

# The Difficulties and Countermeasures of Implementing 1+X Certificate System in “Computer Network Technology Foundation”

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**Abstract:** In recent years, with the continuous deepening of curriculum reforms, some higher vocational colleges have successively carried out educational reform systems, among which 1+X certificate system reform is a requirement of the country and society for schools. At present, there are some problems in the implementation process, such as whether the certification standards are reasonable, the supporting system is unreasonable, and the school is difficult to promote the reform system. In response to the above problems, a series of questions have been put forward, such as: improving teachers’ learning ability, cultivating teachers’ lifelong learning concepts, integrating the content of the certificate examination with the existing curriculum syllabus, formulating an effective assessment system, and inspiring teachers’ enthusiasm for work. Improve the quality of teaching, comprehensively improve the professional quality of students, enhance the competitiveness of students in employment, and output high-quality talents for the country and society.

**Keywords:** Computer Network; 1+X Certificate; Reform

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With the continuous progress of society, the demand for talents from enterprises is getting higher and higher. As an important institution for talent training, schools must strengthen enrollment expansion and cultivate more talents for the society. On the one hand, and on the other hand, they must stimulate students’ learning enthusiasm and improve comprehensive cultural qualities of students. Higher vocational education not only has the attributes of higher education, but also covers the characteristics of the profession, focusing on cultivating students’ practical ability and job ability. The 1+X certificate system refers to the academic certificate + vocational skill level certificate. It is an important manifestation of a new modern vocational education reform and an important direction for my country’s education reform and vocational education training. In addition, the 1+X certificate system can stimulate students’ enthusiasm for learning, help students improve their learning mastery, and promote the development of modern vocational education.

## 1. Difficulties in implementing the 1+X certificate system in “Computer Network Technology Foundation”

### 1.1 Difficulties in certificate construction standards

In the process of implementing the 1+X certificate system in computer network technology, it is faced with many problems. The specific manifestation is that as a third-party training evaluation organization, whether the standards established

by the enterprise are authoritative remains to be discussed. Although enterprises will investigate the requirements of industries and research institutes on a large scale in terms of certificate construction, due to different enterprises, some advanced technologies and application scenarios are quite different. For this reason, a single enterprise standard cannot meet the requirements of the industry. Standard requirements. At this stage, the formulation of some standards in my country is based on industry leaders or representative enterprises as the main body to build certificates, and other benchmarking companies as supplements to build certificate building standards.

In addition, due to the differences in the understanding of 1+X between colleges and training evaluation agencies, large differences will occur when establishing certificate standards. On the one hand, colleges and universities hope that students will develop in an all-round way. The higher the comprehensive literacy of students; On the other hand, college teachers hope that students will make a certain breakthrough in a certain field, that is, to study and improve in a certain field, which will help the further development of science and technology in our country. In addition, some colleges and universities believe that the X-certificate can be more detailed and correspond to the college's talent training program, which will help quantify the level of student learning. In short, schools have different understandings of the computer network technology 1+X certificate system, but they are all activities carried out to improve students' cultural literacy, which will also make the construction of certificate standards more difficult.

## **1.2 Difficulties in implementation by institutions**

The implementation of the 1+X certificate system requires the participation of all school staff, which requires the school to formulate a series of measures to mobilize the enthusiasm of teachers. On the one hand, the implementation of the 1+X certificate system will increase the original workload of teachers. In particular, the content of the certificate assessment is highly integrated with the original computer network courses. It is necessary for the school to make overall planning in advance when developing the 1+X certificate system relevant resources to carry out certificate training. Under the circumstance that the teaching staff remains unchanged, it will inevitably increase the learning intensity and teaching intensity of teachers. In addition, the examination of the computer network technology certificate requires teachers to study its content repeatedly, which requires teachers to accumulate their own learning ability and knowledge level. The 1+X certificate system teaching is also a huge adjustment for teachers. In addition, the current teacher performance appraisal system has no positive impact on the implementation of the 1+X certificate system. The performance is that the workload of 1+X certificate curriculum design and resource development cannot be included in the subsidy. When the daily teaching work is saturated, teachers lack the motivation to learn independently.

