

# A Study on the Correlation of English Academic Emotions and English Study Engagement-Foreign Language Peace of Mind as the Mediator in Chinese Context

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## Abstract

A number of studies indicate a connection between Academic Emotions and Engagement. Besides, Foreign Language Peace of Mind is a new variable in English education in China, with limited literature studying their relationship. This article investigated the correlation between English Academic Emotions, English Study Engagement, and Foreign Language Peace of Mind among 267 non-English major students in a normal university. Results indicate that English Academic Emotions, Study Engagement, and Foreign Language Peace of Mind are at a medium level. Positive Academic Emotions significantly correlate with both English Study Engagement and Foreign Language Peace of Mind. While the English Negative Academic Emotions do not correlate with English Study Engagement, among which the Negative Activity-oriented Academic Emotions negatively and significantly correlate with Foreign Language Peace of Mind, and the Negative Result-oriented Academic Emotions do not correlate with Foreign Language Peace of Mind. The findings suggest that Foreign Language Peace of Mind plays a partial mediating role between Positive Academic Emotions in English Study Engagement. This study has important implications for enhancing students' Positive Academic Emotions and increasing their level of Engagement in English studies, and promoting students' peace of mind in foreign language learning.

## Keywords

English Academic Emotions, English Study Engagement,

## 1. Introduction

The increasing number of English language learners makes the English been taught as a second or official language in many countries around the world. English is a second language in China, students from different education stages are supposed to realize certain level of English learning. What's more, English is one of the compulsory subjects in China's universities, a lot of researches are necessary to be studied to help improve the quality of college English teaching.

At first, engagement has gradually become an increasing popular domain concerning in positive psychology, which aims to improve one's positive experiences in certain areas. Study engagement is a certain branch of engagement in education, [Astin \(1984\)](#) first defines study engagement as the amount of physical and psychological energy that students dedicate to the academic experience, and it has been regarded as an essential factor in measuring the quality of education ([Kahu et al., 2015](#)), which also plays the role of predictions for students' academic achievement and the development of a second language.

The concept of academic emotions was first formalized by [Pekrun et al. \(2002\)](#). Academic emotions focus on diversity, emphasizing that students' academic emotions are directly related to school learning, classroom instruction, and academic achievement. Foreign language peace of mind is a positive emotion drawn from the Chinese EFL learning context. It is a low-arousal positive (LAP) emotional state (e.g., calmness, peacefulness) and a state of internal harmony ([Zhou, Dewaele, Lochtman et al., 2021](#)).

Studies have shown that academic emotions and study engagement have a significant relationship ([Pekrun & Linnenbrink-Garcia, 2012](#)). Regarding English education, English study engagement is a major in students' foreign language learning ([Svalberg, 2009](#)). However, fewer studies about the correlation between English academic emotions and English study engagement exist. As a kind of positive emotion, foreign language peace of mind is a new variable studied in recent years, so it is necessary to study further whether it has a relationship with English academic emotions and whether it affects English study engagement.

Therefore, the purpose of this study is to solve the following three questions:

- 1) To investigate the present situation of English academic emotions, English study engagement, and foreign language peace of mind.
- 2) To study the correlation between the English academic emotions, English study engagement, and foreign language peace of mind.
- 3) To study whether foreign language peace of mind mediates the effect between English academic emotions and English study engagement, if it is, how it works between the English academic emotions and English study engagement.

In order to achieve the above purposes, this research will be further explained from the following aspects: the literature review, research design, methodology, results and discussion, and conclusion.

## 2. Literature Review

### 2.1. Academic Emotions

Pekrun et al. (2002) first provided a comprehensive definition of academic emotions, which pay attention to the diversity of students' emotions, they usually refer to students' emotions in the process of learning. Gradually, academic emotions have been expanded domestically based on previous research since the 21st century (Yu & Dong 2005; Xu & Gong 2009; Dong, 2012). Specifically, the academic emotions in both studies at home and aboard explore common classifications, namely the positive emotions (e.g., enjoyment, hope, and pride etc.) and the negative emotions (e.g., anxiety, anger, and shame etc.), they divided the academic emotions into different dimensions according to valence, activation, and object focus.

The Control-value Theory (Pekrun, 2006) holds that academic emotions are influenced by distinct factors, namely personal factors, task and environmental factors (cognitive quality, motivational quality, etc.), and assessment factors, which affect learners' learning outcomes (like study engagement).

