

Original Paper

Exploration of the Cultivation Model for the Vocational Competence of Full-time Professional Master's Degree Postgraduates

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Abstract

In line with the current national demand for high-level innovative, applied, and composite professionals in the new era, and based on the problems and challenges faced in the cultivation of the vocational competence of professional master's degree postgraduates, such as unclear cultivation methods, lack of systematic practice, and incomplete integration of industry and education, this paper proposes, with a focus on enhancing vocational competence, to construct a "one-body-two-wings" cultivation model for vocational competence. In this model, "professional ability" serves as the body, while "theoretical knowledge + research ability" acts as the two wings.

Keywords

full-time professional degree, vocational competence, cultivation model

Introduction

Graduate education represents the highest level of higher education. It is a crucial indicator for measuring a country's competitiveness in higher education and the primary channel for independently cultivating top-notch innovative talents. Among them, China's professional degree education system was initiated in 1991. After over three decades of development, 40 majors have been established to meet the needs of specific occupational fields in contemporary society. "Since the enrollment of full-time professional master's students began in 2009, professional master's degree education has witnessed rapid development in the past decade and achieved remarkable results. A professional degree education system with Chinese characteristics has been established, cultivating a large number of high-level applied professionals for national construction." However, with the annual expansion of the scale of professional degree education, the contradiction between the quality and scale of talent

cultivation has become increasingly prominent. There exist issues such as unclear cultivation methods, lack of systematic practice, and incomplete integration of industry and education. These problems lead to a disconnection between the quality of talent cultivation and market demands, low vocational abilities, and ultimately, repeated setbacks in job-hunting. Through analyzing the current situation and problems faced in the cultivation of the vocational abilities of full-time professional master's degree postgraduates in sample institutions, this study takes the talent cultivation goal as the core and the improvement of vocational abilities as the starting point, aiming to construct a “one-body-two-wings” vocational ability cultivation model, where “professional ability” serves as the body, and “theoretical knowledge + research ability” serves as the two wings.

1. Problems in the Current Cultivation of Vocational Abilities of Full-time Professional Master's Degree Postgraduates

In response to the continuous increase in the number of professional master's degree postgraduates and the expanding enrollment scale, to standardize management and ensure that talent cultivation proceeds along the “established track”, the state has been continuously strengthening the cultivation management of professional degree postgraduates and has issued a series of documents on degree planning and cultivation quality improvement. Notably, in November 2023, the Ministry of Education released “Opinions on Deepening the Classified Development of Academic and Professional Degree Postgraduate Education”. The “Opinions” “uphold the equal status of the two types of postgraduate education in terms of the overall approach, emphasizing the need to deeply develop the classified cultivation chains of the two types of postgraduate education and strengthen the organizational guarantee for the classified development of the two types of postgraduate education. It clarifies the guiding ideology, basic principles, overall goals, and important measures for the development of China’s degree and postgraduate education at present and in the coming period, promoting the classified cultivation of academic innovative talents and practical innovative talents.” The “Opinions” emphasize, in the form of a document, that China's professional degree postgraduate education is as important as academic degree postgraduate education. This can also be seen from the fact that among the 18 sub-forums set up at the “First China Degree and Postgraduate Education Conference and the Yangtze River Forum on Chinese Postgraduate Education” held in July of the same year, 6 sub-forums were dedicated to the cultivation of professional degree postgraduates. The “Opinions” also put forward more specific and clear guiding opinions on further strengthening the classified cultivation of the two types of degrees from six aspects, namely “improving the talent selection mechanism by category, optimizing the cultivation plan by category, strengthening textbook construction by category, improving the cultivation mechanism by category, promoting the reform of degree thesis evaluation by category, and building the tutor team by category”.

Although the state has differentiated the cultivation of the two types of postgraduate degrees from the top-level design, and education departments at all levels and cultivation institutions have also

recognized their differences, in the actual operation process, there are still deviations from the expected cultivation goals for professional degree postgraduates, especially full-time professional master's degree postgraduates. Full-time professional master's degree postgraduates should possess both professional capabilities and vocational skills. However, in reality, their effectiveness faces the risk of lacking in two aspects. Compared with academic master's degree postgraduates, their academic training lacks depth. Compared with part-time professional degree postgraduates, due to the lack of support from work experience, the effect of vocational skill training is less than satisfactory. (Liao, 2013) The cultivation of vocational abilities is the core content of full-time professional master's degree postgraduate education and a significant feature distinguishing professional-type from academic-type postgraduate education. Vocational ability has become the core competence of professional master's degree postgraduates, and its level is directly related to whether the cultivated students can be competent for their positions and meet employers' requirements in the future.

