

The Effects of Foreign Language Anxiety and Speech Disfluencies on EFL Speaking Performance among Indonesian Junior High School Students

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Abstract

Although previous studies have separately investigated speaking anxiety and speech disfluencies, little is known about their combined quantitative contribution to speaking performance among junior high school EFL learners. This study aimed to examine the effect of anxiety, speech disfluencies, and their simultaneous effect on the English-speaking skills of eighth-grade learners. A quantitative correlational design was used with 54 students selected via cluster sampling. Anxiety was measured using FLCAS, disfluency was classified into five types, and speaking skills were assessed using an adapted rubric. All students experienced anxiety, mostly at a moderate level, while repetition and silent pauses were the most frequent disfluencies. Anxiety had a significant negative partial effect on speaking skill, while disfluency showed a more dominant effect. Both variables jointly accounted for 87.1% of the variance in speaking skill, indicating a strong combined effect. These findings highlight the importance of addressing both anxiety and disfluency in speaking instruction. The findings provide practical implications for English teachers in designing anxiety-reducing and fluency-oriented speaking instruction.

Keywords: Anxiety, EFL, Multiple linear regression, Speaking skills, Speech disfluencies

1 Introduction

As English has become the global lingua franca, speaking proficiency has emerged as a critical competency for English as a Foreign Language (EFL) students. This skill is inherently complex, as it necessitates the simultaneous integration of vocabulary, grammatical accuracy, phonological awareness, and real-time cognitive processing (Sahara & Satria, 2025). Despite its importance, many EFL learners struggle to attain communicative fluency. Common barriers ranging from limited lexical resources and grammatical knowledge to psychological hurdles such as apprehension and a lack of self-confidence often impede students' ability and willingness to engage in effective English communication (Puspitasari & Sholeha, 2025).

Junior high school is a critical stage in developing English-speaking skills, as students begin to engage in structured speaking activities and formal oral assessments. This study focuses on

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eighth-grade learners because they have acquired sufficient exposure to English learning while not yet experiencing the examination pressure typically faced by ninth-grade students. At this developmental stage, students' linguistic competence and emotional regulation are still developing, making them particularly vulnerable to speaking anxiety and disruptions in speech production during oral communication (Abdullah et al., 2022; Steinberg, 2005). Preliminary observations and interviews with the English teacher at SMP Negeri 1 Punung revealed that many students had difficulty expressing ideas in English, lacked confidence when speaking in front of the class, and frequently produced pauses, fillers, and repetitions during speaking activities.

Speaking performance is deeply influenced by foreign language anxiety, a condition defined by Horwitz et al. (1986) as a context-specific psychological phenomenon characterized by communication apprehension, test-related anxiety, and an intense fear of negative evaluation. This anxiety often impedes a learner's ability to express ideas fluently, causing significant challenges in vocabulary access and organized speech production (Tiana et al., 2024). Beyond emotional factors, speech disfluency serves as another critical determinant of speaking challenges. Defined as interruptions in natural speech flow such as silent or filled pauses, self-repairs, repetitions, and prolongations (MacGregor, 2008), these disfluencies provide observable evidence of cognitive struggles. Essentially, they signify underlying difficulties in real-time speech planning and the mental process of lexical retrieval during communication (Fox Tree, 1995).

Previous studies have examined anxiety, speech disfluencies, and speaking performance in EFL contexts. Nababan and Lestariningsih (2024) examined speaking anxiety, Astuti et al. (2024) examined speech disfluencies, and Cantabaco et al. (2023) identified various types of speech disfluencies among EFL learners. Three gaps justify the current research. First, empirically, prior studies have treated anxiety and speech disfluency as separate phenomena, leaving their combined quantitative contribution to speaking performance largely unexamined. Second, contextually, existing research has predominantly focused on university-level or senior high school learners, with junior high school students remaining underrepresented in the literature. Third, methodologically, no previous study has simultaneously quantified anxiety using the FLCAS, objectively coded speech disfluencies across five categories, and examined their relative contributions through multiple regression analysis. This combination of instruments and analytical design represents a methodological contribution that strengthens the precision and rigor of the findings.