### 2.2. Study Engagement

Study engagement has received much attention as one of the hot issues in education. Astin (1984) defined study engagement as the amount of physical and psychological energy students dedicate to the academic experience, Astin also put forward a theory called "Student Involvement Theory", this theory holds that involvement refers to the investment of physical and psychological energy in various objects, different students have different degrees of engagement in their study. Schaufeli et al. (2002) believed that engagement is a positive, fulfilling, and work-related psychological state that consists of three dimensions. They are vigor, dedication, and absorption. Fredricks et al. (2004) argued that engagement has considerable potential as a multidimensional construct combining three behavioral, cognitive, and affective components. The above mentioned definitions are the most typical and representative one recognized at home and aboard.

### 2.3. Foreign Language Peace of Mind

Foreign language peace of mind is a new variable studied in the year 2021, and it is a positive emotion drawn from the Chinese EFL learning context. It is a low-arousal positive (LAP) emotional state (e.g., calmness, peacefulness) and a state of internal harmony (Zhou, Dewaele, Lochtman et al., 2021), which refers to a state of mental calmness, comfort, and contentment in the process of learning and using a foreign language. It involves reducing anxiety, promoting self-confidence, and fostering a positive attitude towards language learning.

Generally speaking, it could be a factor that affects the academic emotions.

#### **2.4. The Correlation between the Academic Emotions, Study Engagement and Foreign Language Peace of Mind**

Theoretical and empirical research has shown a correlation between academic emotions and study engagement.

Extensive and theoretical research in educational psychology has found that emotions significantly shape student engagement (Linnenbrink-Garcia & Reinhard Pekrun, 2011). According to some scholars, positive emotions can enhance study engagement among students while negative emotions can limit students' engagement in studies (Pekrun, 2006; Putwain et al., 2013).

Empirical studies also show a correlation between academic emotions and study engagement. Kahu et al. (2015) highlight that those diverse emotions are differently linked to students' engagement. D'Errico et al. (2016) found that when e-learners experience positive emotions, students' engagement dimensions of affective relevance and participation significantly increase. Negative emotions make a difference when interactive activities with teachers happen. Andrew Donovan et al. (2020) found that students' engagement predicts incredible positive emotions. Positive emotions can facilitate study engagement.

Most studies conducted in the Chinese educational setting suggest that experiencing positive academic emotions can have a positive effect on students' study engagement, while negative academic emotions can have an adverse impact on their study engagement (Liu, 2020; Gao et al., 2015; Lin et al., 2020).

It could be found that students who have positive academic emotions will be more motivated and confident, which is beneficial for helping release students' learning pressure and anxiety. In addition, students with high study engagement will help improve students' sense of achievement and fulfillment. What's more, the foreign language peace of mind also impacts students' emotional state and helps students keep a calm state of mind and overcome the obstacles and difficulties. Therefore, the positive academic emotions, study engagement and foreign language peace of mind could bring benefits to improve students' English learning, it's necessary to discuss them together to help improve college English education.

### **3. Research Design**

The research questions, participates, procedure and instruction will be presented in this section.

#### **3.1. Research Questions**

Three questions will be answered in this study. They are listed as follows.

RQ1: What's the overall picture of students' English Academic Emotions, English Study Engagement, and Foreign Language Peace of Mind?

RQ2: Are there correlations among English Academic Emotions, English

Study Engagement, and Foreign Language Peace of Mind for students? If yes, how are they related?

RQ3: Does the Foreign Language Peace of Mind mediate the effect between English Academic Emotions and English Study Engagement? If yes, how does the Foreign Language Peace of Mind work?

### 3.2. Participants

The participants were 267 Chinese first-year and second-year non-English majors from a normal university, which can be used to gauge the level of English education. Random selection happens to make sure that the research statistics are supportive. Their ages are between 18 and 21. The female students ( $N = 191$ , 27%) are more than male students ( $N = 76$ , 73%), the ratio of female and male in this normal university is 2.6:1, the real investigating ration is 2.5:1, which are close to each other. The different ratio for female and male students reflects a typical gender difference in China's normal university. Therefore, the selection of the participants can be reliable, targeted, and representative in the Chinese context.

### 3.3. Procedure

The questionnaires were distributed online with the help of teachers and students. The participants were informed of the survey's purpose and assured anonymity. They completed the online questionnaires by scanning a code or filling in a link through Wenjuanxing. 10 students out of 267 were randomly selected for semi-structured interviews conducted through a combination of online and offline methods, including face-to-face, QQ, and WeChat video calls. With the help of the Statistical Package for Social Science (SPSS 27.0), 267 valid questionnaires were added to SPSS, and the data analysis was done in July 2022. The analysis of the interview was finished in the middle of August 2022, and the interview outline was designed based on the variables' definitions, dimensions, and quantitative results of the three questionnaires, which were conducted to promote the investigation results.

