

# The Effect of Second Language Anxiety on English Learning Achievement of International Second Language Learners: A Quantitative Study Based on International Chinese Students in University Sains Malaysia

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## Abstract:

With the application of positive psychology to second language acquisition research, second language acquisition emotion has become a hot spot of second language research. Moreover, anxiety, as one of the important research contents of second language acquisition emotion, is worthy of scholars' in-depth discussion and research. This study explored the relationship between second language acquisition anxiety and English learning performance among international students. Accordingly, this study collected 194 questionnaires and analyzed the data through SPSS, targeting undergraduate students from the School of Languages and the School of Education of University Sains Malaysia. The findings showed that second language acquisition anxiety directly affected students' second language acquisition performance. The study found that students' second language acquisition anxiety negatively affects their second language acquisition achievement. Finally, reflections were made on this study to identify its shortcomings, such as that second language acquisition emotions do not occur singularly and change dynamically. This study enriches the knowledge and understanding of second language acquisition for International Chinese students, providing useful reference suggestions for effective learning strategies.

**Keywords:** Second language acquisition; international Chinese student's second language acquisition anxiety; English learning achievement.

## 1. Introduction

In the field of second language acquisition, studies on cognitive factors have been widely developed, and learners' internal mechanisms and metacognition have been deeply explored by scholars, among which studies are exploring the degree of influence of learners' language transfer. Researchers have recently focused on studying affective factors because cognition and emotion are two essential elements of foreign language teaching. The emotional state affects a learner's learning state, and one of the common emotions during foreign language learning is anxiety [1]. Many scholars have conducted in-depth studies on the emotion of anxiety in second language acquisition, with the majority of studies on middle and high school students, and this aspect of the research helps teachers improve their teaching strategies under China's education

policy. With the development of the times, more and more Chinese students go abroad to study, and according to the existing studies, it can be seen that these students also have such emotions as second language acquisition anxiety. The current studies on second language acquisition anxiety are relatively mature, but there are fewer studies on international Chinese students. Therefore, this study helps to deepen the understanding of its impact on learning. For learners, this study helps them to better recognize their learning process and intervene themselves in time. Here, the author can explore the role of second language acquisition anxiety on international students' second language acquisition anxiety.

## 2. Literature Review

With the increasing frequency of world cultural exchange-

es, research on second language acquisition has also made great progress. As foreign language learners gradually become the main body of teaching activities, researchers have shifted more attention to learners and conducted in-depth studies on the influence of affective factors on individual learners' second language acquisition. To understand the effect of anxiety and other related factors on second language learning performance, such as gender differences, motivation, and regional constraints, studying the correlation of these factors and their effects on second language performance will help teachers to develop teaching strategies to improve learners' second language acquisition. According to existing research, anxiety is a negative psychological state that causes a person to feel nervous, worried, uneasy, helpless, and annoyed [2]. Anxiety arising from language learning mainly refers to the fear or uneasiness that learners feel when they use a foreign or second language to express themselves [3]. Learners are emotionally affected by the input and output of knowledge during the learning process. One of the most striking results in the research on second language acquisition anxiety was proposed by Horwitz & Cope in 1986, who argued that second language anxiety is different from ordinary anxiety. Owing to the particulars of learning a foreign language, students form an intricate web of attitudes, feelings, and actions that they associate with their foreign language education in the classroom [4]. Many subsequent researchers have built on this result to conduct deeper and broader explorations. According to the individual differences of learners, learners of different ages have different receptive abilities. Overall, adolescent and early adolescent learners accept a second language (L2) at a much higher rate and learn much more effectively than adult L2 learners [5]. Researchers generally avoid studying groups with too many individual differences, ignoring factors such as learners' personality, learning strategies, etc., and mostly segment learners, for example, targeting learners in high school or college. Based on a questionnaire survey and interviews with students in a high school, Minmin Ou found that learners generally have English classroom anxiety. Still, there is no significant gender difference in second language acquisition anxiety [6]. Shi and Xu reviewed and analyzed the studies on second language acquisition anxiety in SSCI journals and 12 domestic CSSCI journals and found that most of the studies used quantitative research, i.e., questionnaire surveys and that the research methodology, perspectives, and objects were relatively fixed and needed more expansion [7]. According to the research of Liu and Li, it can be found

that setting up communicative tasks in the native language environment will cause embarrassment and anxiety and thus hinder the development of learners' speaking ability [8]. In the process of learning, students' anxiety expands, resulting in too high an emotional filter and too much influence by emotions to improve learning efficiency [9].

