

Research on the Construction of Postgraduate University-Enterprise Joint Training Base under the Background of “Double First-class”

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Abstract: The construction of postgraduate university-enterprise joint training bases serves as a significant avenue for graduate education, effectively promoting the reform and development of postgraduate education. This paper, set against the backdrop of the “Double First-Class” initiative, integrates demand-oriented perspectives and constructs the connotation of our university's postgraduate university-enterprise joint training base based on three aspects: functional positioning, construction environment, and the involvement of key stakeholders. That is the function orientation of the university-enterprise joint training base should develop to “comprehensive”, the environmental construction should be transformed to “sustainable”, and the main body should participate to “multiple cooperation”. According to the “double first-class” construction task, by addressing functional needs, service requirements, and interest demands, the paper outlines a path for specialized, sustainable, and diversified construction of our university's postgraduate university-enterprise joint training base. Through the binding of rights, responsibilities, interests, scientific research and talents between universities and enterprises, enterprises and universities are guided to carry out diversified industry-university-research cooperation from all levels, so as to achieve the win-win interests of universities, enterprises and graduate students. This is of great significance in enhancing the quality of graduate education and accelerating progress towards the “Double First-Class” initiative.

Keywords: Graduate Education; University-enterprise Collaboration; Training Base Construction

1. INTRODUCTION

As a bridge connecting enterprises and universities, the university-enterprise joint training base is an effective means to enhance scientific research levels and improve the practical skills of graduate students. In the context of the “Double First-Class” initiative, the construction of a well-designed university-enterprise joint training base contributes to deepening the integration of academia and industry, driving major scientific innovations, achieving breakthroughs in key technologies, and transforming them into advanced

productivity [1]. In recent years, the development of our university's postgraduate university-enterprise joint training base has been rapid, achieving significant results in talent cultivation and knowledge dissemination. However, challenges such as unclear functional positioning, inadequate service environments, and lack of coordination among stakeholders have emerged [2]. These issues make it difficult for universities to achieve the goals of the “Double First-Class” initiative. Therefore, within the context of the “Double First-Class” initiative, integrating demand-oriented perspectives and exploring the construction path of university-enterprise joint training bases is crucial for cultivating outstanding innovative talents.

2. CONSTRUCTION OF THE POSTGRADUATE UNIVERSITY-ENTERPRISE JOINT TRAINING BASE CONNOTATION UNDER DEMAND ORIENTATION

How the construction of university-enterprise joint training bases aligns with the practical needs of both academic programs and corporate development, and how it serves the socioeconomic development while enhancing the quality of graduate education, are essential considerations for the connotation construction of these bases. The connotation construction is the core of base development, influencing the innovative progress of university-enterprise joint training bases. This paper introduces the concept of demand orientation into the construction of joint training bases based on empirical analysis of the existing problems in our university's postgraduate joint training base construction [3]. It constructs the connotation of our university's postgraduate university-enterprise joint training base based on demand orientation, focusing on functional positioning, service environment, and interest stakeholder participation.

(1) Evolution of functional positioning towards “comprehensive development”

Currently, most postgraduate joint training bases are specialized, mainly meeting the requirements for graduate students to engage in social practices. However, the overall level of base construction is generally low, with unclear expectations regarding the functions, roles, and effective management of the base.

This lack of clarity in functional positioning leads to a loss of direction in the development of postgraduate joint training bases [4]. To address this issue, the guiding ideology and training objectives of base construction should be clear. Based on the actual development of the school's disciplines and closely aligned with societal needs, competitive industries should be selected as the main development focus. Long-term and stable cooperation agreements should be signed, ensuring the supply of practical projects and stable financial investment for the postgraduate training base. During the construction of the joint training base, the refinement of disciplinary characteristics should be continuously emphasized, promoting the development of the base towards comprehensive functionality.

(2) Transformation of environmental construction towards "sustainability"

In recent years, the construction of postgraduate joint training bases has rapidly developed, akin to mushrooms after rain. However, short-term actions have led to significant resource wastage, creating bottlenecks in funding once initial support phases conclude. Subsequently, there is often a lack of proper maintenance of the base, resulting in aging facilities, insufficient experimental equipment, and inadequate spaces to meet the needs of graduate practical teaching [5]. The construction of postgraduate university-enterprise joint training bases should address the environmental creation and facility support for sustainability. As a hub for nurturing talents, the joint training base aims to provide an essential platform for graduate students to enhance their research, practical, and innovative capabilities. Therefore, a long-term perspective should be considered in base construction. Sustainable development can be achieved through understanding market demands, continuously adjusting joint training models, establishing long-term university-enterprise cooperation mechanisms, creating a favorable "industry-academia-research" joint training base service environment, optimizing base facilities, and ensuring the sustainable development of the postgraduate joint training base.

(3) Transition of stakeholder participation towards "diversified collaboration"

The construction of postgraduate joint training bases involves multiple entities such as universities, enterprises, and research institutions. The traditional model of university-enterprise cooperation should evolve into a new form of "strategic partnership." It is essential to break away from the previous model where universities unilaterally dominate the graduate training process and achieve a deep integration of talent cultivation and economic development [6]. This can be realized by having technical experts from enterprises and university professors jointly undertake graduate practical teaching tasks. The training of graduate students should be organically integrated with the development of enterprises, aiming to

produce more practical and innovative talents. The university should actively provide technical services to enterprises and solve technical problems, while enterprises offer practical platforms and innovation opportunities to the university. Collaboration between universities and enterprises should involve multiple aspects, achieving a win-win situation for universities, enterprises, mentors, and students.