### 3.4. Instrument

In order to concentrate on the English field instead of a general one, the keyword "English" was added to each statement of the scales of Academic Emotions and Study Engagement without altering their original meaning. The draft questionnaires had undergone three times' revisions and were sent to two experts for suggestions. Then, the final versions of the questionnaires were developed and distributed to a sum of 68 students to participate in the pre-test to examine the reliability and validity of the questionnaires.

English academic emotions were measured using the revised Academic Emotions Questionnaire developed by Xu and Gong (2009) on the basis of Chinese students. This scale includes 50 items that measure four kinds of emotional ex-

periences on a Likert scale rated from 1 (never) to five (always). The Cronbach's alpha coefficients of the four dimensions are 0.944, 0.927, 0.954, and 0.911. The average values of the Kaiser-Meyer-Olkin test (KMO test) are higher than 0.879, which shows that this scale has very high internal consistency. This scale's validity and reliability are satisfied.

English study engagement was measured by utilizing the revised English study engagement devised by [Schaufeli et al. \(2002\)](#) and later translated and revised by [Fang, Shi, and Zhang \(2008\)](#). This questionnaire consists of three sub-dimensions: vigor, dedication, and absorption, with a sum of 17 items ranging from 1 (completely disagree) to 5 (completely agree). The degree of the numbers indicates excellent conformity. The larger the number, the more consistent it is with the content of the option.

This study used the Foreign Language Peace of Mind Questionnaire ([Zhou, Dewaele, Lochtman, et al., 2021](#)) to examine students' foreign language peace of mind in Chinese background. It includes 8 items scored on a 5-point Likert scale. They range from 1 (strongly disagree) to 5 (strongly agree). The higher the scores, the more foreign language peace of mind students will experience.

## 4. Results and Discussion

This section will demonstrate the mean values and standard deviations (SD) to illustrate the present situation among English academic emotions, Study engagement, and foreign language peace of mind. The correlation coefficient will be calculated to figure out the correlation among the three variables. What's more, the indirect effect will be shown to realize how the foreign language peace of mind works between English academic emotions and English study engagement.

### 4.1. Situation on English Academic Emotions, English Study Engagement and Foreign Language Peace of Mind

In accordance with [Oxford \(1990\)](#), a mean value above 3.5 signifies a high level. The mean value range between 2.5 and 3.4 is medium, while anything less than 2.4 is considered low. Shown in [Table 1](#), the Mean values of the three variables are 2.9778, 3.0130, and 3.1631, ranging from 2.5 to 3.4. At the same time, the mean values of EPAAE, EPRAE, ENAAE, and ENRAE are also between 2.5 and 3.4, indicating medium levels. The results show that the level of English negative Academic Emotions, English Study Engagement, and Foreign Language Peace of Mind are supposed to be improved.

The interview results indicate that students experience anxiety and shame while studying English, particularly during exams. Students' academic emotions may fluctuate based on their performance while learning English. According to students, their learning environment (like the library or a quiet space) can influence their comfort level while studying English, affecting their engagement in English learning. Additionally, the time of day may also impact their comfort level, different students study best in the morning, afternoon, or night differently.

**Table 1.** Situation on English academic emotions, English study engagement and foreign language peace of mind.

Components	Mean	SD
English Academic Emotions	2.9778	0.4297
English Positive Activity-oriented academic emotions	3.0043	0.7360
English Positive Result-oriented academic emotions	3.3333	0.7761
English Negative Activity-oriented academic emotions	2.5890	0.7707
English Negative Result-oriented academic emotions	2.9846	0.6969
English Study Engagement	3.0130	0.8618
Foreign Language Peace of mind	3.1631	0.8975

Moreover, students' English proficiency will also influence their peace of mind. During the interview, it was revealed that some high-achieving students experience more positive academic emotions and feel more at ease studying foreign languages. On the other hand, those who underachieve experience a greater amount of negative academic emotions.

