

# *The Development Strategy of Vocational Education Based on Outcome-Based Education*

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**Abstract:** As a type of education, vocational education is as important as general education, and it is an important part of Chinese education. However, vocational education has problems such as weak adaptability, which restricts the high-quality development of vocational education in China. This paper with achievement oriented education concept and vocational education integration as the starting point, in order to promote the high quality development of vocational education as the goal, from the government, school, enterprise three dimensions research vocational education development strategy, strengthen the government policy support, the main implementation of vocational colleges, enterprise industry win-win cooperation, build a "trinity" higher vocational education development strategy, to implement the new vocational education method and vocational education development in China to provide intellectual support.

## 1. Introduction

With the high-quality development of China's economy and society, the demand for all kinds of talents is constantly increasing, and the establishment of a vocational education system for lifelong learning has become an inevitable trend of social development. In today's international and domestic situation, cultivating professional talents to adapt to the development and construction of socialism with Chinese characteristics is the foundation to promoting the rapid development of all walks of life in China, and vocational education is becoming more and more important. In the [1] of the Implementation Plan of National Vocational Education Reform issued by The State Council in January 2019, it is made clear that vocational education is a type of education as important as general education and an important part of China's education system. On May 1, 2022, the implementation of the vocational education law of the People's Republic of China [2] in the form of national law further defined the concept of vocational education, positioning, implementation, running system, management system, etc., in the form of perfect law for vocational education, is crack vocational education development problem strong national strategy.

In recent years, domestic scholars and vocational education practitioners increased the vocational education theory and practice research, through a lot of research and practice found that vocational education such as social recognition is not high, cannot meet the needs of the industry, boils up to the adaptability of vocational education is not strong, also cannot support the high quality

development of vocational education. Scholar Zeng Tianshan, pointed out that the core essence of enhancing the adaptability is that vocational education should actively adapt to the development of the industry, integrate learning and application, and integrate learning[3]. Vocational education must closely combine the talent chain with the industrial chain, education chain and innovation chain, and pay attention to the output of educational achievements. Many vocational colleges in China have introduced the concept of outcome-based development into education and teaching, and promoted the reform of vocational education from the school level, and achieved certain results. However, based on the achievement orientation, there are not many achievements in studying the development of vocational education from the three dimensions of government, schools and enterprises. This paper tries to carry out the development research of vocational education based on the trinity and coordinated development of the outcome-based education concept, hoping to provide some intellectual support for the development and construction of vocational education in China.

## 2. Overall Design Ideas

Since the 1980s, with the development of economy and society, people pay more attention to the input and actual output in the field of education, taking the output of educational achievements as the focus of educational evaluation. In 1981, American scholar Spady proposed the concept of "Outcome-based Education" [4], which transferred the evaluation of education quality from education input to educational output. While paying attention to education process management, it pays more attention to educational output and the ability results of talents. After more than ten years of development, the concept of outcome-based education has gradually become the mainstream concept of education and teaching reform in some European and American countries. In 2016, China became the 18th full member state of the Washington Agreement, actively promoting the international and substantially equivalent engineering education professional certification. Its core concept is "Student Centering, Outcomes-based Education, Continuous Quality Improvement". With the development of engineering education certification and vocational education, the concept of outcome-based education is gradually accepted by China's educational circle, and actively promote the localization transformation of this theory, so that it can better serve the reform of engineering education and vocational education development in China [5].

China has made clear the policy guidance of "building a high-quality education system"[6]. As an important part of education, vocational education bears an important historical mission, and its high-quality development is related to the success or failure of building a high-quality education system. In the [7] of China's Education Modernization 2035, it is pointed out that the vocational education service capacity will be significantly improved by 2035. Vocational education must be around the "vocational education service ability to significantly improve" this goal, in order to meet the social development, education development, school development and student development as a starting point, countries, enterprises, schools to build a "trinity" of vocational education system, to implement the national policy system at the same time, innovative vocational education theory, comprehensively promote vocational education teaching reform, build the development of high quality vocational education environment. Using the outcome-based education to design the development link of vocational education is an important way to promote the high-quality vocational development. The specific link chart is shown in Figure 1.

