

Constructing Competency-based Education in Vocational Colleges

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Abstract—China greatly supports the development of vocational education since the reform and opening-up. Under the circumstance, reform and development of vocational education has achieved great accomplishment in China. Higher vocational education develops rapidly. No matter it is the scale or the level of vocational education, or the exploration on ways of developing for vocational education, all of them develop vigorously. The paper will start from studying issues about cultivation of skilled talents, and then analyze related development factors and current status of skilled talents cultivation to discuss issues on how to cultivate skilled talents. The paper will also take status of how developed countries cultivate talents for reference to analyze the development modes of vocational education adopted to cultivate skilled talents, hoping to find countermeasures to cultivate skilled talents.

Keywords—vocational education; skilled talents; mode and method

I. INTRODUCTION

Decision from the State Council on Expediting the Development of Modern Vocational Education stresses: "Establish mechanism by using actual application to drive teaching reform". That is vocational colleges should develop teaching activities in real-world scenarios and offer opportunities for students to do related practices, then help students to master related skills [1]. Capability-oriented curriculum, a kind of classical curriculum model for vocational education which stems from North America and once prevailed in Britain and Australia, has distinct practical significance for today's vocational education curriculum and teaching theory.

Capability orientation means to take capability as the center, then find out each student's specialties through accurate analysis on their capability, and cultivate their specialties to help them to adapt to their position. Under the circumstance of employment-oriented higher vocational education, it is important to emphasize capability and quality training. Apart from these, employers' demands on talents should not be ignored. Vocational colleges should not only cultivate social men with qualified thoughts and moral, but should also focus on cultivating skilled talents which meet with market demand.

II. CURRICULUM MODEL OF CAPABILITY-ORIENTED EDUCATION

Target stressed by Ministry of Education for higher vocational education is to cultivate well-qualified, application-oriented and skilled talents to meet with demands of related positions. To realize this target, developing curriculum by taking capability cultivation as the core is extremely important. John Dewey, a famous philosopher and educator in modern America, once presented that education is life as well as development. He believes that "all learning is the by-product of activities"; teachers should make students reflect through "activities", then to learn knowledge [2]. Dewey applied "learning through activities" to every aspect of teaching domain. For example, teaching process, courses, methods, and organizational form are developed based on the theory of "learning through activities."

Vocational education aims to cultivate students and help students to gain a certain professional competence through professional vocational training. For higher vocational education, its disciplinary orientation is different from universities because of its feature of "occupation". This not only decides the orientation for running the higher vocational education, that is to be guided by "employment", but also require higher education colleges to decide their direction, course structure, textbook compilation and teaching methods and to develop teaching practice based on the guidance of "employment".

A. Curriculum Design of Capability-oriented Education

Development could not be realized without talents. And vocational education, which plays a vital role in cultivating talents, should be fully utilized to cultivate talents. Integrate vocational education into curriculum system to form efficient interaction and close link between them, then to well find out and reserve talents, and cultivate more and more talents which meet with the demands of development. Only by keeping cultivating talents, can they promote the revitalization of vocational education and drive the long-term development of social economy. Vocational education bears the mission to cultivate skilled talents; therefore, it should pay more attention to specialties and methods adopted to cultivate skilled talents.

Length of schooling of higher vocational education which normally lasts three years is shorter than the one of regular institutions of higher learning. However, it takes time to improve personal occupational qualities. It is impossible to improve students' quality through one semester or one academic year. Therefore, it is extremely important to guide students to do training about quality in the class. This is why professional practice plays an important role during the teaching. Employment-oriented learning is more suitable for students. Only by developing course based on characteristics and requirements of vocational education, such efficacy and the goal of higher vocational education can achieve organic unity.

1) *Capability-based education mode:*

This mode usually adopts modular structure when design curriculum, that one module means cultivation of one capability or several capabilities. Introducing practices besides learning theories will help students to "combine theories with actual situation", and to gain experiment and happiness of practical training when accept aesthetic education [3]. For example, higher vocational schools could design courses of theories, techniques and practices by taking actual techniques and equipment for reference; design teaching space and course modular based on actual business process in production and service link; and motivate students' enthusiasm to explore related position and to learn knowledge with real cases and projects. Higher vocational schools could also build capability-oriented and practice-based curriculum system; develop modular teaching by taking skill cultivation as the core to help students to get ready for their future position.

