

## Constructing Upgrade Platform of the Middle-High Vocational Connected Education Based on the Production-Education Community

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**Abstract:** The new industrial revolution has driven industrial upgrading, so that China's economy and society are facing severe challenges, how to allocate high-skilled personnel resources to adapt to industrial upgrading is the first. In the allocation of high-skilled talent resources, there are still a large number of middle vocational education resources to be developed, and the middle-high vocational connected education is an integral part of which. Through evolution and upgrading of the middle-vocational connected education, it is an important strategy to adapt industrial upgrading and to resolve challenges. Under the new industrial revolution, this paper presents new measures to adapt to the development of vocational education in the occupation of industrial upgrading: that is industry-education community built through is deep integrated, then a new platform of the middle-high vocational connected education is built so that the high-skilled talents are mass made.

### 1. Introduction

The new industrial revolution (the fourth industrial revolution), characterized by mechanization + electrification + information technology + Internet, has forced our industrial production and manufacturing to "upgrade" in order to cope with the changes brought about the revolution. How to adapt industrial upgrading and to drive sustainable economic development? In terms of comprehensive resource allocated, development of human resource takes to lead in priority, which will lead to the deep reform of vocational education as national development strategy inevitably, and following the industrial upgrading, we can get a foothold in the new industrial revolution society.

In 2014, the state council's decision on accelerating the development of modern vocational education pointed out that "by 2020, a modern vocational education system with Chinese characteristics and world level will be formed, which adapts to the development needs, production and education is deeply integrated, middle vocational with high vocational are connected, and vocational education and ordinary education is communicated, the concept of lifelong education" is reflected. There is no doubt that adapting to the needs of industrial upgrading, in-depth integration of production and education, the middle-high vocational connected education have become the development strategy of national vocational education, and is also one of the engines of professional education upgraded.

At present, in terms of cultivating the vocational education required in the new industrial revolution, it must be realized that a strong manufacturing power needs a strong vocational education system, and a strong vocational education system needs a strong vocational education to upgrade as thrust force. Vocational education is not only the "supporter" of industrial development, is but also the deep integration (binding) with industry. In terms of talent cultivation, it is necessary to realize the real "integration" of production and education, rather than just "cooperation". To promote vocational education to upgrade, we carried on the unremitting exploration and beneficial practice.

## **2. Problems Facing the Middle-High Vocational Connected Education to Adapt to Vocational Education Upgrading**

In the context of integration of production and education, the middle-high vocational connected education be implanted in, it is still in the discussion on how to solve the problems existing in the separation of production and education in China's "vocational education law". We are still studying how to introduce the German "education enterprise" mechanism into China. Without considering how to explore the deep integration of industry and education rather than cooperation under Chinese characteristics; Without in-depth analysis, "deep integration" of production and education to adapt to industrial upgrading is the only way for vocational education.

In terms of the research on "middle- high vocational connected education ", it is also limited to the national certification mechanism of education degree in Germany, Australia and other countries, as well as the national classification system of education degree in Britain, the United States and Sweden. In the domestic research on "the middle- high vocational connected education", it is still limited to the curriculum set and the proportion design on basic courses and professional courses. Some studies are keen on non-overlapping of curriculum of the middle- high vocational connected education; Even if there is research on "middle- high vocational connected education" that adapts to industrial upgrading and conducts vocational education upgrade, it is limited to the setting of relevant innovation courses and the form of school-enterprise cooperation. However, there are few literatures and practices on the construction of "upgrade platform" of the middle-high vocational connected education. There are few literatures on the construction of the new platform of middle-high vocational connected education based on the industry-education community.

## **3. The Only Way to Upgrade the Middle-High Vocational Connected Education is to Construct the "Production-Education Community"**

Breaking through the shackles of thinking ideas, new industrial revolution mode of the change and innovation has become an inevitable topic in the ear, the "sharing, build, govern together " should be become value pursuit inevitable in human destiny community, the community is a shared interests, value consensus of the shared interests have universality, that is thinking bases to be build new industrialization society, human destiny community is the value lead to build. This, the interests convergence and value consensus between the two sides, as well as the prospect of win-win results between the two sides, will lead the two sides to the only way embedded in each other, namely, the community of industry-education. Our exploration and practice are as follows:

The two sides should establish consensus, and define the times requirements and necessity to establish the industry-education community. To convince that "deep integration" is vital interest for the industry, is conducive to develop the country and creates social benefits. Make enterprise personnel be willing to enter the industry-education community. The two sides become a real alliance, then the "community of production and education" can be consolidated.

Our institute has signed vocational-enterprise cooperation agreements with more than ten enterprises in Chongqing, and the cooperation relationship is deepening continuously, it has foundation of "deep integration" and extensibility. Through joint investigation of domestic advanced vocational education units, some real practices of vocational education upgrade such as Jiangsu and Tianjin vocational education reform; We should go deep into industries and enterprises, have heart-to-heart talks with leaders and key engineers and technicians, build up mutual trust through close and heart-to-heart communication, and enable them to accept the advantages of integration. We should first emancipate their minds and concepts.

