

# Return to the Essence of Graduate Education and Promotion the Reform and Innovation of Graduate Education in the New Era

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## ABSTRACT

By analyzing the core essence of graduate education, this paper proposes ideas and methods to promote the reform and innovation of graduate education in the new era from four aspects, including the reform of entrance examination for graduate, the construction of graduate supervisor team, the reform of graduate course, and the reform of graduate thesis, which provide a reference for the connotative development of graduate education in China.

**Keywords:** graduate education, the essence of education, reform and innovation

## 1. INTRODUCTION

The report of the Nineteenth National Congress of the Communist Party of China pointed out that socialism with Chinese characteristics has entered a new era and put forward the need to "accelerate the construction of first-class universities and first-class disciplines and realize the connotative development of higher education". As the highest level of higher education and talent training, graduate education is an important content and starting point for building world-class universities and disciplines. Looking at the world-renowned first-class universities, all of them have first-class postgraduate training capabilities, and they all take the cultivation of first-class postgraduates as an important mark. Therefore, the "achievement of connotative development of higher education" in the new era naturally also includes the connotative development of graduate education.

At present, the number of graduate students in China has reached 2.7 million, making it the second largest graduate education country in the world after the United States, but it is far from being a strong country in graduate education. In order to better serve the needs of economic and social development, support the building of a socialist modern power, and enhance the country's international competitiveness, we need higher quality, more branded, more influential graduate education, and we need to cultivate more outstanding high-level talents, making more original scientific research contributions, this is the core of the connotative development of graduate education. So, how to realize the connotative development, reform and innovation of graduate education in the new era? As the saying goes: "Don't forget your original intention, you will always be there". Based on the essence of graduate education, this article explores the ideas and measures to promote the reform and innovation of graduate education in the new era.

## 2. TRACING BACK TO THE ORIGIN, RETURNING TO THE ESSENCE OF GRADUATE EDUCATION

What is the essence of graduate education? This issue may not be new, but it is one of the most fundamental issues in the field of graduate education. If this question is not answered clearly, we are likely to deviate from the development goals and development vision of graduate education in practice. Only by really returning to this issue can we ensure that our various graduate education reforms and innovations are always in the right direction and path. Personally, the essence or core of graduate education lies in the word "research", which is the fundamental difference between graduate education and undergraduate education. The main activity done by undergraduates is learning, while the main activity done by graduate students is research. The fundamental difference between research and learning is that the core of learning is to absorb and digest the existing knowledge, and the core of research is to explore the unknown and innovation. Many current problems in graduate education in China are more or less related to deviations from the essential attributes of graduate education, such as failing to take effective measures to prevent students who do not have the foundation for scientific research from becoming graduate students. The current graduate course content and teaching methods are similar to those of undergraduates. The teaching method is still centered on knowledge infusion, and the assessment method is based on examination as the main method and the score as the main measurement standard. Many postgraduate thesis researches are duplicates of existing knowledge or engineering practices, and do not reflect the innovative value of research activities. Therefore, let's start from the core essence of graduate education-"research", and discuss the ideas and methods to promote the reform and innovation of graduate education in the new era from four aspects, including the reform of entrance examination for graduate, the construction of

graduate supervisor team, the reform of graduate course, and the reform of graduate thesis.

### **3. “RESEARCH” ORIENTED, RESHAPING GRADUATE EDUCATION SYSTEM**

#### ***3.1. Reform of Graduate Enrollment Based on “Research” Capability***

The "research" nature of graduate education is reflected in the cultivation and formation of research ability in graduate students. Although the cultivation and formation of research ability is mainly achieved through the various stages of postgraduate admission, the undeniable fact is that with the expansion of the scale of graduate admissions in recent years, a significant percentage of them have no research potential or enthusiasm became graduate students, causing them to fail to graduate or even drop out of school, greatly wasting valuable graduate education resources. What's more serious is that some of these graduate students have plagiarized and falsified in violation of academic ethics in order to graduate, which has greatly damaged the reputation of China's graduate education. Therefore, reforming and innovating postgraduate enrollment methods and continuously improving the quality of graduate students are the foundation and source of improving the quality of graduate education, and also the fundamental measures to effectively reduce the above-mentioned undesirable phenomena. Personally, one of the basic principles and guidelines for the reform of graduate admissions methods is to highlight the research potential of assessment candidates, and gradually transition from the examination-based selection mechanism to the "application-review" system. Specifically, in terms of the methods for recruiting graduate students, based on the current basic model of preliminary examination + re-examination, gradually increase the content of scientific literacy and competency tests in repeated examinations to promote the classification of academic degrees and professional degree graduates, and focus on graduates Investigate professional literacy and innovation potential, while professional degree graduates focus on professional literacy and professional ability. In the selection of doctoral candidates, we should expand the autonomy of colleges and mentors, and on the premise of ensuring fairness and effectiveness, we must comprehensively promote and improve the selection mechanism of doctoral students' "application-review", master's and doctor's degree continuous reading, and advance Ph.D. To highlight the in-depth inspection of the academic level, research interest, and scientific research literacy of doctoral candidates. In addition, for talented people with special research abilities, they should explore and develop special selection procedures.

