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The Influence of College Students' Attitude of Choosing Educational Improvement on Academic Performance

——The Mediating Role of Achievement Motivation and Learning Initiative

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Abstract: With the improvement of China's education penetration rate, The average education level of people is rising. The majority of students are satisfied to have finished the required schooling stage and wish to pursue higher education by working toward a bachelor's, master's, or doctoral degree. According to psychology's theory of motivation, motivation mostly takes the form of a personal desire or purpose to work toward a certain objective. It means that people will behave differently at different levels of self-awareness to pursue a certain expected purpose. As a result, learning motivation has a significant impact on college students' academic success. Junior students' academic success is also somewhat influenced by their attitude toward improving their academic credentials. Based on that, this research collects information by issuing questionnaires and collecting data and then uses SPSS statistical software to conduct reliability and validity testing and related regression analysis on the surveyed data. The results reveal that growth motivation and learning initiative play a mediating role in the impact of school admission status on academic performance. This research helps to guide students to set goals, improve students' learning motivation, improve the quality of university education, and ensure better professionalism and development of college students.

Keywords: junior students, current academic performance, achievement motivation, learning initiative

1. Introduction

1.1. Research Background

Since the founding of the country, China has vigorously developed education so far. From 1949 to 2023, China carried out several deepening reforms on education, which have made people are becoming more and more interested in education and have higher requirements for their academic qualifications. Many students are actively seeking higher education after completing the nine-year

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compulsory education required by the state. The "2020 National Statistical Bulletin on the Development of Education" released by the Ministry of Education of the People's Republic of China in 2020 shows that the enrollment of general undergraduates and junior colleges is 9.6745 million, an increase of 525,500 or 5.74% over the previous year; An increase of 190,000 people, an increase of 20.74%. Accordingly, we can see that the number of people with a bachelor's degree has a large base and a low growth rate. However, the number of graduate students is relatively small, but the growth rate is relatively large. More and more people are willing to study for postgraduate and obtain a master's degree, but there are still some college students who think that a bachelor's degree is enough, and there is no need to study for a higher degree. Many students will choose whether to continue their studies in the third year of university and then start to formulate their own study plan or career plan. As a result, students will have different learning psychology and learning motivation in the third year, which in turn will have a certain impact in relation to the third-year students' academic achievement.

1.2. Literature Review

There are too many research on the elements affecting college students' academic success, and one of the most popular ones has always been the connection between learning motivation and academic achievement. First of all, the research on the relationship between the attitude of choosing academic qualifications and academic performance is not enough. At present, there are some studies on the correlation between goals and academic performance. According to studies, LTP—which stands for long-term prospects and is defined as an individual's belief in their ability to maintain the consistent effort necessary to attain long-term goals—can predict academic success. Self-reported grade point average (GPA) and official GPA are typically used to define LTP [1]. Secondly, some scholars believe that learning initiative has a greater impact on academic performance. Others believe that the initiative of college students in learning English and their English performance are positively correlated [2]. Another scholar conducted a quantitative analysis of the English scores of freshmen. The results of the study revealed a negative correlation between the subjects' internal and external motivation, as well as between their English test scores and their thermal motivation [3]. Yet, some research has indicated that there is only a weakly positive association, which is not statistically significant, between academic achievement and motivation level [4]. It can be seen that a complex relationship exists between learning initiative and performance in learning. Studies focusing on the connection between accomplishment motivation and academic performance are also related to the theory of achievement motivation. In situational expectation-value theory (SEVT), researchers focus on the unique and interactive relationship between students' expectations and system of values and academic performance. Research shows that students' expectations and system of values predict fitness. For example, in the United States, student expectations and a stem of values are predictive of student performance and choices [5]. In social cognitive theory (SCT), researchers emphasize the function of self-efficacy. Research by Schunk et al. has shown that beliefs about ability are positively related to learning motivation and performance [6]. Also, several researchers have conducted empirical study to learn more about the connection between academic success and achievement motivation. In 2004, Bruinsma shown that more motivation results in improved academic achievement. According to Fereidoni-Moghadamm et al. [7], there is a strong link between students' motivation for academic success and their grades. From previous studies, we can see that many psychological factors have varying degrees of influence on college students' academic performance. However, existing research is mainly limited to academic emotions, career planning, and subject employment prospects. Therefore, this article aims to study whether Chinese junior students choose to continue to improve their academic qualifications and the impact on their academic performance. Achievement motivation and learning initiative are chosen as intermediary variables to explore the relationship between variables and to provide learning objectives. Research on learning motivation

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and academic performance provides a theoretical basis. This research aims at a critical period of junior year, and provides scientific guidance to some confused students, helping them to clarify learning goals, improve learning motivation, and improve academic performance. In addition, this study aims to enrich the content of university education, provide high-quality talents for various positions in society, and send prospective graduate students with solid basic knowledge to universities.

