (Dewaele & Alfawzan, 2018).

The correlational findings further support the idea that language anxieties are interconnected. Significant relationships were found between listening and writing anxiety, as well

as listening and speaking anxiety, indicating that students who experience difficulty processing oral input may also feel anxious when producing spoken or written language. This echoes the findings of Li (2022) who noted that anxiety in receptive skills like listening can act as a trigger for productive anxiety, impacting fluency, sentence structure, and confidence.

The multiple regression results reinforced this pattern: listening anxiety significantly predicted both speaking and writing anxiety, while reading anxiety did not significantly predict any other skill. This supports the model proposed by MacIntyre & Gardner (1991), which states that anxiety in receptive stages, such as listening, can disrupt the processing and output of language, including speaking and writing. Zheng (2008) also highlighted that listening anxiety may interrupt the flow of ideas in writing tasks. The strong influence of listening anxiety indicates its central role in bridging emotional distress from input to output tasks.

Despite being moderate overall, listening anxiety varied greatly across individuals, suggesting that personal background, proficiency level, or previous learning experiences could influence how students perceive listening activities (MacIntyre & Gardner, 1991). While some students may find listening less threatening, others view it as equally or more difficult than speaking or writing.

However, the role of listening anxiety is not universally supported. Studies by Kim and Baek (2017) and Adnan et al., (2020) reported non-significant relationships between listening and productive skills, suggesting that the link between these anxieties may depend on context, such as the academic environment or the learner's level. Moreover, in some research, speaking anxiety has been identified as the most dominant form, as shown in Kulsum and Ridwan (2025), who emphasized the stress associated with real-time verbal communication and audience exposure.

These findings imply that anxiety in one skill can influence others, underscoring the need for holistic and responsive teaching strategies. Language teachers are encouraged to implement emotionally supportive learning environments, with techniques like pre-task scaffolding, collaborative learning, and material adaptation. Addressing learners' emotional needs through affective strategies, such as relaxation techniques, mindfulness, and self-reflection. It can also help students manage anxiety more effectively and improve their overall language performance.

CONCLUSION

This study investigated students' anxiety levels in four English language skills, such as listening, speaking, reading, and writing, and explored the relationships and predictive effects among them. Results showed that students experienced moderate anxiety across all skills, with writing anxiety being the highest. Correlation analysis revealed significant relationships, particularly between listening and writing, and listening and speaking, indicating that receptive skill anxiety may influence productive skill anxiety. Regression analysis further confirmed that listening anxiety significantly predicted both speaking and writing anxiety, while reading anxiety had no significant predictive power.

These findings highlight the central role of listening anxiety in shaping learners' emotional experiences in language learning. Therefore, anxiety management should adopt an integrated approach across skills. It is recommended that lecturers create supportive learning environments, especially in listening, through contextualized activities, group discussions, formative feedback, and emotional regulation strategies. Students are also encouraged to identify their anxiety triggers and engage in regular, low-pressure language practice. Future research may benefit from mixed-method designs and broader participant samples to deepen understanding and evaluate intervention effectiveness.

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