Through holding workshops and seminars, discusses the development of the " industry-education community, such as, the demonstrates industry upgrades to need upgrades of vocational education and the innovative talents for instances, industrial upgrading to cultivate the innovative talents is very beneficial, and vocational education to cultivate innovative talents play escalating action for the enterprise, such as the development and application of robots, research and development and application of the 3D printing technology, etc.

In critical nodes of the interest sharing and survival, explain the practice and binding, such as the curriculum designs and lectures in the training programs transfer into the enterprise, the implementation process is dominated by enterprise experts, while teachers do preparatory works; The main battleground of the graduation design will be moved to the enterprise, topic selection, guidance, reply and achievement evaluation, and social effect evaluation is given in the graduation design that is priority with the industry, the graduation design guided are more people by both production and education. Enterprises think good students that can be leaved directly, it leaves plenty of space and convenience to choose the talents for the companies, transfer projects include professional course of vocational education bundled with industrial production practice and field work. In this way, it is easy to use knowledge transfer to serve production, and learn the key points of innovation from the internship, so as to learn the skills of innovation and creation.

In build and win-win, tries to set up joint research, the institutions of the cooperation and development, service entity for the foreign cooperation, vocational-enterprise cooperates to joint open training courses, seminar, etc., makes business personnel to participate various research project of the teaching and scientific of vocational teachers, combined the social programs with colleges, etc., In order to cultivate creation abilities of the enterprises and the students, and make the enterprises personnel and business entities to obtain considerable economic benefits and social benefits (children employment, admission, relying on vocational or corporation, etc.).

Formulate the action programs and implementation practices of the "production-education community", Such as trying to absorb Germany experts to promote the loan project, train the teaching staffs of the industry production and senior technical personnel of education, such as the use of education fund projects, international fund loan projects and enterprises sponsored funds, enterprise personnel and college teachers are priority sent go to Germany, Australia and Norway to make technology training and further education that be used for intelligent "industrial upgrading" (welcome by industries), etc.

#### **4. Exploration and Practice to Construct Upgrade Platform of the Middle-High Vocational Connected Education Based on the Industry-Education Community**

The industry-education community is a new practice environment conducive to vocational upgrading after industrial upgrading, which is convenient for implementation of upgrading of the middle- high vocational connected education, so as to cultivate students' creativity and innovation ability. How to make the training scheme based on the industry-education community, and focus on the consideration of innovation of education, so that the whole scheme reflects the characteristics of "platform upgraded" of middle-high vocational connected education, which is suitable for industrial upgrading. To this end, we carried out the following practical process.

Under the function of the community, to join the new technology and new material and new methods and Internet in the industrial upgrading into implementation of the vocational education, such as diversification and multidimensional robot technology, 3D printing technology and application, sensing technology based on the new material, develop a new culture. In this way, the "industry-education community" can find the methods and implementation paths to promote the upgrade of "middle and high vocational connected education", and find a series of methods to cultivate innovative talents.

In terms of the implementation of the cultivation scheme of middle- high vocational connected education based on the industry-education community, new schemes to cultivate innovative talents should be developed by relying on the industry-education community, such as task-driven teaching, technology embedded driving teaching; to make new advances on project research driving teaching; upgrading and replacement of the product driving teaching, etc., to form a series of ways to cultivate upgrade talents effectively.

The industrial-educational community carries out knowledge transfer and embedded education and training through various forms, such as the control of robot cluster, the mastery of the production line of CNC machine tool in the school, installation and debugging of Euro loan project, etc., Design and adjustment and test run engineering of electric vehicle of Changan industrial, and

the in-depth participation of students in development projects, etc., to formulate the training plan and to supervise the completion of the training plan.

Through senior talents of the alliance, famous teaching and researchers of famous universities, training institutions at home and abroad, promotion projects of international loans, and technical seminars at home and abroad, etc., excellent teachers to implement new programs are trained. Through various forms of technical seminars, academic exchanges, as well as advanced training courses at home and abroad and academic lectures at well-known universities, etc., we train excellent enterprise personnel who are suitable for industrial upgrading, so as to ensure the ability of technology embedded for the implementation of new schemes.

## 5. Conclusion

From the perspective of the new industrial revolution, in order to promote industrial upgrading and to train highly skilled personnel of the vocational to adapt to the upgrade, we have attempt to construct a new practice environment for the in-depth reform of vocational education to adapt to industrial upgrading, that is, the industry-education community. We have done a lot of pioneering work on the "deep integration" between industry and education, made a lot of hard efforts and obtained gratifying results. In the new platform of middle-high vocational connected education built based on the industry-education community, it has not only developed, but also made real progress and substantial practical gains.

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