2. Research Hypothesis

Firstly, there is a significant correlation between the current academic performance and the attitude of junior students in choosing to improve their academic qualifications, achievement motivation, and their learning initiative. Secondly, the achievement motivation and learning initiative of junior students play a mediating role between their attitude towards choosing to improve their academic qualifications and their current academic performance.

3. Methods

3.1. Instrument

This study uses a questionnaire survey method, with 200 Chinese junior students as the research subjects. This questionnaire rewrote the Learning Motivation Questionnaire, adding some questions from the Learning Motivation Diagnostic Test (MAAT) revised by Zhou Bucheng, Department of Psychology, East China Normal University, and collecting the results of the subjects' professional courses. There are a total of 15 project questions and four dimensions: attitude to a higher school, learning initiative, and achievement motivation. Current academic performance (based on an average score of 100 points as an indicator of academic performance). The following table (Table 1) is used to show the key issues in the study. There are 15 items in total, with a score of 7 points (1 - "very disagree • 7 -" very agree "). Respondents filled in on the impact of motivation to improve academic qualifications on learning. The independent variable is the subject's attitude toward improving academic qualifications, learning initiative, and achievement motivation, while the dependent variable is the subject's junior-year learning outcomes. There are 5 questions for each variable. The complete questionnaire is distributed through the questionnaire Star platform. All the subjects were Chinese junior students with a sample size of 200 (excluding incomplete data). (See Table 1).

Table 1: Questionnaire.

Variables	Items	Questions
Attitude	ATT1	I will choose to continue to improve my education
	ATT2	I think it is very important to improve the academic background
	ATT3	I think it is very helpful to promote my academic qualifications
	ATT4	I don't intend to continue to improve my education
	ATT5	I don't think the promotion of academic qualifications will help me much
Learning initiative	LIN1	The goal of improving academic qualifications can promote the initiative to study

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Table 1: (continued).

	LIN2	Improving my education can encourage explore knowledge actively ledge
	LIN3	The opportunity to improve my academic qualifications has improved my learning efficiency
	LIN4	Education promotion will promote my active learning every day
	LIN5	Education promotion will make me clear goals for learning
achievement motivation	AMO1	I can get happiness and satisfaction from learning
	AMO2	Clear goals will make my achievements ahead of others
	AMO3	I like to understand the complicated part of the textbook through hard work
	AMO4	I study hard to gain more knowledge
	AMO5	In the learning process, my initial goal is to get higher scores

3.2. Data Analysis

After the questionnaire was collected, valid questionnaire data were input into a computer, and descriptive statistics and correlation analysis were conducted using SPSS26.0. The PROCESS plug-in was used to test the mediating effect of achievement motivation and learning initiative on the improvement of academic qualifications and current academic performance.

4. Results

The results of this study are divided into four parts, namely, reliability and validity analysis, correlation analysis, regression analysis, and mediation.

4.1. Reliability and Validity Analysis

This study's reliability coefficient value is 0.881, which is higher than 0.8 and shows that the data are of good dependability quality and may be used for further analysis and investigation. In addition, the reliability coefficient of the independent variables and dependent variables in this study are shown in the Table 2. In addition, the independent variables in this study are attitudes towards higher education, the intermediary variables are learning initiative, and achievement motivation, and the reliability analysis results of the dependent variables' final scores are as follows. Table 3 shows that the KMO and Bartlett's sphericity tests were both greater than 0.7, demonstrating that the questionnaire was valid and that there was some connection between the planned independent variables in the survey.

Table 2: The reliability coefficient value of attitude, learning initiative, achievement motivation, grade.

	Attitude	learning Initiative	Achievement Motivation	Grade

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Table 2: (continued).

Cronbach's Alpha	.710	.763	.713	.719
N of Items	5	5	5	5

Table 3: KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.881
Bartlett's Test of Sphericity	Approx. Chi-Square	1125.302
	Df	105
	Sig.	.000

4.2. Common Method Deviation Test

This study employs the single-factor test by Harman. The first component accounts for 38.810% of the variance, which is under the crucial criterion of 40%. There are three factors with characteristic roots higher than 1. This suggests that common technique bias did not have a substantial impact on the study's findings.