In view of this, based on the survey of professional master's degree postgraduates in sample universities, the following are several prominent problems at present.

1.1 Unclear Cultivation Methods

Although full-time professional degree postgraduate education has developed for over a decade, it remains a “newcomer” compared to full-time academic degree postgraduate education. In the “Development Plan for Professional Degree Postgraduate Education (2020-2025)” issued by the Academic Degrees Committee of the State Council and the Ministry of Education, it is specifically pointed out that “the understanding of professional degree postgraduate education needs to be further deepened. The concept of emphasizing academic degrees and neglecting professional degrees still needs to be reversed, and the phenomenon of simply applying the development concepts, ideas, and measures of academic degrees still exists to varying degrees.” (Academic Degrees Committee of the State Council, Ministry of Education. Development Plan for Professional Degree Postgraduate Education (2020-2025)) The reasons are as follows: First, most supervisors “hold dual positions”, that is, they serve as both academic degree supervisors and professional degree supervisors. For the convenience of management, during the cultivation process, they fail to thoroughly analyze the differences between the two types of postgraduates, especially in terms of an inadequate understanding of the cultivation goals and models. As a result, a “mixed-cultivation” model has emerged, where the two types of postgraduates are cultivated together.

Second, the enrollment scale of professional degree postgraduates has been expanding year by year, and the existing quantity and quality of supervisors cannot meet the growing needs of students. Although most supervisors have more than half a year of practical experience in related industries, they often have to undertake complex teaching tasks in daily life, spend less time delving into the industry, and do not have timely understanding of the frontiers of the discipline and the development of the industry. This frequently leads to difficulties when guiding students' practical operations.

Third, influenced by the traditional academic evaluation system, some supervisors often closely tie

their own career development to “pure academic” aspects such as theoretical exploration and academic papers. They pay relatively less attention to and invest less effort in full-time professional degree postgraduates, and seldom actively strive for opportunities like enterprise internships and cutting-edge industry-based practical research for these students. Even in the guidance and evaluation of dissertations, the evaluation criteria for academic degree dissertations are often used, further exacerbating the unfavorable factors of the “mixed-cultivation” model.

1.2 Lack of Systematic Practice

In the training programs for full-time professional degree postgraduates, specific regulations have been made regarding the time, credits, and requirements for their internships and practical activities. However, in practice, the implementation leaves much to be desired. Firstly, the “centralized internship” has not been fully carried out. The duration of internships and practical activities is insufficient and scattered. As a result, students are unable to comprehensively and deeply understand and experience the gap between themselves and professional standards, and thus cannot think about and identify problems existing in professional practices. Secondly, internships and practical activities often remain superficial. During off-campus internships, due to a lack of supervision and insufficient understanding of the importance of internships and practical activities, students tend to engage in a perfunctory manner. Thirdly, the construction of internship and practice bases is not perfect. Since universities and off-campus internship and practice bases have not yet established a complete and effective collaborative management mechanism, communication breakdowns and unclear division of responsibilities are likely to occur in key aspects such as base operation and student internships. Moreover, restricted by human resources, material resources, and institutional factors, universities lack strong means of management over the bases. It is difficult to conduct regular and comprehensive supervision and evaluation of off-campus internship bases, ensuring that the bases implement various tasks in strict accordance with internship and practice requirements.

