

Highlights of Danish Vocational Education Mode and Its Enlightenment to China

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Abstract: Vocational education has an early start in Denmark, which has attained fundamental maturity after five stages of development in general. The Danish government regards vocational education as an important part of the implementation of the strategic goal of national lifelong education, and in turn it's distinct and highly developed vocational education has become an important pillar of the industrialization and modernization of Denmark. It has trained many students that meet the social requirements, matching the demand for talent with the requirements of post. This article mainly expounds the measures taken by the Danish government to encourage the development of vocational education in the country, summarizes its successful experience and puts forwards some reform measures which can help to promote the development of vocational education in China.

Keywords: vocational education; Denmark; teaching; training; employment.

1. INTRODUCTION

Denmark's highly developed economy and great achievements in science and technology have largely benefited from its constant emphasis on education, especially vocational education. Since the late 1980s, the Danish government has taken vocational education as an important part of the implementation of the strategic goal of national lifelong education and has gained remarkable achievements. The vocational education in Denmark is closely integrated with the labor market, and a large number of practical talents have been trained for the society. [1] Vocational education in China has now entered a critical stage when striving for rapid development as it is facing the coexistence of various deep-rooted contradictions. This paper draws on the successful experience of the implementation of vocational education mode in Denmark, proposing some reform measures to promote the development of vocational education in China.

2. DEVELOPMENT OF VOCATIONAL EDUCATION IN DENMARK

Vocational education in Denmark gradually developed with the apprenticeship model as early as in the fourteenth century. In the middle of the nineteenth Century, a perfect unified industrial certification and assessment standard came into being progressively. Along with the continuous development of national economy, Denmark has gradually improved and perfected its education system and embraced the idea of national lifelong education, which has been set as the goal of vocational education as well. In terms of policy, the Danish government has also trained a large number of practical talents for the country through reforms that combine vocational education with the labor market. [1]

Currently, the mode of vocational education in Denmark has been reformed to carry out individualized teaching and training and to stimulate the enthusiasm and initiative of students' learning in accordance with the needs of individual students. The content of vocational education has also been adjusted and merged from the original 90 majors to 85 specialties within 7 disciplines after the reform, namely technology and communications, architecture, handicrafts and engineering, food production and catering and entertainment, mechanical engineering and transportation, services, and business (including trade, secretarial work and finance). [2]

3. DANISH VOCATIONAL EDUCATION MODE AND ITS HIGHLIGHTS

3.1 Vocational education mode in Denmark

Vocational education in Denmark is mainly carried out in two forms. One is phased training, which divides vocational education into two main stages: basic stage and professional stage. The specific curriculum includes public basic, career guidance, psychological counseling, tutoring, elective courses, and so on. Moreover, alternation of work and study is implemented in the stage of professional course learning. The other is to actively carry out modular curriculum, dividing all the course content into modules composed of several units, which facilitates students to choose different learning contents according to their personal learning plan. The law came into force in January 1, 2001, aimed at promoting the innovation of vocational education system and at improving the quality of vocational education, in addition to training talents, as well as encouraging enterprises and schools to organize interactive learning activities. In the same year, the Danish Ministry of Education promulgated the Vocational Education Reform Plan 2000, under which a comprehensive reform of vocational education was carried out. Through the reform and promulgation of a series of laws and regulations, vocational education in Denmark has achieved rapid development, forming a sound system of both education and employment security. Its structure has been perfected through continuous reform, from the original apprenticeship gradually developed into the current system, mainly including three parts as below. [2]

The first part: basic education, specifically including commercial and technical training (accounting for 90%), social services and health training, agricultural training and marine technical training, which are independently managed by the shipping department. The basic

education is divided into two stages, namely basic learning and professional learning. The learning time is generally 3~4 years, of which, students spend 1/3 of the time on studying in schools, 2/3 of the time in enterprise training.

The second part: continuing education is for both skilled and unskilled workers over 20 years old. This part implements modular course management, that is, the whole training courses are divided into several relatively independent units, and the learning outcome of partial courses are authenticated. Thus, the training flexibility is increased while the practical link in each module accounts for a considerable proportion. The courses are divided into 5 groups: The first is ability courses, the core of vocational continuing education courses, which are attended by a number of participants. The second is comprehensive courses, which mainly provides long-term comprehensive training for the employed, the unemployed or the immigrants. The third is personal courses, which mainly provide professional competence identification and occupational guidance for both the employed and the unemployed. The fourth is specialized courses, set up for special needs of some enterprises. The fifth is education courses, to improve social adaptation and vocational conversion abilities of persons who lack social adaptability at the age of 18~25 years old and aims to improve their social adaptation and vocational conversion ability.

