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An Empirical Study on Educational Growth from the Perspective of Professional Certification

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Abstract: Professional certification is an internationally used evaluation standard for higher education personnel training. The establishment and improvement of the certification general standard and the implementation evaluation mechanism of the higher education in China are the inevitable requirements for the development of higher education modernization and world. We should establish the quality standard, deepen the understanding of the concept of professional certification, combine with the actual development of higher education in China, construct the talent cultivation and educational growth mechanism of professional certification from the objective, curriculum system, training mode and evaluation mechanism.

1. Introduction

Professional certification has become an important international evaluation method to measure the process and quality of higher education personnel training and education growth. In the process of talent cultivation and growth of higher education, professional certification should run through the whole process of talent cultivation and growth. Institutions of higher learning practice the perspective of professional certification training quality standards and the quality of the talents growth evaluation, establish and improve the higher education based on the perspective of professional certification of the cultivation of the talent training and education and the quality evaluation mechanism is not only the certification of professional personnel training goals and objectives and the bottom line, and other non-certified professional course teaching quality and guarantee the teaching effect, An effective way to promote the growth of talent education.

2. The Source of Professional Certification Issues

Professional certification is the application of the educational philosophy of "learner-centered and learning-outcome-oriented" in the field of higher education, which has a profound historical background. In the context of popularization of higher Education, in order to cope with the changes in demand of the internal structure of higher education, the diversity of student source structure and the large difference in student quality, more developed countries with higher education have explored the implementation test process of an education concept Based on learning output-based-education.

In his book Output-Based Education Model: Controversies and Answers, American scholar Spady

W.D. first put forward the concept of OBE and defined it as: The idea of "clearly focusing and organizing the education system around ensuring that students obtain substantial successful experiences in their future life", [1] and this viewpoint quickly gained attention and recognition from the educational community, and gradually became the main direction of education reform in Europe and the United States. Through the education reform of the concept of OBE in higher education, we can see that the education of foreign universities enables all students to learn and achieve success. Universities control the conditions for success, and success breeds new success. Since then, most of the countries (or regions) in the Washington Agreement have embraced the concept of Professional Certification (OBE) and incorporated it into the latest accreditation standards for engineering education. Other international organizations have also begun to introduce the concept of professional certification to evaluate professionals.

Higher education is a key stage of high-level personnel training and promoting the growth of personnel education. Since 1985, in order to better connect with the national education, our country also began to gradually conduct professional certification in the national theoretical research and practice work together. 2016, China formally became the member states of "Washington agreement", indicating that the certification work has been widely recognized by the international community, establishes a perfect standard and implementation evaluation mechanism of our higher education certification is the necessary requirements of our higher education modernization and globalization development.

From 2016 to 2020, Chinese higher education system has begun to develop and transform in the face of structural adjustment of Chinese higher education and the internal rule of the enhancement of Chinese higher education competitiveness, especially local colleges and universities have gradually turned to applied undergraduate colleges. In the view of transformation, development and evaluation depend on the guidance, facing the 14th Five-Year plan and the long-term development in the future, the growth and development of higher education talents based on the perspective of professional certification need to be carefully thought and refined by higher education managers. How in 14 or 15 times and future long-term development process, establish and gradually improve the based on the perspective of professional certification of personnel training and the quality evaluation mechanism of the growth of the education is also must be necessary, especially about the future development of China's higher education modernization and globalism, the perspective of professional certification shall be throughout the whole process of talent cultivation and talent growth, Practicing the talent training and quality evaluation from the perspective of professional certification is not only the basis for professional participation in talent training and passing professional certification, but also an effective way for other non-certified majors to improve the quality of course teaching and monitor the teaching effect, so as to enhance the growth of talent education. Therefore, the empirical study of educational growth based on the perspective of professional certification has important theoretical and practical significance for the professional construction, talent training and quality evaluation of colleges and universities.

3. The Deep Interpretation of the Concept of Professional Certification

Professional certification concept for higher education is a new kind of quality culture, which requires higher education providers in talents cultivation and growth process need to build a around a stage after learning all the students can get the key results, and can more clearly focused and organize education patterns or methods of teaching activities, This model or method means that educators have a clear vision of the learning outcomes that can be achieved by the education before the educational activities begin, and then design the curriculum, organize the teaching and implement the evaluation according to the vision to ensure the realization of the learning outcomes.

