

## The Importance of Scientific Research in Colleges and Universities\*

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**Abstract:** Scientific research is an important task of private colleges and universities. The level of scientific research is related to the discipline construction, the quality of teachers and personnel training, and the contribution of colleges and universities to local economic and social development. This paper discusses the importance and significance of scientific research in universities for the transformation of scientific and technological achievements, the innovative potential of university teachers and the cultivation of innovative talents.

### 1. Introduction

With the rise of the industrial revolution, society needs a lot of science and technology and talents. As the cradle of talent training, universities begin to assume the responsibility of scientific research. Scientific research comes into being because of social needs, accompanied by the rapid development of science and technology. After hundreds of years of development, it has become one of the important factors to promote scientific and technological progress, and universities have also become an important source of scientific and technological innovation. General Secretary Xi Jinping proposed that we should respect the law of scientific research, the opinions of scientific researchers, create a good environment for scientific and technological workers and serve scientific and technological innovation. The achievements of scientific research in Colleges and universities play an important role in improving the level of running a school, the level of running a school and giving full play to the functions of colleges and universities [1].

### 2. Methods

#### 2.1. Facilitating the Transformation of Scientific and Technological Achievements.

Colleges and universities are important bases for the production of scientific and technological achievements. The transformation of scientific and technological achievements is an important channel for colleges and universities to integrate with society, and plays an important positive role in economic development. Colleges and universities are the bases for training talents. While serving teaching, local colleges and universities gradually show the function of scientific and technological radiation. Through the transformation of scientific and technological achievements in Colleges and universities, they can promote local economic development. As a new driving force for serving local economic development, how to strengthen the integration of the two and enhance the driving force of scientific and technological achievements in Colleges and universities for local economic development appears.

The transformation of scientific research achievements is an important symbol for universities to serve local economic development. Although the process of transformation of scientific research achievements is complicated and risky, only by transforming scientific research achievements into real productive forces and providing support for local economic development can schools embody the value of scientific research and the quality of running schools. With the reform and innovation of university running system and mechanism, the transformation of scientific research achievements has played an extraordinary role. On the one hand, the transformation of scientific research

achievements can guide teachers to participate selectively in the production and research work of enterprises and solve the practical problems in the production process of enterprises; on the other hand, it can strengthen the cooperation between government, schools and enterprises, and promote the benign interaction between teaching and scientific research work. In this way, we can not only achieve some economic benefits, but also win a good social reputation, broaden the channels of running schools, and improve the level of running schools.

In the research of promoting economic development in Colleges and universities, it is generally believed that the scientific and technological achievements of colleges and universities can play a certain role in promoting economic development. The output of scientific and technological achievements in Colleges and universities is more than that of other scientific and technological units. Its achievements involve many aspects, such as industrial structure, culture and education, investment structure, environmental ecology, etc. Effective transformation of scientific and technological achievements can realize the upgrading of production technology, optimization of technology, effective innovation and entrepreneurship, and can also produce certain social effects, attracting more enterprises to settle in and develop and absorb in local areas. Recruiting talents and expanding employment will contribute directly or indirectly to economic development.

Let scientific research and the development of local enterprises and society be effectively integrated, which can not only promote the transformation of scientific and technological achievements, but also solve the problems in the development of enterprises. They complement each other, and also form a good spillover effect, win a good reputation for local economic development, and attract more and more enterprises and excellent talents to integrate into the construction of local economic development. The establishment of joint system between universities and enterprises in the transformation of scientific and technological achievements can improve the cohesion between enterprises and universities and form a strong relationship, thus developing an effective social capital and promoting the long-term cooperation between universities and enterprises. Benefit sharing is the direct motive force for school-enterprise cooperation to go deep. To make cooperation lasting and stable, we need to distribute interests reasonably, distribute in a fair and fair way, enhance the confidence of both sides of cooperation, and thus produce greater economic benefits [2-5].

