

THE RELATIONSHIP BETWEEN SELF-EFFICACY AND WILLINGNESS TO CONTINUE STUDYING AMONG F UNIVERSITY STUDENTS IN HENAN PROVINCE, CHINA

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Abstract: This study focused on students from F University in Henan Province, China, and aimed to explore the differences and relationships between self-efficacy and willingness to continue studying under different demographic background variables. A questionnaire survey was conducted on 372 students, and descriptive statistical analysis, independent sample T test, one-way analysis of variance and Pearson correlation analysis were used to conduct the study. The results showed that the sample was reasonably distributed and representative in terms of gender, position, grade, subject, family structure, etc. The students' self-efficacy and willingness to continue studying were generally high, but there were differences in specific dimensions. Whether they served as class cadres, grade, and whether they were only children had significant differences. Self-efficacy was positively correlated with learning ability, behavior, and willingness to continue studying. The willingness to continue studying was highly positively correlated with family and campus factors, and some hypothesis was established. It is recommended that colleges and universities carry out stratified education based on grade differences to improve students' self-cognition and planning abilities; and strengthen student management.

Keywords: Self-efficacy, Willingness to Continue Studying, F University Students

Introduction

As the global economy shifts towards a knowledge-based model, the demand for skilled talent rises (Guo, 2022). In fields like AI and big data, technological advancements drive students to pursue further studies for a competitive edge. Economic growth has also improved living standards, enabling more families to support education, while international programs broaden students' horizons, increasing their willingness to continue studying (Liang, 2011).

Countries like the US, UK, and Germany support further education with financial aid and improved learning environments, boosting motivation and confidence (Ye, 2014). Globally, higher education is increasingly seen as a means to enhance career prospects and social status, leading to more investment in continuing education and better access to learning materials.

In China, rapid economic growth has led to industrial transformation and a need for innovative talents (Ma, 2025). Initiatives like the "Double First-Class" strategy aim to cultivate high-level talent (Wang et al., 2023), while the government works to improve educational equity, providing more opportunities in underdeveloped regions (Cai & Zhang, 2024). Despite this, Henan Province faces a brain drain, limiting local talent development (Zhou & Li, 2009; Sun et al., 2022).

Understanding how self-efficacy influences students' willingness to continue their studies is crucial for developing effective policies. F University in Henan, with its diverse student body, offers valuable insights to improve higher education and support regional economic growth.

Research Objective (s)

- (1) To investigate the current status of self-efficacy among students at F University in Henan Province, China.
- (2) To investigate the status quo of students' willingness to continue their studies at F University in Henan Province, China.
- (3) To understand the differences in self-efficacy and willingness to continue studying among students with different demographic background variables (gender, class leader, grade, subject, and whether or not they are only children).
- (4) To clarify the correlation between self-efficacy and intention to continue studying among students at F University in Henan Province, China.

Literature Review

Research on Self-Efficacy

Self-efficacy, defined by Bandura (1977), is an individual's belief in their ability to succeed in tasks, influencing behavior, effort, persistence, and emotions. It differs from actual ability, as confident students exhibit high self-efficacy, while doubtful ones show lower levels. Bandura identified four sources of self-efficacy: personal experiences, social comparison, verbal persuasion, and emotional responses (Wang, 2008). This concept applies widely in education, health, and organizational behavior, shaping motivation and performance. In education, students with high self-efficacy set goals, persist, and use effective strategies, while teachers can enhance it by encouraging self-confidence. Self-efficacy is measured through learning ability (task mastery, persistence) and learning behavior (time management, focus) (Wang, 2019). These dimensions interact to support academic success, and accurate assessment improves outcomes. Research shows men often have higher self-efficacy in

technical tasks, while women excel in empathy and communication. Class leaders show higher self-efficacy due to leadership experiences, and senior students generally have more self-efficacy than freshmen, thanks to experience and confidence. Self-efficacy also varies by discipline: agricultural students improve rapidly, while business and medical students progress more slowly due to subject complexity (Zhu & Lan, 2008). Recent studies suggest age-related differences in self-efficacy have diminished due to more balanced education.