4.3. Correlation Analysis

Each variable in this study underwent a Pearson correlation analysis, and the findings are displayed in Table 4.

Table 4: Correlations among attitude, learning initiative, achievement motivation, grade.

Attitude	Attitude	learning initiative	Achievement	Final grade
Learning initiative	.754**			
Achievement	.729**	.779**	1	
Final grade	.579**	.579**	.502**	1

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

4.4. Regression Analysis

In order to examine the model fitting situation, the R-square value is used in this study's first model fitting situation analysis. As we can see from table 5, the R square is the explanation of the independent variable for the dependent variable, and the results are shown in the following table. The R square is relatively close to the adjusted R square, indicating that the data in this study are relatively stable. The R-side explanation is a predictive variable: data on achievement, attitudes towards higher education, and learning initiative can explain 38.3% of the final grade, which is within an acceptable range. The Devin Watson value is 1.875, close to 2.0, indicating that the sample is independent.

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Subsequently, we use the ANOVA table to test the hypothesis (see table 6). From the data shown in the table below, it can be seen that the significance is less than 0.05, indicating that the regression equation is meaningful.

Finally, according to the data in the coefficient table below (see table 7), the significance coefficient is less than 0.05, indicating that this variable in this study has statistical significance for the model and there is no multicollinearity.

Table 5: Model Summary.

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate	Durbin Watson
1	.619[a]	.383	.374	.61628	1.875

a. (constant), achievement, attitudes, learning initiative data
b. Dependent variable: Final grades

Table 6: ANOVA analysis.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49.549	3	16.516	43.487	.000[b]
	Residual	79.759	210	.380		
	Total	129.308	213			

a. Dependent Variable: Final grades
b. Predictors: (Constant), Attitude, achievement, attitudes, learning initiative data

Table 7: Coefficients[a] of attitude, learning initiative, achievement.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.481	.314		1.530	.127
Attitude	.364	.121	.325	3.702	.000
Learning initiative	.393	.115	.327	3.409	.001
Achievement	.013	.119	.010	.105	.916

a. Dependent Variable: behavior intention

4.5. Mediation Effect Test

This study uses the PROCESS plug-in of SPSS 26.0 to conduct a mediating effect test based on Hayes's process [8]. The independent variable is selected as education improvement, the dependent variable is current academic achievement, and the mediating variables are achievement motivation and learning initiative. Before data processing, referring to the study by Wen Zhonglin et al., this study completed standardization processing for all continuous variables [9]. The result shows that the fitting result of the intermediary model is good. For further selection, a Bootstrap test for confidence interval estimation can be performed. Repeat sampling for 5000 samples to calculate a 95% confidence interval. If the obtained confidence interval does not contain 0, it indicates that the corresponding intermediary effect is significant.

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Through the Bootstrap test, it can be seen from the table 8 below that the direct effect of choosing to improve academic qualifications on current academic performance is significant, and the interval does not include zero. While achievement motivation and learning initiative play a mediating role between choosing to improve academic qualifications and current academic performance, the total mediating effect consists of three indirect effects, with a total of three paths: choosing to improve academic qualifications → achievement motivation → current academic performance, choosing to improve academic qualifications → learning initiative → current academic performance, choosing to improve academic qualifications → achievement motivation → learning initiative → current academic performance. The confidence intervals for the two paths of choosing education improvement → learning initiative → current academic achievement and choosing education improvement → achievement motivation → learning initiative → current academic achievement does not contain 0, indicating that their corresponding mediating effect is significant, while the mediating effect of achievement motivation between choosing education improvement and current academic achievement is not significant (See Figure 1).

Table 8: Bootstrap's test for mediation effects.

Model	Mediation approach	Effect size	SE	95%CI	Percentage of effect
Direct effect	Attitude→Final grades	0.4464	0.1206	[0.2087,0.6841]	
Mediates effect	Attitude→Achievement →Final grades	0.0097	0.0956	[-0.1706,0.2026]	2.78%
	Attitude→learning initiative→Final grades	0.1790	0.0884	[0.0363,0.3817]	51.39%
	Attitude→Achievement →learning initiative→Final grades	0.1596	0.0670	[0.0387,0.3015]	45.82%

