Research on the Influencing Factors of Graduate Students' Academic Behavioral Norms

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Abstract

In order to better understand the cognitive level of postgraduates on academic norms and strengthen the accumulation of research methods of postgraduates, the research conducted a questionnaire survey on the postgraduates of Shandong University of Finance and Economics, Anhui University of Finance and Economics and Anhui Normal University. According to the results of the questionnaire survey, correlation and regression analysis were used to explore the influence of academic ecological environment, academic research interests, and accumulation of research methods on academic behavioral norms. The research results show that the academic ecological environment and the accumulation of research methods have a significant positive effect on the academic behavioral norms of students, and the positive effect of the academic ecological environment on the academic behavioral norms is more significant than that of the accumulation of research methods. After the method accumulation variables, the positive effect of the academic ecological environment on the academic code of conduct is enhanced; the academic research interest has no significant effect on the academic code of conduct of the graduate students; the research experience and academic research interest of the graduate students have a significant positive effect on the accumulation of research methods. effect.

Keywords

Postgraduate Education; Academic Code of Conduct; Academic Ecological Environment; Academic Research Interest; Academic Research Method Accumulation.

1. Introduction

In recent years, the frequent occurrence of academic anomie in academia has attracted the attention of the academic circle and even the relevant government departments. As a new force in the future academia, the postgraduate group's academic code of conduct and academic ability will affect the future development of China's academia and even China's economy and society. Therefore, it is of great significance to pay attention to this issue. The imbalance of the academic ecology is mainly manifested in a large number of low-level repetitive papers and works caused by eagerness for success; academic fraud; low effectiveness of academic activities, etc. [1] The reasons include the imperfect academic evaluation system, the drawbacks of the personnel system, the lack of relevant laws and regulations, etc.[2] Regarding the countermeasures for optimizing the academic ecological environment, Song Yuan (2010), based on Herzberg's two-factor theory, believes that when rewarding graduate students with scientific research achievements, spiritual motivation and self-worth should be given priority, and growth should be highlighted. According to the principle of development and development [3], Li Shiyong and Ma Weihua (2011) believe that the punishment for academic corruption should be

strengthened [4], and Xianghua (2015) highlighted the role of optimization of university recruitment and recruitment mechanism in building a good academic environment, he believes that the university enrollment and recruitment mechanism should be reformed to optimize the academic team from the source [5]. It is not difficult to find that the research on the topic of academic ecological environment has gradually developed around the countermeasures to optimize the academic environment, and most of the research regards the academic ecological environment as an invisible dependent variable.

Regarding the empirical research on academic code of conduct, Chang Yaping (2008) found that based on actual survey data, personal factors that significantly affect academic misconduct include academic status in peers, teaching work pressure, research assessment pressure, personal understanding of relevant norms and the pressure to obtain higher professional titles [6]. Liu Guojun et al. (2013) emphasized that the academic code of conduct for postgraduates needs to be transformed from ethics-based to institutional constraints [7]. It can be seen that in the research on the influencing factors of academic behavior norms, domestic scholars mainly conduct factor analysis from personal factors without considering the impact of the macro environment on academic behavior. To sum up, in the future research, we can further expand the theoretical and empirical research on "academic ecological environment" and "academic code of conduct", and conduct investigation and analysis from data to conclusion.

2. Research Design and Theoretical Model

According to the social learning theory, human beings learn behaviors through observation. Compared with personal factors, environmental factors have a relatively greater impact on graduate students' academic anomie tendency [8], and the academic ecological environment has a stimulating or restricting effect on students' academic moral behavior [9]. Therefore, the study puts forward the following hypotheses:

Hypothesis 1: The academic ecological environment has a significant positive impact on the academic code of conduct of graduate students;

Academic research interest shows the enthusiasm of postgraduates in academic research, which mainly includes academic interest, interest in the topic selection of the thesis, and interest in academic-related activities. Generally speaking, the more interested an individual is in something, the more energy he will devote to it, the more he will be in awe of it, and the more able he will be able to resist the temptation of the outside world. Therefore, the study puts forward the following hypotheses:

Hypothesis 2: Academic research interest has a significant positive impact on graduate students' academic code of conduct;

Objectively speaking, students with rich accumulation of research methods show that they have received more academic training and accumulated a lot of academic knowledge. He has mastered more skills that allow him to complete scientific research tasks, so there is no need to plagiarize. Therefore, the study puts forward the following hypotheses:

