

# The path exploration of the combination of “1 + X” certificate system and vocational college skills competition

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**Abstract:** Based on the experience of practical teaching and vocational college skills competition, this paper analyzes the puzzles and coping strategies in the implementation of this work one by one, and tries to combine the implementation of “1 + X” certificate system with vocational college skills competition. Through the scientific setting of relevant courses in the talent training program, this paper optimizes the setting period of each course, and supports each other in the context of knowledge, So as to master relevant skills in a shorter time (within a year), so that students can grow into the seeds of excellent players in the provincial skills competition while obtaining the corresponding “1+x” certificate. Optimizing curriculum design is similar to top-level design, which is a time-saving and labor-saving way to obtain the maximum benefit with the minimum investment. This paper explores the way of education and teaching reform combining the two through a variety of factor analysis.

**Key words:** higher vocational education; Sai Zheng Tong; Practical exploration

## 1. Vocational colleges are docking the “1+x” certificate system with the talent training program

The talent training program is a planning text that guides the value orientation, course selection, teaching methods and evaluation methods of the development, design and development of professional training talents. The teaching method of the “1+x” certificate of vocational skill level is the reform and innovation of teachers’ teaching concepts and methods in vocational colleges. The contents involved in the certificate are modular or project-based teaching, The proportion of professional practice teaching has been increased and the integration of theory and practice has been carried out. Vocational colleges can form the specific text of the “1+x” talent training program according to the characteristics of the major, and combine the vocational skill level standard to be more in line with the modular teaching content, carry out the “three education” reform practice, and integrate the new technology, new process, new rules and new requirements reflected in the vocational skill level certificate into the talent training process, Promote vocational education to actively adapt to the development trend of science and technology and the talent demand of industrial enterprises, deepen the reform of teachers, teaching materials and teaching methods, and improve the ability of vocational colleges to serve the needs of regional economic and social development.

## 2. The following puzzles exist in the implementation of “1+x” certificate system

Implement the “plan for the construction of high-level higher vocational schools and specialties with Chinese characteristics” to build national backbone specialties. Under the pilot of the 1 + X certificate system, vocational colleges should realize that the pilot work is an inseparable whole with the existing education and teaching work, update teaching ideas, correctly handle the relationship between 1 + X, adjust talent training programs, and innovate education and teaching methods, Actively explore new school enterprise cooperation mode and build a “double qualified” teaching team to meet the needs of high-quality compound talents.

In order to further meet the urgent demand of construction development for construction informatization talents and management talents, and enhance the competitiveness of construction industry employees and college students’ employment and entrepreneurship. Through the assessment of vocational skill level certificate, professional teachers teach according to the skill points of vocational skill level certificate, and divide the knowledge points into specific modules or projects to some extent, so as to improve the students’ technical skill level. Through the process of teacher training and assessment, the design of technical skills training module is implemented. However, after analyzing the actual situation of obtaining the “1+x” certificate and participating in the provincial competition of Engineering Cost Specialty in our university in recent three years, we can see that:

### 2.1 the enthusiasm of higher vocational students to register for the examination has declined

With the improvement of the overall education level of the society, the setting of undergraduate majors in various undergraduate colleges has become more and more scientific, the number of students enrolled in various majors has increased significantly, and the number of students planning to upgrade from junior college to undergraduate in higher vocational colleges has increased, which has reduced the enthusiasm of applying for 1+x building information model. This is not that students have become less active, but that students’ goals have been improved. Studying in higher vocational colleges is a springboard for students on the way to study. Students expect to jump to a more ideal undergraduate college. However, the implementation of the first-class test and the integration of competition and certificate varies from province to province, and some systems have not played a good incentive role. Imagine that a student who has participated in the national and provincial competitions and achieved good results can be regarded as having achieved excellent results in one or several professional courses, directly obtained corresponding credits through certificates, or admitted to some universities, then the enthusiasm of students’ participation is completely different. Stimulate students’ learning enthusiasm by system, urge teachers to improve the quality of teaching and counseling by system, and provide technical support and teaching resources to cooperative enterprises by making use of existing teachers’

strength and resource advantages, so as to truly realize resource sharing and complementary advantages.