It is important to note that students experience academic emotions in three ways when learning English, as revealed by the interviews: 1) positive emotions, 2) negative emotions, and 3) a mixture of positive and negative emotions. When students experience negative emotions (e.g., anxiety, irritability, etc.), they tend to adopt specific strategies to regulate their negative emotions so that they can achieve a calmer and more peaceful state within themselves. Once a certain period has passed, students can resume their English language studies. It is paramount to investigate how to enhance students' academic performance when both negative and positive emotions are present. Additionally, exploring ways to help students maintain a healthy balance between positive and negative emotions is essential.

#### 4.2. The Correlation among English Academic Emotions, English Study Engagement and Foreign Language Peace of Mind

Person Correlation Analysis is applied to analyze the correlations between each dimension of English academic emotions, English study engagement, and foreign language peace of mind. According to Schober et al. (2018), the correlation degree can be judged by the following standards, which involve the correlation coefficient from  $-1$  to  $+1$  and is commonly abbreviated as " $r$ " (see Table 2).

Table 3 shows the correlations among English Academic Emotions (EAE), English Study Engagement (ESE), and Foreign Language Peace of Mind (FLPM). Firstly, it could be found that the correlation coefficient between EAE and ESE is  $0.430^{**}$  at the 0.000 level (2-tailed), which interprets a moderate correlation. In addition, the correlation coefficient between EAE and FLPM is  $0.347^{**}$  at the 0.000 level (2-tailed), indicating a weak relationship. While the correlation coefficient between EAE and FLPM is  $0.781^{**}$  at the 0.000 level (2-tailed), which implies a strong correlation. The study found that students' academic emotions

**Table 2.** The value range of correlation coefficient and its interpretation.

Correlation Coefficient (Absolute Magnitude)	Interpretation
0.00 - 0.10	negligible correlation
0.10 - 0.39	weak correlation
0.40 - 0.69	moderate correlation
0.70 - 0.89	strong correlation
0.90 - 1.00	very strong correlation

**Table 3.** The relationship among English academic emotions, English study engagement and foreign language peace of mind.

	EAE	ESE	EPAAE	EPRAE	ENAAE	EPRAE	FLPM
EAE	1.00						
ESE	0.430**	1.00					
EPAAE	-	0.795**	1.00				
EPRAE	-	0.677**	0.800**	1.00			
ENAAE	-	-0.385**	-0.372**	-0.316**	1.00		
EPRAE	-	-0.106	-0.130*	0.033	0.665**	1.00	
FLPM	0.347**	0.781**	0.759**	0.640**	-0.433**	-0.179**	1.00

\*denotes  $p < 0.05$ , \*\*denotes  $p < 0.01$ , \*\*\*denotes  $p < 0.000$ .

towards learning English affected their study engagement but less impacted their overall peace of mind in English study. As the students have a high level of foreign language peace of mind, students will keep high English study engagement.

As seen from **Table 3**, English study engagement significantly and positively correlates with English positive activity-oriented academic emotions and positive result-oriented academic emotions, does not correlate with English negative activity-oriented academic emotions and negative result-oriented academic emotions, and shows a significant positive correlation with foreign language peace of mind. Foreign language peace of mind shows a significant positive correlation with English positive activity-oriented academic emotions, positive result-oriented academic emotions, a significant negative correlation with English negative activity-oriented academic emotions, and it does not correlate with negative result-oriented academic emotions.

#### 4.3. Detection of the Mediating Effect of Foreign Language Peace of Mind between English Academic Emotions and English Study Engagement

To investigate the correlation between academic emotions, English study engagement in English study, and foreign language peace of mind. The author used English academic emotions and its four dimensions as the independent variable (X), with English study engagement as the dependent variable (Y), foreign lan-



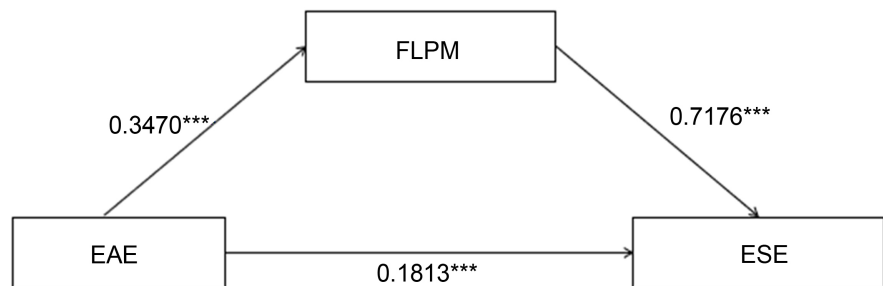
guage peace of mind as the mediator variable (M), and students' grades, numbers, and majors as the control variables, respectively, and adopted Model 4 in Process 4.0 programme, level of confidence for all confidence intervals in output is 95.0000. The number of bootstrap samples for percentile bootstrap confidence intervals is 5000. To test the mediating effect of foreign language peace of mind between English academic emotions and English study engagement.

