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The Impact of College Students' Achievement Goal Orientation on Learning Investment: The Mediating Role of Future Time Insight

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Abstract: *This study explores the relationship between achievement goal orientation and learning investment, and the mediating role of future time insight. The results show that the overall level of College Students' learning investment is above medium, and there are significant grade differences in the focus dimension of learning investment; College Students' future time insight, achievement goal orientation and learning investment are three variables, and there is a significant correlation between the two variables; Among them, future time insight plays a complete mediating role in the impact of achievement goal orientation on learning investment.*

Key words: *achievement goal orientation, future time insight, learning input, ollege student*

Question raised

With the change and development of the times, college students are facing more and more tests for their future development. Facing the new university life and the severe employment pressure of the current era, some college students have clear goals, learning investment and constantly accumulate experience and experience; Some college students are aimless and indulge in networks and games. In educational practice, we find that students with good learning status are more likely to have a clear layout and correct cognition of their future; Students with poor learning status are easy to be confused, sometimes do nothing, have negative goals, and even have no clear goals. Based on this, this paper discusses the impact of College Students' achievement goals on learning investment and the mediating mechanism of future time insight.

The learning investment of college students is a continuous and stable process of learning with positive cognition, behavior and rising emotions. It is a learning state characterized by vitality, dedication and focus (Qiu, 2020). Previous studies on the academic status of college students, such as academic self-efficacy, students' future development, academic achievement, learning burnout, achievement goal orientation and so on, are related to learning engagement. Among them, achievement goal orientation refers to what purpose, understanding and attitude individual holds in achievement activities (Zhou, 2015). Previous studies have shown that achievement goal orientation is positively correlated with academic achievement and learning investment, but there are few empirical studies on this specific impact mechanism.

As a stable personality trait, the connotation of future time insight includes not only the individual's understanding of future time, but also emotional attitude and behavior tendency (Qin, 2016). Previous studies have found that the variable of future time insight is of great significance to the research of learning investment.

According to the above analysis, this study explores the internal mechanism of College Students' learning investment, and explores the influencing factors and action process of College Students' learning investment, in order to improve the level of College Students' group learning investment.

Literature review

The relationship between achievement goal orientation and learning engagement

Yancui Wang (2013) studied the relationship between achievement goal orientation and learning investment. The results show that achievement approach goal and mastery avoidance goal significantly positively affect learning investment, achievement avoidance goal and mastery approach goal significantly negatively affect learning investment, and there are differences in learning investment among students of different years, gender, stages and schools (Wang, 2013). That is, the more people who have the mentality of avoiding failure and doing better than others, the higher their learning investment will be. Therefore, this study believes that there is a significant impact between achievement goal orientation and learning input.

The relationship between future time insight and achievement goal orientation

Individual cognition, emotional attitude and behavior tendency of future time together constitute the content of future time insight. Individual cognition and planning of future time can promote their future development. Xiting Huang shows that future time insight plays a key role in a person's success. The clearer a person's plan for the future, the higher his requirements may be, which will have an impact on his current learning beliefs. Zhezhu Jin (2011) found that the mastery goal of achievement goal orientation has no significant impact on the purpose consciousness of future time insight, but has a significant impact on other dimensions of future time insight. Achievement goal has a significant impact on behavior commitment and purpose consciousness (Jin, 2011). It shows that people who care more about knowledge acquisition and achievement in learning will be reflected in different dimensions of future time insight. Therefore, this study believes that there is a significant impact between future time insight and achievement goal orientation.

Research methods

Research object

This study uses the method of stratified cluster sampling to select college students from three colleges and universities in Shenyang. 1123 questionnaires are distributed and 1123 questionnaires are recovered. According to the unqualified situation such as question time, 335 invalid questionnaires are eliminated, and 788 valid questionnaires are left. Among them, there are 424 freshmen, 227 sophomores, 102 junior students

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and 35 senior students.

Research tool

Power table of College Students' general future time insight

This study adopts the general future time insight power table compiled by Qizheng song (Song, 2004). The scale is composed of 20 items in five dimensions: future image, purpose awareness, future time efficiency, far goal orientation and behavior commitment. The four point scoring method is adopted. From 1 to 4, it represents "completely inconsistent", "somewhat consistent", "relatively consistent" and "fully consistent". The higher the score, the higher the level of future time insight, Among them, 13, 14, 15, 16 and 20 are reverse scoring questions. In this study, the scale of Cronbach alpha coefficient is 0.896.

College Students' achievement goal orientation scale

This study adopts the achievement goal scale revised by Keyi Dou, which is composed of 16 items in three dimensions: mastery goal, achievement approach goal and achievement avoidance goal. The five point scoring method is adopted. From 1 to 5, it represents "very inconsistent", "relatively inconsistent", "uncertain", "relatively consistent" and "very consistent", The higher the score, the closer the research object is to this goal. In this study, the scale of Cronbach alpha coefficient is 0.783.