1.3 Incomplete Integration of Industry and Education

Professional degree postgraduate education is the main channel for cultivating high-level applied professionals. "Developing professional degree postgraduate education is an inevitable choice as the economy and society enter a stage of high-quality development. The more advanced the science and technology, and the higher the degree of social modernization, the greater the social demand for professional-degree talents, and the more urgent the need to accelerate the development of professional degree postgraduate education. (Academic Degrees Committee of the State Council, Ministry of Education. Development Plan for Professional Degree Postgraduate Education (2020-2025)) According to the survey, almost all sample universities adopt the “dual-supervisor system” in which in-campus supervisors and off-campus industry supervisors jointly guide students. In-campus supervisors are responsible for the overall guidance of professional degree postgraduates, while off-campus supervisors are in charge of the practical guidance of postgraduate education and teaching. In the cultivation process, the two should cooperate comprehensively and deeply to jointly cultivate postgraduates.

However, currently, a distinct “1 + 1 = 2” talent-cultivation model prevails, where in-campus and off-campus supervisors “each mind their own business”, lacking communication and exchange, and even more so, lacking the formulation and implementation of a full-series and whole-process cultivation plan for talent cultivation. In addition, society has not provided a sufficient number of suitable enterprises or industries for professional degree postgraduates to carry out practical activities. Even if provided, many enterprises are not highly motivated to participate. The internship positions they offer are often simple, repetitive, and basic jobs with low technical content. As a result, students not only cannot apply the theoretical knowledge learned on campus to practice but also have difficulty in scientifically and accurately understanding the overall picture and development prospects of the industry.

Meanwhile, in terms of research and development cooperation, the interaction between industries and universities is weak. University research achievements are difficult to be transformed into actual productive forces, and the technical problems encountered by industries cannot be effectively solved with the help of university research capabilities. Eventually, the two parties, who should have a harmonious cooperation, progress slowly, and it is difficult to truly build a mutually beneficial and win-win integration ecosystem of industry and education, which is not conducive to the cultivation of high-quality talents and the pace of industrial upgrading.

2. Construction Paths of the “One-Body-Two-Wings” Vocational Ability Cultivation Model

In an increasingly competitive job market, vocational ability has become a pivotal factor and key indicator for assessing whether full-time professional degree postgraduates can precisely meet the actual needs of employers. Unlike academic postgraduates who focus on in-depth exploration of theoretical knowledge, full-time professional degree postgraduates bear a more direct career-oriented mission. Their training objectives are closely centered around quickly integrating into the workplace after graduation and efficiently solving practical work problems. Therefore, the level of vocational ability is the core element for full-time professional degree postgraduates to stand out from the crowd.

Based on the survey results of sample schools, in line with the basic principles and methodological requirements of educational action research, and in accordance with relevant national documents and practical demands, a “one-body-two-wings” vocational ability cultivation model is constructed. This model takes “professional ability” as the core, with “theoretical knowledge + research ability” as its two wings, following the requirements of “being oriented towards vocational needs, focusing on practical ability cultivation, and taking the integration of industry and education as the approach”.

2.1 Cultivate Morality, Fulfill Original Aspirations, Strengthen the Foundation, and Build a Strong Team

As William G. Tierney put it, “If students are the most fundamental products in the curriculum, then teachers are the primary manufacturers of these products. We can select high-quality students, but without high-quality manufacturers, the quality of the products won't be very high.” (Academic

Degrees Committee of the State Council, Ministry of Education. Development Plan for Professional Degree Postgraduate Education (2020-2025) Therefore, in the crucial process of full-time professional degree postgraduate education, the construction of the supervisor team is of vital importance, as it is related to the effectiveness of talent cultivation and its future direction. To this end, it is necessary to build a high-quality supervisor team with both moral integrity and professional competence, featuring good coordination between internal and external parties. This can provide a solid guarantee for the healthy growth of full-time professional degree postgraduates, effectively improve the cultivation quality, and contribute more outstanding professionals to society.

2.1.1 Clarify Supervisor Selection Criteria and Strengthen the Construction of Teachers' Morality and Style

Select in-campus and off-campus supervisors comprehensively and meticulously by strictly following rigorous and standardized supervisor selection methods. Whether they are senior in-campus scholars or off-campus industry elites, they are eligible to join the supervisor team only when they meet high-standard requirements in various aspects, such as profound professional knowledge and rich practical experience. Clearly define the role of the “primary responsible person”, where supervisors must assume full responsibility for postgraduates’ “conduct, work, and academic pursuits”. (Song, Han, & Xu, 2024) Teachers' morality and style are the foundation of being a teacher. Once behaviors that violate teachers' ethics, such as academic misconduct and perfunctory teaching, are discovered, the “one-vote-veto” system will be firmly implemented. At the same time, to continuously ensure the quality of supervisors, the enrollment qualifications of in-campus and off-campus supervisors should be reviewed throughout the process every year. Supervisors who do not meet the enrollment qualifications will not be assigned postgraduates.

