Postgraduate Student Academic Moral Anomie Survey, Reasons and Countermeasures: A case Study on a University in Shandong Province

Xiaoyuan Wang, Jinbao Zhao, Liping Liu, Yunyun Wang, Feifei Liu, Yifei Sun

Abstract— As an important part of the social morality system, academic morality is the concrete embodiment of professional ethics in the field of scientific research. Academic environment has been seriously polluted by the anomie of academic morality of the graduate students, academic progress has been hindered, social development and national innovation source power even has been affected. It is of great significance to strengthen the research of the moral construction of graduate students, reverse the disadvantage of the current graduate students' academic morality by carried out the investigation, reason and countermeasure of the graduate students' academic morality. In this paper, we designed the questionnaire of graduate students' academic ethics, and conducted a survey on 582 graduate students of a college in Shandong Province, the reasons of the anomie of academic morality has been analyzed from the aspects of the society, the school, the tutor and the graduate student's own factor, and finally the countermeasures to improve the academic moral environment of the graduate students has been put forward.

Index Terms—**Postgraduate Student, Academic Moral Anomie, Questionnaire Survey, Reason, Countermeasure.**

I. INTRODUCTION

As the highest level of talent training in our country, graduate students are the reserve force of national scientific and technological talents. The academic level and moral quality of graduate students are not only the concentrated embodiment of the style of study, but also concerning the quality of science and technology talents and the thickness of the soft power of economic and cultural culture of a country in the future [1]. At present, national strategic of "public entrepreneurship, innovation" is being actively promoted in China. Higher requirements are put forward on the academic level and innovation ability of graduate students with the emergence of a series of innovative platforms and industrial incubators such as "Internet +", "Hackerspace" and "Innovation Alliance". Academic morality is a kind of professional morality, which is the ethical norm to be

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followed by individuals or groups engaged in scientific research work and academic activities. Good academic morality is an important guarantee to promote the prosperity and development of postgraduate education and the innovation ability of postgraduate students [2]. However, with the enlargement of the enrollment scale of postgraduate students and the infiltration of some unhealthy ethos in society to postgraduate groups, the phenomenon of academic morality anomie appears a rapid growth trend in recent years. As a result, the academic environment has been seriously polluted, the academic progress has been hindered and the social development and national innovation source power even has been affected [3]. For example, research result has become a commodity and "paper trading" has become livelihood means for a part of the postgraduate students in order to obtain degrees and benefits. The phenomenon like substantial reference to other people's results without commenting, the use of other people's paper structure, and even plagiarism, arbitrary tampering experiments and survey data, "one manuscript more throws" and shoddy are common.[4,5]. Therefore, it is urgent to strengthen the construction of postgraduate academic morality and reverse the current unfavorable situation of postgraduate academic moral anomie. In view of this, a questionnaire survey on graduate students was carried out in a university in Shandong Province. The reasons of the anomie of academic morality have been analyzed from the aspects of society, school, tutor and graduate student's own factor. And then the countermeasures are formulated, which will provide reference for improving the academic morality of postgraduates.

II. A SURVEY OF CURRENT SITUATION ON ACADEMIC MORALITY OF POSTGRADUATE STUDENTS

A. Design of Questionnaires

As a kind of socialization behavior, the anomie of academic morality is not absolute and isolated, but closely related to the growth environment, academic atmosphere and disciplinary mechanism and strength of the academic moral anomie [6]. In order to quantitative analysis the status quo of postgraduate academic moral anomie, we designed the questionnaire of graduate students' academic ethics. In addition to the basic information of the students, there are 13 questions in the questionnaire, mainly involved in graduate students' understanding of their own learning, scientific research activities, the academic morality anomie and the understanding of the reasons, the academic moral anomie

disciplinary measures, as shown in Tab. 1.

