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Analysis and research on cooperative education mode of local colleges and universities under the background of integration of industry and education

Mengdi Xu

Zhejiang Yuexiu University, Shaoxing, 312000, China

Abstract: The integration of industry and education is not only an important part of the development of China's collaborative education cause, but also an important measure of China's higher education reform. At present, there are still many problems in the cooperative education mode of production and education in China. In order to effectively promote the integration of production and education and the all-round integration of industrial development, form a professional system with closely connected industrial chain and employment chain, and establish a perfect talent training mode, the collaborative education mode of local colleges and universities still needs to be explored and practiced continuously.

Keywords: Integration of production and education; Cooperative education; Local colleges and universities.

1. Introduction

Economic development has always been an important component of China's international competitiveness, as well as an important foundation for China's international competition. A strong economy creates more jobs and protects and improves the lives of our people. With the rapid development of the economy, the requirements of the employment units for talents have also changed. In order to make students in an advantageous position in the employment competition, local colleges and universities should actively build their own education system integrating production and education, and open up a new track for cultivating students' innovation and entrepreneurship. To cultivate highly skilled talents in higher education, it is necessary to promote school-enterprise cooperation in running schools and implement the combination of production and learning.

2. The current situation of integrated development of industry and education in local universities

At present, the social industrial layout structure of our country is being adjusted and upgraded. As the problem of minority and aging is becoming more and more severe, although every year a large number of college graduates will flow into various sectors of the society, there are still many enterprises have different degrees of "talent shortage" situation. The reason lies in the difference between the supply side of school talents and the demand side of enterprises. Therefore, in recent years, the country vigorously promotes the integration of industry and education. Nowadays, there is a widespread disconnection between knowledge system and front-line practice among college students. The traditional practice teaching model has been unable to meet the needs of talents in the current society. Under the mode of school-enterprise cooperation, colleges and universities can provide teachers and knowledge resources for enterprises, while enterprises can provide corresponding practical positions and working resources. Students need to be really involved in the practical operation, in order to improve their practical ability and enrich practical experience. In this context, many local colleges and universities, as the vanguard of local talent supply, break through the traditional mode of integration of industry and education, learn from other countries' advanced talent training mode, and actively explore the reform of talent training programs that meet local needs. However, due to the late start of the integration of domestic education, the corresponding laws and policies are not perfect, there are still limitations, many school-enterprise cooperation cannot be effectively protected and restricted. In addition, graduates generally have problems such as weak practical ability, lack of innovation ability, and greater freedom of employment. Colleges and universities pay attention to theoretical knowledge in curriculum setting, and the knowledge system of graduates cannot be integrated with practical work, so the enterprises need to spend a lot of energy and time cost training. Therefore, local colleges and universities relying on the local industrial economy have been exploring an effective long-term and stable mode of integration of industry and education in order to train talents meeting the requirements of regional economy.

3. Main dilemmas faced by local universities in the background of domestic education integration

3.1. The talent training mode of the integration of production and education is single, and the positioning of enterprise colleges and universities is not clea

In the traditional model of integration of industry and education, enterprises participate in talent training to a low degree, the cooperation level is shallow, and the mode is relatively simple. The single cooperation mode will cause students unable to improve practical skills. After all, students of different majors need different ways of training. If we adopt the uniform training mode, we cannot cultivate the practical talents needed by the society. Therefore, the integration of industry and education needs diversified development. In the process of the integration of industry and

education, local universities and enterprises still have the problem that their role positioning is not accurate enough. Schools are responsible for cultivating talents as the main body, while enterprises are responsible for providing practical positions. However, due to more benefits from the integration of industry and education, enterprises can rarely obtain actual economic benefits or resources favorable to the development of enterprises, and also pay a certain cost. All these reasons lead to low enthusiasm and passive participation in the integration of industry and education[1].

