

Construction of Quality Evaluation Indicator System of Full-Time Professional Degree Graduate Education

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Abstract. Starting from the basic connotation, influence factor, and evaluation principle, multiple evaluation system was proposed, including the target/location-based combination of individual and whole, education process-based combination of input and output, and social demand-based combination of professional qualification certification and employer evaluation. Meanwhile, detailed indicators for quality evaluation were proposed from different dimensions, which is beneficial to give full play of indicator system in promoting the quality of full-time professional degree graduate education.

Introduction

Professional degree is a kind of degree to meet the certain social professional requirement. Cultivating high-level applied specialized talents with higher professional ability and quality can be creatively engaged in practical work [1]. The goal for professional degree graduate education is to cultivate high-level talents with professional (or career) basic theory and knowledge, strong skills for solving problem, professional technology and management ability, and fine professional quality [2]. The professional degree education has been carried out in China since 1991. The category, scale, and social influence constantly increase, resulting in a solid foundation for rapid development of professional degree graduate education [3]. After all, the development period is shorter, policy and regulation, system and mechanism is not perfect, training mode has not yet been formed system, and quality standard and evaluation system has not been set up so far [4]. Since quality is the lifeline of full-time professional degree graduate education, it is necessary to establish scientific and effective quality evaluation system for quality management requirement of sustainable development.

Quality Connotation and Its Influence Factors of Full-time Professional Degree Education

The quality evaluation of graduate education bases on the factors, processes, and outputs that affect the quality of graduate education, which is an important part of quality guarantee system. Graduate education quality evaluation is an important part of graduate education quality guarantee system, macro management to strengthen the graduate education, deep reform to improve the graduate education quality [5]. Quality connotation as the basis of quality evaluation system of graduate students is the precondition for the scientific evaluation of graduate education quality, so the quality evaluation index system construction should be based on the connotation and formation mechanism, understanding and analysis of influence factors from the system and the macro level [6]. The indicator system as the core in the quality evaluation system, is directly related to the realization of the quality evaluation purpose and scientific evaluation results.

To date, academic understanding of quality connotation has not been unified, and the focuses are different. For example, the relative quality view claims on the basis of the existing knowledge structure, focusing on the comprehensive quality and practical ability; The service quality view bases

on the requirements and motivations of the education service, which advocates full respect and satisfying the needs to promote the development of specialty or personality; The process quality view starts with input, process and output indicators, and focuses on the cultivation process and the final outcome; The external quality view focuses on the satisfaction degree of the unit, the contribution to the society, the employment rate of graduate students and the quality of employment, etc.; The multivariate quality view focuses on the subject quality, the social quality, the actual knowledge and the individual ability [7]. Some researchers think that the quality of graduate education appears as comprehensive characteristics internalized in the individual to meet the social needs and their own development, including the whole process of input, conversion and output. Therefore, the factors affecting the graduate education quality mainly comprise of the quality of students, cultivation conditions, education management, and training achievement [8].

Full-time graduate education has not only the general properties of education, but also its own characteristics. Professional degree graduate education is different from academic graduate education in the training objectives, curriculum setting, teaching idea, training mode and teaching staff construction, etc. To innovate training mode of full-time professional master degree graduate education must establish the scientific position of professional degree graduate education, such as the curriculum should be oriented by practical application with professional demand as the goal, and comprehensive qualities and improvement of knowledge application and ability as the core. The teaching content emphasizes on the organic combination of theoretical and applied curriculum, highlighting case analysis and practice study. The teaching process emphasizes on the use of team learning, case analysis, field research, simulation training and other methods to cultivate students' awareness and ability to solve practical problems. The course will be closely connected with the practice, and a sound school and internal dual tutorial system should be established. Cultivating practical research and innovation capacity, increasing practical experience, shortening employment adjustment, and improving professional literacy and employability should be focused. Professional practice as an important teaching segment to increasing practice time and the credit scale should be paid attention to the absorption and use of social resources, cooperation to establish joint training bases, joint training specialized degree graduate student, practical teaching mode reform and innovation, exploration of the interactive mechanism between supply and demand of talent training, service and quality evaluation in the whole management process to ensure the practice teaching quality. Dissertation topic should be derived from the practical problems with a clear professional background and application value, including research reports, applied basic research, planning and design, product development, case analysis, project management, literature or artistic works, etc.

