

# The Mechanism of Postgraduate Education Promoting Undergraduate Education

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## Abstract

There are differences in positioning between postgraduate education and undergraduate education in China, and there are obvious differences in training models, training systems, etc., so it is easy to cause a series of problems such as poor connection between undergraduate and graduate studies. By studying the similarities and differences of undergraduate and graduate talent training mechanisms, this paper constructs a training system that promotes the connection between undergraduate and master's degrees, establishes a practical system for graduate education to promote undergraduate education, so that graduate and undergraduate training can be appropriately connected, and the research platform of graduate students can be integrated Practice and innovation link integration. Infiltrate the teaching methods and teaching methods for postgraduates into undergraduate education, realize the mutual benefit of postgraduates and undergraduates, and ultimately achieve the goal of improving the quality of graduate and undergraduate training.

## Keywords

Postgraduate; Undergraduate; Promote; Mechanism.

## 1. Introduction

The current educational reforms at the stage of graduate education and undergraduate education are more based on improving the quality of talent training in their own fields, and less consideration of the integration of graduate and undergraduate education. In the current process of talent training in colleges and universities, the intersection of graduate education and undergraduate education is inevitable. Appropriately linking the two different levels of education training systems, using different platforms, resources, and teaching methods to each other, is expected to improve the quality of graduate and undergraduate training.

## 2. Research Status Worldwide

### 2.1. Research Status in Developed Countries

American higher education has the characteristics of rich levels and high quality of training, but in recent years, undergraduate education has highlighted unprecedented problems and crises and has been criticized by the society. In response to this situation, many universities, such as the Massachusetts Institute of Technology and the University of California, Berkeley, have successively announced the implementation plan for the cross-century undergraduate education reform, downplaying general education and professional education, and began to construct a new research-based undergraduate education. system.

In Japan, many universities represented by the University of Tokyo are also actively following up, striving to enable undergraduates to carry out "receptive learning" and "research learning".

They have adopted enhanced self-directed learning, reduced required credits and specific subjects, and provided Diversified courses for students to choose and other means. European universities, represented by Oxford University, Cambridge University, University of Berlin and University of Paris, have also adopted a series of reform measures in recent years, each using its huge resources of postgraduate education and research projects to strengthen and improve undergraduate education and establish a A new model for postgraduate education to promote undergraduate education. The use of graduate education and scientific research resources to improve the quality of undergraduate talent training has become a common understanding of the development of international higher education.

## **2.2. Research Status in China**

Universities in China have consistently adhered to the concept of cultivating high-quality talents. As the Ministry of Education accelerates the promotion of the "center-based" and "four returns", some well-known domestic universities have launched educational reform activities for undergraduates. The research and practice of postgraduate education to promote undergraduate talent training mechanisms have also emerged, such as the "undergraduate research project plan" implemented by Tsinghua University and Zhejiang University, and the implementation of undergraduate tutorial systems. These reforms are The teaching methods and methods are applied to the preliminary practice of undergraduate education. However, it should be noted that there is still no efficient and universal model to rationally blend graduate education and undergraduate education to achieve mutual benefit of two kinds of education at different levels.

## **3. Basic Conception of Undergraduate and Postgraduate Educational Resources Sharing**

### **3.1. Basic Process**

During the period of studying for a master's degree, they will take advantage of their own knowledge reserves, high experimental skills, and clear research topics to allocate part of their work to undergraduates. Postgraduates are responsible for program design and technical guidance to undergraduates, so that undergraduates can quickly integrate into scientific research work and quickly improve scientific research capabilities. Undergraduates' experimental work can make up for the tight working hours of graduate students. Through the guidance of graduate students to carry out scientific research practice, to achieve the purpose of rapid improvement of undergraduate and graduate research capabilities and scientific research results.

### **3.2. Meaning for Undergraduates**

It is an extension of professional education for undergraduates to enter the laboratory ahead of time to participate in research projects. By organizing undergraduates to participate in scientific research projects in a planned way, it can help them master basic scientific research ideas, methods and means, train their innovative consciousness and ability, consolidate and improve their knowledge. This mode is conducive to enhance the interest and motivation of undergraduate learning, can promote students' professional learning, especially enable students to be well trained in scientific research and innovation, change the situation of poor practical ability and weak scientific research ability of undergraduates, improve students' professional quality and scientific research innovation consciousness, and form a good style of study. At the same time, this method can integrate teaching and research resources, which is conducive to the integration of teaching and research.

### 3.3. Significance for Graduate Students

Graduate students are an important force in scientific research in Colleges and universities. Under the guidance of their tutors, they can carry out scientific research work with strong ability of literature retrieval, experimental scheme design and hands-on practice. They have the basic quality of scientific research, and can assist teachers and universities to complete some tasks of undergraduate graduation thesis, scientific research training and practice.

In the process of guiding undergraduates, graduate students can greatly improve their ability of expression and organization and coordination, and promote the consolidation of their knowledge system.

In the process of carrying out scientific research, undergraduates can also assist postgraduates to carry out some experiments and provide some necessary help for postgraduates, which is a powerful supplement to the scientific research team. It can make the postgraduates devote more energy to the deeper and more difficult problems in scientific research, condense the scientific problems, and better complete the scientific research practice.

In the process of graduate students' scientific research, undergraduates are not only their helpers, but also the object of discussion. This relationship helps to improve the social ability of postgraduates.

## 4. Conclusion

In higher education, combined with the characteristics of graduate education and undergraduate education, the mechanism of graduate students Guiding Undergraduates to carry out scientific research, graduation thesis, internship and other work can effectively integrate the resources of different education levels, and promote the improvement of innovation spirit, scientific research skills, team cooperation ability and organizational ability of postgraduates and undergraduates. The operation of this mechanism has important practical significance.

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