Hypothesis 3: The accumulation of postgraduate research methods has a significant positive impact on the academic behavioral norms of postgraduates;

Interest is the stable internal driving force of individual actions. Under the guidance of strong academic research interests, graduate students can concentrate more on academic research, continuously master academic research skills, and accumulate academic research methods. Persistent interest in academics affects the growth of outstanding graduate students. the core factor [10]. Therefore, the study puts forward the following hypotheses:

Hypothesis 4: Academic research interest has a significant positive impact on the accumulation of postgraduate research methods of postgraduates;

Academic experience can stimulate the desire of postgraduates to study and explore. Zhu Hong et al. (2011) believed that academic salons, academic reports, social surveys and other academic activities play a significant role in improving the academic ability of postgraduates. It affects the accumulation of postgraduate research methods to varying degrees [11]. Therefore, the research puts forward the following assumptions:

Hypothesis 5: Research project experience has a significant positive effect on the accumulation of graduate research methods.

Based on the above research assumptions, the conceptual model of this paper is shown in Figure 1.
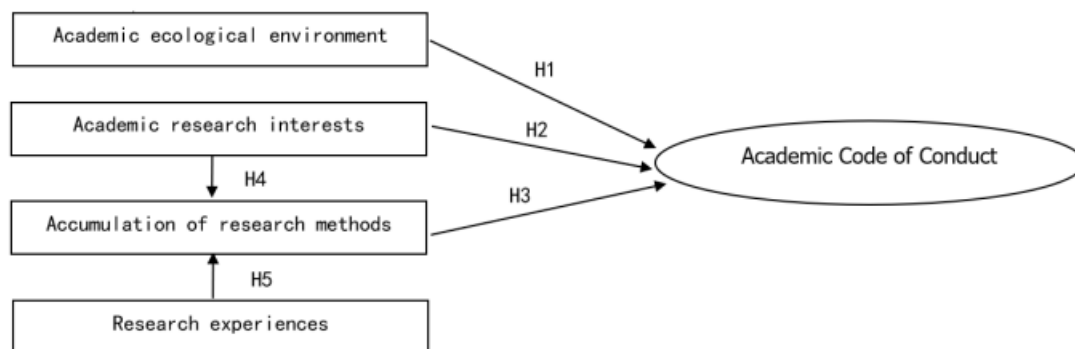

Figure 1. Theoretical Model

In order to fully grasp the current situation and characteristics of the academic code of conduct and academic ability of postgraduates, 242 postgraduates of different majors, genders and grades in three colleges and universities distributed questionnaires to conduct a special survey. Evaluation, evaluation of one's own academic code of conduct, evaluation of the degree of interest in academic research in the professional field of this discipline, and evaluation of the degree of mastery of management research methods. A total of 242 questionnaires were distributed. After deleting 9 invalid questionnaires, the final number of valid subjects entered into the statistical analysis was 233.

By arranging the questionnaires and preprocessing the data, this study obtained the statistical distribution of the demographic characteristics of the research subjects: in terms of birth year, the samples born after 1992 accounted for more than 50% of the total sample size. ; In terms of degrees obtained, 75.1% of the bachelor's degree in management, bachelor of economics, bachelor of law, etc. accounted for a small proportion; in the majors, MBA or MTA accounted for the largest proportion of 32.6% , followed by accounting accounted for 29.1% of the master 's degree , accounting, business management, technical economy and management, marketing, logistics and e-commerce, tourism management, auditing, accounting for 15.2% , 8.3% , 1.7% , 2.6% , 1.7% , 1.3% , 7.4% ; In terms of the number of types of scientific research activities that have been completed, 84.5% have no such experience, that is, 0 items. It can be seen that the number of subjects who have done scientific research activities is relatively small; the proportion of women in the subjects 60.6%, almost twice as many as male subjects, 69.5% for postgraduates and masters, more than twice that for masters, and 69.5% for those who have worked for less than two years (excluding two years)62.7%, which is almost double the number of people who have worked for more than two years. See Table 1 for details. Through descriptive statistical analysis of the scale scores, the scores of academic ecological environments, academic research interest, research method accumulation and academic code of conduct generally meet the normal distribution, and there is no serious skewness.