#### 2.2 the “1+x” certificate training point has heavy tasks and no fixed teachers

At present, the skill standards required by each skill certificate are different, and the examination modules and modes provided by the evaluation unit are the same. Even if the same knowledge point under the requirements of the same certificate may involve multiple software to participate in the evaluation, which makes the operation commands of each software different, thus making the difficulty and scoring standards of the test questions different. This brings greater challenges and pressure to the guidance of vocational colleges, because these software operations are emerging courses, the country has no large-scale standardized training system, and the market is already in full swing, but teachers’ skills are almost always improved by learning from software application instructors of software companies, because different software and different service methods, The review references provided by software companies are also uneven. The school has invested a lot of money to improve teachers’ skills and make up for their shortcomings. Teachers have invested a lot of energy to expand their knowledge and improve their operating skills. In order to better serve students to master new skills, most teachers have good professional foundation support, and it is not difficult to learn specific operations. But the headache is not whether they can learn, but just learn a system, It is uncertain that the requirements for evaluation in the second year have changed again. Then learn and then change. A major is facing the rapid change and iterative upgrading of multiple software. Teachers’ spare time is almost devoted to all kinds of learning, while effective and high-quality learning is very scarce, which is the fundamental reason for the scarcity of teachers!

In practical work, professional teachers often undertake heavy tasks of scientific research and teaching research in addition to their normal teaching tasks. Sometimes, they also carry out various services and guidance work on the student side. Besides the normal teaching tasks, they also give consideration to the “1+x” certificate training. Neither the time nor energy of teachers can be guaranteed. In the 1+x evaluation system, a lot of energy is needed to deal with various data from the beginning to the end of an exam. It is understood that in many pilot colleges and universities, professional teachers are also responsible for this work, which also faces the same problem. If we can fix professional teachers according to the tasks of “1+x” certificate training points, and assign special personnel to carry out daily and detailed management, it may have better results; If the teacher training is normalized and standardized to avoid repeated training, the quality of training results is not fixed, and the training form is too random; If schools and enterprises cooperate in depth, improve the quality of 1+x training materials. Teachers participate in the development of teaching materials or exercise books that match the teaching materials, strive for the use of national “1+x” certificate characteristic teaching materials in the test center, and integrate with the teaching of relevant specialties. Then the materials that can improve the 1+x training will be circulated, the standards will be deeply refined, and the effect of teaching guidance can be taken as a leap in quality. It is undoubtedly very beneficial for schools, enterprises and students.

#### 2.3 the training fund management of “1+x” certificate needs to be improved

Through the analysis of the curriculum system of Construction Engineering Technology Specialty in most higher vocational colleges at the present stage, there is no special funding support for the training of “1 + X” certificate, and the provincial examination centers are required to pay according to the number of applicants. If the provincial administrative department of education has identified the evaluation fee, the specified price shall prevail. In the actual implementation process, the funds are advanced by the pilot colleges and universities, which has obvious disadvantages. First of all, students have no capital investment to obtain skills, and they lack the sense of struggle in the process of preparing for the exam. Some students will not try their best to win a pass. Even if they fail, they will have no economic loss; Secondly, the remuneration of teachers’ guidance is ambiguous. Many teachers’ training and guidance rely on professional enthusiasm and ardent hope for improving students’ skills, rather than whether there is a corresponding class fee for each class. The management mechanism of “1+x” certificate training has a lot of potential to tap. For example, can we consider not to let the pilot institutions be tied up in the management of funds? This is a very positive and dynamic thing in itself, but in terms of the current situation, what should the pilot institutions do? What will you do? There is no clear answer. The students are also worried about what to do if they spend a lot of effort on taking the certificate and fail to use it after taking the post? What if some enterprises don’t approve? These problems are the obstacles of the “1+x” certificate evaluation work. If the government, schools and enterprises can deeply integrate, seek truth from facts, and timely eliminate the problems exposed in each link, then the work can change to the expected vitality.

#### 2.4 good textbook resources are scarce

The standard of higher vocational teaching quality is not only the basis of higher vocational education, but also the starting point and reduction of higher vocational education reform. The establishment of comprehensive quality standards has special value for improving the level of higher vocational education. Textbook construction is an important part of curriculum construction and teaching reform, and an important guarantee for deepening teaching reform and improving teaching quality. The construction of teaching materials should meet the needs of Higher Vocational and technical education in China, and closely cooperate with the construction and reform of specialties and courses in colleges. To improve the quality of teaching materials as the core of teaching material construction. Textbooks should reflect the latest achievements of contemporary curriculum construction and related professional development, reflect modern educational ideas, regional characteristics and college characteristics, and pay attention to the scientificity, applicability, advancement and skills of the contents of textbooks. Good textbook resources are scarce, and there are many good and bad textbooks. However, in the “1+x” certificate evaluation work, we need excellent textbooks whose content is linked to the industry standard. This is a certificate of recognition of the quality of employees in the industry. It is not the standard of an enterprise, nor is it the standard of a software, nor is it the standard of enterprises leading schools. It should be the latest achievements of contemporary curriculum construction and related professional development jointly developed by schools and enterprises under the guidance of the government and in combination with the actual development situation at

home and abroad.