Research on Willingness to Continue Learning

Willingness to continue studying is shaped by personal interests, career goals, family support, and societal pressures. Students passionate about research or aiming for careers in science or education are more likely to pursue further education (Wu & He, 2024; Tian et al., 2024). Supportive families and better finances also contribute (Zhou, 2017), while competitive job markets drive the need for higher qualifications (Zhu & Zeng, 2023). Theories like Kelly's attribution model, Rotter's locus of control, and Weiner's attribution theory explain academic motivation, showing how internal and external factors influence student behavior (Wang, 2011; Liu, 2007; Fan, 2003). Positive family and campus environments also play key roles. Key indicators of willingness include learning motivation, creativity, and academic efficiency. Students from strong academic or supportive family backgrounds tend to show higher intent to continue studying (Yang, 2017; Lv & Lin, 2018). Differences exist by major and gender—agricultural students are more likely to pursue further study than business students, and strong engagement in one's field enhances academic ambition. Men often choose finance-related fields; women tend toward empathetic disciplines like medicine. Class leaders and senior students show stronger motivation (An et al., 2023). In specific majors, agricultural and clinical medicine students are more likely to pursue graduate study, while business and nursing students often enter the workforce. Previously, only children were more likely to continue studying due to resource concentration, but recent trends show little difference as family values evolve (Jiang Fei, 2023).

Research on The Relationship between Self-efficacy and Willingness to Continue Learning

Self-efficacy strongly influences students' decisions to pursue further studies. Those with high self-efficacy plan ahead, take relevant courses, and engage in research (Yang, 2021), while those with low self-efficacy often doubt themselves and prefer to work (Zhang et al., 2020). Graduate students with high self-efficacy embrace academic challenges and seek growth through research and exchanges (Liu, 2016). In contrast, low self-efficacy students may avoid challenges and choose stable careers (Zhou, 2013). In middle school, high self-efficacy encourages pursuit of higher education, while low self-efficacy leads to anxiety and vocational choices (Zhang, 2012). Though existing research links self-efficacy to study motivation, more work is needed across education levels, fields, and demographics. Interventions to boost self-efficacy are also needed (Fu & Wang, 2013). At F University, self-efficacy varies by major. Agricultural students are confident in practice but struggle with complex tasks. Business students communicate well but lack quantitative skills. Medical students excel clinically but

lack confidence in theory due to limited resources. Surveys show agricultural students are highly motivated to continue, business students less so, and medical students vary by field. Seniors have clearer goals and stronger motivation than juniors.

Methodology

This study investigates the relationship between self-efficacy and willingness to continue studying among students at F University, using a quantitative approach. Data was analyzed with SPSS 29.0. The independent variable is demographic background, while self-efficacy and willingness to continue studying are the dependent variables.

The study used a questionnaire adapted from Chen (2022) and Wang (2024), with added demographic questions. 385 students were surveyed through convenient sampling, and 372 valid responses were analyzed after eliminating invalid ones. The questionnaire included three sections: demographic information (5 items), self-efficacy (22 items in two dimensions: learning ability and behavior), and willingness to continue studying (27 items in two dimensions: family and campus factors). The total of 49 questions was designed based on previous validated scales.

Data was analyzed using Excel for summarization and SPSS for statistical analysis. Descriptive statistics, independent sample t-tests, one-way ANOVA, and Pearson correlation analysis were performed to explore differences in self-efficacy and willingness to continue studying based on demographic factors and the relationship between the two variables.

Results

Demographic Background Information of F University Students

This study collected 372 valid questionnaires to address research question 1, which examines the demographic background of students at F University, including gender, class leadership, grade, major, and only-child status. Among respondents, 192 (51.6%) were male and 180 (48.4%) females, indicating a balanced gender distribution. Class leaders accounted for 48.4% (180 students), while 51.6% (192 students) did not serve in this role. Grade distribution included 103 freshmen (27.7%), 112 sophomores (30.1%), 85 juniors (22.8%), and 72 seniors (19.4%). Majors comprised 134 agricultural science students (36.0%), 149 business students (40.1%), and 89 medical students (23.9%). Only children made up 74.5% (277 students), and non-only children 25.5% (95 students). Detailed demographic data are presented in Table 4.1.

