

The Development of School-Enterprise Cooperative Teaching from the Perspective of Cooperative Innovation

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Abstract: This paper takes the development of school-enterprise cooperative teaching from the perspective of collaborative innovation as the research object. Firstly, the concepts of collaborative theory and collaborative innovation are briefly analyzed, and then the requirements for collaborative teaching from the perspective of collaborative innovation are discussed. On this basis, some ways to develop school-enterprise cooperation teaching from the perspective of collaborative innovation are proposed for reference.

1. Introduction

With the development of social economy and the increasingly fierce market competition, higher requirements have been put forward for the comprehensive quality of talents. Therefore, it is necessary to effectively improve the quality of talent training in Colleges and universities through School-enterprise cooperation. However, there are still many problems in the current school-enterprise cooperation teaching. It is necessary to explore ways to deepen the level of school-enterprise cooperation from the perspective of collaborative innovation, and truly achieve a win-win situation between universities and enterprises.

2. Synergetic theory and collaborative innovation

As early as the 1970s, German physicist Herman Hacken put forward the concept of synergy theory, and studied it as a scientific project. He published "Introduction to Synergy" and "Advanced Synergetics" successively. The theory points out that for an open system, when energy and substance are exchanged with the outside world, its internal structure will achieve an orderly structure in space, time and function of spontaneous nature under the synergistic effect. In general, from the perspective of synergy, synergy theory can produce two roles, one is the role of organizational innovation, the synergy theory is applied to the system operation, and the subsystems coordinate and influence each other. The system operation will generate strong internal power, which can promote the new organizational structure, and automatically integrate and optimize to form a new functional, spatial orderly structure. The other is the function-enhanced multiplication effect. Under the influence of external energy and matter, the system will have synergistic effects between the subsystems. And make a variety of environments, elements, organizations to coordinate and coordinate, so that the overall operation of the system becomes smoother and smoother, resulting in one plus one greater than two functional effects.

Collaborative innovation stems from the need for innovation and the development of innovative technologies under synergistic theory. In the 1920s, Schumpeter took the lead in proposing innovative concepts. He believed that innovation is to create a new production by constructing a new production function that combines production factors that do not exist with production conditions. system. In the actual production process, due to the objective needs of controlling risks, saving costs, and acquiring innovative technologies, the scope of innovation activities is also expanding, and gradually starting from within the enterprise (or other institutions). Slowly turning to the different enterprises with interest relationship, we should promote the continuous cooperation and innovation between enterprises. Under the coordination and innovation, we should maximize

the benefits and achieve "win-win" or even "win-win". In the current era of knowledge-based economy, the importance of innovation has become increasingly prominent. For innovation activities, it is necessary to base on rapid knowledge change and cross-domain knowledge integration to promote innovation activities, which necessarily requires collaborative innovation among different institutions. For example, in a certain region, universities, enterprises and governments as the main innovators, they have great differences in innovative resources, but also have good complementarity. Therefore, it provides good conditions for collaborative innovation: universities can provide sufficient talent support for enterprises, and enterprises can provide more opportunities for training and Practice for University talents. As a third party, the government can provide policy support and guarantee for school-enterprise coordination and cooperation, making different subjects have a good role in promoting the development of collaborative innovation activities.

Based on the above analysis, the article interprets collaborative innovation as: in a certain region, enterprises, universities, governments and other innovators, in line with the principle of win-win and mutual benefit, complementary advantages, benefit sharing, risk sharing. The sharing of innovative resources such as talent, technology, capital, knowledge, information, and equipment creates a process in which a single innovation entity cannot achieve the overall innovation effect.

3. Requirements for Cooperative Teaching from the Perspective of Cooperative Innovation

Subject coordination should be diversified. In the process of cooperative teaching between schools and enterprises, there are two main innovative subjects, namely, enterprises and universities. However, from the perspective of collaborative innovation, the development of school-enterprise collaborative teaching activities should not only be a simple combination of universities and enterprises, but also be more diversified. Through the participation of other relevant subjects, with the help of more superior resources, effectively enhance the effectiveness of school-enterprise cooperative teaching. For example, in the school-enterprise cooperation, the government, industry associations and other relevant organizations are integrated. The government supports the school-enterprise cooperation legal system by issuing policy support, and escorts the school-enterprise cooperation teaching. Industry associations have more teaching resources, but also fully play their own coordination role, and better promote the smooth and smooth development of school-enterprise cooperation teaching activities.

