

# On Capability-Based Requirements of Vocational Curriculum Development

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## Abstract

Since the competency-based curriculum was introduced into China in the early 1990s, it has adapted to the institutional development of our country and achieved unprecedented development. In the course of competency-based curriculum implementation, we encounter the crisis of knowledge based, especially human-oriented curriculum view. But today, the aptitude -based curriculum concept is still the main guiding ideology of curriculum development in vocational colleges. This is because vocational education aptitude standard has the stipulation to the vocational curriculum development. This paper will discuss its regulation.

**Keywords:** competency -based, curriculum development, requirements

Competency-based vocational education to vocational curriculum development. It is the goal of curriculum development. Qualitative specification of course objectives. At the same time, competency-based education frames the value concept of curriculum development. And it has permeated the curriculum development process. Competency-based education also has a certain orientation to curriculum development. As the core idea and principle of vocational curriculum development, competency-based has become the basis and goal of vocational curriculum development.

## 1. Guiding Idea of Vocational Curriculum Development: Competency-Based Vocational Education Concept

### 1.1 Overview of Capability-Based Education Concept

Competency-based vocational education has a long history and was introduced into China in the early 1990s. Abroad, it has a long history of development and its background. It originated from the industrial revolution, after the second World War, along with the behaviorism and humanism orientation, as well as blum's "master learning", popham's "standard reference test", skinner's "procedural learning" and other research results, produced aptitude based vocational education<sup>1</sup>.

Competency based CBE is a modern vocational education concept. It was born in the 1960s to promote a competency-based view of vocational education. Competence-based CBEs have been popular across the country since their introduction in the 1990s. It is different from the traditional discipline based and knowledge based education and emphasizes the cultivation of students' comprehensive vocational ability. It also aims at the combination of knowledge, skills and attitudes required for a particular occupation or occupational group, the requirements of a socio-occupational position, the quantification and segmentation of vocational competencies into modules based on a career analysis, and then course development and implementation training to equip trainees for the profession.

Competency-based vocational education pays more attention to the application of knowledge and skills and the cultivation of practical benefits. Because the ability standard fits our country's situation, the ability factor is especially important in our country's socialist market economy. This is also one of the reasons why competency based is popular in our country.

There are different interpretations of the meaning of the competency standard by domestic scholars, mainly the following:

1) In the education systems of Canada, Australia, etc., competence is an integrated professional capacity consisting of four aspects, namely knowledge, attitude, experience and feedback.

2) Critical Capability-Oriented in the United States: Key Capabilities include five basic capabilities. 1. The ability to make reasonable use of and dispose of resources of all kinds. 2. Ability to handle relationships. 3. The ability to access and use information. 4. Integration and systems analysis capabilities. 5. Ability to use a variety of technologies.

3) According to the Institute of Vocational Education Centres of the State Education Commission, according to the viewpoint of modern vocational education, competence can be divided into two parts: competency structure and competency level. Competency structure consists of professional competence, methodological competence and social competence.

4) Critical Capability Theory: refers to a person's willpower, mental capacity, ability to cooperate, etc. Evaluation of the quality of vocational education should include, as a minimum, the vocational skills, skills and operational abilities of the personnel trained for the position.

In summary, the term "competency generation" refers not only to professional hands-on skills, but also to a combination of knowledge, skills, and behavioral awareness (including work ethic, professionalism, social responsibility, quality awareness, teamwork, and initiative) necessary to perform a particular job (job group).

On this basis, the aptitude based vocational education concept is established. The goal of vocational education is not to be a passive "knowledge store" or a passive "skills robot". A "biological person" can only become a professional person needed by a society after vocational education, but it is not only a pure professional person, but also a social person to survive and develop.

### *1.2 Competency-Based Guiding Ideology for the Development of Vocational Courses*

There are three main factors influencing vocational curriculum development: knowledge, society and individual. The formation of three responses to three vocational education curriculum guidance ideas. Knowledge-based guidelines, competency-based guidelines and personality-based guidelines 5.

Knowledge-based educational curriculum emphasizes the systematization and integrity of knowledge. However, it cannot be used to guide the development of vocational education curriculum because its starting point is not consistent with the orientation of vocational education. The history of the development of vocational education proves that the students trained with knowledge as the guiding ideology of curriculum development have weak practical ability and poor hands-on ability, which is not welcomed by the society. Competence-based vocational curriculum development guidance is a kind of negation of knowledge-based vocational education guidance. It starts from social needs and satisfies the needs of human resources such as industry and commerce. It requires linking the vocational qualification of a job with the training target structure of a vocational education institution, and then breaks down the competencies needed by the job according to this competency analysis table. It is more about the pursuit of competence than the mere transfer of knowledge.

