

A Study on the Correlation between Senior High School Students' English Academic Self-efficacy and Learning Engagement

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Abstract: Learning engagement is important to ensure the effectiveness of online learning. Academic self-efficacy is an important factor influencing learners' learning. This study used a questionnaire to survey 235 high school students to explore the influence of academic self-efficacy on English learning engagement. The results showed that the overall levels of academic self-efficacy and English online learning engagement were moderately high. Two factors of academic self-efficacy significantly predicted high school students' English online learning engagement.

Keywords: English academic self-efficacy, English learning engagement, correlation

Introduction

Numerous studies have shown that academic self-efficacy not only influences students' choices of learning behavior, attitudes to difficulties and attributions, but also determines the level and duration of effort. Learning engagement is an affective cognitive state generated by students in the learning process, which can reflect the effectiveness and quality of learning from the side and has an important impact on individual academic development. Therefore, the relationship between students' academic self-efficacy and learning engagement in English is worth exploring.

1. Definition of academic self-efficacy and learning engagement

Academic self-efficacy, it is defined as the judgments or beliefs about student's ability to achieve certain academic tasks, which strongly influences their academic performance in a variety of ways (Mills, Pajares, & Herron, 2007). Mills, Pajares, & Herron (2007) believe that students with a strong sense of academic self-efficacy are ready to solve challenging learning problems and show greater perseverance in completing tasks. Since the concept of "student engagement" was introduced into the education field in the 1990s, scholars at home and abroad have conducted in-depth studies on it. Professor Kong Qiping introduced the concept of "learning engagement" into China; Scholars' attention to learning engagement has continued to rise.

2. Measurement of academic self-efficacy and learning engagement

Academic self-efficacy is a concept that has been spun off from self-efficacy. So, its early measures were generally included in one of the dimensions of self-efficacy scales. Most of the academic self-efficacy scales developed by domestic scholars applicable to Chinese students refer to the Questionnaire developed by Pintrich and DeGroot (1990)^[1], which measures from the perspective of general learning activities. Liang Yusong (2000)^[2] developed the *Academic Self-Efficacy Questionnaire* based on Pintrich's questionnaire, which divided the two dimensions of learning ability self-efficacy and

learning behavior self-efficacy for measurement. This study utilized a scale adapted from Liang Yusong.

In terms of learning engagement, the "*Utrecht Work Engagement Scale – Student*" (UWES-S), developed by Schaufeli, is translated, and revised by Fang Laitan of Huazhong Normal University in 2000 and it is used in this study. There are three dimensions in the scale: vigor, dedication, and absorption.

3. Research results and discussion

Accordingly, this study mainly explored the following questions :(1) What is the status of high school students' academic self-efficacy in English learning? (2) What is the overall level of high school students' English learning engagement? (3) What is the correlation between high school students' English learning academic self-efficacy and learning engagement? If yes, what is the specific correlation?

Quantitative and qualitative methods were both used in this study. Two questionnaires were completed with the participation of 235 students from a high school in Nanning, Guangxi: the *Language Learners' Academic Self-Efficacy Scale* and the *Learning Engagement Scale*.

3.1 The overall status of senior high school students' English academic self-efficacy

Table1 Descriptive analysis of English Academic Self-efficacy

Dimension	N	Mean	Std. Deviation
Learning ability	235	2.9539	.616
Learning behavior	235	2.7226	.629
Overall English academic Self-efficacy	235	2.8385	.573

As shown in the table above, the overall mean of English academic self-efficacy is 2.8385. Oxford (1990) defined a mean value between 1.0 and 2.4 as low use, 2.5-3.4 as moderate use, and 3.5-5.0 as high use to describe the frequency state. As can be seen from Table 4-1, the mean score of the whole questionnaire is 2.83 ($2.5 < M < 3.5$), indicating that the English learning academic self-efficacy of the study participants are generally at a moderate level. In other words, students believe that it is easy for them to learn English well and get good grades as long as they are willing to work hard to learn English.

3.2 Analysis of English learning engagement questionnaire results

The Overall Status of Senior High School Students' English Learning Engagement:

Table2 Descriptive Statistics Analysis of English Learning Engagement

Dimension	N	Minimum	Maximum	Mean	Std. Deviation
Vigor	235	1	5	2.5995	0.51605
Dedication	235	1	5	3.0638	1.5022
Absorption	235	1	5	3.2085	3.3822
English learning engagement	235	1	5	2.9572	2.5673

From the table above, we can see that the overall mean of English learning engagement is at the range of 2.5-3.5, falling into the range of a medium level. Students of this study in senior high school have a medium condition of learning engagement. Absorption dimension has the highest score ($M=3.2085$) which imply students are engaged and entertained in their learning. Vigor dimension has the lowest mean value ($M=2.5995$) among the three, which indicates subjects are easily get tired and feel fatigued. On the other hand, vigor dimension is the steadiest because the standard deviation is the lowest ($SD=0.51605$), however, absorption dimension is the highest standard deviation ($SD=3.3833$) and belong to the least steady ones among three dimensions.