In the 1970s, Krashen proposed a theory of second language acquisition. The theory consists of five hypotheses: the acquisition-learning hypothesis, the monitoring hypothesis, the input hypothesis, the natural sequence hypothesis, and the affective filtering hypothesis [10]. Emotion is a „filter“ in the learning process, which can filter students' knowledge, and language input must be internalized through emotional filtering before language acquisition can be completed. When the degree of affective filtering is high, learners will receive more external obstacle information, and the successful filtering of language knowledge will be less. In other words, low affective filtering helps language learning. Research has shown that low self-confidence and anxiety are positively related to academic performance. Negative emotions, such as anxiety and boredom, constrict the „filter,“ reduce willingness to learn and impede the input of language knowledge, thus becoming a major obstacle to language learning. Anxious students worry about what others think of them, are more concerned about making mistakes, and are less confident in their language ability, which significantly negatively impacts the prediction of their foreign language performance [11]. The second language of the learners in this study is English, and the learners' academic performance is based on the IELTS scores as a reference because the IELTS test contains four second language skills: listening, speaking, reading, and writing, which can give good feedback on the level of learners' academic performance. In this study, the quantitative research method will be used to measure the relationship between second language learning anxiety and second language learning achievement among international Chinese students in Universiti Sains Malaysia through a questionnaire survey, which is a quantitative research method.

### 3. Methodology

The questionnaire method collects data by distributing questionnaires or scales. In empirical research, the questionnaire collects quantitative data to understand the situation. In this study, the authors distributed 206 questionnaires to the subjects through Questionnaire Star to count and analyze the level of English anxiety of international students at this university.

### 3.1 Participants

This study will distribute 206 questionnaires to international Chinese students in the first to fourth year of university in the School of Languages and School of Educational Studies at the University Sains Malaysia (USM). These students are in a second language teaching and learning environment, learning a second language, which is English, and they can also use English purposefully to communicate in their daily lives. Studying their second language emotions can help teachers and learners improve their positive emotions. To ensure an even distribution of data, this study collected data from 100 male and 106 female students, with percentages of 48.54% and 51.46%, respectively (see Table 1).

**Table 1. Gender information of the participants**

option	subtotal	proportions
male	100	48.54%
female	106	51.46%

### 3.2 Questionnaire Design

The study used the Foreign Language Classroom Anxiety Scale (FLCAS) created by Horwitz et al. in 1986, which consists of 33 items to assess several aspects of learners' foreign language anxiety, namely, three items on test anxiety, 11 items on communicative anxiety, eight items on second language classroom anxiety, and 11 items on fear of negative evaluations, and the scale has a high degree of reliability and validity [4]. The scale has a Cronbach's coefficient Alpha equal to 0.924, and it has been used in various countries and language environments and is a reliable tool for measuring foreign language classroom anxiety

**Table 2. Description of data on total anxiety score and total IELTS score**

	N	minimum value	maximum value	average value	standard deviation	variance
anxiety total score	194	33	154	108.06	30.286	917.225
IELTS score	194	5	8.5	6.4041	1.11097	1.234

According to the descriptive statistics analysis, as shown in Table 2, it can be concluded that the minimum value of anxiety scores of Chinese international students is 33, the maximum value is 154, the total score is  $(108.06 \pm 30.286)$ , and the minimum value of IELTS achievement scores is 5.5. The maximum value is 8.5, and the total score of IELTS achievement is  $(6.4041 \pm 1.11097)$ .

[12]. This study also combined the use of the version of the Foreign Language Classroom Anxiety Inventory translated by Caikang Wang in 2003 to make the content of the questionnaire clear to the subjects [13]. The questions in this study ranged from „totally disagree“ to „totally agree,“ corresponding to values from 1 to 5, with higher scores indicating higher levels of anxiety, and it should be noted that questions 4, 7, 10, 13, 16, 20, 24, 30, and 34 were reverse. Reverse questions. Snowball sampling was used in this study to collect more and different data by having more and more subjects fill out the questionnaire to make the study more reliable. The questionnaire in this study also asked the learners about their latest IELTS score, with eight options ranging from 5 in 0.5 to 8.5 increments.

### 3.3 Research Process

This study consists of two phases of data collection and analysis and summary research; the formal survey began on February 28, 2024, through the student union group to the College of Languages and College of Education University students in the first to the fourth year of the questionnaire. After ten days of collection, from February 28, 2024, to March 8, 2024, a total of 250 questionnaires were distributed, and 206 questionnaires were collected, excluding the filling out of the time length of less than 60 seconds, 12 invalid questionnaires with the same options consecutively, leaving 194 valid questionnaires with a validity rate of 94.17%, which is a more than sufficient number of surveys to provide valid information for this study.