3. RESEARCH ON THE CONSTRUCTION PATH OF POSTGRADUATE UNIVERSITY-ENTERPRISE JOINT TRAINING BASES UNDER DEMAND ORIENTATION

Meeting demands is a crucial criterion for the success of talent cultivation. In response to the shifting demands of postgraduate joint training bases, it is essential to explore the construction path that establishes a diversified demand mechanism, allowing various stakeholders to fully participate in the innovation talent cultivation of universities and harnessing the subjective initiative of graduate training subjects. This is undoubtedly an important aspect of postgraduate university-enterprise joint training base construction research [7]. By introducing the concept of demand orientation into the construction of postgraduate university-enterprise joint training bases, the paper outlines a path for the construction of our university's postgraduate joint training base based on three aspects: functional needs, service needs, and interest needs. Through the binding of rights, responsibilities, benefits, research, and talent, the paper aims to meet the needs of multiple societal interest entities, fully inspiring the vitality of the joint training base, making it a true "incubation ground" for urgently needed outstanding innovative talents.

(1) Specialized construction of postgraduate university-enterprise joint training base based on functional needs

Talent cultivation is the foundation of joint training base construction and the central focus of universities. The traditional model of cultivating single theoretical talents no longer meets the requirements of the times. The cultivation of outstanding innovative talents is the development direction of postgraduate education under the "Double First-Class" background. The construction of postgraduate university-enterprise joint training bases should meet the functional needs in three aspects: talent cultivation, research and development training, and achievement promotion [8]. Through the practical training in the joint training bases of the university and enterprises, the postgraduates will go from the mastery of the basic knowledge system to the application of the specialized technology system, and then to the enhancement of the comprehensive research skills, and finally become the composite and innovative talents adapted to the needs of the society. Through the practical training in the joint training bases of the university and enterprises, the postgraduates will go from the mastery of the basic knowledge system to the application of the specialized

technology system, and then to the enhancement of the comprehensive research skills, and finally become the composite and innovative talents adapted to the needs of the society [9]. Simultaneously, deepening the integration of industry and education, focusing on promoting achievement transformation, and advancing major scientific innovations and breakthroughs in key technologies will enhance the driving force of university innovation resources for economic and social development, providing robust intellectual support for enterprises.

(2) Sustainable construction of postgraduate university-enterprise joint training base based on service needs

Postgraduate joint training bases are typically constructed collaboratively by universities, enterprises, and governments. During the initial operation phase, bases can operate smoothly, but support from the government or enterprises is limited. Once the support period is over, financial bottlenecks are encountered. This often leads to inadequate later-stage service functions and insufficient maintenance work, resulting in the aging of most base facilities and a failure to meet the needs of graduate practical teaching [10]. The construction of postgraduate university-enterprise joint training bases should address the service needs in terms of environmental creation and facility support. As a place for talent incubation, the joint training base aims to provide a vital platform for graduate students to improve their research, practical, and innovative capabilities. Therefore, long-term considerations should be taken into account in base construction. The joint training base's construction requires an in-depth understanding of market demands, continuous adjustment of the postgraduate joint training model, establishment of a long-term university-enterprise cooperation mechanism, creation of a favorable "industry-academia-research" joint training base service environment, optimization of base facilities, and realization of the sustainable development of the postgraduate joint training base.

(3) Diversified collaboration construction of postgraduate university-enterprise joint training base based on interest needs

The construction of postgraduate university-enterprise joint training bases is a process that involves the coordinated efforts of multiple interest entities. Promoting the synergy of various interest stakeholders between universities and enterprises is the key focus and difficulty of base construction. Joint construction by universities and enterprises is based on their intrinsic needs. Enterprises primarily pursue economic and managerial benefits, focusing on obtaining technical support that can be transformed into market products. On the other hand, universities focus on the social benefits of achievement transformation and talent cultivation. Due to the divergent focuses of various interest entities, collaboration partners have similar directions but varied content demands, leading

to potential conflicts. The construction of postgraduate university-enterprise joint training bases should address the interest needs in terms of establishing mechanisms for shared interests and cooperation. By binding the rights, responsibilities, benefits, research, and talent of both universities and enterprises, the paper aims to guide various levels of industry-academia-research collaboration, realizing a win-win situation for universities, enterprises, and graduate students.

4. CONCLUSIONS

Postgraduate university-enterprise joint training bases, as platforms for talent cultivation, are effective means for nurturing innovative professionals. Based on the three aspects of functional positioning, service environment, and interest stakeholders, this paper constructs the connotation of our university's postgraduate university-enterprise joint training base using a demand-oriented approach. In line with the tasks of the "Double First-Class" initiative, the paper introduces the concept of demand orientation into the construction of postgraduate university-enterprise joint training bases, focusing on three paths: functional needs, service needs, and interest needs. This strengthens the demand-oriented construction of our university's postgraduate university-enterprise joint training base in terms of specialization, sustainability, and diversified collaboration, realizing a win-win situation for universities, enterprises, and graduate students.

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