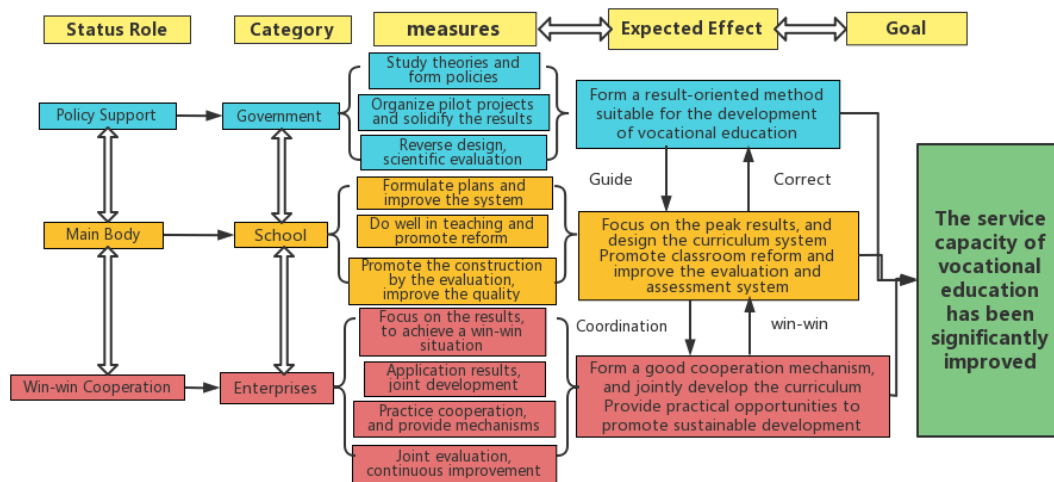


Figure 1: Outcome-based vocational education link diagram

### 3. Strengthen the Orientation of Government Functions to Provide a Guarantee for the Application of Outcome-Based Education

Outcome-based education concept in domestic gradually by some universities in professional construction, curriculum system construction education teaching reform, the Ministry of Education will also apply this theory in engineering professional certification, but in the local government to outcome-based education use is not too much, to a certain extent, in the implementation of national policy level, change the government education function role, guide more vocational colleges to achievement oriented education teaching reform, is an important way to promote the development of vocational education.

#### 3.1. Strengthen Theoretical Research to Provide Support for the Implementation of Outcome-Based Vocational Education Reform

The concept of outcome-based education is rich in connotation, which must be localized to adopt this concept. First, we should study the theoretical connotation of results-oriented, especially to increase the localization, to achieve theoretical integration and content innovation, with strong operability and practicality. Second, we should study the positioning of the government, schools, enterprises, students and their parents under the outcome-based education theory, clarify their respective "responsibilities, rights and interests", clarify the positioning of the future vocational education to serve the society, give more social recognition to vocational education, and strive to solve the problem of educational equity. Three is to study the construction based on achievement oriented using vocational education model, using artificial intelligence, big data and other modern science and technology, considering social and economic development and student growth needs, achievement oriented theory into vocational education model algorithm, the wisdom of vocational education experts into power, with the existing vocational education data build training model need data, build the model to implement "algorithm" "power" "data" perfect matching, provide a reference model for vocational education teaching. Fourth, we should study the evaluation system, establish an evaluation system based on the growth of students, adopt different evaluation methods for different schools, promote the implementation of the continuous improvement of schools and students, reduce excessive administrative interference, and ensure that schools spend more energy

in improving and improving education and teaching.

### **3.2. Strengthen Policy Guidance, Organize and Carry Out Trials of Outcome-Based Vocational Education Practice**

On the basis of in-depth research on the outcome-based theory, the government has issued policies and systems to guide vocational colleges to carry out the outcome-based education and teaching reform. Early department of education can mandatory choose some schools for pilot reform, selected schools should have certain representative, can pilot according to the regional and school type, higher vocational colleges and provincial colleges, secondary vocational schools to the vocational education center as the focus of the pilot, in achievement oriented theory application of vocational education. Summarize the pilot work, improve the outcome-based education model and evaluation system through the reverse design, and lay a foundation for the comprehensive promotion of the outcome-based theory.

### **3.3. Improve the Evaluation System and Effectively Promote the Application of Achievements in Outcome-Based Vocational Education**

On October 13,2020, the CPC Central Committee and The State Council issued the [8] of the Overall Plan for Deepening the Reform of Education Evaluation in the New Era, which is the first reform document of the education evaluation system in New China. It is a programmatic document for deepening the reform of education evaluation in the new era and the baton of education evaluation. The overall plan is basically consistent with the evaluation concept and the outcome-based concept, and it is an important measure to break down from the "five only principles" in the education circle. It is an important task [9] for the education authorities to actively build the vocational education evaluation system according to the overall plan. First, further define the contents of the proposed evaluation results, scientifically define the scope of the evaluation results, and establish the evaluation goal orientation; second, construct a scientific and reasonable school evaluation index system, construct the index system according to the outcome-based education theory, promote the evaluation concept of "continuous improvement", emphasize the combination of vertical evaluation and horizontal evaluation, and construct the school evaluation system based on the future development.

