The Relationship Between Foreign Language Classroom Anxiety, Motivation and their Predictive Effects on Chinese University Students' English Learning Achievement

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Abstract. In the field of Second Language Acquisition, there are few experimental studies that concentrate on the relationships between FLCA, FLLM, and English Learning Achievement (ELA) among Chinese university students. Previous studies in second language acquisition have examined the Foreign Language Classroom Anxiety (FLCA) and Foreign Language Learning Motivation (FLLM) in China. This study investigates the relationship between FLCA, FLLM, and ELA among non-English major students from a university in Wuhan, China. 227 participants completed the questionnaire assessing FLCA, FLLM, and provided their ELA scores through final-term English tests. The findings revealed that Chinese university students exhibited moderate FLCA levels but relatively high FLLM. While FLCA demonstrated a significantly negative link with FLA, there was a substantial positive correlation between FLLM and FLA. FLCA emerged as a strong negative predictor of ELA, while FLLM significantly predicted ELA in a positive direction. These findings underscore the importance of addressing FLCA and fostering FLLM to enhance English learning outcomes among Chinese university students in similar educational settings.

Keywords: Foreign Language Classroom Anxiety; Foreign Language Learning Motivation; English Learning Achievement; Non-English major; Chinese university students.

1. Introduction

Understanding the complex interactions that exist between students' motivation, emotional states, and academic accomplishment has garnered a lot of attention and study in the field of English language education. In this setting, it has become clear that FLCA and FLLM play a critical role in shaping students' language learning outcomes and experiences. FLCA, which is acknowledged as a separate subtype of general anxiety, concerns students' anxiety in foreign language classes and how it affects their ability to acquire a new language [1]. Conversely, FLLM encompasses the passion, diligence, and aspirations that students invest in their language learning journey [2]. Although empirical evidence about the relationship between personal variables and learning performance has lately started to surface, the factors' predictive power is still largely unexplored. This study aims to investigate in depth the impact of FLCA and FLLM on the English learning achievement of Chinese university students. By analyzing the correlation between FLCA, FLLM, and English learning achievement in the journey of SLA, as well as understanding how these factors influence students' English learning achievement in real learning environments, this research delves into reveal the underlying mechanisms of these two factors in English learning.

2. Literature Review

2.1. Foreign Language Classroom Anxiety

FLCA is a crucial aspect of SLA. Researchers in SLA field have conducted many previous research over the past decades to delve into this specific form of anxiety. Foreign language anxiety was firstly recognized as a particular anxiety related to the foreign language learning classroom in 1986 by developing the Foreign Language Classroom Anxiety Scale (FLCAS) [1]. The study made clear that a learner's capacity to acquire a new language may be significantly impacted by Language

Learning Anxiety, which is a specific subtype of general anxiety. Notably, most Chinese high school students reported having moderate to high levels of FLCA at the same time [3].

2.2. Foreign Language Learning Motivation

FLLM encapsulates students' passion, diligence, and aspiration that students demonstrate their journey of learning a second language, including intrinsic motivation and extrinsic motivation [2]. The nexus between motivation and SLA is intricate and deep-rooted. Developed by Zoltán Dörnyei, "L2 Motivational Self System" is a theoretical framework designed to explain motivation in second language acquisition [4]. The theory provides a thorough and adaptable framework for comprehending and elucidating the motivating elements involved in learning a second language. In the meantime, motivation is a dynamic and complex term that depends on a number of variables, such as how people view themselves and the surrounding learning environment [5]. A well-known self-report tool for assessing students' motivational orientations and use of various learning strategies in academic settings is the Motivated Strategies for Learning Questionnaire (MSLQ) [6].

2.3. Foreign Language Classroom Anxiety, Foreign Language Learning Motivation and English Learning Achievement in the Chinese Context

The various emotions that foreign language learners go through are crucial to SLA, representing non-intellectual factors that shape the learning experience [7]. This domain has been the focus of numerous SLA researchers over the years, leading to a deeper understanding of how these emotions correlate with Foreign Language Achievement. Effective foreign language acquisition can be facilitated by identifying and treating classroom anxiety, particularly when educators take an active part in its reduction [8]. Simultaneously, motivation is thought to be a major factor in determining SLA success. Motivated students are more likely to participate in long-term, productive learning [9]. Because of their significant influence on the caliber and efficacy of foreign language instruction, FLCA, FLLM, and ELA research is crucial in the setting of China. These studies can offer priceless insights for educational stakeholders, helping teachers' better match their methods to students' needs and improve foreign language learning outcomes. In recent studies, Wu et al's study shed light on the relationship among the link between English use anxiety, motivation, and self-efficacy and their prospective impacts on the English successes of Chinese top university students [10]. The study delved into how can FLCA and FLLM have possible effects on Chinese university students' ELA.

