The construction of innovation and entrepreneurship bases from the perspective of school-enterprise cooperation

Maojun Hou, Jinfeng Ye, Yong Miao

School of Electrical and Information Engineering, Hubei Institute of Automotive Industry, Shiyan 442002, China

Keywords: School-enterprise joint vision; innovation and entrepreneurship; base construction

Abstract: Under the guidance of the national strategy of "mass entrepreneurship and innovation", college-enterprise cooperation to build college students' innovation and entrepreneurship base came into being as a way of school-enterprise cooperation, and its management mechanism and operation mode are still under continuous exploration and improvement. Under the background of the national strategy of promoting "mass entrepreneurship and innovation", it is of great practical significance to actively explore the innovation and entrepreneurship education of college students under the mode of deep cooperation between schools and enterprises. At present, the society has put forward higher requirements for talents, while college education generally pays attention to teaching theoretical knowledge, but the cultivation of students' practical skills is relatively insufficient, which leads to college graduates' lack of practical ability, thus affecting their employment. Explore and perfect the training of modern apprentices under the "base+"mode, make the "base+"education a participant in the growth of college education, closely combine the base education with job training, and prepare for the talent resource pool for the growth of enterprises.

1. Introduction

"Mass entrepreneurship and innovation" is an important national strategy in my country in the new development period, and good innovation and entrepreneurship education is particularly urgent with the launch of this major national strategy [1]. The talent training mode is also constantly changing. As a new school-running system, school-enterprise cooperation aims at cultivating applied and technically skilled talents, strives to improve the co-education and co-management of talents, mutual benefit and win-win cooperation, and promotes the integration of production and education [2]. This model has been gradually promoted in colleges and universities. Innovative and entrepreneurial talents have a positive impact on social and economic development, and the country is currently lacking talents in this area [3]. At present, how to cultivate the innovative thinking, entrepreneurial awareness and entrepreneurial ability of college students is the basic problem that innovation and entrepreneurship education must face [4]. In this context, in order to adapt to the national strategy of "mass entrepreneurship and innovation" and effectively promote the innovation and entrepreneurship education of college students, the joint construction of college students' innovation and entrepreneurship bases by schools and enterprises emerged as a new way of cooperation [5]. The number of undergraduates in colleges and universities in my country is constantly increasing, but their awareness and ability of innovative industries are insufficient, and there is still a large gap between them and actual needs [6]. Because of limited practical conditions in colleges and universities, students have no way to develop effective practical skills and skills [7]. Methodological training limits the development of talents. By cooperating with enterprises, it can make up for the lack of theoretical teaching and enable students to combine theory and practice, which has a positive impact on the construction of innovation and entrepreneurship practice bases in colleges and universities and the training of talents in this area. However, since the universityenterprise co-construction of innovation and entrepreneurship bases for college students has not been around for a long time, its management mechanism and operation mode are still under constant exploration and improvement [8].

DOI: 10.25236/etmhs.2022.075

2. Difficulties in the construction of innovation and entrepreneurship bases from the perspective of school-enterprise cooperation

2.1. School-enterprise cooperation issues

In the process of base construction, the school often takes the initiative to provide the corresponding environment and auxiliary facilities, and actively organize students to enter the innovation and entrepreneurship base for corresponding learning and social practice activities [9]. The degree of cooperation and integration between schools and enterprises is low, and the economic benefits of enterprises are not obvious, resulting in insufficient investment in enterprises. Enterprises often lack the corresponding management enthusiasm. After investing in the corresponding equipment, they basically hand over the entire management authority to the school, and the school has full management [10]. The training fees and the labor wages of the apprentices generated in the modern apprenticeship system require enterprises to invest alone. When there is a large difference between the labor income of the apprentice and the investment of the enterprise, the investing enterprise will consider whether to carry out the apprenticeship system, and the direct employment of skilled workers by the enterprise will have a higher effective value for its own economic cost. In addition, in the process of enterprises investing in training apprentices, when apprentices change careers or careers, and are poached by peers, the enterprise cannot recover the initial investment cost, which will greatly affect the enthusiasm of enterprises to participate, and further lead to insufficient depth and willingness of enterprises to cooperate. The role of innovation and entrepreneurship bases cannot be well reflected. Therefore, under the "base +" model, it is impossible to the direct investment of some enterprises restricts the promotion of further cooperation.

