

The Study of Foreign Language Anxiety, L2 Motivation, and Self-Efficacy on English Speaking Performance Among Chinese Non-English Major Undergraduates

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Abstract:

College students sometimes struggle with oral English performance due to foreign language anxiety (FLA). This study investigates whether motivation and self-efficacy act as mediating factors in the relationship between FLA and speaking performance in Chinese undergraduates who do not major in English. A questionnaire survey was conducted with 200 participants, and data were analyzed using descriptive, correlation, and mediation analysis via SPSS 29 and Hayes' PROCESS macro. The findings indicated that, on the one hand, self-efficacy did not play a mediating role, but on the other hand, speaking motivation significantly partially mediated the negative impact of FLA on English speaking performance. This result indicates that motivation is an important factor in the association between anxiety and speaking ability, and that enhancing motivation and reducing anxiety can enhance students' speaking performance. This study highlights the importance of addressing the emotional and motivational components of a foreign language. Pedagogical interventions aimed at reducing fear and increasing motivation may lead to better speaking outcomes for English as a Foreign Language (EFL) learners.

Keywords: foreign language anxiety; speaking performance; Chinese Non-English Major Undergraduates

1. Introduction

In recent years, there has been a heightened focus on the emotional and psychological elements that impact second language learning, especially in the area of speaking. Among these, foreign language anxiety

(FLA) has been widely recognized as one of the most significant barriers to fluent language acquisition, especially in spoken English. Horwitz and Cope defined FLA as a distinct form of anxiety arising from the unique challenges of learning and using a foreign language, often leading to avoidance behavior, men-

tal blocks during speaking tasks [1].

Speaking, as a productive and interactive language skill, is especially sensitive to anxiety. Many learners may feel greater nervous when required to talk in front of classmates or teachers than during reading or writing activities. In the context of Chinese higher education, where English is a compulsory subject for most non-English major undergraduates, students often experience high levels of speaking anxiety despite years of formal education. However, emotional factors alone cannot fully explain students' speaking outcomes. Motivational and cognitive components—particularly speaking self-efficacy and learning motivation—may play important mediating roles. Guided by Self-Determination Theory (SDT) and Bandura's theory of self-efficacy, this study seeks to explore the complex relationship between FLA and English speaking performance, with particular attention to the roles of speaking motivation and self-efficacy as potential mediators [2, 3]. This study aims to examine the extent to which foreign language speaking anxiety (FLSA) affects the English-speaking performance of Chinese non-English major undergraduate students. It seeks to identify patterns of anxiety and explore the strength and nature of the relationship between speaking anxiety and performance. This study sheds light on the psychological obstacles influencing students' success in spoken English. The findings might assist college English teachers in modifying their teaching methods to lower anxiety and enhance students' speaking performance.

2. Literature Review

It was Freud who first defined anxiety as “something felt”, a psychological condition characterized by feelings of fear, stress, and nervousness, coupled with physiological arousal [4]. FLA has been regarded as a debilitating effect during second language acquisition (SLA), especially in the domain of speaking. Horwitz et al. first conceptualized FLA as a situation-specific anxiety distinct from general anxiety, composed of three components: communication apprehension, fear of negative evaluation, and test anxiety. Horwitz also developed the Foreign Language Classroom Anxiety Scale (FLCAS), a well-accepted method for determining the specific anxiety reaction that learners of foreign languages experience. FLSA is acknowledged as one of the most substantial and debilitating forms of anxiety encountered by language learners [1]. In second language learning, a crucial skill for any English as a Foreign Language (EFL) learner is the capacity to speak English fluently. It is a key instrument for communication that enables learners to convey their thoughts, sentiments, and emotions to others [5].

