An Initial Search of the Training Mechanism "Factory in College" Based on Cooperation between Enterprise and College in Higher Vocational School

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Abstract. To set up factories in higher vocational colleges is one of the most effective approaches of cooperative education. It is also a deep integration between the enterprise and the college. Its operating mechanism and achievements are analyzed by studying the construction situation of the school-running productive training base of foods baking major, Liaoning Institute of Business and Technology from the perspective of theory and practice to actively explore and apply the school-running pattern “Factory in schools” and personnel training mode and teaching model that combines learning with working and integrates theory into practice.

1. Introduction

At present, the talent cultivation mode and the exploration of the course in higher vocational education haven’t broken the constraint of traditional education. There are still some problems, for instance, the effect of college-enterprise cooperation is not ideal. Teachers in vocational colleges lack knowledge of connotation and technical requirements of positions in enterprise. It is incomplete in management mechanism of course construction. All these problems above make it difficult to achieve the effective integration of resources, so the reform and development of personnel training mode remain stagnant. Therefore, the Biological Engineering Department, Liaoning Institute of Business and Technology is actively searching for a cooperatively educational approach. It moves the enterprise into school to build “factory in college” through building a practice and training base, talents training base in the means of college-enterprise cooperation. It aims to deepen the cooperation model and cultivate professional & technical talents who can adapt to the job immediately after the graduation.

2. Bring the Enterprise into the College to Build an Operating Mechanism of “Factory in College”

To take full advantage of cooperatively cultivating talents and to develop co-construction majors are final objectives of "factory in college". According to the feeding back about job requirements from the enterprise, the enterprise and college will together strengthen the course construction, cultivate professional & technical talents and build a long-term professional and practical environment. The construction and operation of “factory in college” aim to promote the enterprise to fully participate in training personnel in the college and cultivating talents with professional teachers in vocational college to meet the requirements of jobs. It will not only improve the teaching level as well as enhance the employment qualification and post competency. Also it can promote to carry out production and operating activities and support technical services according to market requirement in the premise of meeting the teaching requirement of higher vocational education.
2.1 The functions of training mechanism “factory in college” based on the cooperation between enterprise and college

“Factory in college” is not only the cradle for vocational colleges to train professional & technical talents for enterprise. It is also a carrier of providing technical services and cultivating technological development cooperatively for the enterprise. It is targeted, integral and service.

2.1.1 Teaching function

According to requirements of personnel cultivating program and professional standard, “factory in college” conveys students’ knowledge of production, checking, marketing and other aspects of practical teaching by combining job requirements of the enterprise. On the one hand, teachers from the enterprise and college connect all knowledge points that will be used in a particular task and working process. Then a new knowledge system which is organized according to job requirements and working process is formed. Therefore, students will have a good master of every professional skill through multidirectional practical operation. On the other hand, because the enterprise intervenes in advance, teaching activities and practical training that center on enterprise culture, business management and service etiquette will help students plan their career and choose a suitable job. This will combine the short-term post practice with long-term career planning.

2.1.2 A smooth joint between students and operating posts

“Factory in college” can obtain a successful unification between practice and teaching in several posts including, producing, examining, and marketing under the guidance of factory and college during the process of combining work and study. It can also make students be familiar with the enterprising operating mode and know every procedure and checking standards in a stimulation position in order to produce products in practice, and check the quality so as to get some interests through selling them. At the same time, “Factory in college” can cultivate professional & technical talents who can meet the requirements of the posts and adapt to the position immediately after graduation.

2.1.3 Research function

“Factory in college” can not only provide professional and technological talents for the enterprise to meet the requirements of the enterprise, it also can provide a variety of technological services, including solving technical problems during the practice, and undertaking technology development projects of new products and new process route. It aims to found an innovative practice platform that serves for the development of Liaoning economy and society through studying applied projects and transforming the achievements of scientific research into actual production cooperatively.

2.1.4 Training function

“Factory in college” can meet the requirements of national occupational standards. On the one hand, it can carry out in-post practice training of national level and provincial level that face to professional teachers of foods in middle and higher vocational colleges to improve their vocational skills and professional quality. On the other hand, it can identify and examine vocational skills of social personnel and students in food category.