Basic Information	Classification	number of people	% of total
Year of birth	<=1986	32	13.9
	1987~1991	75	32.6
	>=1992	123	53.5
Gender	Male	91	39.4
	Female	140	60.6
Degree	Bachelor of Management	169	75.1
	Bachelor of Economics	22	9.8
	Bachelor of Laws	4	1.8
	Bachelor of Arts	11	4.9
	Bachelor of Engineering	14	6.2
	Bachelor of Education	2	0.9
	Bachelor of Science	2	0.9
	Bachelor of Agriculture	1	0.4
Master's Category	Master's degree	71	30.5
	Master	162	69.5
Study a major	Accounting	35	15.2
	Business Administration	19	8.3
	Technoeconomics and Management	4	1.7
	Marketing	6	2.6
	Logistics and E-Commerce	4	1.7
	Tourism management	3	1.3
	MBA or MTA	75	32.6
	Master of Audit	17	7.4
	Master of Accounting	67	29.1
Working years	<=2(not included 2)	146	62.7
	>=2	87	37.3
Number of types of scientific research activities completed	0	197	84.5
	1	26	11.2
	2	7	3.0
	3	3	1.3

Figure 2. Distribution of basic conditions of subjects

The content of the questionnaire includes four scales and the personal information of the subjects. Questions about the academic ecological environment, academic research interest, accumulation of research methods, and academic code of conduct are set. The overall evaluation of the social status of academic fields in terms of academic achievement norms and achievement citations, the Academic Research Interest Scale is designed to measure the subjects' interest in academic research in the subject's professional field, and the Research Method Accumulation Scale is designed to measure the current subjects' interest in academic research. Mastery of research methods, the Norm of Academic Behavior Scale is designed to measure subjects' own behavioral stance on norms of academic achievement and citations. Each variable measurement scale adopts Likert's 5 -point scale method, and each question is assigned a quantitative score of 1-5. Consumers rate each question according to their own

feelings, from 1 to 5, respectively Very inconsistent, not very consistent, average, basically consistent, fully consistent. In order to ensure the objectivity and authenticity of the survey data and prevent the subjects from forming a mindset when filling out the questionnaire, some scales set up reverse questions.

3. Empirical Analysis and Hypothesis Testing

3.1. Reliability and Validity Analysis

In this study, Cronbach's a coefficient was used to measure the reliability of the scale. The larger the value of Cronbach's a coefficient, the better the reliability of the scale. If the coefficient is less than 0.35, it means that the reliability is low and the scale is unacceptable; if the coefficient is greater than 0.5, it means that the reliability is acceptable; if the coefficient is greater than 0.7, it means that the reliability of the scale is very good. The following table 2 shows the reliability analysis of the scales of academic ecological environment, academic research interest, research method accumulation and academic behavior norms. From table 2, it can be seen that the Cronbach's a coefficient of these four scales is 0.817348, 0.793291 ,0.864112,0.731047 respectively. All are higher than 0.7, indicating that the four scales of academic ecological environment, academic research interest, research method accumulation, and academic code of conduct all have good reliability levels, so these scales can be used in this study.

3.2. Validity Analysis

Validity generally consists of two aspects: content validity and construct validity. This study adopts a mature scale (likert 5 scale) studied and used by foreign scholars. Therefore, it can be considered that the scale has good construct validity; with regard to the detection of the content validity of the scale, according to the exploratory factor analysis results in Table 2, the KMO statistics are all higher than 0.7, and the Bartlett sphere test has reached a significant level (p value). <=0.05), indicating that the scale has good construct validity.

Concept	Item	Cronbach's Alpha	KMO	Bartlett test(P)
Academic ecological environment	A1---A13	0.817348	0.831168	<0.001
Academic research interests	Da2、Da4、Da6、Da8	0.793291	0.778286	<0.001
Accumulation of research methods	Da1、Da3、Da7、Da9、Da10	0.864112	0.827988	<0.001
Academic behavior tendency	B1---B10	0.731047	0.778329	<0.001

Figure 3. Reliability and construct validity of the measured tables

Correlation analysis of academic ecological environment, academic research interests, accumulation of research methods, and academic code of conduct We use bivariate correlation analysis method to observe whether there is a correlation between academic ecological environment, academic research interest, accumulation of research methods, and evaluation of academic code of conduct through the Pearson correlation coefficient. It can be seen from Figure 3 that there is a high positive correlation between academic research interest and the accumulation of research methods, but the correlation with academic behavior norms is not obvious. Hypothesis 2 has not been verified; Significant positive correlation, and the degree of positive correlation between academic ecological environment and academic behavioral norms is stronger than the correlation between research method accumulation and academic behavioral norms, but it is not enough to show that people who evaluate the academic ecological environment better have a positive attitude towards their own academic behavioral norms. The evaluation is also good. From a more rigorous perspective, regression analysis is also required to accumulate variables by controlling the research method of another influencing factor of the academic code of conduct, and to examine the predictive effect of the

academic ecological environment on the academic code of conduct, so as to improve the accuracy of the analysis results. reliability, which will be further analyzed later.

