

Research on the Influence of Modules of Employable Skills on the Cultivation of Applied Talents

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Keywords: Employable skills, Cultivation, Applied talents

Abstract: MES training modules refers to a Module in which each module is subdivided into learning units, and the learning content of each learning unit is arranged according to the skill requirements of the module. It can add new content and remove old content in a short time, and students can also choose majors and future jobs according to their own interests and hobbies. Achieve small goals and finally achieve big goals. This training module can fully mobilize students' learning enthusiasm. At present, although this training module has been introduced in China, there are still some explorations limited to a certain course or a type of courses. In view of this kind of situation, this paper analyzes the problems arising from the popularization of MES module as a whole.

1. Introduction

The Modules of Employable Skill (MES) has two basic core concepts, which are Module (MU) and Learning Element (LE). Module refers to the work elements that divide a job into different types, and each module is composed of several learning elements. The learning elements formally refer to the ways and means of implementing modular training and cases handling, and the learning elements are composed of learning objectives, learning contents and progress check. By studying each learning element, it can be systematically combined into modules. MES training module is composed of these modules, which improves the learning efficiency, avoids the confusion of knowledge and deepens the memory of knowledge.

2. The Concrete Application of Different Kinds of Talent Training Modes in the Process of Cultivating Applied Talents in Colleges and Universities in China

(1) In 2003, Hefei University borrowed the idea and practical experience of running a school from German University of Applied Sciences, established the orientation of “Locality, applicability, internationalization”, and trained a large number of applied talents for local economic and social development at that time. [1] The brand-new orientation of running a school put forward by Hefei University was very innovative at that time. Borrowing from foreign applied universities with rich teaching experience, Hefei University reformed the education mode at the stage when China was in urgent need of applied talents, greatly promoted the development of applied talents, and turned China from a major power with discipline talents to a major power with applied talents.

(2) In 2015, Harbin campus of Harbin Institute of Technology implemented the MOOC+SPOC mixed teaching method in the course of “C Language Programming”, and Zhongnan University of Economics and Law began to implement the MOOC+SPOC mixed teaching method in the course of “Internal Control and Risk Management” in 2017. MOOC (Massive Open Online Course, MOOC (Massive Open Online Course) relies on modern information technology to share excellent educational resources in order to maximize the benefits of education scale. SPOC (Small Private Online Course) is a small-scale online course, that is, online learning based on certain knowledge, which is generally understood as a certain range of learners with similar learning background or conditions, and a certain range is regarded as a specific major or class. MOOC+SPOC mixed teaching organically combines online and offline teaching modes, which requires students to have strong self-study ability and creativity. Higher-level students benefit more from this teaching mode, which not only gives them the opportunity of self-learning, but also consolidates their knowledge by combining offline teaching properly.

(3) Taking the experimental teaching mode reform of “Industrial Network Technology” course for electrical engineering and automation major of Tianjin Sino-German University of Applied Sciences as an example, Li Rui and others put forward “Experiential Teaching Reform Research Based on CDIO Concept”, and Xie Jianhong put forward “Project-driven Teaching Reform Research”, focusing on the development of training projects, subdividing the post skills requirements under the current industrial environment based on MES concept, and supporting the design of modular special training projects, so that students can quickly understand and master all kinds of knowledge and skills. [2] MES talent training module, using modular learning method to deepen students' understanding of knowledge in the process of professional course learning, so that students can better apply their professional knowledge in the practice process, and the practice effect is naturally improved. It has certain practical significance for the training of professional applied talents.

3. Comparison between the Original Methods Used by Chinese Universities in Training Applied Talents and Mes

	MES training module	3+1 Applied talent training model
Concept	IA vocational and technical training model developed on the basis of collecting and studying various advanced training methods in developed countries.	Students as the main body of the 3+1 talent training model, the process of training students into professional people.
Occurrence time	In the early 1980s	At the beginning of the 21st century
Emphasis	On-the-spot teaching, skill training as the core, and paying attention to completing post tasks.	Expand skills training and education, comprehensive ideological quality, professional knowledge and professional skills.

