

The Research on the Ways and Countermeasures to Develop Innovation Education in Chinese Colleges and Universities through Learning from International Experience

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Abstract- In this paper, the concept and characteristics of innovation education are briefly summarized. It finds out the factors that limit the development of innovative education in Chinese colleges and universities through analyzing the innovation education development process and the problems presented during the process in international advanced countries, and through analyzing the current situation of innovation education development in China and the problems in the development process. Therefore, it explores the countermeasures and ways to smoothly develop innovation education in Chinese colleges and universities from several specific aspects, such as development direction and aims of innovation education in Chinese colleges and universities, improvement and reform of management system, and transformation of evaluation mode and direction of teachers' cultivation.

Keywords- *Innovation education; International experience; Reference; Strategy; Way*

I. INTRODUCTION

It is well known that colleges and universities should take the important mission of cultivating all kinds of innovative talents needed for the socialist construction. Therefore, the cultivation of innovative ability of college students must be the long-term development goals of colleges and universities in China. For the so-called innovative education, the essence is to improve the quality of education objects. Only the talents with innovative quality have their own initiative consciousness and creative spirit. It can develop and cultivate people's creative potential and promote people developing towards the direction of innovative talents through the generation of modern scientific culture and the training of creative thinking. Its inner core is to cultivate innovative consciousness and creative spirit.

II. THE DEVELOPMENT OF INNOVATION EDUCATION IN THE DEVELOPED COUNTRIES AND THE ENLIGHTENMENT TO OUR COUNTRY

Innovative education first appeared in some of the enterprise trainings in the developed countries and later gradually applied to the regular education in colleges and universities. Since 1970s, innovation education in developed countries has obviously developed and gradually began to be normal.

A. *The Development History of Innovation Education in the Developed Countries*

First of all, the United States was the first country to carry out innovative education, and education reform has become an important measure for the United States to respond to various national crises. At the beginning, the American education reform began in 1957 and the Soviet Union launched the man-made satellite. Shocked by the technical development in other countries, the United States felt a strong crisis. So it promulgated laws related to defense education the next year, and its main purpose is to promote domestic education commensurate to the national defense education so as to adapt to the demands of international situation changes. As early as 1973, the United States created a innovation center gathered by four famous institutions of higher learning to carry out innovative education and all kinds of innovative experiments. Immediately within the next few years, other American colleges and universities have begun to popularize the innovation education and thus innovation education bloom and bear fruits rapidly within colleges and universities in the United States. 1980s, Japan began to become the world leader in the field of Electronic Science and Technology, which gave the United States a huge pressure. The United States gradually realized that education will threaten the whole country's economic security, and therefore began to establish the national education system again. 1983, the

United States began to improve the quality of higher education and aimed to cultivate more talents with creative ability, exploring spirit and investigative practice spirit. In 2000, the United States education plan pointed out that education must be put in the first place, this shows that that is a long history that education has an important position in the United States.

Second, Japan has already had the goal of surpassing the western developed countries in the early period of the Meiji Restoration, and taken the education as an important weapon to achieve this goal. The modern Nihon University began in the late nineteenth Century, and the development of the Japanese modern education has played a very important role in promoting to pre-war economic construction and the post-war economic recovery in Japan. In the eighty's of last century, Japan's economic and technological status in the world have been promoted to a completely new situation and gradually started an innovation road belongs to itself. In the late 80's, Japan began to develop its own educational goals in twenty-first Century actively to promote the cultivation of domestic talents, and aimed to improve the students' creativity and innovative spirit to a new level and promote the development of students' scientific literacy.

Third, German education has the highest position in the whole history of education in Europe. Many forms of western education rise from Germany. After the Second World War, the educational atmosphere of German higher education emphasized the academic freedom and the integration between and technology research and education. From 1976, the core of German education emphasizes exploring the potential of college students, and takes cultivating innovative talents as the important task of higher education. It pays attention to the cultivation of College Students' personality and emphasizes the cultivation of the sense of responsibility and critical ability in order to be able to gain a foothold in the fierce international competition. At the present stage, the education system of the German university takes the cultivation of quality as the foundation of education, and the higher education institutions and the government and the society all take innovation ability as an important task of personnel training.

B. The Enlightenment of International Advanced Experience to the Innovation Education in Our Country

Integrated above all the advanced education idea and education experience of developed countries, we can see that the innovative education of colleges and universities in our country must follow the footsteps of the developed countries in the world to improve the attention to education and strive to reform the education system to promote innovation education, and thus making it developed extensively. First, all countries in the world are aware that the innovation education can promote the overall quality of the whole nation, and it can be advantageous to improve the international overall competitiveness and solid the status of the states in the world. Therefore, it is necessary to take the improvement of innovation education and the quality of education as an important task for China. Second, the

reform of education must be sustained. In the 1980s, the reform of education in the world emerged in endlessly. Because of the complexity and seriousness of the education problem, reform is a long-term arduous task and cannot be completed in a short time. Third, the improvement and adjustment of the education system is the most important task in the 21 for each country in the world. China also must follow the footsteps of the developed countries in the world to improve domestic education system economically. Fourth, the focus of education is to improve its quality. The quality must be improved with the increase in the number of colleges and universities and the number of students. Fifth, we should improve the curriculum structure, adjust the overall goal and put the science and technology in the important position. Only the scientific and technological level can stand in the world, our country's comprehensive national strength can be improved and thus making China stand in an invincible position in the fierce competition.