From the perspectives of professional certification to look at higher education personnel training and education, we can deeper understanding of higher education personnel training and education to grow "quality" of the connotation of the quality of the present in the form of the final result "student" in the process of education, namely the "student" in front of the education process and education after the process, comparing the "student" Whether it has achieved the goal of teaching conception in educational design. The education is deemed to be qualified if the stated goals are achieved, otherwise it is not. "This requires that the planning, design and implementation of talent cultivation and education and teaching mechanism under the concept of professional certification should be oriented to support and guarantee the achievement of results, take the initiative to serve the learning and development of students, and be conducive to quality improvement for the purpose."[2] The teaching mode or method of professional certification should also carry out the quality culture and quality standards in all links of personnel training and education and teaching, establish the quality consciousness and quality responsibility of educational implementers, and form the quality introspection, quality self-discipline and quality consciousness in the whole process of education from the beginning to the end. And establish "output oriented, student center, continuous improvement" [3] quality operation and guarantee mechanism. Based on this, a deep understanding of professional certification should be reflected in the following five aspects:

3.1. Clear Cognition of Measurement Standards

According to the concept of professional certification, the goal of talent training is measured by the learning results obtained by students in the education process, and the learning results are the maximum ability that students can achieve after learning in a certain stage. The learning results are evaluated, and the evaluation results are used to improve the talent training mode.[4]

3.2. Explicit Expectations of Learning Outcomes

The concept of professional certification will put forward clear expectations of learning outcomes for talent training, that is, the learning outcomes ability that students are expected to achieve at the end of the learning process. This learning outcomes ability is the maximum ability and peak achievement that students really have, and will accompany students throughout their life.

3.3. Seamless Convergence of Expected Targets

Professional certification concepts to students, schools and enterprises and society overall demand as the guidance, the internal and external learning outcome expectations and talents training goal of cohesion to the core of the professional key ability for a consistent, through expectations, objectives, evaluation, improvement of continuous process to ensure that students achieve the learning outcomes of education target as much as possible to reach an agreement with the results of education.

3.4. Perfect Training Process Guarantee

The talent training process of professional certification concept is a talent training mechanism that combines the ability structure curriculum system on the basis of expected learning outcomes with the expansion of learning pathways, and realizes the expected learning outcomes through personalized training. The whole process of talent training is carried out and carried out around the output orientation.[5]

3.5. Scientific Quality Evaluation Standards

The evaluation standard of professional certification concept is student-centered, and the quality view of talent training is to evaluate whether all students have achieved the expected educational effect, and pay more attention to the longitudinal development of students. The scientific process and mechanism of evaluation provide logical necessity for the continuous improvement of talent training.

4. Improvement of Education Growth Mechanism of Professional Certification

Higher education from the perspective of professional certification has far exceeded its inherent social function of education. The process of higher education should be not only the process of professional talent training, but also the process of talent education growth. Therefore, higher education from the perspective of professional certification should construct an educational form that ADAPTS to the future society, which can empower the learning community and is committed to cultivating students' learning outcomes in such fields as personal happiness, "three innovation" ability, communication and teamwork ability, and career development ability. [6] In order to adapt to the future development of international higher education and realize the reality of talent cultivation and growth in our higher education, we should construct the professional certified talent cultivation and growth mechanism from the following aspects.

4.1. Leading Talent Training Objectives with Industry Standards

Professional certification standard is the leading and prerequisite of professional certification talent training. It is necessary to make professional certification standard the primary basis for leading the training of design and application technology talents, and clarify the basic ideas and setting of teaching objectives for leading the training program of design talents by industry standards.

4.2. Reconstructing the Open Curriculum System with Practical Application as the Core

The perspective of professional certification training to really geared to the needs of market demand, must be solved in the talent training scheme design is disconnected from the start and the market at the heart of the problem, pay attention to absorb talents with industry experts and enterprises to participate in the whole process of talent training, talent training and professional certification observes growth mechanism prominence should be given to the design, optimization and innovation of course system. In the design of the curriculum system for talent cultivation and growth, operational and practical application should be taken as the value orientation standard for the construction of the curriculum system and the selection of teaching content, and the core position of the cultivation of students' practical ability, operational ability and practical ability should be highlighted. In order to meet the market demand, we should re-determine the reasonable structure and distribution ratio of all kinds of course modules, pay attention to the effective supplement of all kinds of courses, improve students' practical ability, innovate talent training mode and evaluate talent training scientifically and reasonably.[7]

4.2.1. Construction of "High Precision" Theoretical Teaching Curriculum System

In the face of the professional development of higher education and the requirements of society for specialized personnel, higher education should abandon the original subject knowledge system of seeking for the big and the complete, and then turn to the academic theoretical knowledge of "high, precise and sophisticated" type. Theoretical knowledge should be oriented to the principle of "practical, sufficient and easy to use", and pay attention to the application, complexity and immediacy

of students' professional knowledge, especially the professional basic courses of professionals should follow the needs of the future employment industry.[8] Therefore, the theoretical teaching curriculum system from the perspective of professional certification should focus on strengthening the theoretical foundation of students, highlight the core frontier theory and practical skills training of professional core courses, and meet the practical needs of the training target for regional applied technology talents. At the same time, it is necessary to appropriately provide some elective courses for students' independent development, extend the cultivation and promotion of vocational ability, and provide development space for high-quality employment.