Tab 1:Questionnaire of graduate students' academic morality

The questionnaire of postgraduate academic morality in XXXX University							
Number		Survey time			Name		Sex
Grade		Category of Degree	Academic □ Professional □	Subject-Category			Engineering □ Science □ Literature □
Content	Understanding of your own learning and scientific research activities	Your purposes for pursuing graduate degree.	Escape, delay employment □ Get a diploma to find a good job □ Accumulate contacts and knowledge □ Learn professional knowledge and improve academic level □ Contribute to the motherland, serve the community □				
		Your diligence degree in studying.	Very industrious and careful □ Academic performance can be maintained at a moderate level □ Just pass the exam and can be graduated □ Indifferent and muddle along □				
		Your attitude towards academic research.	Very far away, basically do not participate □ Participation, but not as a career goal □ Participation, and as a career goal □				
		Evaluation of your own ability to scientific research.	Good □ General □ Poor □				
	Understanding of the anomie of academic morality and its reason.	When did you start to pay attention to academic morality?	Before undergraduate stage □ Undergraduate □ Master stage □ Never concerned □				
		Which of the following behaviors do you think is/are the norm of academic ethics? (You can give your own opinion)	Patchwork papers, low-level repetition of others ' research results □ Arbitrary forging and tampering experiments and survey data □ Quoting other people's research results without commenting or specifying the provenance □ Plagiarizing other people's research results □ One manuscript more throws □ Signing without participate in substantive research □ Selling research results to others □ Purchasing other people's research results □ Other:				
		Will you accept the moral education actively without mandatory requirements?	No □ Maybe, but not accepted currently □ Will, and accepted now □				
		Do you have any behaviors of academic moral anomie?	No □ Yes □				
		If you have any behaviors of academic moral anomie, what is your psychological motivation?	Graduate successfully or get a degree □ Gain economic benefits □ Satisfy vanity □ Herd mentality □				
	Understanding of the anomie of academic morality in disciplinary measures.	Do you know the papers and rules on academic morality in the school?	Know □ Don't know □				
		What is your attitude towards academic moral anomie?	Very normal and common□ Caused by learning pressure and can be understood and accepted □ Violate the code of ethics, but don't have to be disciplined □ Should be disciplined and punished □				
		What do you think of the disciplinary of academic moral anomie in the school?	No disciplinary measures □ Weak □ Strong □ Don't know □				

		Are you or your classmates disciplined for academic moral anomie?	No ☐ Yes ☐ Don't care ☐

A. Survey Results of Postgraduate Student Academic Morality

A questionnaire investigation on 582 graduate students was carried out in Shandong Province. A total of 539 questionnaires were recovered. And the recovery rate is 92.61%, in which the number of effective questionnaires is 493 with a 84.71% effective rate. Among the students who correspond to the effective questionnaires, the numbers of males and females are 367 (74.44%) and 126 (25.56%) respectively. There are 148 postgraduate freshmen (30.02%), 201 postgraduate sophomore (40.77%) and 144 postgraduate third grader (29.21%). The numbers of students who have academic degrees and professional degrees are 249 (50.51%) and 244 (49.49%) respectively. The numbers of students who major in engineering, science and literature are 261 (52.94%), 137 (27.79%) and 95 (19.27%) respectively. It is shown in Fig. 1.
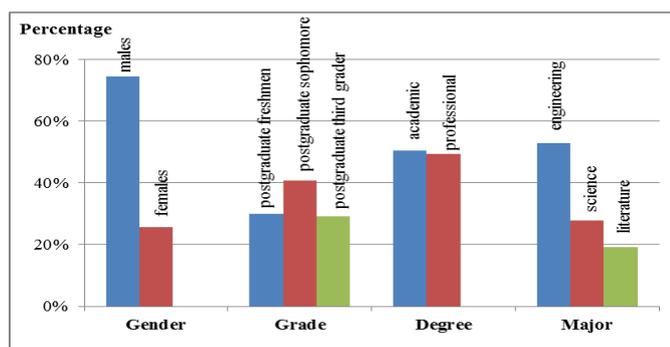