Concept		Academic research interests	Accumulation of research methods	Academic behavior tendency
Academic ecological environment	Pearson correlation	-0.078	-0.118	0.233**
	Significance (two-sided)	.233	.071	.000
Academic research interests	Pearson correlation		0.810**	0.116
	Significance (two-sided)		.000	.077
Accumulation of research methods	Pearson correlation			0.156*
	Significance (two-sided)			.017

**.Significantly correlated at the .01 level (two-sided).
*.Significantly correlated at the 0.05 level (two-sided).

Figure 4. Correlation of academic ecological environment, academic research interest, accumulation of research methods, and academic behavior tendency

We used analysis of variance to test whether different levels of categorical demographic variables had differences in the accumulation of graduate research methods. From Figure 4 , it can be seen that there are significant differences in age, gender, master's category, major, working years, and the number of types of scientific research projects in the evaluation of graduate research method accumulation. The identification is lower than that of professional masters, women are lower than men, and the graduate students who have had 3 or more scientific research activities are significantly higher than those who have not engaged in scientific research activities. Based on the high correlation between the accumulation of research methods and academic research interest in Figure 5, the subsequent regression modeling will be used to verify the predictive effect of academic research interest on the accumulation of research methods under the control of demographic variables.

Variable	Accumulation of research methods
Year of birth	F=10.409 P<0.001 After 1992<1987~1991<Before 1986
Working years	F=17.221 P<0.001 Less than 2 years < 2 years or more
Number of research projects	F=1.620 P<0.001 0 item<2 items<1 item<3 items
Gender	F=12.168 P<0.001 Female< Male
Master's category	F=33.722 P<0.001 Master's degree<Master
Study major	F=6.336046 P<0.001 Business Administration< Accounting< Technoeconomics and Management< Tourism management<Master of Audit< Logistics and E-commerce< Marketing< Master of Accounting<MBA or MTA

Figure 5. Variational variables accumulated on demographic variables by research methods

3.3. Regression Analysis

 Regression analysis of academic ecological environment, accumulation of research methods and academic code of conduct.

Based on the above correlation analysis results, it can be seen that there is a significant positive correlation between the academic ecological environment and the accumulation of research methods and the academic code of conduct. Therefore, this study adopts the stepwise regression method to analyze the linear relationship between the academic code of conduct and the academic ecological environment of graduate students to improve the reliability of the analysis results. The study draws a scatter plot before regression analysis and modeling to examine the linear trend between variables. From the scatter plot drawn, it can be seen that the academic ecological environment, the accumulation of research methods and the academic code of conduct all have a clear positive linear relationship, although there are individual scattered points that deviate far from the straight line, but overall, the linear relationship between the two is very significant.

The first layer of regression takes the accumulation of research methods as the independent variable, and the academic code of conduct as the dependent variable to carry out the regression analysis using the variable forced selection method. Quadratic regression analysis, and by observing the change of the R square of the two regression models and the F test value of this change, to determine the role of the academic ecological environment. The model analysis results shown in Figure 6 show that the academic ecological environment and the accumulation of research methods have a significant positive predictive effect on the academic code of conduct, and the academic ecological environment has a more significant predictive effect on the academic code of conduct than the accumulation of research methods. , after controlling the accumulation variables of the research method and incorporating the variables of the academic ecological environment, the variance explained by the model increases by 5.9% , and the academic ecological environment has an enhanced role in predicting academic behavior norms. Hypotheses 1 and 3 have been well verified.