III. COUNTERMEASURES AND WAYS OF THE DEVELOPMENT OF INNOVATION EDUCATION IN CHINA

The transformation from the trauma of education philosophy towards innovation education must be the main content of the education reform in Chinese colleges and universities. The cultivation of innovative talents is an important task of higher education in the present stage.

A. Make Clear the Fundamental Goal of Innovation Education in Colleges and Universities, and Fix the Value Orientation the Cultivation of Innovative Talents

The main purpose of innovation education is to cultivate innovative talents with distinctive characteristics of the time who can adapt to the modern social development and reform. Its goal is of criterion, guidance, practice and comprehensiveness, and the principle of the target is clear, feasible and administrative. So, the focus of innovation education in colleges and universities of our country is to stimulate the creativity of students and cultivate the new inter-disciplinary talents with comprehensive qualities. Therefore, the innovative education in our country must be based on cultivating the inter-disciplinary talents with innovative spirit and practical ability. In addition, according to their own position and the idea of running a school, each college and university should analyze its own advantages and target system to carry out the transformation of educational ideas and truly implement the goal on the specific educational behavior.

B. Actively Promote the Improvement of the Education System and Management System of Colleges and Universities in order to Improve the Environment of Innovation Education

In order to make the management system of colleges and universities in our country get the reform, it is necessary to establish a system of colleges and universities with Chinese characteristics according to

Chinese actual situation and must pay attention to the enhancement of the vitality of colleges and universities. The administrative management is the main reason for the lack of vitality of running schools in China. The removal of administrative management requires the government to make decisions as soon as possible and decentralize all kinds of rights to each college and university gradually, such as government's adjustment of administrative management and education system in colleges and universities and development policy of innovation education. Only the colleges and universities have the autonomy and their education system is transformed towards decentralization, they can give full play to the leading role of each college and university and be conducive to improving the environment of innovation education.

C. To Further Promote the Improvement of Evaluation Methods of Innovative Education and Focus on the Improvement of Students' Innovation Ability

Innovative education attaches great importance to the development of students' personality and the cultivation of interest in order to inspire students' independent thinking and critical thinking. In addition, the relationship between teachers and students must be changed from the former authority to the independent style, and must establish a relationship between teachers and students based on independence, democracy, harmony and friendliness. Teachers and students must respect each other, listen to each other's views and respect each other's choice. Colleges and universities also should pay more attention to expanding the students' knowledge domain, cultivating and improving students' innovative consciousness, provide more practical opportunities for students to develop and improve their innovation ability. And it can improve the evaluation method, ban various old evaluation system hindered innovative thinking and consciousness and change the evaluation views. It also can give full play to the supervision and guidance of the evaluation and truly realize the improvement of innovation ability.

D. To Improve the Overall Quality of Teachers in Colleges and Universities and Improve the Innovation Ability of Teacher Troop

It is obvious that cultivation and improvement of teachers' innovation ability can improve the effect of innovation education. Therefore, the stimulation of innovation ability and enthusiasm of teachers are beneficial to giving students positive improvement and influence. Innovative education itself needs new teachers with innovative spirit to strengthen the training of teachers for all creative education, and to promote the reform and improvement of teachers' professional spirit and educational ideas. It can actively build new knowledge framework for modern innovative education to promote the scientific research ability and the improvement of education technology. It also can actively absorb and draw lessons from the advanced education idea and education method to stand in the foreword of the innovation education and provide better service for students' innovation education.

E. Strengthen the Training of Students' Practical Ability in Colleges and Universities and Intensify the Opening Education of Students in Colleges and Universities

Innovation education is an open mode of education which breakthrough the traditional exam-oriented teaching mode and closed education and its effectiveness have direct relationship with the number of students' practical activity. Therefore, in the daily teaching in colleges and universities, we must change one-way accept education mode, increase more practical education in higher education and change the passive accept type education into interactive education mode of two-way discussion between teachers and students. By combining the theoretical knowledge and practical application closely, it can increase the enjoyment and pertinence in the process of teaching and increase students' enthusiasm for study by the communication between teachers and students which are helpful for students to form a three-dimensional model in thinking and are conducive to the improvement of students' innovative consciousness and creative ability.

F. To Overcome the Constraints of the Development of Innovative Education in Our Country Actively and Improve the Curriculum Settings of Colleges and Universities

It can change original mechanical replication into practical application courses with more innovative spirit by abandoning the current situation of traditional golden mean, changing positively and improving the curriculum of colleges and universities. The increase of the injection of adventurous spirit makes a brand new style of curriculum in colleges and universities. It combines the bookish knowledge and practical application organically, gives students more opportunities to show themselves innovate actively, and provides better environment to cultivate new innovative talents.

IV. CONCLUSION

Above all, because of our country's innovation education started late, there are still a lot of problems to be resolved and analyzed although our country has achieved initial results during the development process in the past twenty years. First of all, target and positioning needs to be further clarified in the process of the development of innovative education. Secondly, we should pay attention to the improvement of the breadth of knowledge in Chinese colleges and universities to provide a broad space for the innovation education. Third, we should increase the new practice link. Fourth, we should improve the education evaluation system and pay attention to the students' personalized needs. Only by combining the specific problems of higher education and practical situation in our country, and absorbing or learning from international advanced idea and mode, we can find out and perfect the main factors that restrict the development of innovation education in colleges and universities in our country. And it can effectively improve the current situation of innovation education in colleges and universities, and strengthen our country's comprehensive education strength, scientific and

technological strength and comprehensive competitiveness in the world, which can make our country remain invincible in the fierce international competition.

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