2.2. Master-apprentice relationship or teacher-student relationship, the balance of dual identities

The disadvantage of the relationship between master and apprentice lies in its strong patriarchal color, which is rooted in the original purpose of the apprentice learning from the master and the inheritance of his skills and management rights. Modern master-apprentice relationship is a system of responsibility and obligation, which has been fixed by law. The learning and shaping of skills comes from imitation and experience, and is rooted in the internal mechanism of enterprises. On the basis of experience and methods in production, modern apprenticeship system can effectively realize the formation and transfer of skills, and effectively transfer experience and methods into practice through words and deeds. The mentoring relationship is conducive to the development of skills. In colleges and universities, teachers and students pay more attention to the inheritance of theory, and the proportion of teachers engaged in applied teaching and practice is not high. Due to the lack of practical experience, many teachers in the base fail to give corresponding practical guidance to the students, which makes it difficult to exert the actual effect of the base. To balance the above relationship, it is necessary to clarify the responsibilities of schools and enterprises in the base, and build a management system that takes advantage of the two, otherwise it will be difficult to play the actual effect of the base.

2.3. The establishment of the assessment and evaluation system is not perfect, and the standards for the identification of teaching results are not clear

During the construction of the base, students are the main body of practice, and the level of their practical ability improvement often determines the success or failure of the innovation and entrepreneurship base. For apprentices, their evaluation and assessment are closely related to their daily learning and work. They must not only complete job tasks, but also regularly write learning gains and reflections. In the current school-enterprise cooperation base, there is no relevant attention to the management of students. Enterprises believe that the management of students in the base process should be the responsibility of colleges and universities. Due to the lack of corresponding enterprise management experience, most colleges and universities still adopt traditional management. student mode. After investigation, it was found that the evaluation and

appraisal standards of the modern apprenticeship system have not yet been unified, and some schools have integrated enterprise requirements and vocational qualification standards, requiring apprentices to obtain both enterprise certificates and vocational qualification certificates.

In some schools, a certain number of products are created and designed as the evaluation criteria. Over time, the innovation and entrepreneurship base has become a "second classroom", failing to meet the essential requirements of cultivating students' innovation and entrepreneurship ability. Based on the particularity of each industry and the differences in skill standards, a reasonable, comprehensive, systematic and scientific evaluation and evaluation of the effectiveness of apprenticeship education has become a key issue that schools and enterprises urgently need to solve.

3. Innovation and entrepreneurship base construction strategies from the perspective of school-enterprise cooperation

3.1. Strengthen student management and enhance students' autonomy in innovation and entrepreneurship

In order to keep the innovation and entrepreneurship base from being a mere formality, a corresponding management mechanism has been established within the maker base, such as the "Regulations on the Management of Students at the Maker Base", which are used to regulate the behavior of students in the base. The practice base built by schools and enterprises together provides an effective platform and booster for students' innovation and entrepreneurship practice. In order to be more in line with the enterprise, the base implements the management method of the enterprise system, and establishes a management mechanism at the level of the teacher in charge of the base - the general manager of the student - the manager of the student branch. In the practice base, there are on-campus and off-campus tutors to provide guidance for students, so that students can use the high-quality resources in schools and enterprises according to their interests, make good use of the current conditions, and carry out entrepreneurial practice by using the minimum cost, to ensure that risks are minimized.