Variable	The impact of bad academic behavior	
	First step	Second step
Accumulation of research methods	0.117	0.137
Academic research accumulation		0.231
F	5.730	10.918
R square	0.024	0.087
Adjust R-square	0.020	0.079
Significance test (P)	.017<0.05	.000<0.001

Figure 6. Variational variables accumulated on demographic variables by research methods

Based on the above correlation analysis results, it can be seen that academic research interest is highly positively correlated with the accumulation of research methods, and the accumulation of research methods is significantly related to demographic variables such as birth year, working years, majors studied, gender, master's category, and number of scientific research projects. Therefore, in this study, by gradually establishing a single independent variable regression model accumulated by each demographic variable and dependent variable research method, screening out some unrelated independent variables, and trying to establish a multi-independent variable regression model, the same step by step method was adopted. The regression method analyzes the linear relationship between academic research interest and the accumulation of research methods. From the two-dimensional scatter plot accumulated

between academic research interests and research methods, it can be seen that there is a very obvious positive linear relationship between the two, which is very suitable for regression modeling analysis.

The first-level regression adopts the forced selection method of variables, using gender, master's category, and the number of completed scientific research projects as independent variables, and the accumulation of research methods as the dependent variable for regression analysis. The second-level regression uses gender, master's category, and the number of completed research projects, Academic research interest is secondary regression analysis of independent variables. The regression analysis results are shown in Figure 6: gender, master's category, and the number of completed scientific research projects have a significant predictive effect on the accumulation of research methods. After controlling for the variables of gender, master's category, and the number of completed scientific research projects and including the variable of academic research interest, The increment of variance explained by the model is 49%, and when the academic research interest score increases by 1 point, the score accumulated by the research method will increase by 0.755 points. Obviously, the academic research interest and research experience of postgraduates in this subject area play an important role in promoting the accumulation of students' own research methods. Hypotheses 4 and 5 have been verified.

Variable	Accumulation of research methods(B)	
	First step	Second step
Gender	-0.226	-0.088
Master's category	0.520	0.052
Number of types of scientific research activities completed	0.171	0.011
Academic research interests		0.755
F	15.606	109.305
R square	0.171	0.659
Adjust R-square	0.160	0.653
Significance test	<0.001	<0.001

Figure 7. Regression analysis of academic research interests and accumulation of research methods

In view of the applicable conditions of the linear regression model, this study carried out residual analysis after modeling to strengthen the credibility of the model interpretation. The results of residual analysis show that the variables between the above two regression models all satisfy the linear trend, and the data satisfy the independence, normality and homogeneity of variance.

4. Summary

The study found that: (1) the academic ecological environment, the accumulation of research methods and the norm of academic behavior are all significantly positively correlated. Under the condition that the accumulation of research methods remains unchanged, the positive predictive effect of the academic ecological environment on the norm of academic behavior is enhanced. The postgraduate group does not exist in isolation, it is closely connected with the society. Therefore, it is very necessary to jointly purify the social academic environment by improving relevant laws and regulations and strengthening public opinion and supervision. At the same time, colleges and universities can activate the academic atmosphere by setting up academic exchange funds, inviting famous domestic and foreign experts and scholars to give

academic lectures, holding national and international academic conferences, and encouraging teachers to participate in domestic and foreign academic seminars. (2) Among the personal factors, the postgraduates ' academic research interest and research experience are the main factors affecting the accumulation of postgraduate research methods Therefore, colleges and universities should take necessary measures to stimulate the academic research interest of postgraduates in order to improve the overall scientific research level. First of all, it is necessary to increase the investment in the school's scientific research funds and the incentives for scientific research achievements. At the same time, the allocation of scientific research funds between liberal arts and sciences should follow the principle of balance and cannot be biased. At the same time, a postgraduate evaluation system with greater academic weight should be established. This encourages them to study assiduously in academia. Finally, through the organization of academic salons, scholar lectures, etc., students will also collide with sparks of ideas and dig out their own research interests in the process of exchange of views. In addition, it is suggested that domestic colleges and universities can learn from the advanced postgraduate training systems of foreign colleges and universities, launch scientific research activities that are conducive to the cultivation of postgraduates' scientific research innovation ability, and take incentive measures to encourage students to participate in order to improve the scientific research ability of postgraduates. (3) The hypothesis of the positive effect of academic research interest on the academic code of conduct of postgraduates has not been verified. The author believes that this may be caused by the different psychological motives that stimulate the academic interest of graduate students. Strong utilitarian psychological motivation will also promote the academic interest of graduate students, but it is also very likely to cause graduate students to adopt behaviors that run counter to the academic norms recognized by the academic community in order to achieve their own individual interests when conducting academic activities.

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