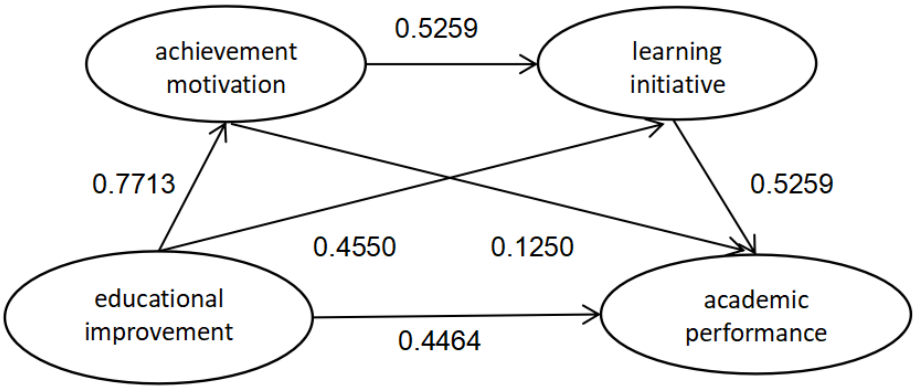

Figure 1: Mediation role of achievement motivation and learning initiative between further education attitude and academic achievement.

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5. Discussion

This research found that attitudes and learning initiatives toward higher education have a significant impact on final grades. Having a psychological motivation to pursue higher education and a self-enhancing learning attitude can enhance learning initiative and efficiency. The research results show that choosing to enter a higher school positively predicts students' current academic performance and that learning initiative is positively correlated with their current academic performance. The above factors have led to a significant improvement in the final exam scores of college students who are more likely to pursue higher education. There is strict planning for both theoretical courses and practical abilities. College students with clear goals for further education will plan their learning plans, which is reflected in the achievement motivation section of the questionnaire. Therefore, the attitude towards further education has a great impact on the final grade. The research found that learning motivation has a significant impact on final grades. Psychology believes that motivation affects a person's behavior and that high motivation leads to efficient and high-quality work. After college students have clear goals, as their psychological motivation continues to strengthen, they will urge themselves to seriously complete their studies and improve themselves. Constructivist learning theory attaches great importance to students' self-exploration of learning. But the behavior of self-exploration is highly influenced by motivation. Actively accepting knowledge and delving into it can continuously discover problems and improve oneself. However, in our research, we found that achievement motivation has no significant impact on final results, which is inconsistent with our expected results and is somewhat different from previous research. Research by Schunk et al. has shown a positive relationship between ability beliefs and learning motivation and achievement [6]. Usher et al. found that self-efficacy beliefs increase when students receive academic feedback indicating good performance [10]. However, it found that having high achievement motivation does not mean achieving a good final grade, but only indicates that high achievement motivation has a certain impact on learning initiative.

Combining previous research, we attach importance to students' learning attitudes and motivation, but research also incorporates constructivist learning theory and focuses on the study of college students learning initiative and psychological motivation. This study will study the factors that affect learning outcomes more specifically. The study also incorporates the issue of achievement motivation to make the study more forward-looking. However, research still has many shortcomings: we did not consider that different majors have different levels of difficulty in entering higher education, different academic years, and different gender also have a significant impact on final results. Moreover, the research did not reflect the impact of practical subjects on final grades and professional proficiency. This research focuses on the final scores of theoretical courses but lacks comprehensiveness in terms of influencing factors. In addition, in terms of data collection, they only collected the average score of final scores and were unable to personally see the professional practice level of college students, which would have a certain deviation from the authenticity of the conclusions.

6. Conclusion

In the context of the gradual popularization of education and the rapid development of education in the country, different levels of academic qualifications appear correspondingly. The different goals of college students have a certain impact on their professional courses. Students with higher requirements for themselves and a desire for higher education make their plans more reasonable. Currently, with the increasing number of college students, different people have different choices. The study examined the effects of learning initiative and achievement motivation as mediating factors in the relationship between various school-going attitudes and present academic performance. Through scientific data collection and analysis, the present study will explore the impact factors on

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academic performance systematically. Finally, it is concluded that a clear attitude towards entering school has a strong impact on current academic performance. However, achievement expectations do not have a strong correlation with current academic performance, which is inconsistent with our hypothetical expectations. After discussion, we suggest that schools have a responsibility to help college students cultivate motivation for learning. Through lectures and training, teachers and students jointly create a good campus atmosphere, allowing college students to gradually form a clear goal for their future development during the four years of study. For college students with clear goals and aspirations for further education, schools should create a good learning environment for them, and give them recognition and positive attention during their burnout periods. For students who do not want to enter higher education, schools should clarify the importance of professional knowledge and help students develop career plans.

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