## **4. Vocational Education Colleges Take the Initiative to Promote the Practice of Outcome-Based Education and Teaching Reform**

Under the background of the government's continuous functional transformation, vocational colleges are the main body of promoting the outcome-based education and teaching reform, and they are the key to the implementation of the outcome-based educational practice. As a vocational college, all the faculty and staff must accept this idea ideologically, break the existing education and teaching mode, reposition the education and teaching methods of the type of education, and break the inherent concept and the long-term practice, which is more difficult. Therefore, the college level must unify the thinking, overcome the pain brought by the reform, and use the outcome-based education theory in the formulation of talent training programs, teaching reform, school evaluation and other aspects.

#### 4.1. Strengthen the Design of Talent Training Programs, and Establish a Mainly Outcome-Based Talent Training System

Vocational education colleges and universities should establish a rational evaluation mechanism of talent training, improve the talent training program, and establish a mainly outcome-based talent training system. Using the concept of outcome-based education to formulate talent training programs can solve the problems of insufficient systematic talent training programs in current vocational colleges, unclear training objectives and specifications, and insufficient support for the training system objectives and specifications of the curriculum system. When formulating talent training programs, vocational colleges should grasp several problems, namely, to fully demonstrate clear learning expectations and scientifically plan students to accurately judge the future student development and social needs according to internal and external needs; third, to ensure the expected learning results, provide scenarios and opportunities, implement personalized teaching, provide a platform for the results, and to objectively evaluate learning results, highlight centered, focus on vertical development, adhere to continuous improvement and reverse design. On the premise of dealing with the above problems, further clear talent training scheme design ideas, one is the overall to strengthen the industry standards and future talents need to lead, vocational education talent training program to docking enterprise industry standards, at the same time to pay attention to students' future growth needs, firm development foundation, accurately set the peak results. Second is to highlight the practice application reconstruction curriculum system, students 'knowledge, ability and quality structure by the curriculum, the course is the core of talent training, according to the principle of achievement oriented concept reverse design, highlight students' practical ability training, invite industry experts in related fields to participate in the curriculum system construction, specific curriculum system construction work process see figure 2. Third, we should innovate the talent training mode, take school-enterprise cooperation as a platform, create real working scenes and opportunities for students to achieve results, change the traditional teacher-oriented teaching method, highlight the main position of students, and establish a modern apprenticeship system.

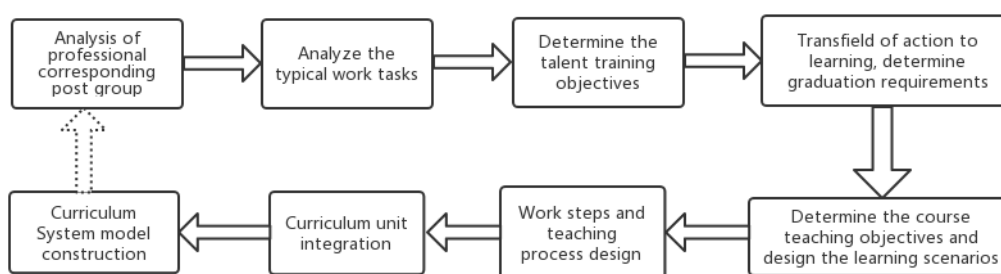


Figure 2: Working process of curriculum system model construction

#### 4.2. Build a "Student-Centering" Outcome-Based Vocational Education Teaching Mode [10]

As the main body of education, the training quality of students can directly reflect the quality of school education and teaching and the ability to serve the society. Vocational colleges to introduce results oriented education theory, led by the teacher teaching mode to the students as the center of the teaching mode, the teaching mode key mining students 'internal characteristics and needs, highlight the "learning", with students need growth ability and quality of teaching design and evaluation, pay more attention to the students' overall quality development. The school should make each student clear about the training goals and design personalized training plans to provide the

necessary scenes and opportunities for students to grow up. Student-centering talent training mode, put forward higher requirements for teachers and managers, to improve the level of education teaching, at the same time, to actively transform role, become the education teaching guide and service, inspire students' independent thinking, guide students to complete practice, stimulate students' creativity, exercise students' independent thinking and critical thinking, actively promote the reform of classroom teaching. Students should actively carry out independent learning under the guidance of teachers, give full play to their subjective initiative, and develop independent learning habits. School perfect the examination form, the students to realize diversified assessment, from pay attention to score assessment to pay attention to the ability assessment, pay attention to the training and use of teachers, establish corresponding consistent with achievement oriented education concept of teacher evaluation system, change the existing teacher title evaluation and rank promotion rules, provide endogenous power for teachers' development.