Self-efficacy, characterized as an individual's conviction in their capacity to execute particular activities, is crucial in SLA. High self-efficacy learners are more likely to use successful study techniques and persevere through difficulties, and achieve higher proficiency levels [3]. Motivation in SLA is when internal and external factors urge students to become proficient in a new language. The difference is between intrinsic motivation, or doing something because it feels personally satisfying versus extrinsic motivation, which is driven by external pressures or rewards. Previous studies have demonstrated that motivation significantly correlates with language proficiency and learning persistence [6]. SDT is the theory of Deci and Ryan, a macro theory of human motivation, which presents an entire approach to human motivation, and prioritizes volition and perceived locus of causality as well as the variabilities of the social environment upon human quality of motivation [2]. In SLA, SDT has been an important framework for understanding how motivation affects learners' language learning and learning outcomes. The negative association between FLA and speaking performance has been confirmed in a number of studies. For example, Liu and Jackson found that anxiety, for Chinese university learners, was correlated with more avoidance and less speaking task engagement [7]. Similarly, Zhang discovered that Chinese English speakers in Singapore experienced significant levels of speaking anxiety, which is typically related to strict classroom environments and the fear of looking foolish [8]. These findings highlight the importance of cultural and educational settings in the development of anxiety related to speaking English. Some studies have focused on the psycholinguistic effects of anxiety. For example, Dewaele and MacIntyre examined how anxiety and enjoyment relate to the foreign language classroom and found that students who experienced high levels of enjoyment generally experienced low levels of speaking anxiety [9]. Their research supported the intuition that happy feelings could blunt some of the negative aspects of test anxiety, suggesting that emotion in language instruction should not be ignored. An increasing corpus of literature concentrating on non-English majors is also available. For example, Macayan et al. investigated the influence of language learning anxiety on the second language (L2) speaking performance of 162 Filipino university engineering students. The findings suggested that students' inner tensions and professors' feedback contributed to their heightened anxiety, which in turn hindered their classroom speaking performance [10]. In the context of Chinese non-English majors, few studies have directly examined the correlation between FLA and English-speaking performance in measurable ways. This study addresses the gap by examining the correlation

between FLA and English-speaking performance among Chinese college students who are not majoring in English. This research aims to answer the following research questions:

To what extent do target students experience anxiety when speaking a foreign language?

What is the relationship between students' foreign language speaking anxiety and their English speaking performance?

To what extent do English-speaking motivation and speaking self-efficacy mediate or moderate the relationship between FLA and English speaking performance among Chinese non-English major undergraduates?

3. Methodology

3.1 Research Design

This study adapts a quantitative, descriptive, correlational research design to explore the relationship between FLA and English speaking performance among Chinese non-English majors, introducing English speaking motivation and self-efficacy as moderating variables. A systematic questionnaire is employed to collect data concerning FLA, English speaking self-efficacy, English speaking motivation, and oral performance, consistent with previous research highlighting the importance of extensive sample quantification in language anxiety. And the study uses the IELTS speaking scores to show students' speaking performance.

3.2 Participants

The participants consist of 200 undergraduate students from non-English majors at the public universities in China. All participants are juniors in the colleges and have received at least six years of formal English education during their high school period. Participation is optional, and informed consent was acquired. Ethical protocols adhere to institutional regulations for human research [11].

3.3 Instruments

In this study, the FLCAS, English Speaking Self-Efficacy Scale, and English Speaking Motivation Scales (ESMS) are used to design the questionnaire.

3.3.1 FLCAS

Exam anxiety, communication anxiety, and the dread of getting a bad mark are all measured by the 33 items on the FLCAS, which was first developed by Horwitz et al. and is scored on a 5-point Likert scale [1]. The updated Chi-

nese version of the survey is used in this study to gauge the target students' anxiety levels.

3.3.2 English Speaking Self-Efficacy Scale

Drawing from Bandura's theory of self-efficacy, this scale measures students' beliefs in their capability to speak English effectively in various communicative contexts [3].

3.3.3 ESMS

The ESMS was developed based on SDT. It aims to assess the many types of motivation that affect Chinese undergraduates who do not major in English's willingness and effort to speak the language.

The questionnaire of this study contains background information (gender, major, grade, the passing rate of College English Test 4 and 6, IELTS speaking scores, and the duration of spoken English practice per week), FLCAS, English Speaking Self-Efficacy Scale, and ESMS.

3.4 Data Analysis

Questionnaires were administered online via Wenjuanxing. The goal of the study was explained to each participant, and data confidentiality was upheld at all times. SPSS 29 and Hayes's PROCESS macro (version 4.2) were used to analyze the data. The variables' mean and standard deviation are ascertained using descriptive statistics. The degree of link between speaking performance and FLA is evaluated using Pearson correlation analysis. And the parallel mediation analysis was conducted using Hayes' PROCESS macro to examine the indirect or direct effects of self-efficacy and speaking motivation on the connection between speaking performance and FLA.