Descriptive statistics of self-efficacy and willingness to continue studying among students at F University

1) Using descriptive statistics, the data from 372 valid questionnaires collected were uniformly entered into SPSS29.0 for statistical analysis to test the relevant hypotheses. As shown in Table 1 below, the self-efficacy of students at F University is at a high level overall. The mean self-efficacy of students

at F University is 3.76. According to the analysis of the mean, the highest score appears in "I think I have the ability to solve problems encountered in learning", and the lowest score appears in "When reading a book, I can connect what I read with the knowledge I have mastered to think about it."

Table 1: Descriptive Statistics of Self-Efficacy of Students at University F

Dimension	Mean Range	Interp	retation				
Learning Ability Self	f-3.70–3.84	High	confidence	in	learning	ability,	problem-solving,
Efficacy	knowl	knowledge application, and leadership.					
Learning Behavior	3.47-3.83	Genera	ally high, exc	ept n	noderate ab	ility to rela	ate reading to prior
Self-Efficacy		knowledge. Strong in self-testing, attention, note-taking, and					, note-taking, and
		review	habits.				

2) Using descriptive statistics, we examine the willingness of F University students to continue their studies. As shown in Table 2, the willingness of F University students to continue their studies is generally at a high level. The mean value of F University students' willingness to continue their studies is 3.77. According to the analysis of the mean values, the highest score appears in "I feel bored in class" and the lowest score appears in "I am afraid of my parents."

Table 2: Descriptive Statistics of Students' Willingness to Continue Their Studies

Dimension	Mean Range	Interpretation				
Family Factors	3.71-3.81	High negative emotions and poor parent-child communication.				
Campus Factors	3.72-3.82	High discomfort with classmates and teachers, classroom boredom,				
		and homework stress.				
Overall	3.77	Overall high levels of negative feelings in family and campus				
		contexts.				

Comparison of Demographic Background Variables in The Self-efficacy Scale

1) The gender of students is used as the categorical data, and the two dimensions of the self-efficacy scale are used as the quantitative data for analysis. The results are shown in Table 3. From the sig value, it can be seen that the learning ability and learning behavior dimensions of self-efficacy of students of different genders do not show significance. Both are higher than the standard value of 0.05. Therefore, hypothesis H1-1 is not established, that is, there is no significant difference in self-efficacy among students of different genders.

Table 3: Comparison of Differences in Self-Efficacy Among F University Students of Different Genders

Dimension	Gender	Number	Mean	SD	t	sig
Self-efficacy	Male	192	3.76	0.740	0.036	0.003
	Female	180	3.76	0.949		
Learning ability	Male	192	3.76	1.033	0.099	0.502
	Female	180	3.75	1.058		
Learning Behavior	Male	192	3.76	1.033	-0.040	0.434
Dimension	Female	180	3.75	1.058		

2) The data of whether a student was a class leader was used as categorical data, and the two dimensions of the self-efficacy scale are used as quantitative data for analysis. The results were shown in Table 4. From the sig value, it can be seen that the learning ability and learning behavior dimensions of the self-efficacy of students who serve as class cadres and those who do not serve as class cadres show significant differences. The sig values were both 0.000. Therefore, hypothesis H1-2 is established, that is, there was a significant difference in self-efficacy between students who serve as class leaders and those who do not.