The base management teacher is responsible for the overall work of the base, and handles the major events of the entire student base accordingly. The corresponding general manager of the students and the general managers of each part perform their respective duties and jointly manage the students of the base. The student team carried out innovation and entrepreneurship practice and developed some products through the school-enterprise co-construction base located in the national economic development zone.

In the actual management, the base teachers grasp the overall direction of the base, and the specific affairs are managed by the student general manager, who is responsible for managing the specific daily affairs of the base, and assigns specific tasks to the following branch managers, and the student human resources manager is responsible Students' usual attendance, base member's assessment management. In order to effectively cultivate innovative and entrepreneurial talents, it is necessary for colleges and universities to have corresponding innovative and innovative theoretical courses and practical courses, and to train and cultivate students' innovative consciousness and entrepreneurial ability through education and practice. The student project manager is responsible for the discovery and discussion of new projects in the base, the real-time tracking of existing projects, and the completion of projects. The student back-office manager is responsible for the cultural construction in the base and the hygiene management in the base; Student base and communication work related to partner companies.

3.2. Establish an effective management mechanism, clarify the responsibilities of both schools and enterprises, and actively play the role of the base

Laboratories and practice bases are places where practice and experimental teaching are carried out, which also has an important impact on the cultivation of students' innovative and entrepreneurial abilities. School bases, industry associations, and enterprises form a talent training

community and give full play to their respective important roles. School-enterprise cooperation innovation and entrepreneurship bases need a sound management mechanism to ensure close cooperation. In recent years, my country has attached great importance to the construction of laboratories in colleges and universities, and has increased a lot of investment in software and hardware, such as strengthening the construction of teaching staff, purchasing experimental instruments and equipment, and expanding laboratory areas. According to the characteristics of the base, leading enterprises, school bases, and industry associations formulate production-education integration projects. You can try to choose a certain grade for the pilot apprenticeship system, and the three parties will work together to formulate a talent training plan. The management level diagram of the entrepreneurial base is shown in Figure 1.

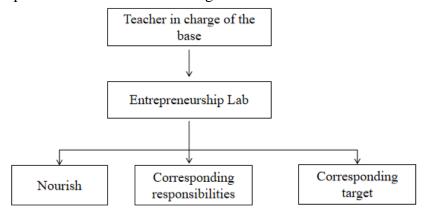


Figure 1 Management level diagram of the entrepreneurial base

During the establishment of the maker base, the school and the enterprise signed a corresponding agreement, which clearly stipulated the rights and obligations of the school and the enterprise as well as their respective responsibilities. Through cooperation with some enterprises, laboratories and practice bases have been established inside and outside the school. By using the high-quality resources of enterprises, some innovation and entrepreneurship laboratories and practice bases have been initially constructed. The three parties build a collaborative and interactive system, and each clearly defines corresponding responsibilities and goals; the school base is the source of apprenticeship and the starting point of apprenticeship training. Its main function is to teach students basic knowledge and theory, and to carry out basic teaching of professional courses. In the actual management process, Co-construction enterprise of innovation and entrepreneurship base is responsible for providing corresponding software and hardware resources and technical support, in order to improve students' practical ability. The laboratory has strong professionalism and functionality, which can effectively improve the problem of insufficient experimental resources in the production and practice links in the school, and lay a good foundation for the improvement of students' practical ability. Industry associations guide and coordinate the whole process of apprenticeship theoretical and practical learning. The enterprise undertakes the detailed development of the productive skills of the apprentice. The online and offline service system for entrepreneurship and innovation is shown in Figure 2.