Accordingly, this study aims to examine the contribution of anxiety and speech disfluencies to the English-speaking proficiency of eighth-grade students at SMP Negeri 1 Punung. To achieve this objective, the research addresses whether anxiety has a significant partial effect on the students' speaking proficiency, as well as the significance of the partial effect of speech disfluencies on their performance in speaking English. Furthermore, this study examines whether anxiety and speech disfluencies, when analyzed together, exert a significant simultaneous effect on the learners' speaking proficiency. By addressing these questions, this research seeks to enrich the existing literature by providing empirical evidence regarding both the individual and combined influence of these variables on the speaking outcomes of junior high school EFL learners.

2 Methods

The present study utilizes a quantitative methodology underpinned by a correlational research design. Anxiety (X_1) and Speech Disfluencies (X_2) are treated as independent variables, while English Speaking Skill (Y) is identified as the dependent variable.

This study was empirically conducted at SMP Negeri 1 Punung throughout the duration of the 2025/2026 academic year. The target population consisted of 165 eighth-grade students distributed across seven classes. To obtain a representative sample of 54 students, a cluster sampling technique was applied, where two classes were chosen at random, aligning with the sampling principles outlined by Sugiyono (2013).

Data acquisition involved three specific instruments. Regarding anxiety, the measurement utilized the Foreign Language Classroom Anxiety Scale (FLCAS) developed by Horwitz et al. (1986), which was translated into Indonesian to ensure comprehension for the research participants. This instrument employs a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) across 33 items that encompass three core dimensions: communication apprehension, test anxiety, and fear of negative evaluation. Further details regarding the item distribution can be found in Table 1.

Table 1: FLCAS Indicators and Item Distribution

Indicators	Number of Items	Item Numbers
Communication Apprehension	12	1,4,9,12,14,18,24,26,27,29,32,33
Test Anxiety	9	3,5,6,8,10,11,17,21,25
Fear of Negative Evaluation	12	2,7,13,15,16,19,20,22,23,28,30,31

Second, speech disfluencies were measured through systematic analysis of students' recorded speaking test performances. Students were asked to narrate a picture series depicting a coherent story. Five disfluency types were identified and counted based on MacGregor's (2008) framework: filled pauses, silent pauses, repetitions, repairs, and prolongations.

Third, speaking skills were assessed using a rubric adapted from Brown (2004) covering five aspects: pronunciation, grammar, vocabulary, fluency, and comprehension, rated on a 1–5 scale per dimension. The total score obtained from this rubric served as the dependent variable (Y) in the regression analysis. Each student's speaking performance was scored by the researcher using Brown's (2004) five-aspect rubric, guided by careful, repeated listening to each recorded monologue. To minimize subjective bias, the initial scores were then verified by two English education lecturers through expert judgment.

To ensure the validity of the instruments, an expert review was conducted by two qualified lecturers. The anxiety questionnaire's reliability was evaluated using Cronbach's Alpha ($\alpha = 0.737 > 0.70$), demonstrating consistent internal reliability (Subhaktiyasa, 2024). Furthermore, the speaking rubric underwent expert validation by two English education faculty members; they rigorously assessed scoring accuracy against rubric criteria and confirmed that students with similar speaking proficiency were assigned consistent scores. Similarly, the indicators and coding procedures for disfluency identification were validated by two English education experts to ensure their alignment with the research goals.

Data analysis was conducted in two primary phases. Initially, descriptive statistics were computed for all three variables to provide an overview of the data. Subsequently, the classical assumption tests comprising normality (Kolmogorov-Smirnov), linearity, and multicollinearity were performed to ensure the data met the requirements for further analysis. Once these assumptions were satisfied, multiple linear regression was utilized to assess the predictive relationship between the variables. T-tests were performed to examine the statistical significance of each predictor in relation to English-speaking skills. At the same time, the F-test was employed to determine the simultaneous association of the independent variables with the dependent variable. Finally, the proportion of variance explained by the predictors was quantified using the coefficient of determination (Adjusted R^2), as outlined by Chicco et al. (2021). All statistical analyses were performed using SPSS version 24.