2.2 To build the operational mode “factory in school” which is based on cultivating talents cooperatively

2.2.1 To co-construct course system and compile project teaching materials

Taking developing the comprehensive professional competence of technical college students as the major task, teachers and enterprise workers highlight the dominant position of standards of professional skills in professional curriculum when making personnel cultivating program and curriculum standards, and constructing specialty course system. Meanwhile, it constructs a curriculum system dominated by a typical task through combing concrete post standards of the enterprise. Besides, together with practice of “factory in college” and training condition, the school and the enterprise together compile professional training materials based on cultivating talents cooperatively between enterprise and college.
2.2.2 Co-build teacher-team and develop project teaching, technical services and technical exploitation item

Although professional teacher have enough academic knowledge, they are short in practical experience, which leads to the low integration of teaching content and the post. By building “factory in college”, part-time teachers, skillful workers who are selected and assigned by the enterprise, can make up for the deficiency. Meanwhile, expert studio is built in higher vocational college to invite experts of the field and enterprise experts to offer practice instruction for those professional teachers. Then the workstations for professional teachers are built in the enterprise, which will provide the professional teachers with practice opportunities in the enterprise to improve their professional practice level.

In teaching, technical experts of the enterprise can participate entirely the practical teaching process of students and can design tasks according to the post function and requirements. During the teaching process, teachers of the enterprise pay much attention to curriculum design and assessment of students, while teachers in the college lay much importance to implementation of teaching, and organization and management of the students in order to make them be familiar with and master the job requirements to improve their professional quality and professional ability. Besides, factory in college will modify the course content dynamically which is closely connected with job requirements according to change in market demand and the requirements of economic development.

In scientific research, factory in college can be used as a long-run working scientific research base of producing, learning, researching and applying to solve problems and make up the disadvantages of deficiency in scientific research equipments and insufficient items. The professional teachers and enterprise experts form a scientific research team to develop new products and new techniques or support technical services centering on technological problems and technical innovation during the productive process.

2.2.3 To co-build feedback system and develop directed education from different direction

By reference to the job qualification of the enterprise, the college and enterprise together make an assessment scheme of project teaching practice, and it can improve students' job quality and professional skills to achieve a successful integration of specialized skills and post professional ability. Moreover, “factory in college” can timely feedback the situation of post teaching. In the practice, the college and enterprise will have directed assessment on the results of examination, students' own personalities and main intention to help students choose a particularly professional direction.

3. The Achievements of Operating Mode “Factory in College” Based on Cultivating Talents Cooperatively between Enterprise and Higher Vocational College

During the operation of “factory in college”, the enterprise can combine the short term training of post practice ability and career planning together. It also can make students study for their goals centering on business culture, post skills and other aspects. As for teaching mode of higher vocational education, the training plan of professional talents in the college can meet the needs of the enterprise and reflect the requirements of economy and social development. For students, they can be trained both by the enterprise and the college, and will be influenced by the business culture of the enterprise during the training process, thus it largely decreases the time to adapt to the enterprise and even the society. For the enterprise, on the one hand, excellent talents with an excellent comprehensive quality will be chosen and the enterprise is likely to cultivate a group of devoted staff with high professionalism. On the other hand, it promotes the spread of enterprise brand and enterprise culture and enlarges the social influences of the enterprise and its products. As for professional teachers, they can improve their practical teaching ability by practicing and being guided in the factory, which will lay a solid foundation for “Double Type” teachers, the combination of full-time and part-time teachers. Through the operating mode of “factory in college”, the college, students and enterprise form an iron triangle, in which they share the interests and their win-win future.
To set up factories in higher vocational college is one of the most effective approaches of cooperative education. It builds a green channel between the college and the enterprise. At the same time, it takes cultivating practical talents as the objective with a strong pertinence and definiteness. It can solve some problems that appear during the practical teaching process of combining learning with working. Therefore, it is a mode of worth spreading. The construction of “factory in college” built by food specialty cooperative education and guided by the cultivating mode of improving the practical ability and professional skills of higher vocational students shows the training characteristics of vocational talent “cultivating talents cooperatively” and “combination of learning with working”. Moreover, it can also serve for deep processing industry of agricultural products in Liaoning’s the Thirteenth Five-year Plan and come to a unification of providing talents and employment standard to cultivate more talented and high-end skilled personnel.

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5. References