3.2. The integrated cultivation of production and education is "not deep, not broad"

At present, our domestic education integration training cooperation level is very shallow, stay on the surface. Usually for enterprise personnel to carry out training lectures to students, colleges and universities arrange students to visit the enterprise study. Although the above two cooperation modes have the advantages of wide radiation, simple training methods and low cost for the students cultivated at the school level. But students can not really participate in the production link of enterprises, unable to improve practical skills. At the same time, the development of talent training programs in colleges and universities is not perfect, the knowledge system is not enough to keep pace with The Times, and does not match the requirements of enterprises, so it is unable to supply talents suitable for the post ability of enterprises. As a result, colleges and universities can not give full play to the leading position in personnel training work.

3.3. Lack of teachers integrating production and education, and lack of long-term mechanism for double tutors

There are a shortage of teachers in our country, and many of the guiding teachers have less practice experience. This kind of teachers do not pay enough attention to students' innovation ability, and the positive experience brought by them is relatively limited, and they cannot guide students to carry out practical operation in detail. For the above reasons, enterprise personnel enter students' classrooms as teachers. Teachers in such enterprises have rich experience, can bring advanced technology into the classroom, fit the market demand, and deeply participate in talent training programs. However, due to the low requirement of teachers' practical ability in the evaluation and recruitment performance mechanism of general colleges and universities, young teachers lack the awareness of self-improvement of practical ability. In addition, teachers who are integrated with industry and education are also responsible for production and management in the company, which makes school work less active. There are no long-term effective incentives [2].

3.4. College curriculum and personnel training program are fuzzy

Local colleges and universities often have vague positioning when designing courses and talent programs, and do not care about the combination with local industrial structure and enterprise talent needs, so the designed courses and talent training programs are suspended. Although the theoretical knowledge is solid and rich, it is not close to the reality. Therefore, after students enter the enterprise to work, they often cannot apply what they have learned. At the same time, the participation of enterprises in the training of students is not high, more passive. Enterprises have a more keen sense of the job market, which is the final index of talent application. Enterprises participate in the system of talent training programs, and can put forward targeted talent training programs according to the market demand. In order to better help students to develop employability. In school, students can get familiar with the working environment and establish the correct career concept.

4. The construction path of integration of production and education in local colleges and universities

4.1. Clarify the positioning of both schools and enterprises to promote the integration of industry and education

In the process of internship, enterprises and schools should have a clear and reasonable division of labor. In terms of management, interns can be entrusted with business guidance and assessment work, so as to achieve zero distance with enterprises and industries. In the operation process of practical teaching, the operation standard is carried out in accordance with the national industrial working standard, and the latest national standard corresponding to the actual operation steps is formulated as the operating standard. The practical training instructor must demonstrate in accordance with the standard, so that students can operate in accordance with the standard at the beginning of operation, and only after entering the job can they adapt to the requirements of different enterprises. Make it a habit to look up the criteria before doing any new operation.

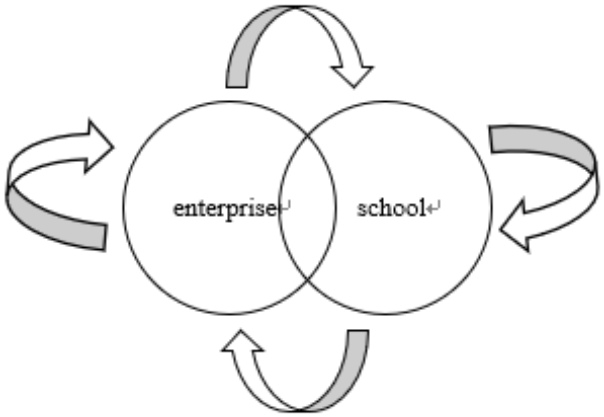


Figure. 1 Integration mode of industry and education

The ultimate goal of talent training in colleges and universities is to make students get employment and become talents in line with the needs of society. The school can actively carry out various activities, such as inviting local entrepreneurs and outstanding alumni to give lectures and holding campus culture festivals of different disciplines and themes. Through these activities, students can not only understand the local industrial structure and employment direction, but also better get close to the cutting-edge culture of the industry. In order to further introduce corporate culture, management and operation mode, and evaluation system into teaching, our school can build SPT Street, a "business street" for business administration, international trade and other majors in the campus. By introducing corporate management mode, experiencing corporate culture personally, training and