Table 4: Comparison of Differences in Self-Efficacy Among F University Students Who Are Class Leaders or Not

Dimension	Class Leader	Number	Mean	SD	t	sig
Self-efficacy	Yes	180	3.19	0.910	-16.507	0.000
	No	192	4.29	0.161		
Learning ability	Yes	180	3.19	1.259	-11.898	0.000
	No	192	4.28	0.218		
Learning Behavior	Yes	180	3.19	1.259	-11.969	0.000
	No	192	4.29	0.221		

3) From this study's perspective, student grade was analyzed as categorical data against the two quantitative dimensions of the self-efficacy scale. Results in Table 5 show that both learning ability and learning behavior differ significantly across grades, with p-values under the F-test at 0.000, all below the 0.05 threshold. Therefore, hypothesis H1-3 is confirmed, indicating significant differences in self-efficacy among F University students of different grades.

Table 5: Comparison of Differences in Self-Efficacy Among Students of Different Grades at F University

Dimension	Grade	Number	Mean	SD	F	sig
Self-efficacy	Freshman	103	2.88	0.953	123.779	0.000
	Sophomore	112	3.77	0.583		
	Junior	85	4.27	0.924		
	Senior	72	4.42	0.129		
Learning ability	Freshman	103	2.86	1.264	61.658	0.000
	Sophomore	112	3.77	0.953		
	Junior	85	4.26	0.174		
	Senior	72	4.42	0.110		
Learning Behavior	Freshman	103	2.89	1.267	58.769	0.000
	Sophomore	112	3.76	0.975		
	Junior	85	4.27	1.181		
	Senior	72	4.42	0.110		

4) The student subjects were used as categorical data, and the two dimensions of the self-efficacy scale were used as quantitative data for analysis. The results are shown in Table 6. Due to the p value under the F-test analysis, the two dimensions of self-efficacy of students in different subjects, learning ability and learning behavior, did not show significance. They were all higher than the standard value of 0.05. Therefore, hypothesis H1-4 is not established, that is, there is no significant difference in self-efficacy among students of different grades.

Table 6: Comparison of Differences in Self-Efficacy Among F University Students in Different Majors

Dimension	Major	Number	Mean	SD	F	sig
Self-efficacy	Agricultural Science	134	3.73	0.760	1.006	0.367
	Business	149	3.72	0.841		
	Medical	89	3.87	0.971		
Learning ability	Agricultural Science	134	3.73	1.046	0.629	0.534
	Business	149	3.71	1.076		
	Medical	89	3.87	0.991		
Learning Behavior	Agricultural Science	134	3.73	1.042	0.693	0.501
	Business	149	3.73	1.087		
	Medical	89	3.88	0.988		

5) The data of whether the students are only children is used as the categorical data, and the two dimensions of the self-efficacy scale are used as the quantitative data for analysis. The results are shown in Table 7. From the sig value, it can be seen that the learning ability and learning behavior dimensions of the self-efficacy of students who are only children and those who are not only children show significance. The sig value is 0.000. Therefore, hypothesis H1-5 is established, that is, there is a significant difference in self-efficacy between students who are only children and those who are not only children.

Table 7: Comparison of Differences in Self-Efficacy Among Students at University F Who Are Only Children or Not

Dimension	Only Child	Number	Mean	SD	t	sig
Self-efficacy	Yes	277	3.55	0.881	-9.268	0.000
	No	95	4.39	0.130		
Learning ability	Yes	277	3.54	1.128	-7.186	0.000
	No	95	4.38	0.199		
Learning Behavior	Yes	277	3.55	1.130	-7.253	0.000
	No	95	4.39	0.193		

Comparison of demographic background variables in the scale of willingness to continue studying

1) The gender of students is used as the categorical data, and the two dimensions of the willingness to continue studying scale are used as the quantitative data for analysis. The results are shown in Table 8. From the sig value, it can be seen that the two dimensions of family factors and campus factors of the willingness to continue studying of students of different genders do not show significance. Both are higher than the standard value of 0.05. Therefore, hypothesis H2-1 is not established, that is, there is no significant difference in the willingness to continue studying among students of different genders.

