



Theoretical Origin and Development of Outcome-Oriented Education in Basic Education in the New Era

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Abstract. With the continuous deepening of the teaching reform of basic education courses in the nation since the founding of New China, the professional support role of the teaching and research front in improving the teaching quality of basic education has become increasingly obvious, which fully reflects the advantages of China's teaching and research system. It is stated that "teaching and research work is an important support to ensure the quality of basic education" [1], reflecting the country's great importance to primary education teaching and research work. Benchmarking national requirements in the new era, summarizing the experience and achievements of primary education teaching and research work, sorting out the current problems and challenges, and discussing new responsibilities and new missions are crucial to promoting its transformation and development and giving full play to the professional support role of basic education curriculum teaching reform.

Keywords: Educational Reform · Educational Innovation

1 Introduction

It is an important focus to promote the development of "Internet + Education" to drive the innovation of talent training mode through teaching reform and to realize an open and shared education service system through supply-side reform [1]. In the national education strategy, the innovative education integration application system and the optimization of the education service supply system are essential tasks to promote "Internet + education". In the "Internet + Education" practice and development, various regions have explored new teaching models and models of educational service supply that can be used for reference and promotion through first-hand experiments. This article will combine specific cases to analyze the innovation of educational service models in promoting "Internet + Education". China's educational needs are constantly upgrading at this stage, and people are eager for personalized and high-quality educational services. The Nineteenth National Congress of the Communist Party of China made a major strategic judgment that socialism with Chinese characteristics has entered a new era, marking that China's national economy and social development have entered a new stage, and the main contradictions of education have also changed, calling for a new education

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service model [2]. The contradiction between the school's standardized, large-scale, supply-driven educational services and learners' diverse, individualized, and flexible learning needs has become increasingly prominent. How to promote the high-quality and balanced development of education and how to balance large-scale education and individualized training [3] have become the main problems facing education at this stage. In other words, how to realize the transformation from a supply-driven school as a single supply subject, and teaching-centred standardized education service model to a demand-driven, multi-subject collaboration, and learning-centred personalized education service model.

2 Literature Review

2.1 A New Model of Educational Reform Under the Condition of “Internet +”

New technology and new thinking represented by the Internet, as a new driving force, can meet individual, flexible and diverse educational needs in large-scale education and deepen learner-centred teaching reform.

Innovate Teaching Methods and Teaching Organization Forms, and Change the Classroom Teaching Mode

Deepen the application of the “Three Classrooms” and promote the balanced development of urban and rural education. The balanced development of education is to meet the people's demand for high-quality education and to realize the transformation from “can study” to “studying well”. The “Three Classrooms” is essential for integrating and innovating information technology and education and teaching, promoting educational equity, and improving education quality. “Express Classroom” solves the problem of uneven, insufficient, and poorly taught courses prescribed by the state in some areas. Meanwhile, “Expert Lecture” maximizes the sharing of excellent resources through online measures driven by famous teachers [4]. Further, the online delivery mode meets the needs of students for individualized development and high-quality education through the systematic opening of high-quality educational resources of prestigious schools. According to the actual situation, some areas have explored the application mode of “three classrooms” with local characteristics [1]. For example, Suzhou uses the “Suzhou Online Education Center Platform” to create “three classrooms” and achieve high-quality education.

2.2 Higher Education Accreditation and Outcome-Oriented Education

In the face of stakeholders' doubts about the quality of higher education, the government and society have begun to strengthen accountability for the quality of higher education concerning student learning outcomes. Among them, the United States is the most prominent. As early as the 1980s, the United States launched an “evaluation movement” with students' learning outcomes as the main content. The standards of certification bodies have also gradually changed from “minimum quantitative standards” to “objective-based evaluation standards” and then to “result-oriented evaluation standards” [9]. In the 21st

century, the United States, Japan, the United Kingdom, Australia, Canada, Brazil, Mexico and other countries have issued corresponding assessment guidelines, certification standards, and degree requirements. These highlighted requirements for measuring and evaluating student learning outcomes, which makes universities pay attention to the design of education around the results and the student's learning outcomes [5–7].

At the same time, in the context of globalization, the European Union officially launched the Bologna Process in 1999, aiming to build a European higher education area, promote the flow of teachers, students and talents, and provide a wide range of high-quality higher education opportunities and social connections. In order to achieve these goals, countries have established their education quality assurance mechanisms under the overall framework requirements of European higher education to ensure that colleges and universities and majors meet the corresponding standards and that graduates' credits are interchangeable and mutually recognized. In order to be in line with international standards, China's higher education accreditation also adheres to the concepts of "result-oriented", "student-centred", and "continuous improvement", stipulating what students should learn, what to master, and what learning effects to achieve. In 2016, China officially joined the international engineering education "Washington Accord" organization, marking the international recognition of China's engineering education quality certification system. Professional quality through certification, i.e. achieving substantial international equivalence. The Bologna Process and other higher education development consortia not only promote the quality assurance of higher education, emphasizing the learning outcome-oriented certification model but also promote the vigorous development of higher education and teaching reform in a student-centred direction.