evaluating students' skills through corporate operation income, etc. The company culture can be immersed in students' daily life, the campus culture and corporate culture can be deeply connected, the university and enterprise culture can be deeply integrated, the boundary sense between campus life and work life can be broken, and the quality external environment can be provided to help students better complete the identity transformation. During the internship period, enterprises can also implement the "quasi-employee" training mode [3]. During the internship, students' ability to deal with interpersonal relationship and work content is relatively weak. This requires that enterprises can help students solve the difficulties encountered in work during the internship period, and also help students establish the correct occupational concept, so that students can get familiar with the workplace environment as soon as possible and improve their professional quality.

4.2. Combine enterprises to adjust curriculum and talent programs

Industry is the extension of professional development, it needs to adjust the development direction in real time, in-depth docking industry, grasp the pulse of industrial development, in order to meet the needs of The Times, in order to accurately docking positions, and cultivate talents in line with social needs. Therefore, in the school-enterprise cooperation, colleges and universities should invite experts from enterprises and industries to participate in the whole process of the formulation of talent training program, set at least 2-4 school-enterprise courses in the talent training program, which will be taught by enterprise tutors. In the mode of integration of industry and education, relying on local enterprises, actively participate in the pilot of "1+X" certificate system, and organize the list of professional and vocational qualification certificates of colleges and universities. Teachers guide students to obtain relevant qualification certificates to improve employment competitiveness. At the same time, the school-enterprise cooperation builds capability model, establishes evaluation mechanism, and makes personal development plan through talent inventory. The school can also actively organize freshmen and sophomores to participate in off-campus social practice activities, and make use of the school's off-campus internship base to fully understand the employment prospects and market conditions of the major, understand the industry trends related to the major, and rely on the judgment of the enterprise on the market to further connect the positions. In the course plan construction process, the school should pay attention to the students' career development, including vocational skills, job knowledge, career experience and job adaptation. More emphasis should be placed on the internal logic of curriculum. Students establish the knowledge and skill system required by the work process in the course system of "task target-practice-training -- experience evaluation". Through the typical job analysis of the target job group corresponding to the major, they determine the core task to be solved, so as to determine the specific task of the post, and classify the problems involved in technical skills. So as to determine the job core competence. Organize teaching activities around the core objectives to cultivate students' professional ability and comprehensive quality, and form the ability to solve practical problems. At the same time, with the cultivation of students' practical application ability, employment competitiveness and innovation ability as the main line, practical teaching covers the whole process of talent training in the professional curriculum setting, so as to realize the ability development process of "ability progression" for students of different levels in the future. The school should also take the initiative to deepen cooperation with enterprises, jointly formulate teaching objectives and curriculum, and invite enterprises and industries to regularly evaluate the school's quality, so as to improve quality control and establish a talent security system. Second, do a good job of course content and enterprise activities. The selection of course content is guided by enterprise activities, closely focused on the realization of the goal of practical application ability, and as far as possible based on enterprise post activities and actual work flow. The organization of course content changes from the logical emphasis on knowledge to the working process of enterprise post activities, and the practice process is treated as teaching. During the internship process, a school mentor with certain practical experience and a corporate mentor jointly provide "one to one" and "one to many" guidance. Schools should establish rules and regulations to manage student internships as one of the conditions for evaluating young teachers' professional titles.

