

The Relationship between Foreign Language Classroom Anxiety and English Performance: The Mediating Effect of General Self-efficacy

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Abstract

The present study examined the relationship between English performance, foreign language classroom anxiety and general self-efficacy level of 202 college students. The results indicated: (1) There is no significant difference between general self-efficacy and foreign language classroom anxiety due to gender differences. (2) Foreign language classroom anxiety is negatively correlated with students' general self-efficacy, while general self-efficacy is positively correlated with English performance. (3) General self-efficacy plays a part of the intermediary role between foreign language classroom anxiety and English performance.

Keywords

Foreign language classroom anxiety; general self-efficacy; English performance.

1. Introduction

In recent years, with the deepening of foreign language teaching reform, the learner-centered teaching concept has occupied a dominant position in the field of foreign language teaching, and the research on the influence of learners' learning effect has been paid more and more attention. Researchers believe that affective factors have a serious impact on the process and effect of second language learning [1]. According to Horwitz et al. [2], foreign language learning anxiety arising in the process of foreign language learning, was associated with foreign language learning in class. It is a synthesis related to self-perception, belief, emotion and behavior. Foreign language learning anxiety is a special kind of anxiety. If an individual fails to achieve the stated goal, it may lead to the frustration of self-confidence and the increase of sense of failure, resulting in the formation of anxiety and fear. When western scholars study foreign language learning anxiety, they find that foreign language learning anxiety often occurs in foreign language learning. In addition, the level of foreign language learning anxiety affects not only the process of foreign language learning, the performance of foreign language learning [3]. However, the extent to which anxiety affects the performance of foreign language learning still needs to be tested by large-scale empirical research. More importantly, language learning is a complex system in which various factors are intertwined and interact with each other, and the change of one factor will cause changes in the whole system [4]. This means that the influence of learning anxiety on foreign language learning cannot be linear and isolated. It is necessary to study the relationship between other factors and learning anxiety.

Self-efficacy is the core concept of Bandura's social cognitive theory. Bandura believed that self-efficacy referred to the degree of self-confidence that people could use their skills to complete a job [2]. Self-efficacy is an individual's self-assessment, which will directly affect the individual's behavioral motivation. Self-efficacy may determine the individual's choice of behavioral tasks and affect the individual's thinking, perception, action, and the mode of thinking and emotional response in the process of performing the task, thus promoting the

individual's behavior and achievement. Self-efficacy can affect academic achievement motivation, learning and performance [5], and also trigger negative emotions such as depression and anxiety [6].

Oxford and Ehrman argued that the perseverance and determination to face up to learning difficulties and challenges were important qualities that an excellent language learner should possess [7]. Learners with a high sense of self-efficacy believe in their own abilities, do not shrink back when faced with difficulties. On the contrary, learners with low sense of self-efficacy tend to be less confident, often doubt their own abilities, and eventually develop into emotional barriers, which have a bad effect of foreign language learning. The research results of Wang, Xin and Li [8] showed that self-efficacy was the intermediary between goal orientation and English learning achievement, and was positively correlated with English performance. The above studies basically believe that foreign language learning anxiety affects foreign language performance through the mediation of self-efficacy. Bandura believed that emotional arousal responses such as anxiety affected self-efficacy, and self-efficacy affects learning performance [9]. This relationship implies a mediating effect of self-efficacy. However, this research is only carried out from the theoretical level, and there is not much empirical research on the relationship among self-efficacy and foreign language learning anxiety and foreign language performance.

This study attempts to investigate the relationship among general self-efficacy, foreign language classroom anxiety and English performance of 202 non-English major college students. This paper explores from three aspects: the relationship between foreign language classroom anxiety and general self-efficacy; the relationship between general self-efficacy and English performance; whether general self-efficacy can directly predict English performance, partially or completely mediate the influence of foreign language classroom anxiety on English performance. To explore the relationship among general self-efficacy and foreign language classroom anxiety and English performance can explain the complex relationship among psychology, cognition and language learning, so as to further understand the complex structure of language learning system, and provide some references for improving the level of foreign language learning of college students and the efficiency of foreign language teaching in college.

2. Research Methods

2.1. Subjects

In this study, a stratified random sampling method was used to obtain 209 survey subjects from non-English major undergraduates from a science and technology university in Jiangsu Province, China. After rejecting the questionnaires with incomplete answers or obvious response set, 202 valid questionnaires were finally recovered, with a recovery rate of 96.65%. Among them, there are 111 boys and 91 girls. The subjects mainly come from the School of Mechanics and Civil Engineering and School of Economics and Management.

2.2. Research Tools

2.2.1. Foreign Language Classroom Anxiety Scale (FLCAS)

Foreign language classroom anxiety scale was translated and adapted from Horwitz [2]. The scale consists of four subscales: fear of communication with teachers, anxiety of negative evaluation, discomfort in communication with native English speakers and negative attitude towards English class. There are 14 items in total. A Likert scale of 5 points was used for each item, ranging from "strongly disagree" (1 point) to "strongly agree" (5 points). A higher score indicates more anxiety.