2) *Building teaching mode of "modern apprenticeship system":*

Teaching mode of "modern apprenticeship system" adopts "three-in-one" mode during teaching process. That is to combine classroom with training site; teacher is the master at the same time; and student is also the apprentice.

In general, skilled talents are the key factor for development. A region or a nation could not develop without talents. Shortage of skilled talents will consequentially restrict social development. At present, skilled talents cultivation in China lags behind other countries; talent team is not sound; and critical shortage of talents has become the bottleneck which restricts China's development. In the era when international culture industry develops rapidly, issue of talents has become the key factor which hinders China's rapid development.

B. *Settings of Supported Teaching Materials*

Textbook, the book which systematically states subject contents based on curriculum standards, is the main information media adopted to impart knowledge and is the further development and materialization of curriculum standards. Textbook plays a vital role in stabilizing teaching, improving teaching quality and deepening subject content system. Therefore, a set of suitable textbook for vocational education colleges to do relate teaching in each phase is very important. Textbook compilation could take the idea of

capability orientation for reference, and integrate knowledge of vocational skills, job characteristics, professional ethics and humanistic quality into the teaching.

Reviewing current teaching materials for higher vocational education, it could be found that teaching materials focus on teaching of theories but ignore training of capability. And such education mode fails to help students who need to master skills which are useful for their "employment" within short period. For higher vocational education, the teaching materials should have its own characteristics and should be compiled by taking employment as the direction as well as based on the features of high maneuverability and application. Teaching materials for higher vocational education should be developed based on capability orientation and should be linked with the vocation in which the students will engage in future [4].

Teaching materials, the body of knowledge, should contain both theory and skill training. It is thus clear that to decide the orientation of teaching materials scientifically and accurately has become the top task the curriculum reform for higher vocational education should be done at first. During the design process, information which could guide students to find opportunities to do vocational skills training should be contained on the textbook. Only by achieving benign interaction inside and outside the classroom, the classroom teaching effect could enlarge the effect of classroom teaching and greatly improve students' capability.

III. ACCOMPLISHMENT STRUCTURE OF CAPABILITY-ORIENTED EDUCATION

A. *Reaching Accomplishment in Daily Association*

Interaction between people is essential and extremely important in daily life. Carnegie once said: a person's success 15% depends on the specialized knowledge and 85% depends on the interpersonal communication [5]. Course of interaction is extremely profound and subtle. A person's quality, knowledge, thought, wisdom and emotion could be learned through interaction. It is necessary to weigh and consider the other person's mental activities, then adjust the contents and modes of dialogue based on the analysis conclusion. During interaction, it is necessary to use sincere language, handle situation wittily and use various skills and principles flexibly. All of these are the contents needed to teach students. It could be said that behaviors exist everywhere, that they could be found on the aspects of politics, science and technology, culture, and education.

At present, graduates of higher vocational colleges encounter with the trend of talent flow. "Independent choosing profession" and "two-way selection" has become the top topics among graduates. And such trend also offers opportunities for graduates to display their talent. The reality tells that diploma is the academic certificate, but not the "permit" to ideal occupation. As higher vocational education develops, ideas of "occupation first" and "capability first" prevail. In higher vocational education, education of professional quality is still the vital, and such quality contains ability to do practice and related activities. Practice

means to use what they have learned to do related practices, which mainly happen in vocational practice field. Behavior means to integrate the quality gained based on knowledge into their daily behaviors. That is to show their professional quality naturally in actual job hunting, and employment. Higher vocational college students have poor basic knowledge. To improve their professional quality, higher vocational education should play the role of guidance and enlightenment in the course of quality cultivation. It is wrong to just teach theories, or to do practices without targets. Theory teaching should be combined with actual practice to cultivate students' capability. Only in this way, it can really realize significance of vocational education for students during higher vocational education, and avoid discussing skills on paper to finally help students apply what they have learn to their jobs.

B. Taking the Mode Adopted by the West to Cultivate Talents for Reference

Western countries always attach importance to skilled talent cultivation. The more developed countries are, the more attention they pay to. Material life in current era becomes rich and varied, and people have more and more demands on cultural life. This is the force driving society to cultivate talents. Capability of innovation and creativity should be especially stressed when cultivate professional personnel. Therefore, countries around the world attach great importance to cultivate and introduce talents to promote their development. Developed countries always attach importance to talents cultivation, believing that talents are the key factor for development. And they have developed distinctive modes to realize related talents cultivation.

