Journal of Education and Educational Research
ISSN: 2957-9465 | Vol. 5, No. 1, 2023

An Investigation of the Connections between Junior High School Students' Self-Efficacy, Motivation, and Anxiety in Learning English

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Abstract: This paper examines the relationship among junior high school students' self-efficacy, learning motivation, and learning anxiety using a quantitative analytic research methodology. The results of the study indicate an immediate relationship between junior middle school pupils in China's self-efficacy, learning motivation, and anxiety about learning English; self-efficacy also acts as a moderator for the impact of English learning anxiety on learning motivation. This study is conducive to understanding the impact of learning anxiety on learning motivation and the mechanism of action in the English subject, and it has an illuminating impact on foreign language education and instruction.

Keywords: Foreign Language; English Learning Anxiety; Self-efficacy; Mediation; Motivation to Learn.

1. Introduction

English classes are frequently provided in schools to encourage the growth of students' second language acquisition because of the importance and necessity of learning English as a crucial instrument for worldwide communication that is growing daily in the setting of today's globalization. study anxiety is an unavoidable reality for junior high school pupils as they are at the golden and rapid development stage of their English studies. English learning anxiety, as a kind of negative psychological quality produced in the process of English learning, has increasingly aroused extensive interest among scholars in recent years. The most widely accepted definition of foreign language learning anxiety is proposed by Horwitz and Cope, "Foreign language learning anxiety is a unique combination of self-perceptions, beliefs, emotions, and behaviors associated with the procedure of foreign language learning and classroom foreign language learning"[1]. In the study of educational psychology, it has been discovered that students' drive to learn, use of the language in real-life scenarios, and inner drive for ongoing foreign language acquisition are all subject to their anxiety about learning a foreign language. According to certain studies, the motivation to learn English is highly correlated with learning anxiety [2].

With the rise of Positive Psychology (PosPsy), self-efficacy is gradually gaining attention in the field of English subject learning. Self-efficacy is a trust that somebody can effectively carry out an assignment. Existing studies have proved that self-efficacy can influence students' motivation. For instance, Li Peng and Cao Lihua showed the considerable impact that self-efficacy has on learning motivation, particularly intrinsic motivation, in their study [3], and some other researchers further pointed out that academic self-efficacy has a significant positive correlation with learning motivation [4]. Self-efficacy can therefore be used to evaluate pupils' motivation for studying. Combining the above analyses, it can be found that English learning anxiety is closely related to school motivation, and self-efficacy has a predictive effect on learning motivation. As a result, this study puts forth the hypothesis that self-efficacy may act as a moderator in the relationship between junior high school students' concerns about learning English and their motivation to learn. This study suggests a possible association between middle school English learning anxiety, self-efficacy, and learning motivation based on the pertinent theories (see Figure 1).

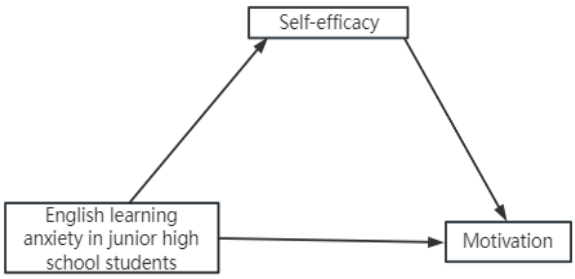


Fig 1. Hypothetical model of the link between students' self-efficacy, motivation, and anxiety about learning English

2. Methodology

2.1. Research Issues

Based on the aforementioned discussion, this study investigates the connection between high school juniors in China's self-efficacy, learning motivation, and English learning anxiety based on a subject discussed previously. It aims to tackle two questions: (1) How do junior high school students' self-efficacy, motivation to learn, and anxiousness about learning English interact with one another? (2) Is there a mediating effect of self-efficacy between middle school students' English learning anxiety and motivation?