Table 8: Comparison of the Willingness to Continue Studying Among F University Students of Different Genders

Dimension	Gender	Number	Mean	SD	t	sig
Willingness to continue studying	Male	192	3.77	0.817	-0.095	0.050
	Female	180	3.78	0.956		
Family factors	Male	192	3.76	1.056	0.019	0.996
	Female	180	3.75	1.047		
Campus Factors	Male	192	3.76	1.032	-0.116	0.698
	Female	180	3.79	1.045		

2) The analysis was conducted with whether the students were class cadres as the categorical data and the two dimensions of the willingness to continue studying as the quantitative data. The results are shown in Table 9. From the sig value, it can be seen that the family factors and campus factors of the willingness to continue studying of students who served as class cadres and those who did not served as class cadres showed significance, and the sig values were both 0.000. Therefore, hypothesis H2-2 is established, that is, there is a significant difference in the willingness to continue studying between students who serve as class leaders and those who do not.

Table 9: Comparison of the Willingness to Continue Studying Among F University Students Who Are Class Leaders or Not

Dimension	Class Leader	Number	Mean	SD	t	sig
Willingness to continue studying	Yes	180	3.21	0.994	15.136	0.000
	No	192	4.30	0.125		
Family factors	Yes	180	3.19	1.257	11.863	0.000
	No	192	4.29	0.266		
Campus Factors	Yes	180	3.22	1.259	11.931	0.000
	No	192	4.31	0.150		

3) The student grade is used as categorical data, and the two dimensions of the willingness to continue studying scale are used as quantitative data for analysis. The results are shown in Table 10. Due to the p value under the F-test analysis, the two dimensions of the family factors and campus factors of the willingness to continue studying of students of different grades show significance. The sig values are all 0.000. Therefore, hypothesis H2-3 is established, that is, there are significant differences in the willingness to continue studying among students of different grades at F University.

Table 10: Comparison of the Willingness to Continue Studying Among F University Students of Different Grades

Dimension	Grade	Number	Mean	SD	F	sig
Willingness to continue	Freshman	103	2.73	0.964	161.086	0.000
studying	Sophomore	112	3.96	0.515		
	Junior	85	4.29	0.102		
	Senior	72	4.37	0.110		
Family factors	Freshman	103	3.04	1.234	43.314	0.000
	Sophomore	112	3.60	1.114		
	Junior	85	4.28	0.229		
	Senior	72	3.89	0.260		
Campus Factors	Freshman	103	2.62	1.208	120.118	0.000
	Sophomore	112	4.09	0.670		
	Junior	85	4.29	0.140		
	Senior	72	4.36	0.137		

4) This study analyzed student subjects as categorical data and the two dimensions of willingness to continue studying as quantitative data. Table 11 shows that the F-test p-values for family factors and campus factors across different subjects were all above 0.05, indicating no significant differences. Therefore, hypothesis H2-4 is not supported, meaning students' willingness to continue studying does not significantly vary by major.

Table 11: Comparison of the Differences in Willingness to Continue Studying Among F University Students in Different Majors

Dimension	Major	Number	Mean	SD	F	sig
Willingness to continue	Agricultural Science	134	3.74	0.843	1.014	0.364
studying	Business	149	3.73	0.892		
	Medical	89	3.89	0.937		
Family factors	Agricultural Science	134	3.74	1.056	0.452	0.637
	Business	149	3.71	1.101		
	Medical	89	3.84	0.954		
Campus Factors	Agricultural Science	134	3.74	1.048	0.859	0.424
-	Business	149	3.74	1.081		
	Medical	89	3.90	0.943		

5) This study analyzed whether students were only children as categorical data and the two dimensions of willingness to continue studying as quantitative data. Table 12 shows that both family factors and campus factors had significant differences between only children and non-only children, with sig values of 0.000. Therefore, hypothesis H2-5 is supported, indicating a significant difference in willingness to continue studying between these groups.