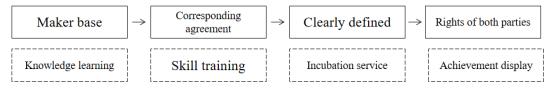


Figure 2 Online and offline service system for entrepreneurship and innovation

Enterprises have become incubators for students to transform into apprentices, perfectly grafting production skills on apprentices. The company regularly sends teachers with strong practical ability to the base to train mainstream technologies and give corresponding guidance to students, so as to improve students' practical operation and innovation and entrepreneurship ability, the school is

responsible for organizing students to enter the base and carry out corresponding daily management. Through this clear responsibilities, division of labor and cooperation, the role of innovation and entrepreneurship bases has been well reflected. Cultivate students' comprehensive quality with general education, achieve "good character", consolidate professional foundation with the platform of subject education, realize "basic solid", strengthen professional skills with directional expansion platform and modular courses, and carry out hierarchical and personalized Cultivation to achieve the training goal of "strong engineering ability and outstanding expertise".

4. Conclusions

Under the background of "mass entrepreneurship and innovation", local colleges and universities must combine their own advantages and characteristics, take the road of adapting to social development, and take the road of characteristic development. The purpose of the construction of innovation and entrepreneurship base is to create a good environment for innovation and entrepreneurship for students, so as to improve students' innovation and entrepreneurship ability. At present, the cultivation of innovative and entrepreneurial talents is very important. This is the requirement of the times. However, the cultivation of talents in colleges and universities is obviously insufficient in this regard, which requires the ability to cooperate with enterprises. Reasonably integrate school-enterprise resources, build a practice teaching base for innovation and entrepreneurship education, focus on talent training models, practice systems, etc., and continuously improve the quality of education and teaching, so as to cultivate and meet the social needs for innovative and entrepreneurial talents, and contribute to the development of the national economy. Serve. Jointly build an innovation and entrepreneurship practice base, provide a platform for students' practice, make up for the lack of school education, promote better development of students, and meet the needs of talent training. From the establishment of an effective mechanism, the effective communication between the school and the enterprise, and the management of students, it can play its main role, continuously improve the construction mechanism and model of innovation and entrepreneurship bases, and promote the development of innovation and entrepreneurship bases.

Acknowledgments

Project by Science and Technology Bureau of Shiyan City, Hubei Province: 2021 Shiyan City Enterprise-School Joint Innovation Center

References

- [1] Pinho J, Thompson D. Institutional-driven dimensions and the capacity to start a business A preliminary study based on two countries[J]. International marketing review, 2017, 34(6):787-813.
- [2] Bergmann T, Utikal H. How to Support Start-Ups in Developing a Sustainable Business Model: The Case of an European Social Impact Accelerator[J]. Sustainability, 2021, 13(6):3337.
- [3] Landqvist M, Lind F. A start-up embedding in three business network settings A matter of resource combining[J]. Industrial Marketing Management, 2017, 80(JUL.):160-171.
- [4] Aldianto L, Anggadwita G, Permatasari A, et al. Toward A Business Resilience Framework for Startups[J]. Sustainability, 2021, 13(6):3132.
- [5] Mp A, Jb A, Jf A, et al. Startups versus incumbents in 'green' industry transformations: A comparative study of business model archetypes in the electrical power sector ScienceDirect[J]. Industrial Marketing Management, 2021, 96(2):35-49.
- [6] Huang S Z, Chau K Y, Chien F, et al. The Impact of Startups' Dual Learning on Their Green Innovation Capability: The Effects of Business Executives' Environmental Awareness and Environmental Regulations[J]. Sustainability, 2020, 12.

- [7] A Hincapié. ENTREPRENEURSHIP OVER THE LIFE CYCLE: WHERE ARE THE YOUNG ENTREPRENEURS?[J]. International Economic Review, 2020, 61.
- [8] Satalkina L, Steiner G. Digital Entrepreneurship and its Role in Innovation Systems: A Systematic Literature Review as a Basis for Future Research Avenues for Sustainable Transitions[J]. Sustainability, 2020, 12.
- [9] Thananusak T. Science Mapping of the Knowledge Base on Sustainable Entrepreneurship, 1996–2019[J]. Sustainability, 2019, 11.
- [10] Elitcha K. The moderating role of stock markets in the bank competition-entrepreneurship relationship[J]. Small Business Economics, 2021, 56.