#### **4.3. Adhere to Breaking and Development, Improve the Evaluation System of Outcome-Based Vocational Education**

Vocational education based on the concept of outcome-based education is as important to teachers as students [11]. It changes teaching evaluation to learning evaluation and pays more attention to the learning effect. As a vocational school that uses outcome-based education theory to carry out education and teaching reform, it must improve the internal teacher evaluation system under the policy of "delegating power, delegating regulation and service", create a fair, open and reasonable evaluation atmosphere, and take knowledge ability, practical application ability, teaching and education level and personal performance as the assessment content. The evaluation of students pays more attention to the vertical evaluation of individuals, establishes a student-centered multi-party linkage evaluation mechanism, and builds the comprehensive evaluation system of talent training through the objective evaluation index system of students' future development. The establishment of a digital evaluation platform can timely feedback the evaluation results to teachers and students to facilitate continuous improvement.

#### **5. Promote the Integration of Industry and Education with the Outcome-Based Education, and Explore New Models of School-Enterprise Cooperation**

Vocational education mainly trains skilled personnel and trains future big-country craftsmen. School-enterprise cooperation and the integration of industry and education are important ways to train talents. The application of outcome-based education theory is inseparable from the design of peak results, education and teaching implementation, and achievement evaluation. Exploring the new mode of school-enterprise cooperation based on outcome-based is an effective means to solve the disconnection between the current vocational education talent training and the industry.

##### **5.1. Focus on the Results, to Achieve a Win-Win Situation**

At the present stage, there is a phenomenon of school-enterprise cooperation with unclear goals, mere formality, and insufficient attention to individual students. Some cooperation only allows students to practice in enterprises. The content of the internship is not connected with the education and teaching system, so that students can become cheap labor force, which is not conducive to the growth of students. Focusing on the results can make schools and enterprises pay attention to the ultimate goal. Schools can train talents for enterprises in the order style, and carry out the formulation of training programs, education and teaching implementation, practice and assessment around the final result goal, so as to cultivate the skilled talents needed by enterprises, and achieve a

win-win situation between both the school and enterprises.

## **5.2. Reverse Design, and Jointly Develop the Curriculum**

According to the final results, both sides should build the curriculum system, knowledge and ability module in reverse. In the design process, practicality, application and creativity should be fully considered, so as to meet the needs of the industry as the evaluation standard. Strengthen the integration of industry and education, implement the combination of theory and practice of teaching, so that the enterprise industry experts on the school platform, let the teachers go deep into the enterprise front line, to realize the true learning, true doing, master the true skills.

## **5.3. From Birth to Student, Providing More Learning Scenarios for Students**

The outcome-based education theory is embodied in the successful cultivation of results, and students' learning ability is different, and they cannot achieve the same goal at the same speed. Therefore, students should be guided in flexible ways to ensure the success of the final results. Enterprises should cooperate with schools to provide more scenarios and opportunities for students to grow up to meet the needs of students with different progress.

## **5.4. Joint Evaluation to Promote Continuous Improvement**

Outcome-based vocational education is a continuous improvement process. Schools and enterprises must establish a mechanism of joint evaluation and promote continuous improvement to continuously improve the training objectives with the internal and external requirements, continuously improve the graduation requirements with the training objectives, and teaching activities with the graduation requirements. Schools and enterprises should continuously strengthen cooperation in the continuous improvement of the training objectives, graduation requirements, and education and teaching activities to promote the achievement of the final results.

## **6. Conclusions**

Vocational education, as a type of education as important as general education, has attracted more and more people's attention, which is also the key to whether China can build a high-quality education system by 2035. Vocational education must strengthen the service of regional economic development and industrial transformation and upgrading, highlight the adaptability of vocational education, and develop vocational education with high quality. Strengthen the localization of outcome-based education theory research, form with local characteristics of vocational education development theory, from the government, schools, enterprises to promote outcome-based vocational education development, handle the "trinity" relationship between government, schools, enterprises, give full play to their subjective initiative, do seamless connection, cultivate meet the needs of social development skills, to break the new problems of vocational education development and improve the level of vocational education is a beneficial attempt.

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