The results show that the KMO value is 0.857 (>0.8), and the significance of Bartlett's test is close to 0 (<0.05), indicating that the structure of the scale is good. The factor load of the four

factors are all above 0.684, higher than the acceptable value of 0.40, explaining a total of 68.35% of the variance. It is a good explanation of the variance of the entire scale. Therefore, the English classroom anxiety scale has good structural validity. The coefficient of internal consistency of the four subscales in this study is 0.803, 0.822, 0.826 and 0.774 respectively, which are all within the acceptable range. The Cronbach's alpha coefficient of the total scale is 0.734 greater than 0.7, indicating that the scale has a higher reliability.

2.2.2. General Self-efficacy Scale (GSES)

The general self-efficacy scale developed by Schwarzer was used in this study. The Chinese version was first used by Jianxin Zhang and Schwarzer in 1995 among first-year university students in Hong Kong. The scale consists of 10 items. A Likert scale of 4 points was used for each item, ranging from "completely incorrect" (1 point) to "completely correct" (4 points). The higher the score, the stronger the sense of self-efficacy. The internal consistency coefficient was 0.794.

2.2.3. English Performance

The research subjects' latest College English Test Band 4 (CET4) scores were adopted.

3. Research Results

3.1. The Influence of Gender on General Self-efficacy and Foreign Language Classroom Anxiety

In the T-test, the absolute value of t value is not greater than 1.96, and the p value is not less than 0.05, indicating that self-efficacy and foreign language learning anxiety were not significantly different due to gender differences, as shown in Table 1.

Table 1. Comparison of male and female general self-efficacy and foreign language classroom anxiety ($\bar{x} \pm s$)

Item	Male (n=111)	Female (n=91)	t	p
General self-efficacy	2.41±.39	2.48±.39	-1.216	.225
Foreign language classroom anxiety	3.09±.61	3.04±.52	.709	.479

3.2. The Correlation among English Performance and Foreign Language Classroom Anxiety and General Self-efficacy

Table 2. The correlation analysis of English performance, foreign language classroom anxiety and general self-efficacy

Item	A	B	C	D	Self-efficacy	CET4
A	1					
B	.549**	1				
C	.273**	.485**	1			
D	.354**	.464**	.369**	1		
Self-efficacy	-.466**	-.618**	-.504**	-.422**	1	
CET4	-.431**	-.710**	-.735**	-.531**	.692**	1

Note: **. When the confidence (double test) is 0.01, the correlation is significant.

A represents "fear of communication with teachers".

B represents "anxiety of negative evaluation".

C represents "discomfort in communication with native English speakers".

D represents "negative attitude towards English class".

The results in Table 2 show that foreign language classroom anxiety is significantly negatively correlated with general self-efficacy, and the four factors of foreign language classroom anxiety are significantly negatively correlated with general self-efficacy. There is a significant negative correlation between English performance and foreign language classroom anxiety, which indicates that college students with high foreign language classroom anxiety have poor English performance, and vice versa. There is a significant positive correlation between general self-efficacy and English performance.

3.3. Analysis of Mediating Effect of General Self-efficacy

Mediator is the bridge between independent variable and dependent variable, and it is the substantial internal reason of influence effect. It also explains how independent variable affects dependent variable

As can be seen from Table 3, p values of the three models are all less than 0.001, all of which are significant. In model 1, the independent variable is foreign language classroom anxiety, the dependent variable is English score, and the unstandardized coefficient B is -1.031. In other words, foreign language classroom anxiety has a significant impact on English performance, and English performance decreases by 1.031 units for every unit increase in foreign language classroom anxiety. In model 2, the independent variable is foreign language classroom anxiety, the dependent variable is general self-efficacy, and the unstandardized coefficient B is -0.462. That is to say, foreign language classroom anxiety has a significant impact on general self-efficacy, and the general self-efficacy decreases by 0.462 units for every unit increase in foreign language classroom anxiety. Considering the influence of general self-efficacy on English performance, model 3 shows that foreign language classroom anxiety and general self-efficacy have significant effects on English performance, while the impact of foreign language classroom anxiety on English performance is reduced, indicating that general self-efficacy plays a partial mediating role in the influence of foreign language classroom anxiety on English performance.

Table 3. Results of parameter estimation of mediating effect of general self-efficacy

	Model 1 (CET4)			Model 2 (self-efficacy)			Model 3 (CET4)		
	B	SE	t	B	SE	t	B	SE	t
Anxiety	-1.031	0.059	-17.597***	-0.462	0.037	-12.662***	-0.758	0.073	-10.340***
Self-efficacy							0.591	0.106	5.583***
R^2	0.608			0.445			0.661		
F	309.607***			160.326***			193.775***		

Note: *p<0.05, **p<0.01, ***p<0.001

4. Discussion

4.1. The Influence of Gender on General Self-efficacy and Foreign Language Classroom Anxiety

The results of this study show that gender difference has no significant effect on general self-efficacy. This result is different from that of Liang [10]. According to Liang, the patriarchal culture was deeply ingrained and it was advocated by traditional educational concepts to protect and take care of women. As a result, women tend to feel more frustrated and less confident when faced with difficulties. It is previously believed that the socialization of gender roles and traditional cultural concepts may make the general self-efficacy of male students significantly higher than that of female students. However, from the results of this study, traditional cultural concepts have no effect on the expression of gender differences in general

self-efficacy. This result is consistent with the research findings of Chen and Hou [6]. They argue that with the change of social life and family environment in contemporary society, the number of one-child families is increasing, and the education and care given by parents to boys or girls are the same, which may make male and female college students no longer show obvious gender differences in general self-efficacy.