3. Research Questions

The following queries are intended to be addressed by this research:
a).What are the levels of FLCA and FLLM among Chinese university students?
b).How are Chinese university students' FLCA and FLLM related to their ELA?
c).How do FLCA and FLLM predict Chinese university students' ELA?

4. Research Methods

4.1. Data Collection

The participants completed online-based questions that were structured and provided in Chinese. A total of 227 authentic questionnaires of English learners from one university in Wuhan, China was collected.

4.2. Participants

The study focused on non-English major students of one university in Wuhan, China who regularly takes English courses in school. Before the data collection session, the participants were familiarized with the purpose of the study. They were apprised of the nature of voluntary participation, with consents obtained from them.

4.3. Measures

4.3.1. Background Information Questionnaire

The study developed a concise 3-item background information questionnaire meticulously crafted to gather vital personal details from the participants. This questionnaire aimed to comprehensively capture essential demographic information critical for the study's analysis and interpretation, including age, gender, and examination results.

4.3.2 Foreign Language Classroom Anxiety Scale

FLCAS is a psychological instrument intended to evaluate the level of anxiety experienced by individuals as they are acquiring a foreign language in a classroom setting, with 33 items [1]. The present study employed a reduced version of the FLCAS, which includes 20 items, to measure the levels of FLCA among students in the Chinese university in order to fit the study coontext. In this version, items 2, 5, 6, 8, 11, 14, 18, 22, 26, 28, 29, 30, and 32 were excluded to align more closely with the research aim.

4.3.3. Motivated Strategies for Learning Questionnaire

MSLQ is a self-report, Likert-scaled instrument designed to measure student motivational beliefs and strategy use, including (1) a motivation section and (2) a learning strategies section [6]. The study adopted a shorten version of the motivation section aiming to explore the levels of FLLM among Chinese university students, which includes 20 items. In this version, items 6, 12, 15, 23, 24, 25, 26, 27, 29, 30 and 31 were excluded to align more closely with the research aim.

4.3.4. English Learning Achievement

The students' ELA was measured by their final-term English test scores, ranging from 0 to 100, which covered English listening task, English reading task and English writing task. The incorporation of these multifaceted tasks within the assessment framework aimed to provide a comprehensive evaluation of the students' ELA.

4.4. Data Analysis

The useful data that was collected to assess the reliability as well as validity of the measures was analyzed using SPSS 29.0. The data in FLCAS and MSLQ were analyzed by descriptive analysis. Additionally, correlation and regression analyses were used to examine the relationships between Chinese university students' FLCA, FLLM and their ELA.

5. Result

5.1. Participants' profiles of FLA, FLLM and ELA

Table 1 illustrates that learners exhibit a certain level of FLCA, but overall, they demonstrate relatively high FLLM. However, there is significant variability in ELA, with some learners achieving higher scores while others may perform relatively lower than the mean.

Table 1. Descriptive Statistics of Each Variable.

	N	Min	Max	Mean	SD
Foreign Language Classroom Anxiety	227	1	5	3.01	1.10
Foreign Language Learning Motivation	227	1	7	4.50	1.19
English Learning Achievement	227	11	100	83.54	11.51

Participants' levels of FLA ranged from 1 to 5 (M=3.01, SD 1.10). This suggests that learners exhibit moderately elevated levels of anxiety in foreign language classrooms, with an average score of approximately 3.01. The relatively small standard deviation implies that the FLA level of most learners are clustered around the mean, although there is a portion of individuals whose FLA levels may be higher or lower than the average.

Meanwhile, participants' FLLM ranged from 1 to 7 (M=4.50, SD=1.19). With an average FLLM score of about 4.50, this suggests that learners have a rather high motivation for learning a foreign language. Although some students may still be more or less motivated than others, the reduced standard deviation indicates that most students' motivation levels are dispersed around the mean. Participants' learning objectives ranged from 11 to 100 (M = 83.54, SD = 11.51). This demonstrates the wide range of learning outcomes amongst foreign language learners. While some people might have done below average, others might have received higher ratings.