Fig.1 General situation of surveyed students

B. Understanding of their own learning and scientific research activities

1) Purpose for pursuing graduate degree

As shown in Fig. 2, 82.78% of graduate students aim to contribute to the motherland, serve the community, learn professional knowledge and improve academic level or get a diploma to find a good job. 17.22% of graduate students choose to escape, delay employment and accumulate contacts and knowledge. It is evident that most graduate students' aims are correct and positive, but some graduate students have speculative mentality, which is one of the psychological foundations of academic morality anomie.
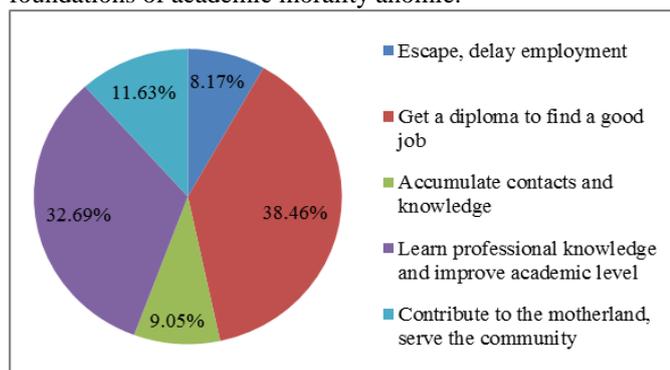

Fig.2 Survey results of purposes for pursuing graduate degree

2) Diligence degree in studying

As shown in Fig. 3, only 18.36% of the graduate students think that they are very industrious and careful in studying, while the percentage of the students who choose the options of "Just pass the exam and can be graduated" and "Indifferent and muddle along" is up to 44.80%. It can be seen that the diligence degree of graduate students is poor and the enthusiasm of active learning is not high, which is the inevitable result of the wrong purpose for pursuing graduate degree and led to the academic moral anomie to some extent though prohibited repeatedly.
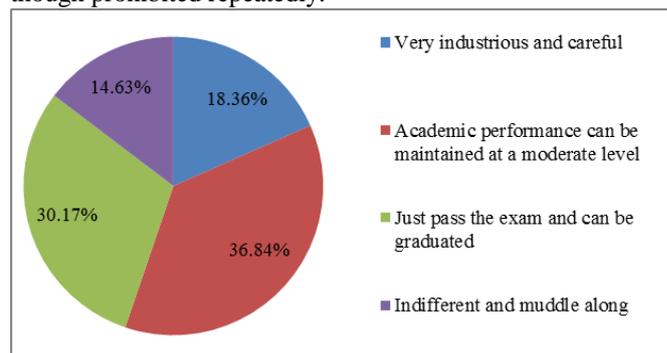

Fig.3 Survey results of diligence degree in studying

3) Attitude towards academic research

9.63% of graduate students select the option of "very far away, basically do not participate". The percentage of students who choose the option of "Participation, but not as a career goal" is up to 73.78%. Only 16.59% of graduate students select the option of "Participation, and as a career goal". It can be seen that most graduate students can directly participate in scientific research. Most of them are force by the pressures of mentors, graduation and employment and so on, while rarely take the scientific research as a career goal.

4) Evaluation of own ability to scientific research

The percentages of students who choose good, general and poor in their own scientific research capacity are 54.95%, 28.46% and 16.59% respectively. Some graduate students overestimate their scientific research ability obviously due to higher self-awareness and self-confidence, the lack of communication in the scientific research work and no horizontal comparison of scientific research ability. Consequently, the credibility of this survey results is not high.

C. Understanding of the anomie of academic morality and its reason

1) When did you start to pay attention to academic morality?

Most graduate students have no notion of academic morality before undergraduate stage, and the percentage of students who begin to concern about academic morality from master's stage is 83.67%. In addition, it can be known that their understanding of academic moral anomie generally start from the case of Zhouzi Fang against academic fraud through communicating with the students.

2) Which of the following behaviors do you think is/are the norm of academic ethics?