Learning input scale

This study adopts the learning input scale (Xu, 2019) revised by Xu Changyong, which is composed of 14 items in three dimensions of vitality, dedication and focus. Using the five point scoring method, from 1 to 5 respectively represent "almost no", "rarely", "sometimes", "often" and "always". The higher the score, the higher the level of learning investment. In this study, the scale of Cronbach alpha coefficient is 0.932.

Data analysis and processing

This study uses SPAA26.0 software and PROCESS macro program to carry out data analysis.

Research results

Investigation and research on College Students' learning investment

General characteristics of College Students' learning investment

As shown in Table 1, the average score of college students in the overall level of learning investment is 46.36, the average score of vitality dimension is 15.88, the average score of dedication dimension is 16.89, and the average score of focus dimension is 13.59. This questionnaire uses the 5-point scoring system and takes the middle value of 3 as the reference basis of the medium level. The higher the score, the better the performance

of learning input. The average value of the overall learning investment and each dimension is greater than 3, which indicates that the level of College Students' learning investment is above the middle level.

Table 1

Overall characteristics of College Students' learning investment

Item/score	Minimum	Maximum	Mean (M)	Standard Deviation (SD)	Project mean (M /I)
Vitality	5.00	25.00	15.88	18.76	3.18
Dedication	5.00	25.00	16.89	20.08	3.38
Absorbed	4.00	20.00	13.59	14.47	3.40
Learning engagement	14.00	70.00	46.36	142.45	3.31

Differences of College Students' learning investment in grades

The one-way ANOVA method is used to analyze the grade differences of College Students' learning investment. The results are shown in Table 2. There are significant differences in the focus dimension of learning investment among different grades. Among them, the senior grade is significantly greater than the freshman, sophomore and junior, but there is no significant difference in the dimension of vitality and dedication, but the dedication level of senior students is higher than that of students in other grades. See table 1-2 for detailed results.

Table 2

Differences of College Students' learning investment in grades

	Freshman		Sophomore		Junior		Senior		F
	M	SD	M	SD	M	SD	M	SD	
Vitality	16.13	4.28	15.44	4.55	15.86	4.33	15.74	3.42	1.28
Dedication	17.15	4.35	16.39	4.81	16.75	4.49	17.46	3.52	1.64
Absorbed	13.83	3.74	13.04	3.96	13.54	3.88	14.46	2.87	2.741*
Learning Engagement	47.10	11.62	11.62	12.83	46.16	11.96	47.66	8.71	1.89

Correlation analysis of College Students' future time insight, achievement goal orientation and learning investment

Pearson product-moment correlation coefficient was used to analyze the three variables. As shown in Table 2, there is a significant positive correlation between College Students' future time insight, achievement goal orientation and learning investment variables, which meets the preconditions of mediation effect test.

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Table 3

Correlation Analysis of College Students' future time insight, achievement goal orientation and learning investment

	Future Time Perspective	Achievement Goal Orientation	Learning Engagement.
Future Time Perspective	1		
Achievement Goal Orientation	0.28**	1	
Learning Engagement	0.21**	0.10**	1

*Notes: *p<0.05, **p<0.01, *** p<0.001, the same below.*

The impact of College Students' achievement goal orientation on learning Investment: an intermediary model analysis

Taking achievement goal as independent variable, learning input as dependent variable and future time insight as mediating variable, the mediating effect was tested by model 4 in process program. The research results are shown in Table 4. College students' achievement goal orientation has a significant positive impact on future time insight (β= 0.22, P < 0.01). Future time insight has a significant positive impact on learning engagement (β= 0.31, p<0.01).

Table 4

Mediation effect analysis of future time insight

		Overall fit index			Significance of regression coefficient	
Outcome variable	Predictive variable	R	R2	F	β	t
Future Time Perspective	Achievement goal orientation	0.28	0.08	64.53	0.22	8.03***
Learning Engagement	Future Time Perspective	0.22	0.05	19.66	0.31	5.51***
Learning Engagement	Achievement goal orientation Future Time Perspective	0.10	0.01	8.62	0.06	1.36

Significance test and effect quantity analysis of mediating effect

The Bootstrap program is used to explore the mediating effect. The number of repeated sampling reaches 5000. The results are shown in Table 5. After adding the mediating factor of future time insight, there is no obvious direct effect between achievement goal orientation and learning investment (β= 0.06, P = 0.18), and future time insight plays a complete intermediary role between achievement goal orientation and learning investment. Specifically, the mediating effect consists of an indirect effect generated by one path: achievement goal orientation, future time insight learning investment. The Bootstrap program shows that the upper and lower limits of the 95% confidence interval of the indirect effect Bootstrap do not contain a value

of 0, indicating that the indirect effect has reached a significant level.