Target synergy should tend to be consistent. School-enterprise cooperation involves different stakeholders, so the interests of the subjects are also different. For example, the main goal of the government is to promote the combination of production, education and research, promote regional economic development, and improve national scientific and technological innovation capabilities. The main goal of colleges and universities is to promote student employment and improve the quality of personnel training. The main goal of enterprises is to improve their innovative ability, reduce the cost of recruiting talents and complete the talent reserve by means of scientific research technology in Colleges and universities. Based on this, it is necessary for different subjects to find a balance or combination of interests in collaborative cooperation, so as to effectively stimulate the enthusiasm of the subjects to participate in cooperation and better promote the development of school-enterprise cooperative teaching activities.

The mechanism synergy should be long-term. Enterprises, universities, governments and other different subjects have great differences in system and system. In the actual process of cooperation, there will inevitably be some friction differences due to different systems and systems, which will have a certain negative impact on the smooth development of school-enterprise cooperative teaching activities. Based on this, it is necessary to clarify the institutional boundaries between different entities in the cooperative system, clarify the relationship of responsibility and obligation, and formulate the rules of interest distribution in advance. Only in the process of cooperation can the frictions and conflicts caused by different systems and systems be reduced, and the mutual cooperation of different subjects can be realized. It is more conducive to the coordination and cooperation of different entities and realize the synergy effect of the mechanism.

Organizational synergy should tend to be deeper. Cooperative organizations are an important platform for the development of school-enterprise cooperation teaching activities. From the perspective of school-enterprise cooperation organization construction, it is generally the cooperation between schools and enterprises to build a practice base. Business people come to the campus to introduce relevant practical techniques to students through lectures. At the same time, colleges and universities organize teachers and students to visit and communicate with the company. These teaching activities are generally shallow. The lack of standardized management and disorder in practice seriously restrict the effectiveness of school-enterprise cooperative teaching. Therefore, from the perspective of collaborative innovation, it is necessary to deepen the level of organizational collaboration through laboratories, R&D centers, science and technology parks, etc. Only by further enhancing the close cooperation between universities and enterprises can we better integrate the scattered and disordered cooperation resources, improve the cooperative effect and promote the better development of the quality of school-enterprise cooperation teaching.

4. Ways to Develop School-Enterprise Cooperative Teaching from the Perspective of Cooperative Innovation

From the current situation of school-enterprise cooperative teaching, there are mainly the following problems: first, the lack of adequate teaching resources, specifically reflected in the number of practice bases is small, it is difficult to meet the actual teaching needs. The weakness of teachers and the outdated teaching facilities limit the effectiveness of teaching. Secondly, the form of school-enterprise cooperative teaching is single, the level of teaching development is relatively shallow, and it still stays at the shallow level of post practice, enterprise visits, special lectures and so on. The utilization rate of teaching resources is low and the effect is unsatisfactory. Third, the quality of school-enterprise cooperation teaching needs to be further improved. In the actual implementation of the teaching process, it is difficult to achieve the expected teaching goals due to various factors. Fourth, the lack of a relatively complete system and system, the system operation is difficult to achieve effective docking, and has a serious impact on the in-depth development of school-enterprise cooperation education. In response to the above problems, collaborative innovation is needed. The theory is integrated into the school-enterprise cooperation education, and effectively improves the quality of school-enterprise cooperation teaching. Specifically, it can be started from the following aspects:

5. Actively Seeking Cooperation Opportunities and Establishing Long-term Cooperation Mechanisms

Colleges and universities, as the main body of the collaborative innovation system, undertake the arduous task of training a large number of high-quality talents for the country. Therefore, we should take the initiative to seek opportunities for cooperation. Aiming at cooperative teaching with enterprises, we should not "buy and sell with one hammer". Secondly, excellent enterprises should establish long-term and stable cooperative relationship, which requires universities to take the initiative, integrate themselves into the society actively, and pay close attention to the development trend of the industry and the demand for talents in the market. On the one hand, take the initiative to get in touch with excellent enterprises and discuss cooperation matters. On the other hand, universities should fully display their own advantages in scientific research technology and talents, and effectively attract interested enterprises to cooperate. At the same time, universities should fully recognize their own positioning and consider problems from the perspective of enterprises. So that enterprises can truly feel the sincerity of colleges and universities, as well as the help and support that colleges can bring to them, and effectively achieve deeper school-enterprise cooperation. This process of establishing a deeper and stable cooperative relationship between schools and enterprises, that is, the process of collaborative innovation and development of schools and enterprises, can give full play to the value of collaborative innovation and effectively achieve a win-win situation. All in all, in the actual process of school-enterprise cooperation teaching,