2.3 Difficulties and Challenges Faced by Teaching and Research Work in the New Era

In the face of the new situation of education reform and development in the new era, there are still some inadaptable contradictions in the teaching and research work in various places. Analyzing the results of systematic research organized by the Curriculum and Textbook Center of the Ministry of Education in recent years, the teaching and research work faces the following outstanding difficulties and challenges.

(1) Job Positioning Needs to Be Clarified

Teaching and research work positioning could be more accurate in some places, and some destructive phenomena have appeared. Primarily, the teaching and research institutions have undertaken tasks inconsistent with the teaching and research work, focusing too much on administrative management and ignoring the guidance of school education and teaching work, resulting in a shift in work focus. Subsequently, the research and guidance on the transformation and implementation of the curriculum plan and standard concept requirements are ignored in improving test scores [10]. Moreover, the teaching and research work focuses on some schools needing a global vision and overall quality

concepts, such as focusing on the guidance services for famous traditional and robust schools and neglecting guidance services for weak schools.

(2) The Management System Needs to Be Sorted Out

In recent years, due to weak leadership, insufficient attention, or institutional mergers, the management system of teaching and research work has not been smooth, and teaching and research work has been weakened and marginalized. In some regions, they are forming a synergy within the teaching and research system is complicated, affecting professional functions' performance. Teaching and research systems at all levels across the country urgently need to form a "one game of chess" pattern for the overall planning and promotion of teaching and research work.

(3) The Ability Level Needs to Be Improved

The research level of teaching and research institutions in many areas needs to be higher, the guidance ability needs to be stronger, and the service quality needs to be in place. In terms of work tasks, more attention should be paid to teaching and research on moral education, physical education, aesthetic education, and labour education, which has become a weakness in teaching and research work. In terms of guidance methods, simple listening and evaluation, and examination review guidance are the mainstream in many places, and innovation and richness are not enough. In addition, there is a lack of practical guidance for school-based teaching and research, and school-based teaching and research tends to be virtualized, weakened and formalized. The quality could be higher [11]. For a long time, teaching and research work has relied more on the personal experience of teaching and research staff rather than scientific research based on problems. It is urgent to shift from focusing on traditional case analysis and experience summarization to problem-solving based on empirical research.

2.4 Adhere to the Unity of Theoretical Teaching and Practical Education

One of the basic concepts of educational modernization is to pay more attention to the unity of knowledge and action, which is in line with Marxist epistemology. People's correct thinking and scientific understanding are based on the practice's needs and are produced in practice. Traditional ideological and political education often emphasizes theoretical knowledge but does not pay enough attention to practical education and makes insufficient use of social resources. Value rationality requires respect for the subject participation consciousness of college students. Their active participation in social practice is their own right and the need for ideological and political education. Ideological and political education in colleges and universities should encourage college students to transform knowledge into actions through different forms of social practice activities, truly achieve the unity of knowledge and action, enhance the ability to understand society, integrate into society, and transform society, with a strong sense of responsibility and mission. This is a vital content and critical link between ideological and political education in colleges and universities and an essential way for ideological and political education to realize the unity of value rationality and instrumental rationality.

3 Discussion

3.1 How to Determine Training Objectives and Graduation Requirements

The training goal is a general description of the career and professional achievements that graduates can achieve in about five years after graduation. The training objective is the general outline of professional personnel training. It is the basis for constructing a professional knowledge structure, forming a curriculum system and carrying out teaching activities. Graduation requirements (or graduate ability) is a specific description of the knowledge and abilities that students should master when they graduate, including the skills, knowledge, and abilities that students have mastered through the study of this major. It is the learning outcome that students should achieve when they complete their studies. Although graduation requirements include knowledge, ability, realm, knowledge, ability, and belief, the purpose of mastering knowledge is to apply and create knowledge, and applying and creating knowledge requires skills and creativity, which is ultimately a kind of ability. Realm is a kind of spiritual cognition, the degree or height of the mind's comprehension of various phenomena. It can also be said to be an ability to control the spiritual world. The training objectives pay more attention to what students can do, while the graduation requirements pay more attention to what students can have. What they can do mainly depends on what they can have. Therefore, the graduation requirement is the premise of the training goal, and the training goal results from the graduation requirement.

When determining the training objectives and graduation requirements, we should pay attention to the differences in the formulation basis, participants and the number of articles between the two. The basis for formulating training objectives is mainly: external demand, including the requirements and expectations of the country, society and students; internal demand, including the orientation of school running, talent training orientation and pursuit of training quality. Graduation requirements are based primarily on training objectives and accreditation standards. The participants in formulating training objectives are mainly graduates, employers, school administrators, teachers and students. Participants in developing graduation requirements are primarily teachers, students, school administrators, and graduates. Training goals are generally expressed in 4 ~ 6 items, and graduation requirements are in 4 ~ 15 items. The number of terms for graduation requirements depends on whether graduation requirements are further refined into competency indicators. The so-called ability index refers to the refinement of graduation requirements (graduate ability) into terms that are easier to implement in specific teaching links and can be quantitatively or qualitatively evaluated. Of course, the agreement mentioned above on the training objectives and the number of graduation requirements is only a relative concept, not a general rule.