4.2.2. Construction of Practical Teaching Curriculum System

Matching with the theoretical teaching curriculum system in colleges and universities should build the practice of class teaching course system, breaking the original single professional education to cultivate professional ability of the traditional framework, around the market and social needs, in order to cultivate the students' comprehensive applied application practice ability and innovation as the goal, for the accommodation of practice courses and integration, based on a wide range of comprehensive ability, Highlight the applicability and innovation of the professional ability, reflect the market and social needs of the outstanding ability training.

4.2.3. Organic Generation of Experimental Courses

The perspective of professional certification of the higher education experiment courses should no longer single set according to the theory of curriculum content and teaching, but pay attention to the organic connection of the course content and cross fusion, utmost ground breaking the original boundaries between each other, form a melt connectivity experiment classes or "project" type questions through experiment classes always. At present, the part of applied undergraduate colleges and universities by developing a series of comprehensive and design experiment, in the form of task driven type of experimental courses arranged by Jane to numerous progressive type, implements is an organic system, the curriculum has changed the original demonstration or presentation confirmatory experiment course, truly realized, the application of experimental classes or creative.

4.2.4. Expand the Field of Professional Practical Skills of Applying and Combining Learning with Application

The higher education personnel training and education of professional certification observes growth should pay attention to the students' practical skills upgrading, combining study pay attention to the knowledge and practical skills, related practice classes, should take the training target of vocational development as the guidance, "the content of the practical skills in accordance with the basic skills, core skills and developing skills such as progressive ability request, "[9] At the same time, the form of practice training should be focused on, and try to ensure that it is combined with employment, so that students can apply what they learn and combine what they learn with what they learn.

4.3. Take School-Enterprise Cooperation as the Key to Innovate the Talent Training Model

To carry out the higher education concept of professional certification, it is necessary to guide the design of talent training program with the industry standard of talent's future employment, reconstruct the curriculum system based on the practical application value of the market and society, combine teaching with practice, and actively implement the construction of school-enterprise cooperation mechanism and cooperation platform. Domesticating translation analysis, using the professional

certification in the cooperation between colleges and enterprises is the essence of the "problem" is introduced into the teaching process, to achieve the teaching problems involved in the process, realize the actual problem situation, students can in this platform to realize the real perception and real solutions, to realize the change of theoretical thinking to the problem of thinking, The theoretical knowledge of the course can be transferred in the problem scenario of the enterprise, so as to solve the practical problems of the enterprise, and promote the formation of the ability structure and the improvement of the comprehensive ability of students.

4.4. Construction of Output-Oriented Talent Education Growth Quality Evaluation Mechanism

Domesticating translation talents education professional certification to growth quality evaluation mechanism of the students as the center, to output as the guidance, closely around the course target, teaching link in the talents training target, the target reached degree and graduation standards to mark, "five" are used to measure the effectiveness of the talent training mechanism and through the talent cultivation of "seven" to build a quality evaluation system.

4.4.1. "Five Degrees" Evaluation of Talent Training Mechanism

The "five-degree" evaluation of the talent training mechanism from the perspective of professional certification" is the evaluation of the orientation of talent training and the fitness of social needs, the support of teachers and teaching resources, the effectiveness of the operation of quality assurance system, the achievement of training objectives and training effects, and the satisfaction of graduates and employers"[10]. The evaluation of these five aspects is the five important process measures of the quality evaluation of the professional certification concept, and it is also the implementation of the talent training level to establish a talent training model and mechanism that is oriented by social needs and talent training objectives, centered on learners, and able to provide colleges and universities with support to achieve the graduation requirements.

4.4.2. Establish the "Seven-Dimensional" Quality Evaluation System

The "seven-dimensional" quality evaluation mechanism from the perspective of professional certification refers to the comprehensive quality monitoring and evaluation through the seven process links of talent training.[10] In the course teaching orientation and target establishment, teaching implementation strategy and scheme design, teaching conditions, security and construction of curriculum resources, teaching strategies and specific plan implementation, teaching output measurement data acquisition and the teaching quality and effect evaluation, unit of choose and employ persons the social utility evaluation and appraisal of seven training before, during and after the process of monitoring and single link multi-dimensional quality Evaluation, and feedback the monitoring and evaluation of each link to the corresponding link, so as to improve and promote each link. The quality control and evaluation of the seven aspects of talent training process constitute a closed operation of continuous improvement of talent training cycle, forming a "seven-dimensional" quality evaluation mechanism of "output-oriented, student-centered, continuous improvement".

5. Conclusion

Education is a developmental practice, and any educational change is a practical change from ideal to reality. Accumulation of traditional education problem is difficult to through several reforms can completely solve, professional certification is a transformation of opportunities, we should seize the opportunities in the change, deepening of domestic situations of China's higher education and the actual situation of cognition, the professional certification can be combined with China's national

conditions and education practice, only in the exploration practice, in practice. Through the analysis of the above problems, we should establish the quality standard, deepen the understanding of the concept of professional certification, combine with the actual development of higher education in China, construct the talent cultivation and educational growth mechanism of professional certification from the objective, curriculum system, training mode and evaluation mechanism.

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