As shown in Fig. 4, more than 80% of graduate students believe that the behaviors of "Arbitrary forging and tampering experiments and survey data", "Quoting other people's research results without commenting or specifying the provenance" and "Plagiarizing other people's research results" belong to academic morality anomie. Only no more than 60% of graduate students think that the behaviors of "Selling research results to others", "Purchasing other people's research results" are academic moral anomie, which may be related to some graduate students do not understand the difference between the transfer of scientific research and academic moral anomie.
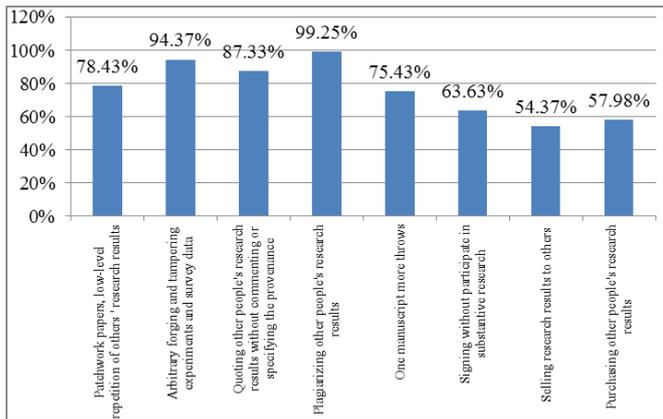

Fig.4 Survey results of behaviors of academic moral anomie

3) Will you accept the moral education actively without mandatory requirements?

Only 7.49% of graduate students have received academic morality education, and 82.73% of graduate students will not take the initiative to accept such education, indicating that the academic moral education is absent in the school, which will objectively led to the academic moral anomie happen.

4) Do you have any academic moral anomie?

As shown in Fig. 5, 44.34% of graduate students don't have academic morality anomie behavior. In the students who have academic moral anomie behaviors, the motivation of 60.67% students is "Graduate successfully or get a degree". It is shown that many graduate students lack of scientific research. It is difficult for them to meet the graduation requirements when they are about to graduate. It also objectively explains that graduate students' enthusiasm and time input are not high in their normal times. What they can do is only cramming.
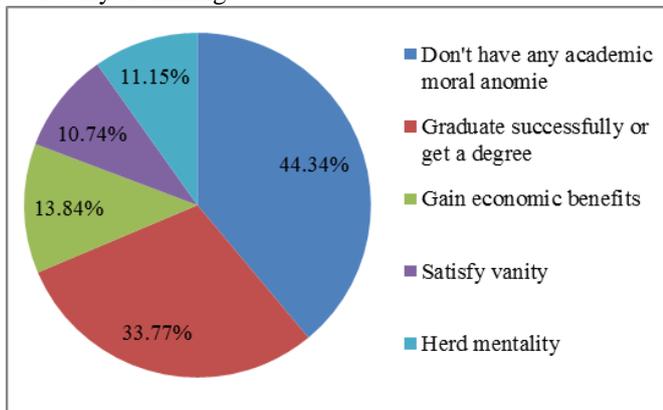

Fig. 5 Psychological motivations of academic moral anomie

D. Understanding of the anomie of academic morality in disciplinary measures

1) Attitude towards academic moral anomie

As shown in Fig. 6, 38.32% of graduate students believe that students who have academic moral anomie behavior should be disciplined and punished, and the percentage of the students who choose the options of "Very normal and common" and "Caused by learning pressure and can be understood and accepted" account for 34.25%. It is shown that graduate students have a higher degree of tolerance for academic moral anomie and that objectively reflects the psychological foundations of academic moral anomie of graduate students.
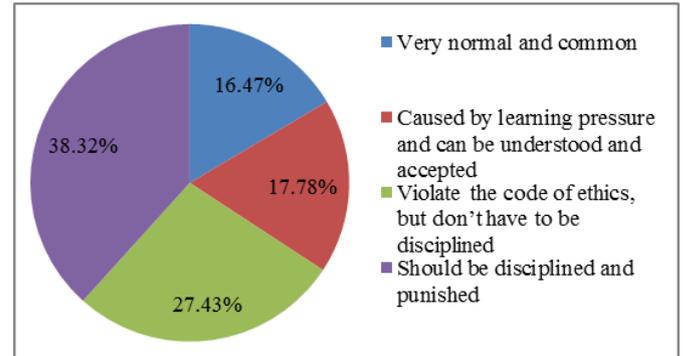

Fig.6 Survey results of attitudes toward academic moral anomie

2) Attitude towards disciplinary measures of academic moral anomie

87.41% of graduate students believe that there are no disciplinary measures or disciplinary measures of academic moral anomie are weak in the university. Only 2.47% of graduate students think that disciplinary measures are strong and no one has been disciplined for academic morality anomie. This is in contrast with the 55.66% of the students who have academic morality anomie behavior. And it also shows that the discipline of academic morality anomie is too weak. A reasonable and strict disciplinary mechanism hasn't formed, which objectively breeds academic morality anomie behaviors.

