Research on the Idea and Practice of Scientific Education Fusion of Famous Teachers in College and Universities

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Abstract: "Integration of science and education" is the idea of leading the reform of the talent training model for higher education. It advocates that college teachers correctly handle the relationship between teaching and research, update teaching content, change teaching methods, and reorient the objectives of undergraduate education. Based on the comparative analysis of questionnaires of famous teachers in colleges and universities and common teachers, it is found that the concept and practice of teaching and learning of famous teachers is almost independent of gender, teaching age, academic qualifications, types of colleges, and teaching subjects; the concept of scientific education integration and the practice of practice overall significantly better than ordinary teachers. However, there is a big gap between the concept recognition of the teacher and the action of the teacher, and there is no obvious advantage in the reform of teaching methods. It can be seen that the integration of science and education is conducive to the creation of high-level teachers. The personal efforts and ability of the teacher has made him perform better in handling the relationship between teaching and research and updating the content of the teaching. However, the lack of school organization culture, institutional environment and team building has weakened the desire and action of the teacher to change teaching methods.

1. Introduction

After more than three decades of rapid development, higher education in China has shifted from simple teaching to scientific research and teaching. Even under the drive of assessment indicators, scientific research has surpassed teaching and has become the top priority for universities. However, personnel training is always the most important and core method of fulfilling social responsibility in colleges and universities. Lideshuren has always been the center of higher education. Modern higher education should also be based on teaching to carry out the work of educating people. The combination of science and education is to complete this task. The best means of working.

At present, the task of China's higher education reform is arduous and arduous. However, the objective analysis of many of these problems lies in the separation of science and education. The combination of science and education has been proposed in the perspective of higher education, but the integration of science and education into higher education ideas and higher education concepts has not been shaped. Moreover, based on the actual science-education dichotomy, the analysis and management of Chinese universities in the form of integration of science and education has resulted in conclusions and measures that are very different from the actual situation in universities. Under the educational philosophy of separating scientific research from teaching and learning, colleges and universities, though they have obtained a wealth of scientific research resources through scientific research, have always been shelved and cannot be transformed into the free-standing talents of colleges and universities.

2. Background of the Concept of Science and Education Fusion of Famous Teachers in Colleges and Universities

The integration of teaching and research to promote the relationship is the direction of many

scholars. Boyer had tried to expand the connotation of the scholarship, "to give the ‘academic level’ this familiar, noble formulation with a broader, more connotative interpretation” to ease the conflict between teaching and research. In its new interpretation, teachers' teaching activities and research activities have become equal worthy of equal respect for academic work and have the potential for mutual integration because they have consistently adhered to rational inquiry, continuous updating, high standards, and high quality academic obligations. Brown et al. also suggested that scientific research be broadly understood as scholarship to achieve the integration of teaching and research. Under this generalized understanding, research no longer refers only to activities that create new knowledge, teachers’ critical reflection and reinterpretation of existing knowledge, and the application of the latest research results of the academic community are research activities that are worthy of respect. Profound knowledge teaching is necessary.

Many more scholars regard changing teaching methods as a breakthrough to realize the integration of science and education. Burton Clarke believes that "using scientific research as an important form of teaching and valuable learning method" and advocating "research-based teaching and learning" is an important way for modern higher education to achieve science and education integration. In order to promote students' inquiry learning, Haili designed four classes of courses that embody the integration of teaching and research. Bruce proposed the construction of "Inclusivescholarly knowledge-building communities" as a new model for integrating teaching and research. "Research-based teaching and learning" is the operation of this new model. The above research indicates the possibility and path of the integration of science and education theoretically, but whether it can take root in practice still needs further verification.

3. The Practicality of Science and Education Fusion

In 1810, the German Humboldt University, known as the "mother of modern universities," was established. It coincided with the middle of the first industrial revolution. The rapid development of social production promoted the emergence of new disciplines, especially natural sciences, to practice science and education. Fusion provides innate conditions. Its founder, Humboldt, believes that teaching and research are carried out in universities at the same time. Academic freedom is academic and academic. Universities use knowledge and scholarship as their ultimate goal instead of practical personnel training. Emphasizing scientific research and practicing the spirit of “combining research and teaching” has become the most essential difference between the nature of monastery education in modern universities and Europe and the United States.

Since Humboldt University, the concept of integration of science and education as the cornerstone of modern universities has penetrated into all aspects of modern university systems and systems. In the integration of science and education, "re-education of ideas and encouragement of policies, but lack of corresponding school organizational culture, institutional environment and teaching research team construction" has become the bottleneck of the integration of science and education to lead the quality of personnel training in universities.

4. The Path of Science and Education Fusion Practice for Famous Teachers in Colleges and Universities

For teachers, the starting point for the integration of science and education is the updating of the contents of lesson plans. Teachers according to their understanding of the curriculum and professional, according to a certain logic, the integration of relevant knowledge after the structure of the organization, and the latest progress in the curriculum or professional areas into the lesson plan, which can be given before the start of the classroom Students list a detailed reading list to focus on key issues. In the process of Chinese-foreign cooperation in running schools, many foreign teachers’ teaching plans are kept by themselves, and are generally not easily handed over to the partners. The reason is that intellectual property rights: lesson plans are the product of their creation, rather than simply moving the contents of the teaching materials. A good lesson plan, after the completion of a course, can be used as an original teaching material.

Unlike counselors, teachers are more professional and authoritative in the face of students. They can give more reasonable advice on professional prospects and development goals. In terms of learning guidance, they can also provide students with more professional development advice; and the close connection between students helps students to improve their enthusiasm for learning and maintain their interest in learning.