### 3. Scientifically set up 1+x certificate examination and skill competition courses and increase them according to the gradient

According to the talent training mode, the type of professional courses and the learning situation, the appropriate teaching methods and means are selected according to the different production tasks of each work link and the characteristics of the learning content. We should actively carry out the reform of teaching methods and teaching means. According to the students' understanding of the law, the teaching of professional basic courses should be carried out from shallow to deep, from special to general, and the teaching methods should be based on inspiration, guidance and discussion. We should increase the proportion of practical teaching and teach more carefully and practice more; In the process of practical teaching, we should give full play to students' initiative, cultivate students' basic professional ability, develop the habit of standardized operation and the scientific, rigorous and realistic work style. Professional core courses introduce production projects and carry out teaching treatment to make them suitable for teaching, that is, learning projects. Take learning projects as the carrier, integrate knowledge points into each project, organize and implement teaching according to the project (or task) in the training room, and realize the purpose of job skills training through the organic integration of "teaching, learning, practicing and doing" of teaching while learning, learning while practicing and learning and doing. The teaching practice in the school mainly adopts action oriented teaching methods - intuitive teaching method, case teaching method, role task driven teaching method, project teaching method, etc. According to the popularity of information-based teaching in the new era, information-based teaching methods are gradually introduced into the classroom. In the post practice, according to the characteristics of the enterprise teaching environment and teaching objectives, the mode of work integrated learning, modern apprenticeship learning and self-management learning with the post practice as the main line are mainly adopted. At least one of the following vocational skill level certificates (vocational qualification certificate) must be obtained, and 2 credits can be obtained by obtaining one skill level certificate.

### 4. Research on the reform direction and measures to improve the quality of preparation and participation

In participating in the "1+x" Certificate - building information model (BIM) examination and the preparation for this event, we explored a time-saving and labor-saving method, and selected the students with excellent results from the students who passed the examination as the seed contestants of the provincial competition. The specific operation infiltrated into the curriculum, including the relationship between several courses and the opening time, Let students fully reserve basic knowledge and contact with corresponding software during freshman year. The software courses opened each semester complement each other, and progressive learning. Vocational skill assessment is an assessment of the actual working ability of BIM Technology Application personnel. It is a process of talent selection, as well as a process of improving the level of knowledge and comprehensive quality.

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# Innovation and entrepreneurship practice teaching reform and strategy research in Colleges and universities from the perspective of new media

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**Abstract:** with the emergence of new media such as microblog, twitter and wechat, the innovation and entrepreneurship teaching in Colleges and universities has ushered in new development opportunities, which enriches the content and methods of practical teaching, and is conducive to improving students' innovation and entrepreneurship ability. Innovation and entrepreneurship teachers in Colleges and universities should actively learn new media technology, participate in online training, and improve their professional quality; Promote the teaching mode of industry university research, integrate entrepreneurial cases, and improve students' entrepreneurial ability; Using Internet technology to carry out blended teaching and innovate practical teaching methods; Collect network marketing knowledge, broaden students' vision of innovation and entrepreneurship, and encourage them to start their own businesses; Invite young entrepreneurs to hold online lectures to stimulate students' enthusiasm for innovation and entrepreneurship, and improve the quality of innovation and entrepreneurship practice teaching in Colleges and universities.

**Key words:** new media perspective; Innovation and entrepreneurship in Colleges and universities; Practical teaching; Reform strategy

## Introduction

With the further enrollment expansion of colleges and universities, the employment pressure of college students is also increasing year by year, and the importance of innovation and entrepreneurship courses has become increasingly prominent. Innovation and entrepreneurship teachers in Colleges and universities should dialectically analyze the current severe employment situation, actively respond to the challenges of the new media era, use new media to carry out practical teaching, integrate the current popular webcast delivery, we media and cross-border e-commerce into teaching, stimulate students' innovative thinking, collect successful cases of College Students' entrepreneurship, and guide students to analyze these cases, Stimulate their entrepreneurial enthusiasm and improve the teaching quality of innovation and entrepreneurship in Colleges and universities.

## 1 Current situation of innovation and entrepreneurship practice teaching in Colleges and universities from the perspective of new media

1. some innovation and entrepreneurship teachers lack social practice experience

Some innovation and entrepreneurship teachers in Colleges and universities directly go to the podium after graduation, lack of relevant work experience in enterprises, are not familiar with enterprise management processes and human resource management, and lack of independent entrepreneurship experience, which largely limits the development of practical teaching of innovation and entrepreneurship course. For example, teachers are not familiar with the business establishment process, management and business model. In teaching, they can only explain the teaching materials step by step, unable to integrate real entrepreneurial experience, and the explanation of innovation and entrepreneurship knowledge is not deep enough. The monotonous teaching content is difficult to stimulate students' interest in learning, which affects the quality of innovation and entrepreneurship practice teaching.

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