3 Results and Discussion

3.1 Descriptive Analysis

3.1.1 Descriptive Analysis of Anxiety

Regarding anxiety data obtained from the 54 participants using the FLCAS questionnaire, the descriptive statistics revealed a mean score of 111.17 with a standard deviation of 10.266. The data ranged from a minimum score of 86 to a maximum of 134. Given the relatively low standard deviation, it can be inferred that the anxiety scores were clustered near the mean, reflecting a consistent pattern of anxiety across the sample. Detailed categorization of these levels is provided in Table 2

Table 2: Distribution of Students' Anxiety Levels

Interval	Category	F	%
33–77	Low	0	0%
78–121	Medium	46	85%
122–165	High	8	15%
Total		54	100%

As illustrated in Table 2, none of the students were classified into the low anxiety category. Instead, the majority (85%, $n=46$) demonstrated moderate levels of anxiety, while the remaining 15% ($n=8$) were identified as having high anxiety. Consequently, the data suggest that all students in this study encountered some degree of anxiety during English speaking activities, with a prominent tendency toward the moderate level.

3.1.2 Descriptive Analysis of Speech Disfluencies

Regarding the speech disfluency data, systematic analysis was performed on students' speaking test recordings. The descriptive statistics indicated a mean disfluency score of 20.67, accompanied by a standard deviation of 3.711. Across the dataset, individual scores ranged from a lower bound of 10 to an upper bound of 27. Furthermore, the categorization of disfluency types, which follows the framework established by MacGregor (2008), is detailed in Table 3.

Table 3: Frequency and Percentage of Each Disfluency Type

Type of Disfluency	Total Frequency	%
Filled Pause	103	9%
Silent Pause	312	27%
Repetition	348	30%
Prolongation	272	24%
Repairs	111	10%
Total	1,146	100%

As shown in Table 3, repetition was the most dominant type (348 occurrences; 30%), followed by silent pause (312; 27%), prolongation (272; 24%), repairs (111; 10%), and filled pause (103; 9%). The dominance of repetition indicates that students frequently repeated words or phrases as a strategy to maintain speech flow while processing the continuation of their utterances.

3.1.3 Descriptive Analysis of English-Speaking Skills

The students' English-speaking proficiency was evaluated through a picture-narration task, utilizing five specific assessment dimensions: pronunciation, grammar, vocabulary, fluency, and comprehension. Based on the descriptive analysis, the participants achieved a mean score of 10.78, with a standard deviation of 3.506. Individual performances ranged from a minimum of 5 to a maximum of 21. A comprehensive breakdown of these proficiency categories is delineated in Table 4.

Table 4: Distribution of Students' Speaking Skill Categories

Category	Score Range	F	%
Poor	5–8	14	25.93%
Needs Improvement	9–12	27	50.00%
Average	13–16	9	16.67%
Good	17–20	3	5.56%
Excellent	21–25	1	1.85%
Total		54	100%

Data presented in Table 4 highlight that a substantial proportion of the cohort (75.93%) is situated within the 'Poor' and 'Needs Improvement' brackets. This aligns with the overall mean score of 10.78, indicating that the sample's collective speaking ability is predominantly classified within the 'Needs Improvement' level.

3.2 Prerequisite Tests

Before formal hypothesis testing, the dataset underwent three classical assumption evaluations to verify its suitability for multiple linear regression analysis. The outcomes of these diagnostic tests are provided in Table 5.