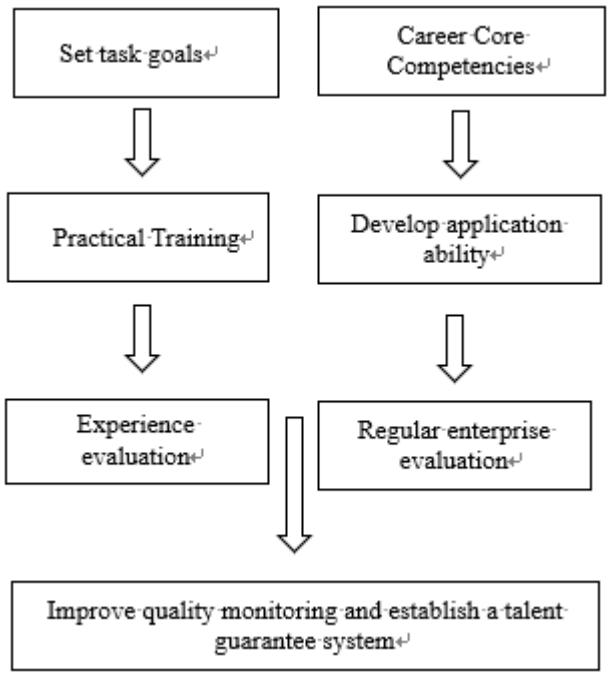


Fig. 2 Course plan construction process

4.3. Strengthen the construction of school-enterprise teaching teams

Teacher resources are the priority among priorities in the development of production-education integration. School teacher performance evaluation model. Some enterprise mentors and project leaders do not participate in the evaluation. Generally, the school pays for the class time, and there is no effective incentive mechanism. Local colleges and universities should focus on cultivating a team of innovation and entrepreneurship guidance teachers with dual skills. The person in charge of industry-university-research in local colleges and universities can combine the local economic center of gravity, industrial structure, talent demand, the discipline characteristics of the university, the type of teachers and other aspects to select a team of teachers with professional knowledge, practical experience and ethics for

the establishment and training, so as to further improve the comprehensive quality of the industry-university-integrated guidance teachers of the university. Work with corporate teachers to cultivate a teaching team. In the process of teaching, enterprise teachers and school teachers have different emphasis and professional knowledge. In order to achieve industry-university cooperation, professional teachers can go deep into the enterprise to conduct training, combine their own characteristics of students and the talent needs of the enterprise, fully communicate with enterprise teachers, enhance teachers' understanding of enterprise culture, understand the trend of enterprise talent demand, and guide the direction of professional talent cultivation. Corporate lecturers undertake the teaching tasks of some professional courses and corporate lectures, and flexibly adopt appropriate teaching methods based on talent cultivation goals and student characteristics to better improve students' comprehensive application abilities

4.4. Build cooperation platform and innovate cooperation mode

The training base is a front-line position for universities to connect with enterprises and industries. In order to carry out practical training more deeply, colleges and universities should actively build practical training bases inside and outside the school for teachers and students to carry out practical training work. For example, the School of Hotel Management of our university directly introduces the training base into the school and the classroom, and builds the campus hotel building, which is equipped with hotel supporting facilities such as guest rooms, reception desk, lobby, cafe, western restaurant and Chinese restaurant. Teachers directly take classes and practice training in the campus training base. At the same time, the "dual-track" training mechanism inside and outside the school is implemented. In the second semester of the junior year, the one-semester off-campus hotel training is carried out. In combination with the signed off-campus internship units, students are assigned and dispatched to each hotel for internship training, so that the practical training effect is more prominent, and the training base is truly integrated with the enterprise units.

In addition, it is necessary to strengthen the operation and management of teaching bases and establish professional teaching guidance groups. Invite experts from local industry associations and enterprises to form a professional teaching guidance group. The college has issued employment documents to each expert in the professional teaching guidance group, and the experts regularly hold relevant meetings to discuss the arrangement of teaching or internship practice activities. Young teachers who have just graduated and joined the work can first practice in the training base, ensuring that professional teachers output front-line new technologies, processes, and methods to students. Scientifically implement the management of student internships. To ensure practical results, the practice base and the school jointly manage students. For the school, there are complete teaching documents, such as the preparation of a graduation internship outline, graduation internship plan, graduation internship guidance, and introduction letters. Instructors need to regularly check the students' practice situation, and each time a "Practice Site Guidance Record Form" is checked, which needs to be signed by both the teacher and the student. After the practice is completed, students should obtain a "Student Practice Certificate" and have the base teacher write comments on their practice situation.