The third part: third-tier vocational education, with a two-year program, is provided by various kinds of vocational colleges.

3.2 Highlights of Danish vocational education mode

3.2.1 Student-oriented educational idea

First of all, from the aim of vocational education in Denmark, it can be seen that the vocational education in Denmark fully considers the individualized characteristics of the students, which fully embodies the idea that vocational education is for everyone. It enables students as many as possible to find a suitable space for their own study and development while rendering it possible for the educational cause to pay attention to everyone.

Secondly, such a mode lays emphasis on teaching students in accordance with their aptitude, organizing teaching according to their wishes, interests and original knowledge base. In its implementation, each freshman has to work out a personal education plan under the guidance of the school, which includes all the courses, training and time arrangements required for the completion of the whole learning process. Individual education programs can enable schools and enterprises to provide teaching and training as far as possible in accordance with the wishes and requirements of students, so as to maximize the achievement of teaching students in accordance with their aptitude. What is more important it is that these programs can help students to become conscious and proactive in completing their learning programs?

Thirdly, it takes more flexible measures to evaluate the students' professional qualifications. For students who have poor academic performance and are difficult to complete all the teaching plans, a partial qualification system is implemented, that is, when a student has completed part of the whole education plan, he or she is permitted to take part in the test and will be granted the qualification certificate if qualified. All the students who have obtained partial

professional qualifications, as their professional abilities are recognized by the industry committee, are qualified for job hunting and employment. For those students who want to continue to go to school for a higher grade, they will be provided with more general knowledge courses in the basic learning stage. In addition, more teaching hours will be spent on tutorials for such courses in each study stage according to the requirements of college entrance, creating conditions for students who want to continue their learning for a high degree. [3]

3.2.2 Embodiment both basic theoretical and professional knowledge

Danish vocational education attaches importance not only to vocational basic skills training, but also to general knowledge learning. Taking the curriculum of electrical majors as an example, the proportion of each kind of courses is as follows: basic courses account for 34%, professional basic courses account for 37%, professional courses account for 14%, and elective courses account for 15%. The professional curriculum of vocational colleges in Denmark is to combine theoretical and practical education in the school with practice in companies, enterprises and businesses. The two are carried out alternately, with explicitly defined hours. And each of them has clearly defined hours. (Note: In Denmark, only when enterprises have attained a certain level of technical education and can provide a variety of exercise opportunities for students according to the occupation chosen by the students will they allowed to receive trainees.) [2]

3.2.3 Stress on practical learning

Theoretical education and practice are stacked together within the four-year program, known as implementing the “sandwich mode”. Most of the majors are set first to receive 1~2 years of theoretical education in the school, and then to the enterprise for practice. Students of certain specialties can first go to the business for practice, and then return to the school to receive theoretical education. The educational process emphasizes practice and operation. Students do practice work in the internship on the basis of contract system and work in enterprises and departments with paid apprenticeship. This specialized course content helps to stimulate the enthusiasm and initiative of students, to increase learning flexibility, to establish the connection between vocational education and continuing education, and to authenticate part of the study results. Therefore, the students can change their professional direction at any time according to their employment need and personal interest. In addition, the running system and curriculum setting of a vocational school in Denmark are determined by its board of trustees, which is constituted by trade union representatives, enterprise representatives and school representatives, who are all entrusted with an important task as to study the development and construction of the school in collaboration. The enterprise representatives provide information of the demand for talents; the school teaches and trains the students according to the requirements of the enterprise; and the trade union of the industry checks if the teaching quality of the school hits the mark in the assessment before allowing the qualified to enter the labor market. Because theory learning and practice training are closely linked, students can apply theory to practice in time and master professional skills. At the same time, the school works closely with employers to make vocational education close to the demand of the labor market,

and to adjust the learning content constantly according to the needs of the society to ensure the recognition of the professional qualifications from various employers. This is why the unemployment rate in Denmark has been remaining at a low level for a long time. [1]

3.2.4 All-round educational quality guarantee system

First of all, the mode focuses on the legislation of vocational education and the training of teachers specialized in both theory and practice. The Danish government has always regarded vocational education as an important part of the national public service. On the one hand, it has constantly improved and perfected the laws and regulations of vocational education, guaranteed the smooth implementation of vocational education, continuously introduced various reform measures and plans, and improved the quality and efficiency of vocational education. On the other hand, the state uses the most advanced equipment in teaching and training of vocational schools, improving teachers training, constantly improving their ideological quality and teaching practice so as to make them specialized in both theory and practice, i.e., teachers who can both teach theoretical courses and guide practice for the students. The Danish government recognizes the important role of teachers in the curriculum reform of vocational education, and requires all in-service teachers to be able to teach, to instruct and to learn at the same time, in addition to having individualized teaching ability. Secondly, the mode integrates government guidance, social support and active industry participation. In vocational education, the National Vocational Education and Training Council at the state level provides advice to the Minister of education in terms of the purpose, structure, entrance conditions, qualification assessment and quality assessment of vocational education, and plans and coordinates various consultative guidance activities; the national committees in various industries are responsible for giving advice on determining the content, structure, term, syllabus and assessment of vocational education. At the local level, local training committees help vocational schools develop syllabus and provide guidance on all school affairs to help them strengthen the tie with the local labor market. Various industries and social organizations actively participate in providing social support for students' employment, hence ensuring a smooth implementation of the employment security plan. [3]