colleges and universities need to let go of their attitudes and actively integrate into society with a more open and inclusive attitude. In this way, we will get more opportunities for cooperation and development, and smoothly develop and innovate a new situation of school-enterprise cooperation and teaching.

6. Breaking through the Restrictions of System and System to Promote the Smooth Operation of School-Enterprise Cooperation

There are great differences between universities and enterprises in the overall operation and operation. If we want to truly achieve synergy in the process of cooperation and further innovation on this basis, it is necessary to deepen the level of cooperation and cooperation. Before that, we need to break through the institutional constraints, so as to realize the effective docking of the two systems. Under the background of increasingly fierce market competition, colleges and universities should take the initiative to break the previous closed state, turn their eyes to the market and actively adapt to the current situation. In the process of talent cultivation, the actual requirements of the market are strictly adhered to. By deepening the cooperation between schools and enterprises, students will feel the cruel competition pressure in advance and effectively enhance the employment competitiveness of students. Through the system operation problems faced by the deep cooperation between the school and the enterprise, the system has been actively smoothed, and new regulations and systems that are more suitable for school-enterprise cooperation have been established to realize the deep docking of cooperation between universities and enterprises. At the same time, colleges and universities can also set up special institutions and departments responsible for school-enterprise cooperation and exchange. In line with the principle of seeking common ground while reserving differences, we must coordinate and communicate with the contradictions of enterprises, and introduce incentive systems through the establishment of various evaluation and evaluation systems. Effectively solve the problems of the system and system, promote the cooperation between schools and enterprises to be more in-depth and smoother, give full play to the role of collaborative innovation, and make progress together and develop together.

7. Strengthen the Government's Functions and Play a Supporting and Guiding Role

In the actual process of school-enterprise cooperation, there will inevitably be problems such as disputes of interests, unclear division of responsibilities and obligations, which can easily adversely affect the future development of students, and it is not conducive to the long-term stability of school-enterprise cooperation. Therefore, from the perspective of collaborative innovation, government participation should be introduced into cooperation, government functions should be strengthened, and the role of government as a "third party" in guiding, supporting and regulating should be brought into full play. Specifically, it can include the following aspects: First, the support of preferential policies and laws and regulations. Firstly, in terms of policy, the government can give some preferential tax policies to some enterprises that actively participate in school-enterprise cooperation. At the same time, in accordance with the needs of school-enterprise cooperation in teaching, through the formulation of targeted laws and regulations on school-enterprise cooperation. From the legal level, we should further clarify the relationship between the main bodies of school-enterprise cooperation, clarify the obligations and responsibilities of both sides, implement them to people, and effectively dispel the concerns of cooperation between the two sides. Fully mobilize the enthusiasm of enterprises and universities to carry out cooperative teaching, guide them to establish correct values for school-enterprise cooperation education, and effectively protect the interests of student groups in the process of cooperation from damage. Second, given a certain amount of financial support, the government should give full play to its leading role in organization, starting with personnel training and enterprise support, providing certain subsidy fees, effectively making up for the unequal interest relationship in the process of school-enterprise cooperation. Third, the government should give full play to its role of coordination and guidance. When there are contradictions and conflicts of interest in school-enterprise cooperation, the government intervenes

in a "third party" posture to help schools and enterprises solve problems in cooperation. Thereby promoting the value of the school-enterprise cooperation function to be more fully played and reflected.

8. Conclusion

In summary, the application of collaborative innovation theory in the development of school-enterprise cooperation can effectively promote the cooperation between schools and enterprises to achieve more in-depth development. Therefore, it is necessary for colleges and universities to pay more attention to the application of collaborative innovation theory in the actual school-enterprise cooperation teaching, and to clarify the requirements and problems of school-enterprise cooperation from the perspective of collaborative innovation. Therefore, effective measures should be taken to solve these problems, so as to cultivate more high-quality talents.

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