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## Drawing on the construction of the four-element module comprehensive assessment system for overseas college examinations

**Jian Xiang**

School of Information and Electronic Engineering, ZheJiang University of Science and Technology, Hangzhou 310023, China

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**Abstract** In order to give full play to the advantages of international cooperation between Zhejiang University of Science and Technology and German University of Applied Sciences in the past 20 years, and to learn from the experience of teaching assessment system and implementation, the content of practical teaching assessment can track the development of disciplines and courses in time, so as to explore The teaching reform path of the application-oriented innovative talents practical ability assessment system in colleges and universities, through the study of the examination experience and future direction of overseas colleges and universities, we consider gradually constructing a comprehensive evaluation system of four elements throughout the whole process of education, hoping to evaluate the evaluation system of colleges and universities in China. The reform provides reference and reference.

**Keywords** Drawing, overseas college examinations

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### 1. Introduction

In today's world, human resources have become the most important strategic resource. The competition for comprehensive national strength around the world is, in the final analysis, the competition of talents, especially innovative talents. Who can cultivate, attract, cohesive, and use talents, especially top-notch innovative talents, who can master strategic initiatives in the fierce international competition. The developed countries in the world attach great importance to the quality of higher education, and regard the cultivation of innovative talents as an important driving force for improving the country's overall national strength. Starting from the actual situation in the country, they have established an examination system that adapts to their social and economic development and meets the requirements of internationalization. There are many experiences worth learning and learning from the content, test methods and scoring standards. Since the 1990s, countries such as the United States and Britain have been influenced by humanistic education. The development of educational evaluation theory has seen new trends. The evaluation has shifted from decision-making to people-centered, to examine students' abilities as latitude and to implement diversity. Scientific examination method and examination form, established a scientific and comprehensive student evaluation system

In recent years, our school has begun to learn more from the experience of the German University of Applied Sciences, promote the "three major projects", adhere to the "quality of schools, talents strong schools, cooperation and development of schools", and train high-level applied talents in the context of internationalization, Promote talent projects with school-enterprise cooperation projects and drive quality engineering. The undergraduate teaching of information technology majors such as computer, electronics, communication, etc. must be based on the educational model of cultivating innovative talents to analyze students' problems and problem-solving skills. It is necessary to deepen the professional application knowledge by changing the assessment structure of theoretical and practical courses. The practice, the focus of the investigation should be the ability of students to analyze problems and solve problems. Through a series of



examination experience, the company is committed to reform research and ultimately enhances the competitiveness of engineering application talents. In this context, we have constructed an innovative talent assessment system that combines “normal performance, practical assessment, review examination, and oral examination integration”.

## 2. Formation of the assessment system

### 2.1. Overall deployment

First of all, change the traditional concept of examination, establish the concept of talent quality in the era of knowledge economy, base on the cultivation of quality education and innovative talents, and build a broad-based knowledge, training ability and quality as the center of cultivating people's innovative spirit and innovative ability. The assessment mechanism; secondly, changing the mode of “teaching, examination, and evaluation integration” in college examinations, establishing a scientific and fair examination operation mechanism; reforming examination content and methods, promoting the combination of pluralism and openness, appropriately increasing oral examinations; establishing scientific The scoring system and the comprehensive evaluation system for students, adhere to the combination of formative examinations and final examinations; explore the combination of “four-element module comprehensive examination” and “examination evaluation”, and establish an assessment of qualified personnel under the cooperation of school-enterprise cooperation. The system invites enterprise technical experts to come in. Teachers and students enter the enterprise to carry out practical project teaching, reform the curriculum experimental examination mode and professional curriculum, so that they can play their due role in cultivating the educational goals of high-quality engineering talents, and cultivate the needs of enterprises.

#### *Talents*

To establish an assessment model and institutionalization of school-enterprise cooperation, and to establish an innovative practice assessment system, it is necessary to enable experimental teaching to track the development of disciplines and courses in a timely manner, and to promote teaching reform from all angles. This topic will draw on the experience of overseas college examinations, and form a comprehensive evaluation system of four elements in the whole process of education, namely “normal performance, practical assessment, review examination, oral integration”

### 2.2. Platform construction

Overseas examination experience and future research will be implemented and upgraded through the establishment of six major platforms: high-quality curriculum assessment platform, international teaching assessment platform, personalized teaching assessment platform, cultural quality education assessment platform, and innovative practice assessment platform. Through the guidance of the updated assessment system, we will identify and train young talents with expertise in Zhejiang Province to help them embark on a professional path. At each stage, the instructor gives directions and guidance on the direction through the assessment system, and does not directly tell the students what to do.