4.5. Learn from the advanced experience of other countries

The "dual system" model of Germany and the "sandwich" model of Britain are highly respected in the world. In the "dual system" of Germany, one yuan refers to schools and one yuan refers to enterprises and factories. Students in this model have a dual role -- apprenticeship in business and student in school, learning by doing. Students spend 70 percent or even 80 percent of their time on practical training in enterprises in the form of productive labor. This model relies on Germany's strict vocational education laws. This model has a strong pertinence for cultivating students' practical ability [4].

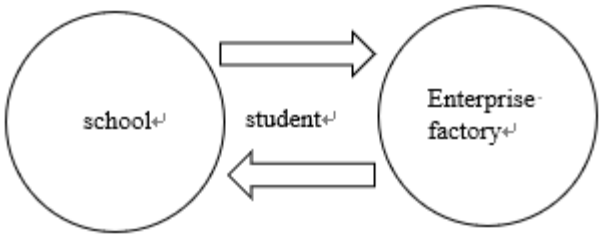


Fig. 3 Germany's "dual system" mode

The British "sandwich" model is also famous in the world. Sandwich mode refers to the course setting mode of "alternating between students and workers". The talent training mode of "school learning theoretical knowledge - factory business practice - school learning theory" is adopted. This mode can effectively integrate students' practical ability and theoretical knowledge, and cultivate high-level and highly technical talents [5].

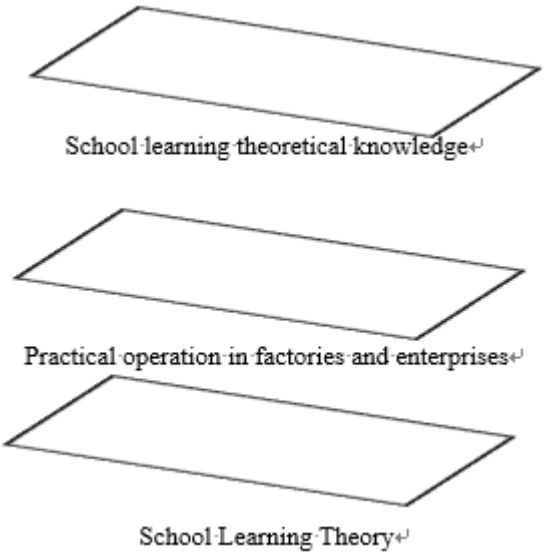


Fig. 4 British "sandwich" model

Taking government regulation as the leading factor is one of the characteristics of Japan's industry-university cooperation model. In the 1980s, the Japanese government proposed a new slogan of "science and technology create a country", introduced a series of policies and systems, and established a scientific research system of "industry-university politics". In 2001, Japan established the Ministry of Education, Culture, and Science, merging the Ministry

with the Department of Science and Technology, which meant that university academic research was officially incorporated into the government's science and technology planning. Japan's "industry, education, and politics" innovation system integrates scientific research resources from different fields at home and abroad to participate in product research and development. Among them, scientific research institutions are mainly engaged in basic research. Notably, innovation in Japan's "industry, education, and politics" does not necessarily involve teams, but can also involve individuals in research conducted by other institutions. The integration of industry and education in Japan not only attaches great importance to the linkage of government, industry, university and research, but also attaches great importance to the spirit of craftsmanship. The craftsman spirit stands for being down-to-earth and striving for excellence. Japan has long admired the artisan spirit. All walks of life in Japan carry out this spirit, and even the top craftsmen in a single field in Japan can be called national treasure masters, and will be greatly respected in the whole Japanese society. This spirit is that Japanese enterprises attach great importance to the quality of their products. The e quality of Japanese companies' products is very competitive in the whole international community. Japan, on the other hand, is premised on talents with the spirit of craftsmanship, which can make enterprises have lasting vitality. [6]

5. Concluding remarks

In order to establish the model of integration of industry and education with Chinese characteristics, it still needs continuous reform and exploration. To develop the integration of industry and education is in line with the laws of education development in our country, and it is also an important measure to promote the upgrading of social economic industrial structure. Only by effectively bringing together the government, enterprises, universities and other forces. Only in this way can the supply of talents match the industrial demand, and more practical innovative talents can be cultivated.

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