As can be seen from **Table 4** and **Picture 1**, English academic emotions and all its four dimensions have significant predictive effects on foreign language peace of mind, and foreign language peace of mind has significant predictive effects on English engagement. Among them, positive academic emotions significantly predicted English study engagement, while negative academic emotions did not significantly and directly predict English study engagement. As can be seen from the figure, there are partial mediating effects of foreign language peace of mind between English academic emotions and its four dimensions and English study engagement, with 95% confidence intervals that do not include 0. The mediating effect values are 0.2490\*, 0.3174\*, 0.3761\*, -0.3272\*, and -0.1411\*, respectively, which accounted for 57.8666%, 39.9396%, 55.1496%, and 57.8666% of the total effect proportion, respectively. As a result, foreign language peace of mind mediates the effects of English academic emotions, English positive activity-oriented academic emotions, English positive result-oriented academic emotions, English negative activity-oriented academic emotions, and English

**Table 4.** Detection of the mediating effect of foreign language peace of mind between English academic emotions and English study engagement.

Impact pathways	Total effect (c)	Indirect effect (a × b)	95% CI		Percent of total effect
EAE-FLPM-ESE	0.1813***	0.2490* (0.3470*** × 0.7176**)	0.1659	0.3292	57.8666%
EPRAE-FLPM-ESE	0.4773***	0.3174* (0.7588*** × 0.4183**)	0.2670	0.4912	39.9396%
EPAAE-FLPM-ESE	0.3011***	0.3761* (0.6402*** × 0.5874**)	0.3273	0.5117	55.5375%
ENRAE-FLPM-ESE	-0.0581	-0.3272* (-0.4332*** × 0.7554***)	-0.4967	-0.2359	84.9208%
ENAAE-FLPM-ESE	0.0350	-0.1411* (-0.1793*** × 0.7868***)	-0.3129	-0.0392	80.1249%

\*denotes  $p < 0.05$ , \*\*denotes  $p < 0.01$ , \*\*\*denotes  $p < 0.000$ .



**Picture 1.** The impact path between English academic emotions and English study engagement.

negative result-oriented academic emotions on English study engagement.

Among these, the academic emotions have different influence on students' English study engagement in this study. To be exact, a certain amount of positive academic emotions may help students improve their English learning. The English negative result-oriented academic emotions have less impact on foreign language peace of mind than other English academic emotions. English academic emotions are complicated to be studied, and it can be concluded that the foreign language peace of mind plays an effect of mediation on English academic emotions and English study engagement. Different types of academic emotions in English have varying impacts on study engagement and foreign language peace of mind, ultimately influencing English study engagement. Students who maintain positive academic emotions are more likely to engage in English language learning, which can enhance teachers' performance and foster a harmonious learning environment.

## 5. Conclusion

This study aims to explore the relationship between English academic emotions, study engagement, and foreign language peace of mind in an external context. It answers three research questions in an integrated manner.

1) Students' English academic emotions, English study engagement, and foreign language peace of mind are at medium levels.

2) English study engagement significantly and positively correlates with positive activity-oriented academic emotions and positive result-oriented academic emotions, does not correlate with negative activity-oriented academic emotions and negative result-oriented academic emotions, and shows a significant positive correlation with foreign language peace of mind. Additionally, foreign language peace of mind shows a significant and positive correlation with English positive activity-oriented academic emotions, English positive result-oriented academic emotions, a significant and negative correlation with English negative activity-oriented academic emotions, and it does not correlate with negative result-oriented academic emotions.

3) Foreign language peace of mind partially mediates between English academic emotions, English positive activity-oriented academic emotions, and English positive result-oriented academic emotions, negative activity-oriented academic emotions, negative result-oriented academic emotions, and English study engagement.

All in all, the results of this study realize that teacher and students themselves are supposed to cultivate a harmonious atmosphere so as to help students improve their positive academic emotions and foreign language peace of mind. Eventually, students' English study engagement will be improved. More importantly, the future study can pay close attention to develop specific scales of academic emotions (foreign language peace of mind as one kind of academic emotions) and study engagement in the subject of English, in addition, investigating

students' academic achievement when their positive and negative academic emotions are integrated and balanced.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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