2.2. Research Subjects

In a junior high school in Guangdong Province, two classes of each grade were stratified, and 300 students participated in the survey. Using an anonymous approach, 263 valid questionnaires were gathered. In this school, there are top and non-top classes, and the subject students are all from non-top classes in three distinct junior high school grades.

2.3. Instrument for Research

Data for this study is gathered through questionnaires. (1) The Foreign Language Educational Anxiety Scale's Chinese equivalent [5]. The scale was designed by Horwitz, E.K and his colleagues, and it has good reliability [6-8] The questionnaire mainly contains 33 items, and it is a five-point Likert scale, with the responses of "very much against" "against" and "neither against nor against". The responses were "strongly disagree", "disagree", "disagree", "agree" and "strongly agree", with scores of 1, 2, 3, 4, and 5 respectively. (2) The German clinical and health psychologist Ralf Schwarzer and his colleagues developed the General Self-Efficacy Scale (GSES), which has been extensively utilized domestically and as well as internationally. Zhang Jianxin and Schwarzer (1995) translated the GSES into Chinese, which was used in this study. (GSES)[9], a test with good reliability and validity that was administered and verified by numerous organizations using this Chinese translation. The responses to the 10-item survey are changed from "strongly disapproving" to "strongly concur" to determine a grade on a 5-point scale. (3) The "Studying Motivation Quiz for Middle School Students" was created using the "English Mastering Passion Questionnaire" for junior high school kids as well as the "Foreign Language Learning Motivation Survey" created by Wen Qiufang. These questionnaires were used in conjunction with information about junior high school students' actual educational and teaching environments. The Learning Motivation Questionnaire for Junior Strong School Students has a high degree of internal consistency and a Cronbach's alpha coefficient over 0.7; the scale also has acceptable reliability and validity [10]. The survey contains 34 queries and is assessed on a 5-point scale, ranging from "totally reject" to "utterly consent."

2.4. Procedures for Administering the Test

Each class takes turns taking the test, and all scales are distributed simultaneously online via the Questionnaire Star applet. Students read the instructions carefully, react evenly in accordance with the instructions, and then complete the scales before submitting them online under the guidance of the class teacher of each class.

2.5. Processing Data

Descriptive statistics, correlation studies, and regression studies of the data were conducted using SPSS 26.0.

3. Results

3.1. Junior High School Learners' Anxiety, Self-Efficacy, and Motivation for English Learning in General

The researcher employed descriptive statistical analysis to conduct the study in order to comprehend junior high school students' English learning anxiety, self-efficacy, and motivation. The analysis of descriptive statistics results showed (as shown in Table 1) that the peak value (Kurtosis) and skewness value (Skewness) of the three variables were between +1, the standard deviation was between 0.410 and 0.523, and the mean value was between 2.965 and 3.412, indicating that the data showed a trend of normal distribution and was appropriate for further statistical analyses.

Table 1. Results of descriptive statistical analyses of the motivation, self-esteem, and anxiety of middle school pupils when studying English

name (of something)	sample taken	minimum amount	maximum values	typical value	(statistics) standard deviation	skewness	kurtosis
English Learning Anxiety in Middle School Students	263	1	5	3.323	0.410	0.150	0.299
self-efficacy	263	1	5	2.965	0.442	0.150	0.299
motivation	263	1	5	3.412	0.523	0.150	0.299
Number of active cases	263						

3.2. Statistical Results of the Correlation Analysis of the Students' Self-Efficacy, Learning Motivation, and Anxiety About Studying English in Junior High School

The correlation coefficient between self-efficacy and junior high school kids' English studying anxiety was -0.039 (as shown in Table 2), which is important at the 0.01 level, indicating that there is a significant negative correlation between the two variables. The researcher used Pearson correlation analysis to examine the junior high students' motivation, self-efficacy, and English learning anxiety. Motivation and self-efficacy have a bad association. A considerable positive association between motivation and self-efficacy is shown by the Pearson's correlation ratio between the two, which is 0.094 and substantial at the 0.01 level. However, there is a substantial positive association between English learning anxiety and motivation in junior high school pupils, as indicated by the correlation coefficient value of 0.057, which is significant at the 0.01 level.