At present, the “3+1” talent training model is widely used in colleges and universities in China. The “3+1” talent training model, that is, four-year undergraduate students in ordinary colleges and universities, first go through three years of systematic study of professional knowledge, and then go to professional-related enterprises or training bases for internship in the last year, so as to improve their practical and innovative ability. The three-year systematic professional study in school includes theoretical and experimental courses such as basic courses, public courses, professional basic courses, professional courses and elective courses, as well as practical teaching. In the training model of 3+1 applied talents, the lack of theoretical knowledge and the lack of mastery of key contents are not conducive to practice. And because of too many courses offered every semester, there may be unreasonable convergence of courses. More class hours per week also leads to the reduction of students' extracurricular activities, and insufficient time to participate in other activities,

which is not conducive to students' all-round development, and will also bring a certain amount of pressure to students. In addition, due to the students' internship outside the school in the last year, it is difficult for the instructors of graduation thesis in the school to guide the whole process, which has a certain impact on the completion and supervision of graduation thesis. However, MES training module pays attention to modular skills training. In the process of professional learning, students learn professional knowledge modularly in combination with actual cases, that is, students can come into contact with cases or situations that they can only come into contact with at work during their school study, and their practical ability is constantly enhanced during the learning process, and students can clearly suit their professional direction during the learning process. The stronger practical ability can get started with one's own work at the first time in work, and will also be better beneficial for future employment, thus avoiding some students blindly following the trend of major, and finally being at a loss or even unable to find a job due to lack of interest and no clear goal.

4. Changes Brought by Mes Module to Chinese Colleges and Universities

In recent years, China has made great efforts to develop, its economic strength has continued to increase, and the demand for high-end technical talents has also continued to increase. Compared with the talent training system already formed in Britain and America, China is in the development stage in training applied talents. Since 2011, domestic famous universities such as Tianjin University, Zhejiang University and Shandong University have successively set up experimental classes for applied talents such as “Excellent Engineer Class” and “Zhan Tianyou Class”. In the same year, the country introduced the collaborative innovation strategy. [3] It can be seen from this that Chinese colleges and universities are adopting certain strategies to better train a large number of applied talents to meet the needs of China's development. After receiving the strategic support from the national government, more and more colleges and universities are transformed into high-level applied universities, instead of focusing only on academic research. Many colleges and universities will focus on the practical application of professional reform. Taking the accounting major with higher requirements for practical application as an example, the MES modular teaching of accounting major mainly aims at the comprehensive understanding of the professional quality needs of accounting talents in enterprises, and on this basis, carries out targeted teaching, and mainly directs at different functions of different accounting professional needs, such as the cost accounting module of industrial enterprises, the financial statement analysis module of listed companies, etc. At the same time, in the whole teaching process, the MES modular teaching is student-centered, developing various teaching models, makes full use of information technology to access information; the general teaching form of accounting is based on theoretical teaching, although it also has practical teaching, lacking the connection with enterprises, it's not highly targeted in teaching, and is rather general. It is mainly through passive teaching model, and teachers teach relevant contents by telling. [4] We could see that MES has brought great changes to applied majors in Chinese universities. Under the influence of MES, universities and enterprises in China are closely connected. Universities have a deep understanding of the needs of enterprises. Therefore, the professional curriculum is more targeted, and students are the leading factor in the teaching process, so that students can take the initiative to go deep into their studies. Teachers can further develop relevant teaching according to the needs of students, not only to make students understand knowledge more thoroughly, but also to improve students' practical ability greatly. So that our colleges and universities not only have sufficient theoretical knowledge, more important is to be able to combine theoretical knowledge for skilled use of good practical ability. Because of the full contact with enterprises, colleges and universities have a certain understanding of the social status,

enterprise needs and domestic and international economic conditions in the process of cultivating talents, and the related teaching is advancing with the times, which is not the same. Therefore, enterprises can directly connect with universities and recruit these graduates, who can meet the needs of enterprises, inject fresh strength into enterprises, and promote the development of both enterprises and national economy. The MES training module seems to bring only changes in teaching to Chinese colleges and universities, but in essence it brings changes in ideas, changing the original concept of “emphasizing academic diplomas and neglecting vocational skills” [5], which makes Chinese colleges and universities realize the importance of cultivating applied talents, meeting the needs of society and enterprises, and solving the problem of difficult employment for graduates to a certain extent, it has a self-evident impact on China's development.