First of all, different types of universities should have different ideas for integrating science and education. The "985" and some "211" colleges with strong scientific research advantages aim at the training of academic talents, and will give full play to scientific research advantages and construct a new research curriculum system as the focus of science and education integration. Local undergraduate colleges will focus on the training of applied talents. They will use scientific research to improve teaching and construct a new type of practical teaching system as the focus of science and education integration.

Secondly, we will build an integrated teaching and research team that combines old and young people with complementary advantages. The study found that professors agree with the concept of science and education integration and practice are better, but they have less opportunity to contact with students and cannot better use their advantages to guide students. Lecturers and associate professors, as the main force of college teaching, have more opportunities to guide students, but they are forced to devote themselves to teaching, especially lecturers, because of the pressure of scientific examinations in career advancement. The score is the lowest. Taking the curriculum construction as a breakthrough point, we will create a curriculum team that integrates research and teaching with the well-known professor as the responsible person. The curriculum team will include senior teachers at all levels of the title, and will be responsible for the design, research and development, teaching, and scientific research of all courses. Good solution to this problem.

Finally, change the concept and innovate the scientific research and teaching evaluation system in colleges and universities. We must adhere to the scientific education of colleges and universities, and regard the contribution rate of scientific research to personnel training as an important indicator of the quality of scientific research in universities; we must emphasize the research of university teaching, and regard teaching research and subject research as equal status scientific research activities; The effectiveness of research-based teaching in colleges and universities is based on the degree of input and increase in students' learning process as the main basis for evaluating teachers' teaching effectiveness. In this way, university teachers with different interests appealing and different talents can be attracted. Starting from their own characteristics and working environment, they can take the road of scientific research and education or teaching research. These two roads are jointly under the goal of talent cultivation and they uphold the spirit of the integration of science and education. Therefore, they can jointly accomplish the mission of improving the quality of higher education.

The incomplete unification of subject interests may lead to deviations in the practice of science and education. In theory, each practice subject has a consistent goal: to improve the level and quality of teaching, and to cultivate talents with innovative capabilities. However, different subjects of practice have different positions in the higher education system, there are levels between the subjects, and there are differences in the pursuit of values and interests. Based on the assumption of economic rationality, different subjects may be more interested in their own interests in actual work. With the pursuit of value, the subject's practice direction may deviate from the goal of theoretical pursuit. How to give full play to the enthusiasm of each practice subject is a problem that the practice path needs to consider and solve.

5. The Research Results of Science and Education Fusion of Famous Teachers in Colleges and Universities

There is no obvious difference in gender and teaching age between the concept recognition and practice of the integration of science teaching and learning in universities in China. There are also few differences in education, college types, and teaching disciplines. The concept and practice of science and education integration of famous teachers under different grouping variables shows that

High degree of similarity. This may well be related to the fact that both teachers and teachers are relatively long-term and have formed their own mature educational concepts and stable educational styles. In addition, national and provincial universities and college teachers are selected by the same standards as the elite teachers, as a group of outstanding teachers, they themselves have a strong homogeneity, which is the difference between the concept of teacher education and practice of the differences between groups The obvious reason is not obvious.

At the same time, this study finds that the teacher's score is significantly higher than the average teacher on multiple levels of recognition and practice of science-teaching integration. The analysis of open issues found that the high recognition of the concept of integration of science and education by famous teachers is mainly based on the following three reasons: 1 Scientific research has a very important "indirect" role in teaching; 2 Teaching itself is also an important scientific research; 3 Efforts to achieve the integration of science and education It is the basic responsibility of university teachers and the basic mission of contemporary universities. Therefore, we have reason to believe that maintaining the dual enthusiasm of teaching and research and striving to pursue the integration and promotion of the two are the innate spiritual traits of the teachers. The integration of science and education is the only way to create high-quality college teachers and high-quality undergraduate teaching.

Although the personal efforts of teachers have made them perform better in the practice of science and education integration, there is also a clear gap between their practical actions and their concept recognition. This shows that without the support of the corresponding system environment, teachers alone can hardly coordinate the relationship between teaching and scientific research. In the open question feedback, many famous teachers expressed strong dissatisfaction with the management orientation of focusing on scientific research. Finally, this study also found that the concept and action of updating the teaching content of famous teachers in universities in China is obviously better than that of ordinary teachers, but there is no obvious advantage in the reform of teaching methods. In recent years, the emerging learning methods --- undergraduate research, teaching teacher recognition and action even lower than ordinary teachers. The analysis of open issues found that this has a direct relationship with the undergraduate research view of the famous teacher. In the eyes of many teachers, scientific research is academic elite with a good knowledge base and strong innovative ability. Ordinary undergraduates can try to study sex, but they are not competent enough for scientific research.

The author believes that this elite perspective of scientific research is a major obstacle to the scientific development of undergraduate research in China. The post-secondary, research, and result-oriented problems in China's undergraduate research are rooted in the concept of elite undergraduate research. In fact, from the perspective of international trends, undergraduate research since the 21st century has increasingly emphasized the shift from "result-output" to "student-process" transition, from the extracurricular scholarship for elites to the majority of students and even all students. Course embedded development. In other words, undergraduate research is not an exclusive extra-curricular learning opportunity for a small number of elite students. It should be organically integrated with the undergraduate curriculum learning and gradually integrated into the four-year undergraduate curriculum so that all students can learn in a similar scientific research process. This course-based and compulsory transformation of undergraduate research will inevitably require structural interventions from departments, universities and the government. Therefore, as with the reform of teaching methods, the guidance and training of undergraduate research is by no means a matter for individual college teachers. It urgently requires accurate positioning, overall design, systematic research, and continuous follow-up at the school level. Emphasis on propaganda of ideas and policy encouragement, but the lack of corresponding school organizational culture construction, institutional environment construction and teaching research team construction has become a bottleneck restricting the reform of teaching methods in Chinese universities.

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