Table 12: Comparison of the Willingness of F University Students to Continue Their Studies by Whether They Are Only Children or Not

Dimension	Only Child	Number	Mean	SD	F	sig
Willingness to continue studying	Yes	277	3.57	0.943	-8.199	0.000
	No	95	4.37	0.103		
Family factors	Yes	277	3.54	1.132	-7.122	0.000
	No	95	4.38	0.254		
Campus Factors	Yes	277	3.58	1.133	-6.705	0.000
	No	95	4.36	0.133		

Correlation Analysis Between Self-Efficacy and Willingness to Continue Studying

From this study's perspective, Pearson correlation analysis examined the relationships between self-efficacy and willingness to continue studying, assessing significance. Both variables were divided into two dimensions. Results (Table 13) showed a strong positive correlation between self-efficacy and

learning ability. Willingness to continue studying was significantly related to family and campus factors, especially campus factors. Additionally, learning ability, learning behavior, family factors, and campus factors were significantly interrelated to varying degrees.

Table 13: Correlation Analysis Between Self-Efficacy and Willingness to Continue Studying

Dimensions	1	2	3	4	5	6
1. Self-efficacy	1					
2. Learning ability	0.809**	1				
3. Learning Behavior	0.810**	0.311**	1			
4. Willingness to continue studying	0.390**	0.346**	0.285**	1		
5. Family factors	0.304**	0.250**	0.242**	0.557**	1	
6. Campus factors	0.342**	0.310**	0.243**	0.956**	0.288**	1

Study the Test Results of Hypothesis

The data analysis results are compared with the hypothesized research in this study, as shown in Table 14.

Table 14: Correlation Analysis Between Self-Efficacy and Willingness to Continue Studying

Hypothesis	Result	
H1: Demographics affect self-efficacy	Partially Valid	
H1-1: Gender impact on self-efficacy	Invalid	
H1-2: Class leader impact on self-efficacy	Valid	
H1-3: Grade impact on self-efficacy	Valid	
H1-4: Discipline impact on self-efficacy	Invalid	
H1-5: Only child status impact on self-efficacy	Valid	
H2: Demographics affect willingness to continue studying	Partially Valid	
H2-1: Gender impact on willingness	Invalid	
H2-2: Class leader impact on willingness	Valid	
H2-3: Grade impact on willingness	Valid	
H2-4: Discipline impact on willingness	Valid	
H2-5: Only child status impact on willingness	Valid	
H3: Correlation between self-efficacy and willingness	Valid	

Discussion

Basic Information on the Students participated in the Survey

The study sampled 372 students from F University, with a balanced gender ratio and no

significant differences. The number of class cadres and non-class cadres was similar. The sample included students from all grades, with sophomores being the largest group and seniors the smallest. Business students slightly outnumbered agricultural and medical students. More students were only children than not. Overall, the sample was diverse and representative across gender, position, grade, subject, and family structure.

Current Status of Students' Self-Efficacy and Willingness to Continue Studying

Students at F University reported high self-efficacy overall. Most were confident in their learning ability, particularly in problem-solving, though lower scores were given for connecting reading content with prior knowledge. Their willingness to continue studying was also high, but responses showed higher scores for feeling bored in class and lower scores for fearing their parents.

Differences in demographic background variables

Gender and subject did not significantly impact students' self-efficacy or willingness to continue studying. However, class cadre status, grade level, and only child status were significantly correlated with both. Students serving as class cadres had higher self-efficacy due to the practical skills gained, while senior students had significantly higher self-efficacy than juniors (Liu et al., 2025). Non-only children had higher self-efficacy than only children, likely due to family interaction and role-taking (Xu & Guo, 2020). Similarly, non-class cadres were more focused on academics and showed a higher willingness to continue studying. Senior students were more likely to pursue further studies due to clearer personal development plans. Non-only children exhibited a stronger desire to continue studying due to competitive consciousness formed in family dynamics. (Bao, 2020).

Discussion of Correlation Analysis Results

Self-efficacy is highly positively correlated with learning ability and behavior, meaning stronger self-efficacy leads to better academic performance (Zhou et al., 2024). It also has a moderate positive correlation with the willingness to continue studying, as well as family and campus factors, suggesting self-efficacy promotes these areas. The willingness to continue studying is strongly correlated with both family and campus factors, highlighting their significant impact on students' academic decisions.