5. Enlightenment of China's Future in the Process of Cultivating Talents

5.1 The Government Should Give Strong Policy Support to Cultivating Applied Talents in Colleges and Universities.

The local governments should give certain support to colleges and universities. The cloud platform of Huzhou's enterprise-related policies in Huzhou City, Zhejiang Province shows that Huzhou City “supports local colleges and universities and leading manufacturing enterprises to build a batch of key disciplines and majors in seven key industries, and supports the in-depth promotion of the construction of characteristic colleges facing key industries. Encourage local colleges and universities to deliver high-quality applied talents and high-skilled talents to our city's enterprises, and give 800 yuan rewards for every graduate delivered, in which senior workers and above will be rewarded by 2000 yuan/person, and the highest reward for each college every year will not exceed 500,000 yuan. A large amount of investment is inevitable in cultivating applied talents in colleges and universities, and capital investment is needed in introducing teachers, building teaching facilities and purchasing related materials. Policy support such as Huzhou Municipal Government can encourage colleges and universities to train applied talents better, and colleges and universities can actively establish contact with enterprises and deliver high-quality talents to enterprises.

5.2 Enterprises Can Directly Connect with Relevant Universities to Recruit Graduates for Employment.

In the Opinions of the General Office of the State Council on Deepening the Integration of Production and Education issued by the General Office of the State Council in 2017, it was clearly pointed out: “School-enterprise cooperation, cooperation in educating people. Fully mobilize the enthusiasm and initiative of enterprises to participate in the integration of production and education, strengthen policy guidance, encourage first-hand trials, promote supply and demand docking and process reengineering, and build a long-term mechanism for school-enterprise cooperation. “[6] Nowadays, many colleges and universities have oriented majors. It means that students have already determined their future employment units when studying oriented majors. Orientation majors are a way of cooperation between enterprises and universities. Enterprises can establish a good cooperative relationship with universities. For example, enterprises can provide relevant resources and materials for universities to help them carry out targeted teaching and solve professional problems encountered in the teaching process. At the same time, enterprises can also put forward their own needs to universities, which can train corresponding talents for them, deliver relevant talents to enterprises and solve employment problems for graduates.

5.3 In Addition to the First-Tier Cities, More Cities with Development Capabilities Should Introduce Attractive Talent Policies.

Of course, the development in China will not be limited to first-tier cities. More powerful cities should introduce talent policies like first-tier cities to attract high-quality talents to seek their own development, which will not only drive the development of cities, but also drive the development of national economy. Only with sufficient attraction can the city attract a certain number of talents. In April 2019, Hangzhou, Zhejiang directly announced that “full-time college and above talents can be settled in one month of social security!” According to the data of Zhejiang Live Network, the population growth of Hangzhou in 2019 is about 554,000, ranking first in China! At present, in Hangzhou, one month's social security for undergraduates under 45 years of age, one month's social security for junior college students under 35 years of age, master students under 50 years of age and doctors under 55 years of age can be settled directly, as well as professional titles, skills and points. In addition, fresh graduates above undergraduate level in the world are provided with one-time living allowances: 10,000 undergraduate students, 30,000 master students and 50,000 doctors, and rental subsidies of 10,000 per year, which can enjoy up to six years. In terms of subsidies for graduates, Hangzhou has made great efforts to attract a lot of talents. Second-and third-tier cities should also follow the talent introduction policies of first-tier cities like Hangzhou, and they do not have to subsidize graduates as much as Hangzhou, but they will certainly be able to attract enough talents in other aspects such as housing purchase, medical insurance, social security, etc. The development pressure of first-tier cities cannot be borne by many people, so as long as second-and third-tier cities introduce a talent policy full of sincerity, they will certainly be favored by talents.

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