The overall level of English learning engagement of subjects is at a medium level, without a high level of attention and engagement, which needs to be improved. The overall level of English learning engagement of high school students measured in this study is similar to the findings of Yang Yuanyuan (2015) and Song Qiang(2022). Although high school students are under pressure to advance to higher education, in terms of the students themselves, the desire for university

life is also one of the important factors that enable high school students to actively devote their energy to their studies.

3.3 Analysis of the correlation between senior high school student's English academic self-efficacy and learning engagement

In this study, Pearson's correlation coefficient is used to analyze the correlation between English academic self-efficacy and English learning engagement. The correlation between the dimensions of English academic self-efficacy and the dimensions of English learning engagement are also analyzed and the results are as followed:

Table3 Correlation Analysis of English Academic Self-efficacy and Learning Engagement

	English academic self-efficacy	English learning engagement
English academic self-efficacy	1	
English learning engagement	.777**	1

** Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis examines the correlation between variables, that is, how the other variable changes when the variable changes. To further investigate this, we analyze the relationship between English academic self-efficacy and English learning engagement and their dimensions.

The data in Tables3 shows that there is a significant correlation between students' English academic self-efficacy and learning engagement ($r=0.777, p<0.01$).

This suggests that if the level of English academic self-efficacy is high, it increases the English learning engagement. Conversely, students' English learning engagement also affects their academic self-efficacy. A high level of student engagement in learning increases their academic self-efficacy in learning English.

Table4 Correlation Analysis between English Academic Self-efficacy and Learning Engagement on Different Dimensions

Dimension	Learning ability of English academic self-efficacy	Learning behavior of English academic self-efficacy	English academic self-efficacy
Vigor	.644**	.665**	.695**
Dedication	.481**	.613**	.577**
Absorption	.575**	.644**	.645**
English learning engagement	.684**	.785**	.777**

** Correlation is significant at the 0.01 level (2-tailed).

It can be seen from Table4 that two dimensions of English academic self-efficacy are significantly correlated with the three dimensions of English learning engagement ($p<0.01$). Among them, the learning behavior of English academic self-efficacy dimension and learning engagement has the highest correlation coefficient ($r=0.785$). Meanwhile, the dedication dimension has the lowest correlation with the academic self-efficacy dimension($r=0.481$).

Learning behavior of English academic self-efficacy is strongly correlated with the three dimensions of English leaning engagement. It shows that the higher of the English academic self-efficacy, the higher the degree of English learning engagement. Students who believe they can do well on studying English will probably put more time, energy, and effort on it. Learning ability of English academic self-efficacy is also correlated with the three dimensions of English learning engagement ($p<0.01$). Therefore, when students face English learning tasks, positive emotional feedback is more likely to overcome the obstacles in the learning process.

There is a strong correlation between English academic self-efficacy and learning engagement of high school students($r=0.777$), and both are important variables affecting students' learning status, which is consistent with the findings of Gan Liangmei and Jia Xuji (2015). Academic self-efficacy is a level of confidence in learning, including recognition of

one's own ability and actual behavior, while learning engagement refers to a level of concentration in the learning process.

4. Conclusion

Through analysis and discussion, the following results are obtained: (1) High school students' English academic self-efficacy is generally at an intermediate level (mean=2.83). Of the two specific dimensions, learning ability self-efficacy (mean=2.95) is the highest and learning behavior self-efficacy (mean=2.72) is the second highest. (2) The overall English learning engagement of high school students is moderate (mean=2.95). The mean scores for each dimension of learning engagement, from high to low, are: absorption (mean=3.20), dedication (mean=3.06), and vigor (mean=2.59). (3) There is a significant positive correlation between students' English academic self-efficacy and learning engagement ($r=0.777$). Meanwhile, there is a significant positive relationship between the two dimensions of English academic self-efficacy and the three dimensions of English learning engagement.

Based on the findings, some suggestions for teaching English in senior high school classrooms are put forward: Firstly, reinforcing students' successful experiences and providing positive feedback so as to help students build up their English learning self-confidence and improve their English academic self-efficacy; Secondly, helping students set English learning goals that are within their reach and challenging so as to stimulate their intrinsic interest in English learning and increase their learning engagement; Thirdly, creating a positive English learning classroom atmosphere and focus on students' emotional experiences.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

References

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