## **2.2. Stimulating Teachers' Innovative Potential.**

Colleges and universities should cultivate teachers' interest in scientific research work, promote teachers' professional quality, integrate teachers' teaching and scientific research work closely, improve teaching quality with scientific research ability, and condense teachers' team with scientific research activities. The improvement of young university teachers' scientific research ability can not only strengthen the level of innovation in educational scientific research practice, but also enhance the comprehensive quality of young teachers. Colleges and universities should combine their own characteristics to provide young teachers with more excellent research environment.

In order to further mobilize the enthusiasm of teachers to engage in scientific research and encourage teachers to engage in scientific research, general colleges and universities have issued incentive systems and regulations for scientific research. The awards for scientific research support are given in terms of the amount of funds, the number of projects, the transfer of patents, the publication of papers in core journals, and the award-winning results, which strongly promotes the development of the regular work of scientific research in schools. The evaluation system of scientific research performance is the key to the management of scientific research in schools. The evaluation of teachers' scientific research should be based on the criteria of project establishment, approved scientific research funds and the number of achievements. Schools should increase the expenditure on supporting scientific research funds, increase the total amount of scientific research funds, increase the attraction of scientific research work for teachers, and enhance the enthusiasm of teachers to participate in scientific research. In the annual assessment of teachers, teachers should be treated differently from research-oriented teachers. We should not use a ruler to measure different types of teachers. We should carry out classification and assessment. We should pay attention to both the quality and quantity of teachers' papers and the quality of teachers' scientific research topics. We

should prevent one-sided attention to theoretical research. We should combine theory with practical needs and encourage teachers. Cooperation among departments and disciplines is carried out in many ways[6-8].

### **2.3. Promoting the Training of Innovative Talents.**

The cultivation of innovative talents has become an important mission for China's higher education to adapt to the national development strategy. In the Outline of National Innovation-Driven Development Strategy issued by the State Council in 2016, the State Council stressed that scientific and technological innovation is the strategic support for improving social productivity and comprehensive national strength, and must be placed at the core of the overall national development, while the cultivation of innovative talents is the fundamental guarantee for building an innovative country. With the deepening of teaching reform in higher education, many newly-built undergraduate colleges and universities put forward the orientation of training applied talents in order to improve social competitiveness and refine school-running characteristics. It has become a new idea for the development of higher education and the training mode of innovative talents that colleges and universities should innovate the training mode of talents, strengthen the link of practical education, strengthen the education of innovation and Entrepreneurship of College students, and support students to carry out research-based learning. Colleges and universities need to support and encourage undergraduates who have reached certain conditions to participate in teachers' scientific research projects, provide undergraduates with opportunities for scientific research training, enable them to enter the professional scientific research field as soon as possible, contact with the frontier of disciplines, clarify the development trends of disciplines, and cultivate the independence, cooperation and innovation spirit of undergraduates.

Aiming at the problems of insufficient understanding of scientific research and innovation and difficulty in scientific research, colleges and universities add training courses or academic lectures related to scientific research training and innovation projects. The basic procedures and methods of students' scientific research training can be taught in the form of curriculum training, technical lectures, seminars, experience exchanges and results reports, so as to provide students with a deeper understanding of relevant policies and matters needing attention in scientific research and innovation, and to cultivate students' scientific research awareness and innovative literacy so as to enable them to carry out scientific research and innovation. In addition, colleges and universities pay attention to the display and propaganda of previous University Students' scientific research and innovation achievements. Through holding scientific research exhibitions or results reports, more and more college students who are not or will be involved in the study can be observed and observed, stimulate students' initiative in scientific research and innovation, create a campus culture with a strong atmosphere of scientific research and innovation, and effectively promote college students' active participation in scientific research and innovation projects and scientific and technological innovation. New activities to promote the cultivation of innovative talents[9-11].

### **3. Conclusions**

Scientific research by university teachers is not only the only way for their professional development, but also plays an important role in the scientific development of the whole school. Institutions of higher learning should encourage more teachers to participate in the process of education and scientific research, and enhance their scientific research competitiveness, so as to promote the quality of personnel training and social and economic benefits.

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