Comprehensive discussion on the hypothesis test results

The study partially confirmed H1 and H2, showing that gender and subject do not significantly impact self-efficacy or willingness to continue studying. Educators should therefore focus on individual needs and adopt universal strategies (Shan & Qi, 2019). However, class cadre status, grade level, and family structure do influence both variables. Support should be tailored—e.g., leadership training for class cadres, activity encouragement for others, adaptation help for lower-grade students, and career guidance for seniors. Family support should balance protection and competition based on structure (Su & Li, 2010). H3 was confirmed: self-efficacy significantly correlates with willingness to continue studying. Enhancing self-efficacy through diverse teaching, feedback, and academic atmosphere is



essential (Su, 2021). In sum, educators must address multiple factors to improve student development and higher education quality (He, 2021). Future research should explore broader social and personal influences using advanced methods.

Conclusions

- 1) This study sampled 372 F University students, with a balanced gender split (51.6% male). Nearly half (48.4%) were class cadres. Sophomores were 30.1%, seniors 19.4%. By major: 40.1% business, 36% agricultural science, 23.9% medical. Most (74.5%) were only children. Students' average self-efficacy was 3.76, showing high confidence in learning, especially problem-solving. However, they scored low on linking new reading to prior knowledge, indicating weaker integration skills. Willingness to continue studying averaged 3.77. High boredom in class suggests room to improve engagement, while low fear of parents shows family pressure has little effect. Various factors differently influence study motivation.
- 2) Gender and subject have no significant impact on students' self-efficacy and willingness to continue studying. This may be due to the diminishing influence of gender roles on students' learning psychology and the common educational models and goals across different subjects. Class cadre status, grade level, and only-child status significantly impact self-efficacy and study willingness. Class cadres gain confidence through leadership; seniors build self-efficacy from experience; non-only children develop self-awareness and competitiveness through family dynamics. Non-cadre students have more study time, increasing their desire for further education. Seniors with clearer career goals value continued learning. Non-only children, facing family resource competition, show stronger motivation for self-improvement and further study.
- 3) Self-efficacy strongly correlates with learning ability and behavior, with high self-efficacy students performing better and using effective strategies. It also moderately correlates with willingness to continue studying and family and campus factors, showing both influence and environmental impact. Willingness to continue studying is strongly shaped by family and campus factors. Parental support, expectations, and family atmosphere affect motivation, while positive peer and teacher relationships and quality campus resources also play key roles, forming a complex influence. The study partially supports hypotheses H1 and H2: gender and major do not significantly affect self-efficacy or study willingness, but class cadre status, grade, and only-child status do. Hypothesis H3 is confirmed, showing a strong link between self-efficacy and willingness to study. These results stress considering multiple factors, especially key demographics, in understanding student motivation.

References

An, J. (2023). Application of data acquisition and digital technology in teaching universities. *Journal of Jilin Agricultural Science and Technology University*, 33(06), 19–22.