The appraisal platform combines traditional Chinese educational thoughts with foreign modern examination systems, and closely combines scientific research, engineering practice and talent cultivation, so that educational concepts, contents, methods and assessment methods can be adapted to the progress of the times, technological innovation and the all-round development of human beings. Claim. We attach great importance to and actively promote the reform and innovation of the application-based undergraduate engineering talent assessment model, and overall design, step by step. To study the actual needs of high-quality innovative talents in the society, learn from the successful experience of the German University of Applied Sciences, adjust and improve the assessment method design and assessment evaluation system for applied undergraduate engineering talent education, and establish a scientific research-led assessment system. Starting from the policy system, we will establish an open, mobile, competitive, and collaborative scientific research mechanism, improve the incentive mechanism, and enable the assessment system to be continuously updated.

An efficient assessment system must be established among all teachers and students who have truly updated their educational concepts. It is a comprehensive expression of the overall level of the school and the ability to



cultivate talents. Technical route: First, the system is built and penetrated throughout. It is necessary to carry out the whole process of talent cultivation and assessment with the innovation ability as the main line, and carry out systematic reform and overall construction in the key aspects of each assessment. To solve the problems of the previous reforms, such as lack of system, limitations, single path, small coverage, and a lifetime of examinations, and the realization of the main line, the whole process of penetration, full participation, and all benefits. The second is multi-dimensional interaction, the main body of students. Focusing on the assessment of innovation ability, the disciplines are orderly and open, and interact with students and extend the assessment through "conditional facilities open, scientific research process experience, scientific and technological resources transformation, academic atmosphere"; overall curriculum optimization, through "curriculum system reform, curriculum resource construction, experiment Teaching reform, method and method update" interacts with students and extends assessment; teachers actively invest and interact with students through "innovative classroom teaching, scientific project tutors, excellent model demonstrations, scientific research experience guidance"; students are prominent, through "interests Do-it-yourself, flexible personality selection, self-system planning, independent and independent practice "implementation of innovation ability assessment. The third is the combination of soft and hard, and the system advances.

### **3. Specific steps**

While establishing a series of management systems and operational mechanisms such as "Innovation Assessment System" and "Innovative Education Base Operation Mechanism", we will comprehensively improve the construction of teaching laboratories, open an innovative education base, and provide a high-quality hardware platform for students' innovative practice. (1). Establish an innovative design laboratory and a joint training medium for school-enterprise cooperation: Introduce the enterprise, introduce the project, explore a new model of experimental innovation teaching assessment, and evaluate the project through the project to improve students' ability to practice. (2). The implementation of the formative assessment of practical teaching in the practical semester: broaden the significance of the construction of experimental and experimental innovation bases, reform the practice mode of the second practical semester, and establish an assessment model for school-enterprise cooperation. (3). Establishing an innovative practice project assessment: Under the school-enterprise cooperation model, we will strengthen close cooperation with large IT companies in Zhejiang Province and strengthen the practical teaching evaluation of the curriculum. (4). Open laboratory management of innovative laboratories: using information technology and computer management technology, establishing an open laboratory management system, and completing the establishment of open laboratories such as multi-core programming innovation laboratories, thus realizing the dynamic and open management of experimental course teaching. (5). Promote the reform of the international assessment system for computer engineering technology courses: to develop students' ability to survive in an international and multicultural social work environment. (6). Form a set of syllabus and network assessment platform that is in line with the innovation practice ability training system.

### **4. Conclusions**

By cooperating with foreign universities and learning their mature experience, we have made a decision to carry out a reform of formative assessment in the courses of computer specialty.

We have achieved the following three results: (1) Constructing a multi-level and modular curriculum assessment system based on advanced experimental teaching concepts and three-level capacity training objectives, forming the core content of practical teaching reform. (2) Constructing an open experimental environment and a modern management system, introducing project practice teaching assessment (3) Reforming experimental assessment methods and models, and forming a diversified self-assessment model based on innovation ability training. The results were adopted at the school and 13 experimental courses were offered for electronic information, communication, computer, automation, electromechanical and other majors. Before the results of the research, the experimental assessment of information technology only involved five majors. After the research and application of the results, the students' overall practice and innovation ability are significantly improved. In



recent years, the members of the research team have consistently achieved good results in guiding the science and technology competition of college students.

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