III. REASONS OF POSTGRADUATE STUDENT ACADEMIC MORAL ANOMIE

Materialist dialectics believes that the development of things is the result of internal and external factors. Internal factors are the basis of the development of things, while external factors are the conditions of the development of things. External reasons work through internal factors [7]. From the behavioral perspective, individual produces a certain responses with the stimulation of external environment, which are translated into independent behavior after individual acceptance and recognition [8]. The generation of postgraduate student academic moral anomie is also the result of the interaction of internal and external factors, including society, school, tutor and graduate students' own factors.

A. Society Factors

The awakening of people's own consciousness is sparked by the development of market economy. The bad social

atmosphere is also bred. People's lives are affected in all aspects by the unhealthy social atmospheres like interests of the supremacy, "official standard" and so on. The academic circles have not been spared. It mainly displays in the following aspects:

1) Prevalence of utilitarianism

The study in postgraduate stage is of great significance to enhance the overall quality of the individual. However, due to the influence of utilitarianism in society, some graduate students have given up their precious learning opportunities and devoted a lot of time and energy to social part-time work, gunmen, even using criminal means to obtain direct benefits. As a result, the fine time of scientific research is very limited to graduate students and the behavior of academic moral anomie is induced objectively.

2) Deterioration of academic publishing environment

Academic journals and monographs are important platforms for researchers to carry out academic exchanges. However, some journals and publishers only focus on economic benefits, but do not pay attention to the quality of scientific research itself with the name of "layout fee", "publishing fee" and "emergency fee" and so on. As long as you pay the money, the papers will be issued or published. Many graduate students are also involved. This deterioration of academic publishing and publishing environment contributes to the academic moral anomie behavior to some extent [9].

B. School Factors

School is not only the main place for graduate students to carry out academic research, but also the main management body of academic activities. Most colleges and universities play a key role in guiding graduate students to regulate academic activities. However, it cannot be denied that absences exist in the management of academic activities in some colleges and universities, mainly includes:

1) Absence of academic moral education

The problem of paying more attention to intellectual education and less attention to moral education exists in many colleges and universities. According to the survey in the first section of this article, only 7.49% of the graduate students in a University of Shandong Province have received academic moral education, and 82.73% won't accept such education initiatively. Graduate students who haven't accepted the academic moral education lack the understanding of academic morality. As a result, they do not know what academic ethics should be used to regulate their behavior and the behavior of academic moral anomie is easier to appear when facing value choices [10].

2) Lack of academic moral management

Academic moral management regulations haven't introduced and corresponding execution mechanism haven't set up in some universities. Some universities have introduced the relevant provisions and establish corresponding institutions, but due to lack of enforcement, these institutions exist in name only. As a result, fluke minds survive in part of graduate students and the hidden dangers are buried for academic moral anomie.

3) Unreasonable academic evaluation system

Inexhaustible motive force is provided for graduate students to carry out scientific research work through reasonable academic evaluation system, so that academic morality can be observed consciously in scientific research process. On the contrary, unreasonable academic evaluation system will increase the burden of graduate students and hinder the pace in pursuing and exploring the scientific truth. At present, a clear quantitative indicators of scientific research exit in most of the universities in the processes of scholarship awards, degrees awards and work recommendation etc. The actual situation of graduate students in different places isn't taken into account. As a result, a large number of academic bubbles are formed, which contributes to the behavior of academic morality anomie.