Table 5

Breakdown of total effect, direct effect and intermediary effect

	Effect value	Boot Standard error SE	Boot CI lower limit	Boot CI upper limit	Relative effect value
Total effect	0.13	0.05	0.03	0.23	
Direct effect	0.06	0.05	-0.04	0.16	47.19%
Intermediary effect	0.07	0.02	0.04	0.10	52.81%

Discussion and analysis

This study found that the overall performance of college students in learning investment is at the upper middle level, and the specific conditions of different grades are different. There are significant differences in the focus dimension of learning investment. Compared with other grades, the students in the senior stage are stronger in the level of concentration and dedication, while the students in the freshman stage show obvious vitality because they are full of freshness, which is a feature different from other grades. Learning engagement is a process in which positive cognition, behavior and high emotion act on learning continuously and stably. Freshmen have just entered the University and have strong expectations and fantasies about college life. Compared with students of other grades, they have strong learning momentum; Sophomores and juniors have been in the University for a long time. They are not as enthusiastic and looking forward to the University as freshmen. Senior students face the pressure of graduation, so they have a high degree of concentration and dedication. When they encounter difficulties in learning, they can maintain an optimistic attitude and actively find ways to solve problems. The results of this study on the influencing factors of learning engagement also verify this point.

In the process of studying the relationship between achievement goal orientation and learning investment, the research results prove that the intermediary variable of future time insight plays an intermediary role between them. The impact of achievement goal orientation on learning investment needs to rely on the intermediary of future time insight to realize and play its role. Students who can set reasonable goals for themselves will manage their learning and improve their learning investment by reasonably grasping the future time. This shows that when the individual learning goal of college students is more inclined to master knowledge than to surpass others, they will have a clear and reasonable future plan and set up a positive belief for themselves, so as to reasonably arrange time and constantly immerse themselves in learning. On the contrary, if a student takes surpassing others as his learning goal, he will demand himself according to other people's standards. His planning for the future is unstable, his level of insight into the future time is lower, and his learning state is poor.

Educational enlightenment

Promote college students to form a positive achievement goal orientation

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Achievement goal orientation is a person's goal of achievement activities, which has significant characteristics in cognition, behavior and emotion. From the analysis of the article, we can know that achievement goal orientation will have a certain impact on the development of learning investment, and it is a positive and significant guidance. Moreover, most college students take the concept of ability entity and think that their ability remains unchanged and that they can only be successful if they perform better than others. This consciousness makes students pay more attention to their study and studies. Therefore, teachers should guide and help them establish positive achievement goals, that is, master goals, so as to guide students to approach the concept of ability growth and make them realize that learning is to improve themselves rather than compare with others. In this "Involution" era, it is very necessary for college students to participate in involution less, compare less with others to obtain a sense of achievement, pursue their hearts and learn for knowledge. Therefore, in teaching, teachers should help students' ability growth to improve their learning motivation, and make them realize the importance of learning to self-improvement from the heart, so as to improve their learning investment. For example, we can pay attention to students' inner needs, start with students' interests, teach students according to their aptitude, or arrange less formal homework or course papers to avoid students' incorrect achievement goals compared with others.

Timely guide students to establish positive beliefs about the future

Future time insight is an intermediary variable for the effective combination of achievement goal orientation and learning investment, and plays an important role as a bridge. Therefore, teachers can timely guide students to establish positive beliefs in the future in their daily teaching activities, make students full of confidence in the future and establish a positive sense of long-term goals, so as to promote students to effectively manage their future life and prepare for the future. Under the current innovative talent training mode in Colleges and universities, teachers can explain more about future career planning for students, solicit students' opinions, hire experienced professionals to discuss and communicate with students, and let students gradually confirm their future planning in the discussion. At the same time, college counselors should communicate with students more and understand the basic situation of each student is the essential responsibility of each counselor. In normal work, counselors can hold class meetings to discuss future development and career direction with students, and help students establish positive beliefs in the future in a collective and individual way.

Respect individual differences and cultivate college students' learning engagement by grade

Research shows that there are differences in the performance of different grades of college students in learning investment. Senior students will occupy great advantages in the level of concentration and dedication, while freshmen will occupy more advantages in vitality. Generally speaking, freshmen and sophomores have just entered the University and are still immersed in the adaptation to university life. They are not clear about their future planning and confused. They only have the vitality of learning but lack the perseverance of learning. Therefore, colleges and universities can set up undergraduate tutorial system at the beginning of school, strengthen the management of undergraduate learning at the beginning of school, establish career planning and goals as soon as possible, so as to focus on learning in corresponding fields. At the same time, we should

also innovate the career planning course in Colleges and universities, set it up in the freshman period, and reform the course teaching by paying attention to students' interests.

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