At the same time, the results of this study find that there is no significant difference between male and female college students in foreign language classroom anxiety. This result is consistent with the research results of Zhang and Yuan[11]. Shi and Liu [12] pointed out that boys had higher reading anxiety than girls. Previous studies have found that girls are more anxious than boys because of their personality traits. Differences between this study and other studies may be caused by: (1) Sample size are different. (2) The foreign language levels of the subjects are different. (3) In contemporary China society, equality between men and women is advocated. Challenges and setbacks encountered by men and women in the course of studying will not be differentiated. There are no significant differences between male and female students in the aspects of fear of communicating with teachers, anxiety of negative evaluation, discomfort in communication with native English speakers and negative attitude towards English class. In particular, in terms of communicating with teachers and native English speakers, it may be related to the widespread difficulties of Chinese students in oral English communication, but gender differences are not reflected.

4.2. The Correlation among English performance and Foreign Language Classroom Anxiety and General Self-efficacy

According to the results of this study, the four factors of foreign language classroom anxiety are negatively correlated with general self-efficacy, which indicates that the higher the level of foreign language classroom anxiety, the lower the level of general self-efficacy. This is consistent with previous research findings [10]. In the process of learning a foreign language, students with high anxiety tend to have negative emotions such as worry and fear, thus doubting themselves and believing that all their efforts are futile. Students with low anxiety tend to have more positive emotions and like challenging tasks, so their sense of self-efficacy is generally higher. Such students believe in their own abilities and will actively try to solve difficulties.

This study shows that there is a significant negative correlation between college students' in foreign language classroom anxiety and their English performance, that is, the more anxious the students are, the lower their English performance tend to be, which is consistent with relevant foreign findings [13,14]. Students with high level of foreign language classroom anxiety have negative emotions in the learning process, which are reflected in the avoidance of classes, not taking the initiative to speak, not actively participating in class activities, etc., which ultimately leads to the decrease of English performance.

There is a significant positive correlation between the general self-efficacy and the English performance of college students, that is, the stronger the general self-efficacy is, the higher the scores will be. This is consistent with Bandura's theoretical extrapolation of self-efficacy. Bandura emphasized the motivational role of self-efficacy and believed that people's self-efficacy beliefs determined their level of motivation, which was reflected in how much efforts individuals made and how long they persevered in the face of difficulties [15]. Generally, students with a high sense of self-efficacy have a strong sense of competence and think they are capable of learning foreign language well. When they encounter difficulties in learning language, such students persist and actively seek solutions until they reach their goals. Students with low self-efficacy doubted their ability to learn foreign language well. When such students are faced with difficulties in English learning, they are not only unable to concentrate on solving difficulties, but more likely to doubt their own ability, be slack in work and give up at last. In

the long run, students with different sense of self-efficacy will have different ability to solve tasks, thus forming different learning styles and leading to different performance.

4.3. Analysis of Mediating Effect of General Self-efficacy

According to the theory of social cognition, self-efficacy is the center of behavioral motivation, which often influences people's thinking mode and individual learning behavior and emotion. In linguistics, self-efficacy is the perception of an individual's ability to achieve foreign language learning goals, which will make learners produce emotional responses in the process of language learning. Therefore, general self-efficacy can inhibit or regulate the relationship between foreign language classroom anxiety and performance. This study shows that there is a certain correlation between the general self-efficacy of learners and the foreign language classroom anxiety and English achievement. Learners' foreign language classroom anxiety has a direct impact on learners' learning behavior, and general self-efficacy can bridge the gap between them, playing an intermediary role. However, foreign language classroom anxiety is still significantly negatively correlated with performance, and the absolute value of the correlation coefficient decreases. Therefore, in this study, general self-efficacy plays a part of the mediating role.

Due to the current social development and academic needs, college students are investing more and more time in foreign language learning, and the external learning environment has an impact on foreign language classroom anxiety. At the same time, the causes of foreign language classroom anxiety are numerous and complicated, and the improvement of general self-efficacy cannot completely eliminate foreign language classroom anxiety. Therefore, in the process of foreign language learning, it is not enough to find the anxiety that hinder the improvement of foreign language learning behavior from the external learning environment. Effective teaching measures should also be taken to reduce the internal anxiety of individual learners and cultivate their sense of self-efficacy, so as to promote the improvement of their foreign language learning behavior.

5. Conclusion

The results of this study show that:

- (1) There is no significant difference between general self-efficacy and foreign language classroom anxiety due to gender differences.
- (2) Foreign language classroom anxiety is negatively correlated with students' general self-efficacy, while general self-efficacy is positively correlated with English performance.
- (3) General self-efficacy plays a part of the intermediary role between foreign language classroom anxiety and English performance.

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