2.1.2 Strengthen In-service Training for Supervisors and Vigorously Promote the Dual-supervisor System

Each semester, carry out regular on-the-job training for all supervisors in aspects such as regulations, academic norms, and talent cultivation. Invite well-known off-campus experts and outstanding in-campus postgraduate supervisors to share their successful experiences. Vigorously and steadily promote the “dual-supervisor system”. For each full-time professional degree postgraduate, in addition to being assigned an in-campus supervisor, through a two-way selection process, a high-level off-campus supervisor from the industry will also be assigned. The in-campus and off-campus supervisors will collaborate in a “1 + 1” manner to jointly strengthen the foundation for cultivating full-time professional degree postgraduates.

2.2 *Exquisitely Refine Practice and Optimize the System, Cultivate Solid Practical Strength*

In the process of optimizing the training system for full-time professional degree postgraduates, the internship and practice component is a crucial part. The scientific and standardized management of this part plays a significant role in enhancing students' practical abilities and ensuring the quality of talent cultivation. The regularly held internship mobilization meeting every year is an important opportunity

to strengthen internship management. At the meeting, the “Practice Management Measures for Professional Degree Postgraduates” and the “Internship Manual” can be highlighted. In addition to including internship results in credits, they can be directly linked to awards and evaluations, thus strengthening internship management in terms of both systems and processes. Firstly, this can make students attach great importance to internships ideologically and understand the system boundaries and self-management requirements. Secondly, it helps to foster tacit cooperation among the training institution, in-campus and off-campus supervisors, and students. That is, during the internship process, the training institution strictly supervises according to the system, supervisors provide precise guidance based on the manual, and students self-discipline in line with the manual. By taking a two-pronged approach from the system and process dimensions, internship management can be comprehensively strengthened, and the internship effectiveness of full-time professional degree postgraduates can be effectively improved. Meanwhile, sign agreements with existing internship bases to clarify respective responsibilities and obligations, and conduct regular evaluations. Those that fail the evaluation will be deprived of the honorary title of school-level internship base.

2.3 Pool Wisdom and Efforts to Promote Collaboration, and Jointly Build a Win-win Situation

The cultivation of the vocational abilities of full-time professional degree postgraduates requires the joint efforts of both in-campus and off-campus parties. In this regard, the “Plan” specifically states that it is necessary to “strengthen industry-industry collaboration. Encourage industries to attract professional degree postgraduates and supervisors to participate in enterprise R & D projects through measures such as setting up named scholarships, postgraduate workstations, and university-enterprise R & D centers.” It also proposes to promote “three co-operations” between training institutions and industries, namely “jointly formulating training programs, jointly offering practical courses, and jointly compiling high-quality textbooks. Promote the establishment of ‘customized talent-training projects’ by employers to closely align talent cultivation with employment needs.” (Academic Degrees Committee of the State Council, Ministry of Education. Development Plan for Professional Degree Postgraduate Education (2020-2025))

3. Conclusions

At present, professional degree postgraduate education has gradually become the mainstay of postgraduate education. Since its inception, it has provided a large number of talents for society, strongly supporting the development of industries. However, in talent cultivation, especially in the cultivation of vocational abilities, there are still problems such as unclear cultivation methods, lack of systematic practice, and incomplete integration of industry and education. This paper constructs a “one-body-two-wings” vocational ability cultivation model with “professional ability” as the core, “theoretical knowledge + research ability” as the two wings, guided by “orienting towards vocational needs, focusing on practical ability cultivation, and taking the integration of industry and education as the approach”.

In the next step, universities should, under the guidance of the three-dimensional talent cultivation elements of “quality, knowledge, and ability”, further strengthen cooperation with enterprises and the government in talent cultivation, and promote the systematization and scientificization of the talent cultivation system for professional degree postgraduates, especially full-time professional degree postgraduates.

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