#### ***3.2. Construction of Graduate Supervisor Team Based on “Research” Ability Standard***

For graduate supervisors, the "research" essence of graduate education is exemplification of research capabilities. This requires graduate supervisors to have first-hand strong research abilities, as well as the ability to teach their research

abilities to graduate students. At present, in most colleges and universities in China, the qualifications of graduate supervisors are mainly linked to professional titles. That is, they usually become master supervisors after being evaluated as associate professors or associate researchers, and they usually become doctoral supervisors after being evaluated as professors or researchers. And once the teacher becomes a graduate supervisor, it is basically a "lifetime". There may be several problems in this. First, some professors or associate professors rely entirely on teaching performance evaluation, and strong teaching ability does not mean strong scientific research ability. In reality, there are some pure teaching professors and associate professors who lack scientific research experience are not qualified to supervise graduate students. Secondly, although some supervisors have strong scientific research capabilities and many scientific research projects, they are not good at guiding and cultivating students' scientific research skills and accomplishments. Thirdly, some teachers do not want to be aggressive once they become graduate supervisors. This requires us to reform and innovate the current graduate supervisor selection method. The first is to break the "identity barrier" and separate professional title review from supervisor selection. Professional title review mainly depends on personal performance, while supervisor selection mainly depends on personal scientific research ability, guidance ability and scientific research project support. The second is to break the "lifetime system" and establish scientific and reasonable graduate supervisor evaluation standards and dynamic management method, re-recognize the graduate supervisor qualification every few years. The third is to regularly conduct graduate supervisor ability training, so that the supervisors systematically master scientific educational skills and methods to achieve the good results of "famous teachers and apprentices."

#### ***3.3. Reform of Graduate Courses Based on “Research” Ability Training***

Curriculum learning is an important feature of graduate education in China. It is a basic way for students to acquire basic academic theories and system expertise. It is a basic link to ensure the quality of graduate education. It has a comprehensive, comprehensive and basic role in graduate education. At present, there are still many problems in China's graduate courses, such as the disconnection of curriculum setting and training goals, the emphasis on scientific research activities and the neglect of professional curriculum studies, the supervisors pay more attention to the student's dissertation and ignore the course learning effects, and the lack of participation of graduate students as the main body. In the new era, it is necessary to reshape the graduate course system with the goal of cultivating graduate students' "research" ability. First, we must construct graduate course systems at different levels and types. Master's courses should focus on basics, breadth and practicality, while the doctoral courses should focus on comprehensiveness, cutting-edge and cross-cutting. The classification is that academic degrees are aimed at training academic reserve talents and the curriculum system should be based on broadening the basic knowledge of disciplines and enhancing self-selection, while professional degrees are aimed at cultivating industry elites and the curriculum system should highlight practicality and

comprehensiveness, and strengthen theory link with reality. The second is to reform the content of graduate courses. Graduate supervisors must timely reflect the latest and most advanced scientific research results into front-line teaching, promote the transformation of scientific research results into teaching content, and form a long-lasting mechanism to promote high-quality teaching with high-level scientific research. The third is to improve the teaching methods of postgraduate courses. For example, for graduate professional courses, research case studies or heuristic teaching of scientific research projects can be used to guide students to actively participate in the entire teaching process, fully mobilize students' learning interest, and cultivate students to find problems, analyze problems, and solve problem research capacity. For some of the leading-edge and obviously modular postgraduate seminars, a variety of flexible methods such as team teaching and inviting high-level scholars off campus can be used. The fourth is to reform the graduate course evaluation system, implement a comprehensive graduate education assessment model, conduct comprehensive assessments on whether the knowledge structure, ability and quality of graduate students meet the required requirements, strengthen process management and assessment, and promote the transformation of curriculum assessment methods.

### ***3.4. Reform of Graduate Thesis Based on Forming "Research" Ability***

The quality of graduate dissertation in China is currently uneven, and some of them are of low quality. The criteria based on forming "research" ability should be used in the topic selection, opening, review and defense of graduate thesis. First, the topic selection of degree thesis, especially professional degree graduate students should be application-oriented. The topic selection must be derived from actual application topics or actual needs. It must have a clear application background and application value to train graduate students' ability to solve practical problems. Second, thesis opening defense must invite peer experts from outside the university to participate, and it is required to be a "small peer" who really understands the research direction. The outside experts participating in the opening principle must also participate in the final thesis review and graduation defense in order to give full play to external supervision and the role of guidance. Third, we must strictly require the review and defense of the dissertation. Both master and doctoral dissertations should implement a system of blind review and regular spot checks. These should use efficient and fast online review methods instead of traditional paper review. For example, in recent years, the national cross-review system for graduate degree dissertations conducted by the Ministry of Education's Degree and Graduate Education Development Center has played an important role in ensuring the quality of the dissertation. In addition, the defense of graduate thesis should also avoid just walking through the process and form, and the problems in the thesis must be discovered and improved through the defense process. Fourth, scientific and reasonable graduate thesis standards and graduation requirements should be formulated, and various disciplines should be encouraged to scientifically evaluate the graduate's academic level and research ability based on the dissertation and diversified academic innovation results, and to eliminate

the tendency to emphasize "small papers" (that is, publishing academic papers) while despising "big papers" (that is, dissertations).

## **4. CONCLUSION**

The core essence of graduate education is "research". This paper puts forward ideas such as reform of entrance examination for graduate based on "research" ability, construction of graduate supervisor team based on "research" ability standard, reform of graduate courses based on "research" ability training, and reform of graduate thesis based on forming "research" ability, which are in line with the essential attributes of graduate education and can provide reference for promoting the reform and innovation of graduate education in China in the new era.

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