## 4. Results

### 4.1 Descriptive Analysis

### 4.2 Correlation

**Table 3. Correlation between total anxiety score and total IELTS score**

	anxiety total score	average value
anxiety total score	1	
IELTS score	-0.600**	1

Note: \*\*Significant correlation at 0.01 level (two-tailed)  
 In this study, Pearson correlation analysis was used to explore the relationship between Chinese international students' L2 acquisition anxiety and IELTS scores, and the results are detailed in Table 3. From Table 3, it can be seen that there is a certain negative correlation between

the independent variable (total anxiety score) and the dependent variable (IELTS scores), i.e., the learners with a high value of anxiety have relatively low IELTS scores, and those with a low value of anxiety have relatively high IELTS scores.

**Table 4. Regression of anxiety total score and IELTS total score**

	Non-standardized coefficient		Standardized coefficient	t	p
	B	standard error	Beta		
a constant (math.)	8.783	0.238	-	36.872	0.000
Anxiety Total Score	-0.022	0.002	-0.600	-10.371	0.000
R <sup>2</sup>	0.360				
Adjustment R <sup>2</sup>	0.357				
F	0.821				
Dependent variable: IELTS score					

According to the above regression analysis results, it can get p=0.000, which is significantly smaller than 0.05, indicating that the linear regression analysis is statistically significant; international students' second language acquisition anxiety and IELTS scores are closely correlated linearly, which leads to the regression equation below.

(1)

It indicates that the higher the degree of anxiety of the learner, the lower the IELTS scores. The higher the anxiety level of the learner, the lower the IELTS score.

### 5. Discussion

According to the results of the research data show that these international students are more concentrated anxiety in learners who score around six on the IELTS test again after entering a full English learning environment. According to the Council of Europe 2018 Common European Framework, learners at this stage belong to the C2 stage [14]. This may be because these learners are in a second language environment, the learners' classroom and the teaching tasks assigned by the teacher are in English, and anxiety, as one of the most common emotions, will be present throughout the learning process. According to the affective filtering theory, it is known that too high level of anxiety affects the affective filtering and prevents learners from inputting knowledge. Learners in the process of completing teaching tasks or facing negative feedback from the teacher may experience embarrassment, and a high level of anxiety affects affective filtering and prevents learners from inputting knowledge. They may also cause

embarrassment when completing teaching tasks or in the face of negative feedback from the teacher, interfering with learners' foreign language confidence and perception of the communicative environment. For Chinese students, who are better at listening and reading than speaking, it is difficult to create a sense of identity in a different cultural context, and they may not take the initiative to communicate with native speakers, which reduces their willingness to learn, which is why these learners have lower IELTS scores. On the other hand, low-anxiety learners can face peers with relative ease and are more outgoing than high-anxiety learners, take the initiative to socialize, and are more active in classroom activities. Therefore, their speaking and general skills will improve rapidly, and their results will be slightly higher when they take the IELTS test again. In addition, teachers should realize that students are conscious subjects, that the teaching process is not a single transmission, and that it is necessary for the teacher to create an atmosphere that promotes interaction between students and teachers. What needs to be noted in the teacher's feedback is that in Chinese students' cultural background, the teacher's image is authoritative, which will invariably cause students pressure in the oral communication tasks appropriately ignoring the grammatical details, emphasizing the logic and coherence, and accurately giving students grammatical feedback in the writing tasks. Learners with high self-efficacy can take the initiative to complete more challenging tasks, are willing to put in more effort, show greater perseverance in the face of difficulties, consciously reduce their anxiety levels, and

positively adjust their learning strategies to improve their academic performance [15]. Teachers can then use more positive psychological cues or set up group activities to promote student interaction and improve learners' self-efficacy.

### 6. Conclusion

Based on the data, this study elucidates the relationship between language acquisition anxiety and IELTS scores of Chinese international students, showing that anxiety hurts learners' learning outcomes, further corroborating the results of previous studies. Constructive suggestions were made to address the study's findings, such as teachers giving more positive feedback during the teaching process and learners being allowed to engage in group activities when setting teaching tasks to promote mutual feedback between teachers and students. However, this study has its shortcomings, as the sample size is limited to Chinese students in the Faculty of Languages and the Faculty of Education of Universiti Sains Malaysia, which only represents some second language learners. Moreover, the study ignored the fact of emotions being dynamic. The emotion variable was not controlled, and learners who experienced anxiety may also have other emotions at the same time.

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