- Bao, Y. Y. (2020). Research on the current status of learning self-efficacy of five-year higher vocational students: A case study of Jiangsu higher vocational college C. *Journal of Hubei Open Vocational College*, 33(14), 129–131.
- Bronfenbrenner, U. (1989). Ecological systems theory. In R. Vasta (Ed.), Six theories of child development: Revised formulations and current issues. JAI Press.
- Chen, Y. (2022). Research on revising the questionnaire on school refusal behavior based on the Delphi method. *Education Guide*, (04), 71–75.
- Fan, X. (2003). Theory and analysis of the attribution of students' academic success and failure. *Teaching and Management*, (06), 31–32.
- Fu, J., & Wang, X. (2013). Reliability and validity analysis of the Chinese version of the School Refusal Assessment Scale. In *Chinese Medical Association National Psychiatry Academic Conference, Asian Neuropsychopharmacology Academic Conference*.
- Guo, J., & Li, Q. (2021). Research on the cultivation of college students' competition and autonomous learning ability: Taking public computer teaching as an example. *Journal of Minzu University of China (Natural Science Edition)*, 30(04), 89–96.
- He, J. (2021). Research on teaching methods of film and television post-production based on the cultivation of applied innovative talents. *Employment and Security*, (15), 112–113.
- Lin, H. (2018). The relationship between college students' procrastination and learning engagement: The mediating role of general self-efficacy. *Journal of Weifang Engineering Vocational College*, 31(06), 31–37.
- Liu, L. (2007). On the guiding role of Weiner's attribution theory in teaching practice. *Journal of Jinan Vocational College*, (04), 37–39.
- Liu, T. Y. (2016). Current status, problems and suggestions of domestic research on school aversion. *Future and Development*, (08), 38–41.
- Liu, Y., Han, D., & Gong, W. (2025). Research on coping strategies for college students' employment anxiety in the new era. *Modern Vocational Education*, (03), 41–44.
- Shan, F., & Qi, X. (2019). Analysis of the professional quality of applied undergraduate students: A case study of "secondary vocational undergraduate" students from five colleges in Liaoning Province. *Journal of Heze University*, 41(01), 125–130.
- Su, Y. (2021). Analysis of strategies for cultivating self-efficacy in English learning for non-English major undergraduates. *Industry and Technology Forum, 20*(15), 184–185.
- Su, Y., & Li, H. (2010). On the management of freshman class counselors. *Value Engineering*, 29(32), 256.
- Wang, S. (2024). Research on critical information literacy education in university libraries based on paper writing. *Journal of Henan Library*, 44(02), 64–66.
- Wang, X. (2008). The role and cultivation of self-efficacy in volleyball teaching. Journal of

- Jinggangshan Medical College, (03), 84–86.
- Wang, Y. (2019). Research on effective methods to improve the efficiency of physical education classroom teaching in colleges and universities. *Think Tank Times*, (07), 197–204.
- Wang, Z. (2011). Research on the dimensions and influencing factors of consumer attribution in product injury crisis. *Human Resource Management*, (06), 272–273.
- Wu, C., & He, X. (2024). The impact of high school students' mathematical ability growth mindset on mathematics learning engagement: The chain mediating role of academic self-efficacy and perseverance. *Journal of Guizhou Normal University*, 40(11), 41–50.
- Xu, Z., & Guo, C. (2020). The impact of family socioeconomic status on adolescent self-efficacy: The mediating role of parental involvement and the moderating role of only child status. *Journal of Hebei University (Philosophy and Social Sciences Edition)*, 45(06), 135–145.
- Yang, Z. (2021). Application of flipped classroom in information technology teaching in higher vocational education. *Modern Vocational Education*, (17), 372–207.
- Ye, X. (2014). On the impact of traditional concepts on college students' employment. *Brand (Second Half of the Month)*, (10), 141.
- Zhang, L. (2012). On the learning efficacy of middle school students and its cultivation strategies. Journal of Southwest Agricultural University (Social Science Edition), 10(04), 175–178.
- Zhang, Y., Ao, X., & Wang, G. (2020). An empirical study on the impact of extracurricular tutoring on students' self-esteem development. *Education Guide*, (12), 51–62.
- Zhou, L., Zhuo, G., Li, X., & Zhang, Y. (2024). A study on the relationship between professional identity, academic self-efficacy and autonomous learning of science normal school students in western China. *Western Quality Education*, 10(14), 165–168.
- Zhou, M., & Li, Z. (2009). Research on the college entrance examination system from an economic perspective. *East China Economic Management*, 23(06), 158–160.
- Zhou, S. (2017). Research on management dislocation and countermeasures behind democratic and equal teacher–student relationships: From the experience of a head teacher. *Teacher Education Forum*, (06), 40–43.
- Zhou, Y. (2013). Research on the relationship between self-efficacy and scientific research ability cultivation. *Journal of Jincheng Vocational and Technical College*, 6(03), 74–77.
- Zhu, Q., & Zeng, L. (2023). An analysis of the importance of ideological and political education for students' career guidance. *Middle School Political Teaching Reference*, (24), 115.