## **1.3 Incomplete supporting system**

The implementation of the 1+X certificate system will inevitably attract a large number of training organizations to establish training materials and learning resources. The purpose of training institutions is to pursue profit. On the one hand, colleges and universities will be more worried that enterprises are only carrying out teaching and training activities for their own benefit. At the same time, in order to help students increase the chance of passing the certificate, some equipment will be purchased, which may cause duplication of construction and corporate monopoly. In addition, some schools are blindly following the trend, showing that the application for certificates that are inconsistent with talent training affects the professional development of institutions. In addition, the charging standards for certificate training need to be further clarified, and the cost issue will very likely affect the implementation of the certificate system.

# **2. Countermeasures to implement 1+X certificate system in “Computer Network Technology Foundation”**

## **2.1 Optimize the level of ability education in the course “Basics of Computer Network Technology” in vocational colleges**

Deepen the reform of the training and training model for interdisciplinary technical skills, adopt international vocational education and training common practices, formulate work plans and specific management methods, and start the pilot work of the 1+X system. The vocational ability training of students in higher vocational colleges is mainly realized through the

teaching of professional courses. Therefore, colleges and universities must optimize the course of “Computer Network Technology Fundamentals” so that they can efficiently guide students in the basic knowledge of computer network technology. The course of “Computer Network Technology Fundamentals” should be guided by the direction of employment and career needs to improve students’ computer skills, so that students can apply computer professional knowledge to corporate positions and realize the economic development of the company with their own capabilities. The “Computer Network Technology Foundation” course should highlight the key core content of the computer major, and carry out intensive teaching after the basic professional knowledge and professional skills training for students, so that they can have a deeper understanding and mastery of the computer professional direction, so as to effective use of computer professional skills in actual work. In addition, colleges and universities should strengthen the teaching of computer majors for students, introduce a variety of computer majors-related knowledge, broaden students’ computer majors’ vision, and enable students to understand the development of a wider range of computer majors, so as to conduct comprehensive knowledge learning with an overall thinking. Improve students’ comprehensive professional ability.

## **2.2 To achieve the integration of teaching and certificate training of “Computer Network Technology Fundamentals” under the background of “1+X”**

In order to improve the professional competence standard construction level of the “Computer Network Technology Foundation” course, and guide students to effectively participate in professional competence teaching, it is necessary to realize the integration of professional teaching and certificate training under the background of “1+X”. They are placed on the same development position to realize the complementarity of the two. The course of “Computer Network Technology Fundamentals” must first clearly incorporate the certificate training content, introduce the training content into the classroom teaching, strengthen students’ grasp of the certificate training content through classroom teaching, and improve the ability of students in terms of certificate requirements. At the same time, the learning of the certificate content can also supplement the resource loopholes in the teaching of the “Computer Network Technology Foundation” course, so that the teaching system is comprehensive and promotes the comprehensive development of students. In addition, higher vocational colleges reform their own student evaluation system, incorporate certificates into the credit system, and give certain bonus points to students who have obtained extracurricular certificates, so as to encourage students to actively study the content of the certificate and achieve the improvement of students’ professional ability.

## **3. Conclusion**

The 1+X certificate system is a reform of my country’s education system and another innovation of national vocational education. This method organically combines vocational skills and academic certificates, which helps to promote my country’s talent training and evaluation model. For this reason, vocational colleges should formulate a 1+X certificate system based on their own actual conditions. On the one hand, they should unify the basic computer technology courses and certificate training content, and then vigorously train teachers to improve teachers’ understanding of the 1+X certificate system. Actively learn the content of the certificate assessment. On the other hand, society’s requirements for talent literacy are getting higher and higher. Through the certificate system, students’ learning conditions can be understood at a glance. At the same time, when students are employed, the more certificates they show, the more intuitive the company’s understanding of candidates. Help enhance the employment competitiveness of students. In addition, teachers should actively develop a life-long learning system to ensure that they are at a high level.

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