4. ENLIGHTENMENT OF DANISH VOCATIONAL EDUCATION TO CHINA

Vocational education in China is now at the critical stage striving for rapid development as it is facing the coexistence of various deep-rooted contradictions. The progress of the time and social development shows that the development of vocational education is not only an urgent need for promoting industrialization and modernization, but also an important way to improve social employment, to solve the issues concerning agriculture, and to build a harmonious society. On the issue of the development of vocational education, it is necessary to draw on the successful experience of the development of professional education in Denmark, and to formulate a practical and feasible development plan in the light of the fundamental realities of the development of vocational education and of the basic conditions in China.

4.1 To attach great importance to vocational education

Vocational education can continuously provide high-quality talents for modernization. Therefore, the state must attach importance to and vigorously develop vocational education. First, the issues should be well dealt with in terms of the relationship between vocational education and the development of general education, changing the backward concept, formulating practical measures to develop vocational education, and deepening the reform of vocational education system so as to boost healthy and rapid development of vocational education. Secondly, both the legislation and the legal security system of vocational education should be in order to further regulate the development of vocational education. Thirdly, the financial input of vocational education should be increased. The government and education authorities should formulate a reasonable financial investment plan for vocational education according to the national conditions and the actual situation in all parts of the country, and ensure its implementation by policy. Vocational education must be closely combined with production practice. [4]

4.2 To integrate practical work into vocational education

Current social development requires that the talents trained in vocational education should not only master the professional technology in a certain industry, but also have certain theoretical basic knowledge. In view of the current situation of the development of vocational education in china, first of all, the vocational education personnel training system should be further standardized and improved. Meanwhile, the majors should be set to meet the needs of social development while the curriculum structure should be adjusted reasonably. Secondly, the practical teaching link should be strengthened, combined with the actual social production, to form a teaching mode of integration of theory and practice. Thirdly, a closer tie of cooperation between school and enterprise should be established, setting up training bases for outside school practice and training, where the students can apply the theory learnt in the classroom to practice, consolidating theoretical knowledge and mastering practical operation. [5]

4.3 To establish an effective quality guarantee system

An effective quality assurance system must be established in order to ensure the quality of the technical talents trained in vocational colleges. The government should actively strengthen the external and internal management of vocational education, establish an effective quality guarantee system, and cultivate more qualified professional and technical personnel for the economic development of China. First of all, both the education authorities and the vocational colleges should pay more attention to the training of teaching staff, that is, training teachers specialized in both theory and practice in accordance with the development of vocational education. Secondly, they should improve school management, fully tap the potentials, give full play to human resources, financial support, and properties and equipment, constantly improve education quality and running efficiency, and make an effective training program for talents. Thirdly, they should continuously strengthen the management of vocational education institutions through qualification certification, policy guidance, external management, quality assessment and other measures. [6]

4.4 To improve employment of vocational college graduates

Effective measures must be taken to ensure the employment of the educated. China is now in a period of social transformation, with outstanding contradictions in all aspects. We should draw on the successful experience of the Danish government to make employment guarantee measures to solve the employment of the educated, to formulate feasible and effective employment guarantee measures, and to promote the employment of vocational college graduates in favor of social stability, economic development and harmonious society building. [5]

5. CONCLUSION

In summary, vocational education mode in its implementation in Denmark is mainly carried out in two forms: phased training and modular curriculum. Its highlights lie in four aspects: (1) the student-oriented educational idea runs through the mode; (2) it embodies both basic theoretical and professional knowledge; (3) it stresses on practical learning; and (4) it has an all-round educational quality guarantee system. Vocational education in China has now entered a critical stage, facing the coexistence of various deep-rooted contradictions. Aiming at striving for rapid development, vocational education in China should, as this paper has suggested, draw on the successful experience of the implementation of vocational education mode in Denmark. The Chinese government and education authorities should: (1) attach great importance to vocational education; (2) integrate practical work into vocational education; (3) establish an effective quality guarantee system; and (4) improve employment of vocational college graduates.

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