3.2 Optimise Knowledge Structure

The following three relationships must be properly handled to optimise the knowledge structure: (1) The relationship between general knowledge and professional knowledge. It is necessary to plan the general education curriculum system with the concept of "whole person" education and determine the core courses of general education. The construction

of the general education curriculum system should carry forward the traditional virtues, inherit the excellent educational traditions, absorb the beneficial elements of European liberal arts education and American general education, and learn from modern educational concepts. Attention should be paid to humanistic classics, especially studying classic original works. (2) The relationship between basic knowledge and professional knowledge. It is necessary to fully consider the long-term development of people and the need for professional changes for the knowledge structure of talents and to face up to the current state of the education system and economic development level in our country. That is to say, to properly handle the relationship between “should be” and “what is”, we should neither cultivate “specialists” regardless of long-term development nor cultivate “generalists” regardless of the actual needs. For majors with high professional and occupational matching rates, the proportion of professional knowledge can be appropriately increased; otherwise, the proportion of basic knowledge should be increased. To achieve “a solid foundation and expertise in learning”. (3) The relationship between major and minor. It is necessary to pay attention to interdisciplinary and compound, cultivate compound talents, and form a “T”-shaped or even “ Π ”-shaped knowledge structure. To specify credits for interdisciplinary electives. To expand the scope of minor majors, each major should offer minor courses for students of other majors.

In addition, when constructing the knowledge structure of engineering education, it is necessary to be guided by current engineering views. It includes engineering value, system view, ecological view and social view. Engineering values refer to the realisation of the coordination and unification of multiple values—scientific, economic, social, military, and ecological. The engineering system view refers to establishing the concept of system science and adopting the method of system thinking in engineering research, design and engineering practice. The view of engineering ecology means that engineering phenomena are regarded as a link in the entire ecological cycle, and its socioeconomic and technological functions should conform to and obey the law of the ecological cycle. The social view of engineering means that engineering is not only a purely technical activity but also a social activity, which is a process of rebuilding social structure and relationships. The contemporary engineering view reflects the new trend of cross-integration and coordinated construction of contemporary engineering science and engineering technology with society, economy, culture, and ecology. Traditional engineering education focuses on the question of whether it can be done. However, modern engineering education also pays attention to whether it can be done, should be done, and is worth doing.

4 Conclusion

The Family is the cell of society and the first school of life. Good family education can cultivate excellent qualities such as noble qualities and good habits in college students and has a positive role in promoting the formation of college students’ correct outlook on life, values and world outlook. On the contrary, if the family style is incorrect, it will plant the root of disaster, which will not only have a terrible influence on young people but also corrupt the social atmosphere. General Secretary Xi Jinping attaches great importance to the construction of family traditions. He pointed out: “Family is the

first school in life, and parents are children's first teachers. They must teach children the 'first lesson of life' and help them take the first grain of life. Button. "It can be seen that family education can optimize the educational environment of ideological and political courses in colleges and universities, lay a good foundation for ideological and political education, and have a significant impact on the results of personnel training. Therefore, strengthening the guidance of family education, promoting the modernization of family education, and integrating family education into the ideological and political education system so that it can play its due role in the construction of civic morality in the new era is an important task facing ideological and political education in the new era.

Improving the professional quality of teachers is the key to improving the effectiveness of personnel training.

"Teachers are the foundation and source of education". Teachers of ideological and political courses in colleges and universities undertake the vital task of disseminating Marxist theory and are the backbone of casting souls and educating people. Their professionalism plays a significant role in the effect of educating people. The quality of ideological and political teachers in colleges and universities includes political, professional, and moral qualities. Teachers influence and educate students through academic cultivation and personality charm and cultivate students' learning spirit, academic quality and professional attitude from subtle points. The basis for teaching ideological and political courses is also essential for completing the fundamental task of cultivating people. For a long time, the party and the government have attached great importance to ideological and political courses and have always placed the construction of teachers in a prominent position. General Secretary Xi Jinping presided over a symposium for teachers of ideological and political theory courses in schools in March 2019, gave further instructions on how to strengthen ideological and political courses, and raised ardent expectations for teachers of ideological and political courses. "China's Educational Modernization 2035" pointed out that it is necessary to "build a team of high-quality professional and innovative teachers". In order to further strengthen the construction of teachers in ideological and political courses in colleges and universities, on January 16, 2020, the state issued the "Regulations on the Construction of Teachers in Ideological and Political Theory Courses in Colleges and Universities in the New Era", which further emphasized the prominent position and importance of teachers in ideological and political courses in colleges and universities. In terms of responsibilities and requirements, allocation and selection, training and training, assessment and evaluation, the construction of teachers of ideological and political courses in colleges and universities is stipulated in detail. At the same time, higher requirements for the professional quality of teachers of ideological and political courses will help further improve the effect of cultivating talents in ideological and political courses in colleges and universities.

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