All prerequisite criteria were successfully met. The normality assessment resulted in a Sig. value of 0.056 (> 0.05), which confirms a normal distribution of the data. Furthermore, linearity testing yielded Sig. values exceeding 0.05, establishing that linear associations exist between the

Table 5: Classical Assumption Tests

Test	Statistic / Value	Sig. / Threshold	Conclusion
Normality (K-S)	K-S = 0.119	Sig. = 0.056 >0.05	Normally distributed
Linearity (X ₁ -Y)	Dev. Linearity	Sig. = 0.123 >0.05	Linear
Linearity (X ₂ -Y)	Dev. Linearity	Sig. = 0.084 >0.05	Linear
Multicollinearity	Tolerance = 0.970; VIF = 1.030	Tolerance >0.10; VIF <10.00	No multicollinearity

dependent and independent variables. Multicollinearity diagnostics showed a Tolerance of 0.970 and a VIF of 1.030; these figures remain well within acceptable limits, demonstrating an absence of multicollinearity between X₁ and X₂. With these assumptions validated, the analysis advanced to the application of multiple linear regression.

3.3 Inferential Analysis

3.3.1 Multiple Linear Regression Analysis

To investigate the association of anxiety (X₁) and speech disfluencies (X₂) with English speaking proficiency (Y), a multiple linear regression model was developed. The analysis resulted in the following regression formula:

$$\hat{Y} = 32.688 - 0.037X_1 - 0.860X_2$$

The intercept of 32.688 provides the baseline estimated speaking score when both predictor variables are zero. Regarding the coefficients, a one-unit increase in anxiety (X₁) correlates with a reduction of 0.037 in the speaking score. Similarly, each additional unit in the frequency of disfluencies (X₂) is linked to a decline of 0.860 in speaking performance. The negative signs observed for both coefficients suggest an inverse relationship, where higher levels of anxiety and greater disfluency frequency are associated with lower English-speaking proficiency.

3.3.2 Hypothesis Testing

To address the research objectives, the statistical relationship between the independent variables and speaking ability was examined utilizing t-tests and an F-test. The detailed statistical outcomes are provided in Table 6.

Table 6: Statistical Summary of the Regression Model

Variable	β	t-value	Sig.	Conclusion
Constant	32.688	—	—	—
Anxiety (X ₁)	-0.037	-2.169	0.035 <0.05	H ₁ Accepted
Speech Disfluencies (X ₂)	-0.860	-18.172	0.000 <0.05	H ₂ Accepted
F-value	—	179.532	0.000 <0.05	H ₃ Accepted
Adjusted R ²	—	—	—	0.871 (Strong)

Regarding the anxiety variable (X_1), the analysis produced a t-value of -2.169 with a significance level of 0.035 ($p < 0.05$). Consequently, H_1 is supported, which indicates that anxiety demonstrates a statistically significant association with the English-speaking proficiency of the eighth-grade participants at SMP Negeri 1 Punung. The negative coefficient ($\beta = -0.037$) confirms that escalated anxiety levels are linked to diminished speaking scores.

For speech disfluencies (X_2), the t-test resulted in $t = -18.172$ with $p = 0.000$ ($p < 0.05$), confirming that H_2 is supported. This reveals a substantial statistical relationship between speech disfluencies and the oral performance of the learners. The notably larger coefficient ($\beta = -0.860$) compared to anxiety suggests that disfluency frequency serves as a more dominant predictor of speaking outcomes.

Furthermore, the F-test recorded an F-value of 179.532 ($p = 0.000 < 0.05$), supporting H_3 . This confirms a significant simultaneous association between anxiety, speech disfluencies, and the speaking ability of the students. The Adjusted R^2 of 0.871 implies that 87.1% of the variance in speaking scores is accounted for by the combination of these two predictors, which is categorized as a strong relationship based on Chin's (1998) benchmarks.

However, it is pertinent to note that an Adjusted R^2 value of 0.871 is remarkably high for educational studies. This result likely arises from the conceptual overlap between disfluency as a predictor and fluency as a component of the dependent variable, as both capture related aspects of oral production. Thus, these findings should be interpreted with prudence, as the high R^2 may reflect construct proximity rather than purely independent predictive power. The remaining 12.9% of the variance is likely linked to other variables, such as learner motivation, self-confidence, and the pedagogical environment.