It can be seen from the above requirements, full-time professional degree graduate education pattern exhibits more opening, more diversified and also more specific. Due to relationship of full-time professional degree graduate education quality connotation with the relative quality view, service quality view, process quality view and external quality view, a single system is obviously difficult to meet scientific and reasonable evaluation. Moreover, the existing multivariate evaluation systems mostly derive from the traditional academic graduate education. Therefore, the construction of a diversified quality evaluation system for full-time professional degree graduate education is of great significance.

Basic Principle of Quality Evaluation for Full-time Professional Degree Education

The purpose of evaluating graduate education quality aims at the value judgment for training quality, problem finding, and providing basis and reference for improving quality. Thus the establishment of a scientific evaluation index system is beneficial to demonstrate the objective comprehensively target and ascertain the authenticity and validity of the evaluation results. According to the characteristics of the full-time professional degree graduate education, to adapt to the basic requirement of "service for demand, improvement for quality", quality elements should be highlighted, and the evaluation index should be scientifically set up.

Full-time professional degree graduate education evaluation should focus on the following basic principles: firstly, scientific property emphasizes the unity of the objectives and evaluation index of the full-time professional degree graduate education quality, certain correlation between each index and relative independence coexist, overlapping and cross-linking should be avoided. Secondly, comprehensive property fully reflects the overall properties of full-time professional degree graduate education quality, the key indicators reflecting the nature and quality characteristics should be grasped, and the influence factors of professional degree graduate education quality should be comprehensively understood. Thirdly, guidance property is not only the objective reflection of full-time professional degree graduate education reality, but also a long-term perspective, the regulation of development should be grasped and characteristics should be predominated. Fourthly, it is feasible to emphasize the objectivity and operability of the professional degree education evaluation, which is convenient for qualitative and quantitative evaluation. Fifthly, development property require to fully understand the short history and rapid development of full-time professional degree graduate education, the occurrence of new situations and problems needs to revise the relevant indicators, so the index system should adapt to the development and reform requirements and be dynamically adjusted.

Quality Evaluation Indicator System for Full-time Professional Degree Education

In view of the characteristics and requirements of full-time professional degree graduate education, the standard of quality evaluation should emphasize on the characteristics. The basic connotation of full-time professional degree graduate education quality involves in the goal orientation, training process, and social needs, accordingly the evaluation indexes and factors must also revolve around the content.

The Quality Evaluation Based on the Target Location

The training goal of full-time professional degree graduate education is to develop high-level applied talents with strong ability to solve practical problems, and with practical application as the guidance, the professional ability as the goal, the practical ability as the key. Among them, the application is the core, and the practicality is the basic connotation. To meet this goal, the corresponding knowledge, ability, and quality should be required, the knowledge including general and professional knowledge, the ability including the actual ability to solve problem, organization and management ability, team cooperation ability and innovation ability. The quality includes thoughts, business, body and culture. Knowledge, quality and ability can be either on the individual evaluation or the overall evaluation. Therefore, the training target-based quality evaluation can take the individual and the whole as sample.