5.2. Relationship between the participants' FLCA, FLLM and ELA

Table 2 reports correlations among participants' FLCA, FLLM and ELA. It is evident that there is a moderate negative correlation between FLCA and FLLM ($r = -0.503$, $p < 0.01$). There is also a moderate negative correlation between FLCA and ELA ($r = -0.435$, $p < 0.01$). Furthermore, there is a moderate positive correlation between FLLM and ELA ($r = 0.407$, $p < 0.01$).

Table 2. Correlation Analysis.

	Foreign Language Classroom Anxiety	Foreign Language Learning Motivation	English Learning Achievement
Foreign Language Classroom Anxiety	1		
Foreign Language Learning Motivation	-0.503**	1	
English Learning Achievement	-0.435**	0.407**	1

5.3. Predictive Effects of FLCA, FLLM on ELA

Regression analysis was done using FLCA and FLLM as independent factors, ELA as the dependent variable, and age and gender as control variables in order to get a better look at the associations between FLCA, FLLM, and ELA in more detail. The outcomes are displayed in Table 3 below:

Table 3. Regression Analysis.

	Standardized Coefficients	t	p
	Beta		
(Constant)		16.058	0.000
Age	0.028	0.472	0.637
Gender	-0.063	-1.080	0.281
Foreign Language Classroom Anxiety	-0.300	-4.412	0.000
Foreign Language Learning Motivation	0.262	3.849	0.000
F	17.666		
P	0.000		
R^2	0.241		
ΔR^2	0.228		

The results in Table 3 demonstrate that, after controlling for age and gender, FLCA significantly negatively predicts ELA. Higher levels of FLCA correspond to poorer ELA ($\beta = -3.132$, $t = -4.412$, $p < 0.001$). Additionally, FLLM significantly positively predicts ELA. Higher levels of FLLM correspond to better ELA ($\beta = 2.538$, $t = 3.849$, $p < 0.001$).

6. Discussion

6.1. Participants' profiles of FLCA, FLLM, and ELA

The results depict a diverse landscape among participants in terms of FLCA, FLLM, and ELA. Notably, learners showcased a moderate level of FLCA, indicating a certain degree of anxiety within

the foreign language classroom. This finding aligns with previous studies highlighting the prevalence of anxiety among language learners [11]. Higher levels of anxiety appear to be associated with lower achievement in learning English, as indicated by the negative association between FLCA and ELA, which echoes the detrimental effects of anxiety on language proficiency. On the other hand, participants showed comparatively high FLLM, demonstrating a strong desire to learn a foreign language. Better results in learning English are correlated with higher desire, as seen by the positive association found between FLLM and ELA. This is consistent with the findings of the self-determination theory [12], which showed that participants' motivation was driven by both identified regulation and intrinsic motives like as gaining new skills and having a satisfying job.

6.2. Predictive Effects of FLCA and FLLM on ELA

Regression analyses revealed the significant roles of FLCA and FLLM on ELA. Higher FLCA significantly predicted lower ELA, indicating that anxiety in the language learning context hindered participants' language proficiency. On the other hand, higher FLLM was associated with greater ELA, indicating that higher motivation was linked to better English learning results. The results of the study highlight the important role that psychological variables—more especially, FLCA and FLLM—play in ELA. Improving pupils' language learning outcomes may require addressing FLCA while fostering and maintaining FLLM. These findings highlight how crucial it is to provide a low-stress, encouraging atmosphere while encouraging intrinsic motivation in order to maximize language learning experiences and accomplishments for college students.

7. Conclusion

The current study analyzed the relationships between FLCA, FLLM, and ELA. It additionally evaluated the ways in which the FLCA and FLLM predicted the ELA of students at a Wuhan university. The main conclusions were: 1) Chinese university students have a medium degree of FLCA and comparatively high FLLM; 2) There was a substantial negative correlation between the FLCA and FLA of Chinese university students, but a positive correlation between FLLM and FLA; 3) FLCA strongly predicts ELA negatively whereas FLLM considerably predicts ELA favorably in Chinese university students.

The study fills a research gap concerning the relationship between FLCA, FLLM, and ELA among Chinese university students. For language learners, this research holds substantial significance. Understanding the connection between FLCA, FLLM, and ELA helps students become more aware of their own goals, fears, and possible roadblocks to language learning. Equipped with this understanding, instructors can modify their methods, classroom layouts, and intervention strategies to establish a more encouraging and favorable environment for language acquisition. There are certain limitations on the present research. Firstly, the study was confined to a singular university in Wuhan, China, thereby potentially constraining the broader applicability of the findings. Secondly, the study's cross-sectional nature, gathering data at one single time, may limit the ability to capture the dynamic changes in the sustained influence of FLCA and FLLM on ELA.

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