C. Tutor Factors

1) Tutor quality need to be further improved

After several decades of development, graduate students tutor team with a foundation of high quality and innovative ability has been formed in China. A lot of efforts for the cultivation of graduate students are devoted. However, there are also a few tutors with low quality in this team. They are dismissive to academic moral rule, and their graduate students' academic moral anomie cannot be detected and corrected timely. The acquiescence and connivance of tutors contribute to the fluke minds of the graduate students, and then lead to more behaviors of academic moral [11].

2) Tutor cannot be strict with students

With the expansion of the enrollment scale of graduate students in China, the number of graduate students guided by each tutor is increasing. As a result, cannot communicate with graduate students in a timely and adequate manner. In addition, some tutors over-emphasis on the number of academic achievements but do not pay attention to the quality and output process, which objectively contributes to the phenomena of paper plagiarism [12].

D. Graduate Students' Personal Factors

1) Improper purpose for pursuing graduate degree

According to the survey in Shandong Province in the first section of this article, 17.22% of the graduate students aim to escape, delay employment and accumulate contacts and knowledge. It can be seen that the purpose for pursuing graduate degree is not proper for a considerable part of the graduate students. In general, the graduate students of this part are not willing to pay enough time and energy for scientific research work but muddle along, which is contradictory with the spirits of conscientious, perseverance, pioneering and innovative that required by the scientific research [13].

2) Poor self-management ability and independent learning ability

Scientific research is a process of long-term accumulation and deepening. It is difficult to achieve results quickly in a short time. Researchers are required to carry out long-term unremitting vond arduous work. Different from the undergraduates, postgraduates have fewer curriculums, more flexible learning model, and focus more on self-study and discussion learning. Self-management and self-learning ability of some graduate students are poor. It is difficult to arrange time scientifically and rationally and carry out

self-supervision strictly for them. They cannot adapt themselves to the tense learning rhythm in postgraduate stage, and then the appearance of academic morality anomie seems logical.

IV. COUNTERMEASURES TO IMPROVE THE ACADEMIC MORAL LEVEL OF POSTGRADUATE

In this paper, countermeasures to improve the academic moral level of postgraduate student are put forward based on the results of postgraduates' academic moral questionnaire and the reasons of postgraduate student academic moral anomie.

A. Change learning attitude, improve academic ability

Learning attitude is the direct reason to influence academic moral level of graduate students. Perfect scientific planning should be made, good research habits should be developed and academic moral education should be accepted for graduate students at the beginning of enrollment. Consequently, it is necessary to strengthen the guidance of graduate students to achieve a multiplier effect

The poor academic ability of graduate students is another direct reason for the anomie of academic moral. Academic ability can be improved significantly by participating in academic exchange activities. Therefore, graduate students should integrate into academic exchange platform actively built by the school and participate in academic conferences and debates regularly. The cross-disciplinary and interdisciplinary academic exchanges should be carried out to improve scientific literacy and broaden their horizons [14].

B. Innovative teaching

"National long-term education reform and development plan" points out that "teachers should care for students and be rigorous in education, indifferent to fame and fortune, self-esteem and self-discipline, influence students with personality and academic charm, be the mentor and guide for students to grow healthily". Tutor should not only follow the example of academic moral, but also to enable students to learn how to behave, do things and learn learning. At present, some of tutors also follow the one-way teaching model at the undergraduate stage. Although this model can instill a large amount of knowledge into the students in the shortest time, it is limited to improve the academic ability and academic moral level for graduate students. Therefore, for tutor, the exchanges and communication should be strengthened between tutor and graduate students, the difficulties encountered should be understood in the research process, other new models should be adopted such as "teachers and students interaction", "teacher and student transposition", "classroom simulation" and "extracurricular practice", the students' innovative ability should be focused on cultivating and the behavior of academic moral anomie should be eradicated completely [15].

C. Strengthen school supervision

Schools should be guided by the State Council "on the practical implementation of strengthening and improving the construction of the study style in colleges and universities", based on "Graduate student education innovation plan" of the Ministry of Education. Relevant regulations should be introduced and institutions should be established. School supervision should be strengthened, so that the graduate students' behaviors of academic moral anomie are punished. "There must be laws to go by", "the laws must be observed". At the same time, teaching methods and scientific research attitude should be supervised strictly, the process should be rationalized reformed such as the thesis opening, mid-term inspection, graduation reply, to prevent plagiarism, copying and fraud and other bad behaviors [16].