At present, the vocational education curriculum is still the aptitude standard guiding ideology. However, because of its instrumental tendency, it is often questioned by scholars that competence-based vocational education pays more attention to the labor skills necessary for individual survival, neglects the cultivation of human quality and inner spirit, neglects the broader and deeper understanding of human being as a member of society, and only sees the function of human being as a labor force, and neglects the role of human being as a standard. In this regard, adjunct professor Xu Guoqing of the institute of vocational education and adult education of east china normal university has clarified that the aptitude based curriculum concept is constantly questioned and criticized due to some misunderstanding. In fact, the aptitude based curriculum concept is not limited to the specific curriculum model of CBE; its essence is not to emphasize skills over knowledge and tools over people, but rather to recognize the significance of working knowledge for vocational education and to focus on student subjectivity; and its understanding of aptitude is not limited to job skills but has a broader reading.

## **2. The Realistic Basis of Vocational Curriculum Development: Vocational Ability Standard**

Since the competency-based education concept has been popularized and implemented in China, it has become a mainstream vocational education concept in China, under which a responsive competency-based curriculum concept has been formed. Competency-based courses aim to define the curriculum and design the curriculum system based on the competencies necessary for a particular occupation. The core of the curriculum is how to enhance the acquisition of practical skills in order to acquire the comprehensive vocational competencies necessary for a particular occupation. The value pursuit of competency-based courses is to train students' comprehensive vocational ability to complete vocational tasks. Different occupations have different ability structure and standard, vocational ability standard becomes the basis of curriculum structure, curriculum standard, also is the basis of evaluating student ability, measuring curriculum implementation effect. How to

determine the vocational ability standard scientifically is the key basis of curriculum development.

With regard to the determination of vocational competence criteria, it is possible to classify an occupation into a number of functions by means of a vocational competency analysis, thus determining the combined competencies corresponding to each function, the specific competencies for each task, which should meet an observable criterion. It can also be achieved by measuring occupational ability. Through the establishment of vocational aptitude standard, the vocational curriculum development has realistic basis.

Vocational competency standards include competency modules, competency elements, operational standards, scope of application and testing scenarios. Competency standards match the responsibilities of the job and are the value standards for curriculum development and implementation.

On the basis of vocational competence standards, vocational colleges can develop curriculum resources according to their own creative characteristics, reflect their own school and professional talent training characteristics, and can train high-skilled talents with strong practical ability and good work ethics for the production front line, combining production with production.

### 3. Market Orientation of Vocational Curriculum Development

With the rapid development of socialist market economy, vocational school education industry according to its own orientation, face to face with marketization. Vocational curriculum development is also market-oriented, emphasizing curriculum development based on market and social needs. In order to prevent the disconnection between education and actual needs and the waste of educational resources. Vocational education is a special training institution. From the point of view of marketing, it has two market subjects: students, who are the direct service objects of colleges and universities, and enterprises and institutions, who are the ultimate service objects of colleges and universities. It regulates the training structure of talents through the role of market mechanism.

Market-oriented means that the orientation of education is changed from "education experts' to "enterprise experts' ". Competency-based curriculum is a kind of enterprise expert-oriented curriculum, the development of which is mainly decided by the authoritative representatives of the industry. Only the representatives of the industry can best grasp the current and future competency requirements of professional positions for their practitioners. Competency-based curriculum also reflects the view of modern vocational education curriculum from the traditional "educational expert orientation" to "consumer demand orientation". The requirements of industry enterprises for the knowledge, skills and comprehensive quality of highly skilled personnel are taken as the basic basis for curriculum development and construction. If some colleges and universities carry on the curriculum development, one is to pay attention to the detailed and reliable enterprise investigation and the industry investigation; the other is to pay attention to the development of the authoritative and scientific professional teaching standard; and the third is to pay attention to the development of the curriculum standard with regional characteristics and normative.

The marketization orientation of vocational curriculum development is undoubtedly the practice of competency-based curriculum view. In the market demand, the market standard is mainly vocational ability, according to the different market needs, vocational ability analysis, and then into curriculum development objectives, so that vocational curriculum development.

The twenty-first century is a knowledge-based economy based on knowledge, intelligence and innovation. "Knowledge is useful when it becomes ability, and power when it acts upon it." Ability will become the dominant force that dominates and manipulates social and human development in the era of knowledge economy. The knowledge economy era is trying to build a capability society by highlighting the importance of competence to knowledge. Therefore, the further improvement of the people-oriented is based on human ability. The curriculum construction and reform of vocational colleges need to adopt competency-based education, adopt competency-based curriculum reform as the guiding ideology, determine the structure of talents' knowledge and ability, construct the competency-based curriculum model, design the curriculum system and teaching content, and construct a modular curriculum system based on technical application ability and basic quality ability training. This is based on the aptitude standard of vocational curriculum development.

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