Compared with the academic degree graduate education, full-time professional degree graduate education has distinctive features in the knowledge structure and ability training goal orientation, talent quality requirement, and the cultivation mode, process and method, training content and degree awarding standard exist obvious differences, which has a distinct value orientation and determined by its value attribution [9]. Application as the guidance and vocational potential as value orientation determine that the evaluation standard must be combined with the “Four Properties” (vocation, application, practice, and profession). The employments of professional degree graduate student mainly occupy specific jobs, to serve the social development and to meet the market demand as the starting point, to attach importance to knowledge and technology innovation ability, and not emphasizing the scientific research ability, focusing on the professional comprehensive accomplishment and professional ability. Application is the typical characteristics of professional degree graduate student, different from academic graduate student. By the synergy between universities and enterprises and combination with practical work, to cultivate professional degree graduate students engaged in application, such as design and development ability. Engineering practice is one of the key process in full-time professional degree graduate education, should depend

on the engineering practice and focus on professional ability, coordination ability, strain capacity and psychological ability, etc. Professional degree graduate education, committed to the high level of professional skill acquired satisfying the specific profession and the demand for high level applied professional talents, should pay attention to professional organizations, cultural quality, moral quality and physical quality, etc.

It can be seen from the above analysis, the goal and location of full-time professional degree graduate education is consistent, target requirement for knowledge, accomplishment and ability structure in conformity with the target. As a an important index, quality evaluation should be in accordance with the characteristics and requirement of professional degree graduate education.

The Quality Evaluation Based on the Training Process

The graduate education quality is closely related to the activity during the period of study and practice, which crosses the whole course of enrollment, training and employment, involving students, teachers, training scheme, course system, practice teaching, dissertation, employment, and many other links [10]. The main influencing factors include the guarantee measures for the quality of student sources, the practical and professional requirements of the course system, the comprehensive ability to apply knowledge, teaching methods (team coaching, case analysis, field teaching and simulation training), dual tutor system of universities and enterprises, the time and quality of practice teaching, the variety of practice sources and forms of the subject matter of the degree thesis, and the fitness of the job and the direction.

Process is one of the important guarantee of the graduate education quality, related to plan, organization, command, inspiration, incentives, supervision and control, and many other quality assurance measures, the quality and result of the training process can reflect the relationship between input and output. Therefore, training process as the indicator of full-time degree graduate education has good objectivity and feasibility.

The Quality Evaluation Based on the Social Demands

Under the new situation, full-time professional degree graduate education faces some questions, such as how to attract students, how to embody vocational guidance, how to strengthen the practice ability, how to deal with the problem including the employment pressure, how to effectively link professional degree with professional qualification authentication and set up the professional qualification certification-guided external graduate education quality evaluation system, including qualification, professional quality and professional management ability, etc. To meet social demand for measuring itself education quality and to realize the “tailored” talents, professional qualification certification of professional degree graduate education can further guide the cultivation of high-level talents, promote the comprehensive reform of professional degree graduate education [11]. In the system of external quality evaluation based on social needs, it is important to not ignore the requirement of the employer to train the quality of talents [12].

Social demand is the driving force of graduate education. To meet the needs of society or not is an important scale to measure the quality of graduate education. Professional qualification certification and the employer evaluation is the basic certificate to meet social demands. Therefore, social demand as the quality evaluation indicator is objective and operable.

The Establishment of a Multi-quality Evaluation system

All these quality assessment models are interconnected and relative independence. The goal and orientation, and social demand determine the training process. The training process serve for the goal orientation and social demand. Social demand determine the target orientation, and the target location meets the social demand, meanwhile the social demand is the actual inspection of cultivation objectives. To meet the social demand, orientation and training process is the key and security of full-time professional degree graduate education quality. Goal orientation, training process and the

social demand indicators are latitude conditions and influence each other, which are composed of full-time professional degree graduate quality evaluation system.

Summary

The above indicator system embodies the combination of individual and whole, input and output, professional qualification authentication and employers. As a multivariate evaluation system, it fully considers the influence factors of full-time professional degree graduate education quality and shows the systematic latitude and the operability of specific evaluation indicator. Given on the criteria weights, the characteristics of professional degree graduate education should be fully considered. The comprehensive ability and practice ability should be focused. Profession, practice, application, and specialization should be embodied. The indicator weight factor can be adjusted according to the field and direction of professional degree. Due to the limitation of shorter period and complexity, some indicators are difficult in quantitative evaluation, and the result needs to be further tested. Therefore, the indicator system need to be further optimized, which is also our next focus.

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