Strengthen ideological education

Compared with the "hard measure" of school supervision, ideological education is the "soft measure" to strengthen the construction of graduate academic morality. This "soft measure" includes the academic moral education, cultural and academic exchange activities, etc. A good atmosphere for learning and research is created through the ideological education activities, so that students are influenced by the culture, the impact of bad social atmosphere is improved, academic moral cultivation of students is enhanced [17,18].

V. CONCLUSION

In this paper, the questionnaire of graduate students' academic ethics is designed. And a survey on 582 graduate students of a college in Shandong Province is conducted. The reasons of the anomie of academic morality be analyzed from the aspects of the society, the school, the tutor and the graduate student's own factors. Finally, the countermeasures to improve the academic moral environment of the graduate students has been put forward from four aspects of the transformation of learning attitude, improvement of academic ability, innovative teaching, strengthening of the school supervision and the ideological education.

The academic environment has been seriously polluted by the anomie of academic morality of the graduate student. As a result, the academic progress has been hindered and the social development and national innovation source power even has been affected. It is a long process to improve the level of graduate students' academic morality, which requires the joint efforts of the society, the school, the tutor and the graduate students.

REFERENCES

[1] Anqi Li, "A Study on Problems and Countermeasures of Graduate Students Academic Moral Construction," Northeast Normal University, 2015.

[2] Chunhong Zhang, "Postgraduate Academic and Moral Issues of Misconduct," Northeastern University, 2010.

[3] Na Jiao, "The research of graduate academic morality mechanism," Anhui Normal University, 2012.

[4] Xiaoyuan Wang, Zonghe Guo, etc, "The Research on the Construction of Postgraduates' Academic Morality and Study Style based on ISM and AHP," Education Modernization, 2016, pp. 19-23.

[5] Fayou Huang, "Research on the path of strengthening the construction of study style and academic moral cultivation," Studies in Ideological Education. 2012, pp. 80-84.

[6] Dong Liu, "A study on the two influential factors of the construction of Graduate Studies," Journal of Changzhou University (Social Science Edition).

[7] Saidan Xu, "The Research on Full-time Graduate Students' Academic Morality," Jilin University,2015.

[8] Guangda Wang, "A study on the cultivation of Postgraduates' academic ethics based on Reinforcement Theory," Studies in Ideological Education. 2015, pp. 86-89.

[9] Yuzhen Guo, "Research on the current situation of graduate academic ethics and academic norm," Journal of Southeast University (Philosophy and Social Science), 2012, pp. 122-125.

[10] Yuehua Gu, "An analysis of the Reasons and Countermeasures of Postgraduates' Academic Moral Anomie," China Higher Education Research, 2013, pp. 59-63.

[11] Wei Li, "Graduate Academic Moral Evaluation and Promotion Measures," Northeast Forestry University, 2014.

[12] Ying Li, "The Research of Improving Mechanism of Graduate Students' Academic Morality Level," Changsha University of Science & Technology,2008.

[13] Honglian He, Xue Song, "Research on Academic Morality Anomie Problems of Graduate in Universities," Northeast Forestry University.2014.

[14] Zhaoxia Si, "Study on the Academic Moral Education of Graduate Student", China University of Geosciences,2015.

[15] Yanping Zhang,Yonggang Kang, "Exploring a new way to improve graduate students' scientific ethics and style education," Studies in Ideological Education. 2016, pp. 98-101.

[16] Hailian Zhang, "Research on Graduate Students' Academic Moral Education", Jilin University, 2013.

[17] Xiaoyuan Wang, Wenqing Ge, etc, "Research on Teaching Reform of the "Intelligent Transportation Systems" Course," Education Modernization, 2016(9):14-16.

[18] Xiaoyuan Wang, Liping Liu, etc, "Analysis about the Influence Factors of the Teaching Quality of "Intelligent Transportation Systems" Course" Education Modernization ,2016, pp. 119-121.

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