3.4 Discussion

3.4.1 The Effect of Anxiety on English Speaking Skills

The descriptive data indicates that all 54 participants encounter some degree of anxiety during English speaking tasks, with the vast majority (85%) identified in the moderate category and the remainder (15%) in the high category. This observation is substantiated by the inferential analysis, which highlights a statistically significant inverse relationship between anxiety levels and oral proficiency ($t = -2.169$; $p = 0.035 < 0.05$). Aligned with the theoretical framework established by Horwitz et al. (1986), these results imply that language anxiety operates as a multidimensional psychological state. This construct involves three core components: apprehension in communication, test-taking anxiety, and the fear of being negatively evaluated. Collectively, these factors function as an emotional obstacle that can significantly impede learners' oral performance, even when their linguistic competence is otherwise sufficient.

Theoretically, this negative relationship can be understood through the processing-stage model proposed by MacIntyre and Gardner (1994) and Eysenck and Calvo (2008) processing efficiency theory. When students face the pressure of a speaking test, a significant portion of their working memory is diverted toward monitoring their emotional state and anticipating negative judgment, rather than focusing on vocabulary retrieval or grammatical accuracy. Consequently, even students with a strong command of the material may require excessive cognitive effort to respond in real-time, often resulting in disfluency or complete performance failure. This aligns

with Tiana et al. (2024) and Dikmen's meta-analysis, which confirm that speaking is the skill most consistently impaired by anxiety, particularly because oral performance, unlike writing, demands immediate, non-revisable output.

Furthermore, the absence of low-anxiety students in this sample highlights the classroom climate as a critical determinant, where the environment appears to induce "debilitating" rather than "facilitating" anxiety ((Scovel, 1978)). Within the context of a speaking test, debilitating anxiety acts as a paralyzing force, shifting the student's orientation from academic engagement to defensive avoidance behavior. Students become more concerned with minimizing errors to escape negative evaluation than with demonstrating their proficiency, a situation exacerbated by limited vocabulary and the high-pressure demand of public performance (Andrian, 2022; Sepniwati et al., 2025). Consequently, mitigating anxiety is not merely a supplementary concern but an essential pedagogical priority. Fostering a supportive, low-pressure classroom environment is crucial to reducing this evaluative burden, thereby allowing anxiety to shift from an obstructive barrier to a constructive catalyst for learning.

3.4.2 The Effect of Speech Disfluencies on English Speaking Skills

Building on the psychological impact of anxiety, the analysis of speech disfluency offers critical insight into the observable patterns of students' oral production. Adopting MacGregor's (2008) classification, the study identified five types of disfluencies led by repetition (30%) and silent pauses (27%), which exhibited a significantly stronger statistical association with speaking performance ($t = -18.172$; $\text{Sig.} = 0.000$) compared to anxiety. While this stronger coefficient ($B = -0.860$) might appear to suggest that disfluency is the primary driver of performance, it is more accurately interpreted through the structure of assessment; disfluency is a directly observable behavior that raters explicitly score, whereas anxiety is an underlying construct inferred through such behavioral markers.

The prominence of repetition and silent pauses is theoretically consistent with Levelt's (1983) model of self-monitoring, which suggests these patterns often occur when speakers detect planning difficulties mid-utterance and attempt to preserve coherence rather than abandoning the message. For eighth-grade learners, whose linguistic resources are not yet fully automatized, these pauses and repetitions reflect the intense cognitive load required for real-time lexical retrieval and grammatical encoding (Al-ghazali & Alrefaee, 2019; Rahayu, 2022). As noted by Cahyo et al. (2025), such disfluencies are frequent when students face time constraints, marking moments of grammatical decision-making rather than mere lapses in knowledge.

Ultimately, these findings align with Aubrey (2022), who emphasizes that "breakdown fluency" acts as a perceptible signal of both linguistic struggle and emotional disruption. Since raters rely heavily on temporal measures like pause frequency to judge overall fluency (Kormos & Denes, 2004), disfluency functions as the primary bridge between a student's internal state and their final performance score. Consequently, pedagogical efforts to improve speaking scores must be twofold: while fluency-building activities such as structured rehearsal and picture-narration tasks are essential, they must be implemented alongside strategies that mitigate the underlying anxiety that triggers these communicative breakdowns.