4. Result

A Cronbach's alpha coefficient was computed to assess the internal consistency of all 26 scale items (encompassing measures of FLCAS, Speaking Self-Efficacy Scale, and ESMS). The analysis ($N = 200$; listwise deletion) yielded an overall $\alpha = .79$, indicating acceptable internal consistency for the combined instrument. No cases were excluded due to missing data, ensuring full utilization of the sample.

The degree of FLA among the target students was investigated using a descriptive analysis. The results showed that the participants had a moderate level of anxiety, with an average FLCAS total score of $M = 31.63$ ($SD = 11.49$, $N = 200$). Individual anxiety levels varied, as seen by the lowest and maximum total scores of 13 and 57, respectively.

Table 1. Correlations

		IELTS speaking scores	FLCAS _Total
IELTS speaking scores	Pearson Correlation	1	-.263**
	Sig.(2-tailed)		<.001
	N	200	200
FLCAS _Total	Pearson Correlation	-.263**	1
	Sig.(2-tailed)	<.001	
	N	200	200

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

A Pearson correlation study was performed to investigate the connection between IELTS speaking scores and foreign language classroom anxiety (as measured by the FLCAS_Total) among 200 participants. A statistically significant negative connection between the two variables was found in the results, which are displayed in Table 1, $r(198) = -.263$, $p < .001$, indicating that higher levels of foreign language classroom anxiety were associated with lower IELTS speaking scores, and vice versa. The strength of the correlation, though modest ($r = -.263$), was significant at the 0.01 level (two-tailed), suggesting that the observed relationship was unlikely due to chance. The coefficient of determination ($r^2 = .069$) further indicated that approximately 6.9% of the variance in IELTS speaking scores could be explained by foreign language classroom anxiety, while the remaining variance (93.1%) may be attributed to other factors not examined in this analysis.

A parallel mediation analysis was conducted using PROCESS v4.2 (Model 4) with 5,000 bootstrap samples. The analysis revealed that FLA significantly predicted both lower self-efficacy ($B = -0.16$, $p < .001$) and lower speaking motivation ($B = -0.16$, $p < .001$). In turn, motivation positively predicted speaking performance ($B = 0.0146$, $p = .0499$), while self-efficacy did not ($p = .2758$).

The total indirect effect was significant (Effect = -0.0045 , 95% CI $[-0.0094, -0.0002]$), with a significant specific path through speaking motivation (Effect = -0.0024 , 95% CI $[-0.0057, 0.0000]$). The direct effect of anxiety on performance remained significant ($B = -0.0125$, $p = .0098$), indicating partial mediation, with motivation as the primary mediator.

5. Discussion

The analysis revealed several crucial findings, all pointing to the pervasive role of anxiety in shaping students' oral performance and the particular importance of motivation as a "bridge" between emotion and behavior. English-speaking motivation emerged as the primary

conduit through which anxiety exerted its indirect effect. In other words, anxious students tended to feel less motivated to speak, and this diminished motivation, in turn, translated into lower scores. But in terms of English speaking self-efficacy, it did not account for variations in the outcome in the spoken form after motivation had been controlled. The combined predictors (anxiety, motivation, self-efficacy) accounted for a meaningful portion of variance in speaking performance, indicating that affective and motivational dimensions offer a coherent explanation for students' oral proficiency. Interventions should thus focus on enhancing students' motivation while mitigating anxiety through supportive speaking environments and stress-management strategies.

6. Conclusion

There are several limitations to consider. First, self-report questionnaires were used to gather the data, which could be skewed by social desirability bias and individual differences in self-perception. Secondly, the study focused on self-efficacy and motivation as mediators; other psychological or contextual variables (e.g., classroom environment, teacher support, personality traits) may also influence speaking outcomes and should be explored in future work. In light of these limitations, further studies should consider using mixed methodologies to increase the reliability of results, such as integrating oral performance exams or teacher assessments with self-report measures.

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