Table 2. Displays the statistics from the Pearson correlation analysis

	typical value	**(statistics) standard deviation**	**self-efficacy**
self-efficacy	**3.323**	**0.410**	**1**
English Learning Anxiety in Middle School Students	**2.965**	**0.442**	**-0.039*** **
motivation	**3.412**	**0.523**	**0.094*** **

*p<0.05; ** p<0.01; *** p<0.001

3.3. How Self-Efficacy Affects Students' Motivation and Anxiety in Learning English in Junior High School

Regression analyses were conducted with junior high school students' English learning anxiety as the independent variable and self-efficacy and motivation as the dependent variables, respectively, and the results showed (as shown in Table 3) that there was a significant positive effect of junior high school students English learning anxiety on motivation (β=0.057, p<0.001), and there was a significant positive effect of self-efficacy on motivation (β=0.097, p<0.001), which was

basically the same as that found by previous findings[2-4], there is a significant negative effect of English learning anxiety on self-efficacy (β=-0.039, p<0.001) among junior high school students.

After performing a correlation analysis on the data from the aforementioned study, it was shown that there is a substantial relationship between junior high school students' motivation, self-efficacy, and anxiety related to English learning. This relationship can be used to identify mediating influences. The bootstrap approach was used to conduct the mediating effect analysis in this work, and the lack of a value of 0 in the 95% confidence interval (interval confidence; CI) denotes the presence of a significant mediating impact [11].

The findings of the examination of the mediation effect are shown in Fig. 4. The 95% BootCI interval of the mediation effect of self-efficacy in the mediation path "junior high school learners' English acquiring anxiety self-efficacy motivation" is -0.024-0.005, and there is no 0 in the confidence interval, implying that the mediation effect is important and the direct influence is essential. Consequently, this mediation is partially mediated, which is similar to the findings of a recent study on the effects of academic self-efficacy on test anxiety Meanwhile, from the path analysis diagram (shown in Fig. 2), it can be seen that self-efficacy plays a partially mediating role in the influence of English learning anxiety on learning motivation in junior high school students, which verifies the hypothesis. At the same time, the direct effect is significant, so the mediator is a partial mediator, which is somewhat similar to the results of the recent study on academic self-efficacy on test anxiety in secondary school students [12].

Table 3. Results of the test of the mediating effect of self-efficacy on learning anxiety and motivation to learn English in junior high schools

variant	motivation			self-efficacy			motivation			
	B	SE	β	B	SE	β	B	SE	β	
Middle school students' anxiety about learning English	0.053	0.057	0.057	0.046	0.073	-0.039	0.176	0.057	0.061	***
self-efficacy							0.076	0.048	0.097	***
R^2	0.703			0.632			0.413			

*p<0.05; ** p<0.01; *** p<0.001

Table 4. Illustrate the examination of the mediation effects

Intermediary path	effect (scientific phenomenon)	Value for efficiency	95% of BootCI	Test Findings
English Learning Anxiety in Middle School Students→ Self-efficacy→ Learning Motivation	aggregate effect	0.053	-0.024 to -0.005	intermediary
	direct effect	0.045		
	intermediary effect	0.008		

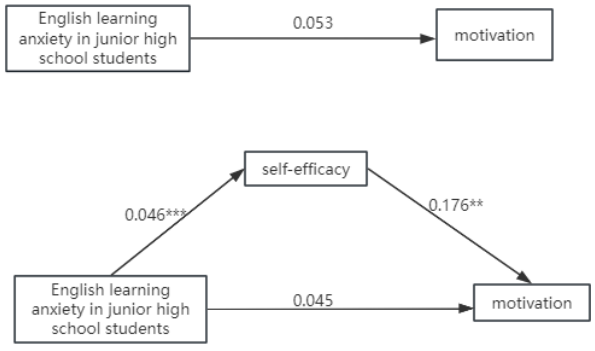


Fig 2. Path diagram of the self-efficacy-mediated relationship link between students' anxiety and motivation to learn English in secondary school