As the most developed country in the world, America always pay attention to seek, cultivate and introduce talents. Meanwhile, America also enlists lots of able men around the world by taking advantage of its open talent strategies and economy and market superiority. Enlisting elites has become the important guarantee for America to keep its competitiveness in the international market. Such distinctive talent advantages have helped America to develop different resources with different levels. Under the circumstance of ensuring abundant skilled talents, they are dedicated to innovating contents, and optimizing market operation and commercial package, which continue to make products have new vitality and market development potential. All of these contribute to the role of lord of world of America. America develops disciplines to develop professional talents and focuses on talents training, and always keep the leading role. For talents cultivation, it keeps connection with colleges and universities to cultivate high-quality talents which contain undergraduate, postgraduate and doctoral student. The numerous professional skilled talents lay a solid foundation for American industry development [6]. American government also cultivates different creative talents to meet with social demands, which provide huge talent support and motivation for American industry development.

Talent is the vital factor for industry development. Creative industry starts early in Britain and has huge growth potential. Guided by British government, its creative industry

cooperates with many universities. British government also cooperates with colleges and universities to set up high education forum, then invites experts and scholars to develop training and lectures for elite, aiming to help these elites have unique perspectives, then be able to find market information and seize related opportunities. Talent cultivation should be developed based on market demands, and specialties should be adjusted accordingly. Meanwhile, it is needed to focus on key industry to set up related specialties and integrate specialties into training of industry talents. Regarding talent cultivation in colleges and universities, talent training in Britain centers on specialized education, and students who have the qualification to attend the training should have 2-3 years' working experience and have a certain work background. Its curriculum features profession. Apart from theory learning, students have lots of opportunities to do practices and exercises which are developed in real business environment. Such curriculum also encourages students to organize business activities and master related knowledge through practices, then exercises and improves students' ability of management and innovation by combining theories with practices. After graduation, students could engage in different fields based on their own interests and specialty.

IV. EXISTING PROBLEMS OF CAPABILITY-ORIENTED EDUCATION

At present, skilled talents, as the pillar for many countries in 21st century, have occupied more and more important place in these countries' economic development, and well support prosperity of the country and rejuvenation of the nation. However, issues about skilled talents have not attracted attention from the society. Vocational education, as the main front to cultivate skilled talents, is playing an increasingly important role in talents cultivation.

Shortage of skilled talents is closely linked with social cognition on vocational school. People's cognition on vocational education is negative, that they think only students with low academic record will go to vocational schools, and ignore the professional role of vocational schools playing in cultivating skilled personnel for related industries. Vocational schools also need to compete with regular high school for students. Most students have the mind that they emphasize culture but do not have any interest in learning specialized courses independently. Affected by the employment guidance of "to live off government money" and "a secure job", many students join governmental unit or public institution through civil service examination after graduation. The work they engage in is different from their specialties. Such employment trend brings negative influence on students, affecting both quantity and quality of skilled talents.

Vocational schools should change traditional talents cultivation modes, set up talent cultivation mode with consciousness of innovation and creative spirit as the core, abandon the traditional education modes which ignore students' subjective initiative and just focus on knowledge teaching, establish innovative education mode which could fully motivate students' subjective initiative, implement

innovative education system with comprehensive quality-oriented education, and dedicate to creating, innovating and satisfying with learners' demands, to cultivate the young as the creative citizen in China or even around the world.

V. CONCLUSION

Education mode which focuses on cultivating students' comprehensive quality, integrative competence and employment competitiveness, well takes advantage of two different education environment and resource in school and enterprise, and combines classroom teaching with actual practice to cultivate skilled talents to meet with different enterprises' need is imperative. Schools should develop cooperation with enterprises based on characteristics of schools, enterprises, region, industry and the times; meanwhile, schools should establish and perfect bases for teaching and practices. Set up factories in schools by taking standards to build enterprises for reference to make students experience actual operation like product process and technology application. Vocational schools should combine on-campus learning with off-campus learning; effective interaction between teachers and students should be develop to make them jointly participate in practices done in practices, then to link theory with practice and accelerate each other between teaching and learning. Vocational schools should also integrate "production, learning and researching" into the fields of "learning, practice and creative research", to enable students to become skilled talents who masters both culture theory and practice skill through efficient vocational education platform.

In general, as higher vocational education develops rapidly, China attaches more and more importance to functions of higher vocational education. Higher vocational education aims to cultivate high-level skilled talents, who should have relatively comprehensive professional quality, which will help them to win more advantages after graduation, and make them face pressure of competition unhurriedly.

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