3.4.3 The Simultaneous Effect of Anxiety and Speech Disfluencies on English Speaking Skills

The combined analysis reveals that anxiety and speech disfluency jointly account for 87.1% of the variance in speaking skills, a magnitude categorized as a strong predictive relationship (Chin, 1998). Drawing on MacIntyre and Gardner's (1994) processing-stage model, this strong association suggests a reciprocal relationship: heightened anxiety limits the cognitive capacity for message planning, thereby increasing disfluency, while the learner's awareness of these disfluencies further exacerbates their anxiety and fear of evaluation.

While this 87.1% value appears significantly higher than those reported in broader meta-analyses by Dikmen (2021), this discrepancy is primarily methodological rather than reflecting a genuinely stronger underlying phenomenon. The high explanatory power is attributed to the combination of two highly relevant predictors within a singular, coherent assessment framework (Brown, 2004). Furthermore, a degree of conceptual overlap exists because speech disfluency is a core component of the "fluency" dimension within the speaking rubric; the predictor is partially embedded within the outcome measure. Consequently, the 87.1% variance should be interpreted not as the absolute explanatory power of two independent forces, but as a robust statistical alignment between behavioral output and assessment criteria.

Consistent with Szyszka et al. (2026) and Fauzi and Asi (2023), the findings indicate that anxiety and disfluency are best conceptualized as interrelated expressions of communicative struggle. The prevalence of students in the "Poor" and "Needs Improvement" performance categories highlights that these variables function as synergistic barriers to oral production. The remaining 12.9% of unexplained variance likely involves additional factors such as learner motivation, prior proficiency, and classroom environment.

These empirical results are consistent with the Processing Efficiency Theory proposed by Eysenck and Calvo (2008). The theory posits that heightened anxiety depletes cognitive working memory capacity, which consequently reduces the effectiveness of language task execution even for learners who possess sufficient linguistic proficiency. In light of this intersection between cognition and behavior, instructional strategies must move beyond isolated methods. It is vital to cultivate a classroom environment that prioritizes psychological safety, supported by regular, structured, and low-pressure oral activities. Such pedagogical adjustments are necessary to manage cognitive load, alleviate these psychological hurdles, and foster substantive growth in students' speaking performance.

4 Conclusion and Recommendation

4.1 Conclusion

This study successfully achieved its primary research objectives, demonstrating that psychological and linguistic barriers heavily dictate student performance. First, the data confirm that foreign language anxiety is a widespread issue among the eighth-grade students, heavily intersecting with their oral proficiency. Second, speech disfluencies (most notably repetition) proved to be a critical indicator of spoken performance. Crucially, when evaluated together, anxiety

and disfluency patterns explain the vast majority of the variance in the students' speaking abilities. However, this exceptionally strong statistical bond warrants a nuanced interpretation; the intense correlation is likely magnified by the fact that disfluency naturally overlaps with the core definition of speaking fluency itself, pointing to a conceptual closeness between the variables rather than entirely separate influences.

4.2 Recommendation

For educators, it is suggested that teachers cultivate a classroom atmosphere rooted in psychological security while simultaneously integrating consistent, structured speaking tasks to help students manage both anxiety and disfluency patterns. Furthermore, for future investigations, scholars are encouraged to incorporate additional psychological factors such as self-confidence and learner motivation to account for the residual 12.9% of unexplained variance. Researchers should also aim to utilize broader, more varied participant pools to enhance the generalizability of findings and consider implementing experimental frameworks to explore potential causal pathways that extend beyond current correlational data. Finally, the use of specialized acoustic analysis tools, such as ELAN or Praat, is recommended to ensure more objective and granular quantification of disfluency types, particularly for phenomena like silent pauses or sound prolongations that often evade accurate detection through manual observation alone.

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