4. Discussion

4.1. The Association between Junior High School Learners' Self-Efficacy, Motivation, and Anxiety About Learning English

According to correlation analysis data, motivation, self-efficacy, and anxiety related to English learning are closely related to junior high school pupils. According to this study, there is a substantial inverse link between English learning anxiety and self-efficacy in junior high school pupils, and anxiety is a strong predictor of reduced feelings of self-worth and anxiety. According to the social cognitive theory put forth by the American psychologist Bandura, self-efficacy refers to a person's belief in their capacity to execute a specific conduct and is crucial in the interaction between their behavior and their environment. In the process of self-efficacy construction and transformation, the illogical cognitive judgments in it can be reduced, resulting in a higher sense of self-efficacy. People with low levels of anxiety are able to view changes in the surrounding environment more logically and objectively.

The statistical analysis of the data reveals a substantial and positive correlation between junior high school students' overall learning motivation and their level of English learning anxiety. In other words, junior high school pupils are more motivated to study English when they have higher levels of worry about it. The findings of this study are consistent with Atkinson and McClelland's theory of accomplishment motivation, which holds that learning anxiety is, in part, a function of achievement motivation. The ability to increase one's own learning efficiency and motivation allows junior high school pupils with high anxiety levels to improve their English learning motivation in a special way, leading to successful learning outcomes.

This study additionally found that self-efficacy was strongly and positively correlated with motivation, indicating that self-efficacy is an important variable in predicting students' motivation, a result that is consistent with previous research [4]. In junior high school, students as the main body of English mastering, the higher their self-efficacy, the higher their motivation to learn English, the higher their internal drive to learn and their motivation, and the easier it is for them to succeed in their English studies. Therefore, self-efficacy has a certain predictive effect on learning motivation, and when students are at a low motivation level, the improvement of students' self-efficacy level affects their motivation level to a certain extent, which is conducive to promoting them to reach the medium-optimal motivation level.

4.2. Self-efficacy has a Mediating Effect between Intermediate-Grade School Students' English Learning Nervousness and Motivation.

According to the results of the mediating role detection analysis in this study indicate that junior high school students' English learning anxiety can affect learning motivation to a certain extent, and self-efficacy has a partial mediating effect on the path of junior high school students' English learning anxiety on learning motivation. This demonstrates that junior high school students' English learning anxiety can not only have a direct effect on learning motivation, but also affect learning motivation with self-efficacy as a mediating variable, i.e., self-efficacy partially mediates the relationship between English learning anxiety in junior high school students and learning motivation. At the same time, this also validates and highlights the importance of self-efficacy in English learning, i.e., how self-efficacy beliefs affect students' expectations, self-judgments, and self-perseverance of their English learning ability [13].

5. Conclusion and Suggestion

This study addressed the interaction between English-learning anxiety, learning motivation, and self-efficacy in intermediate-grade school pupils as well as the mediating role of self-efficacy in this relationship. The study's findings revealed that (1) English learning anxiety, self-efficacy, and learning motivation are closely related and (2) self-efficacy has a partial mediating effect between junior high school students' English learning anxiety and learning motivation. The results are conducive to the academic understanding of the hyperlink between learning anxiety and motivation and its mechanism of action in English learning, which is instructive to the teaching of English education at the junior high school level. Since self-efficacy and junior high school pupils' English learning fear are closely related, and since self-efficacy has a partial mediating effect in the influence of junior high students' English learning anxiety on learning motivation, English teachers can decide to instruct students on how to appropriately deal with learning anxiety during the teaching and learning process as well as to regulate and improve students' self-efficacy through the intervention of learning anxiety, which will help students learn more effectively.

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