

# The Construction and Practice of the Information System of Teaching Quality Monitoring and Security System in Local Undergraduate Universities

Taking Fuzhou University of International Studies and Trade as an Example\*

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**Abstract**—Since 1990s, the quality management of higher education has entered an important stage of implementation. The quality of education and teaching in colleges and universities is at an important position. Different universities have established corresponding information systems for monitoring and guaranteeing the quality of teaching in colleges and universities according to their actual conditions. Through the specific measures of the reform of teaching quality monitoring and guarantee system in Fuzhou University of International Studies and Trade, re-constructing the teaching quality target generation system, teaching quality resource guarantee system, teaching quality process management system, teaching quality supervision and control of teaching quality monitoring and guarantee system information system. Five subsystems of evaluation system, teaching quality feedback and improvement system, so as to improve the information system of teaching quality monitoring and guarantee system in colleges and universities.

**Keywords**—local undergraduate colleges; teaching quality monitoring and security system; information system

## I. INTRODUCTION

*The National Medium- and Long-Term Education Reform and Development Plan (2010-2020)* clearly puts forward the task of "sounding the quality assurance system for teaching". Focusing on improving the quality of higher education and promoting the connotative development of higher education has become an important factor for higher education issue. The government has also set up a higher education teaching evaluation center of the Ministry of Education, and established a five-year round of undergraduate teaching evaluation system. Colleges and universities have explored and improved the teaching quality monitoring and security system in different degrees. The monitoring and guarantee system of teaching quality in colleges and universities is an important way for colleges to carry out intensive development and improve the quality of running schools. More and more colleges and universities

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have begun to pay attention to the reconstruction of the quality assurance system. New local undergraduate colleges have joined the ranks and began to move toward the quality era.

## II. BACKGROUND AND SIGNIFICANCE OF THE CONSTRUCTION OF INFORMATION SYSTEM FOR TEACHING QUALITY MONITORING AND GUARANTEE SYSTEM IN LOCAL UNDERGRADUATE UNIVERSITIES

### A. Constructing the Background of the Information System for the Teaching Quality Monitoring and Guarantee System of Local Undergraduate Colleges and Universities

Talent cultivation is the fundamental task of higher education. Teaching is the central task of higher education. The quality of teaching is the lifeline of the school. *Several Opinions of the Ministry of Education on Comprehensively Improving the Quality of Higher Education (Teaching [2012] No. 4)* referred to as "Thirty Articles of Higher Education" clearly pointed out: Consolidating the basic position of undergraduate teaching and making undergraduate teaching the most basic and fundamental work of colleges and universities. Leadership, faculty, resource allocation, funding arrangements, and job evaluation must all be centered on teaching. The quality of teaching management determines whether the teaching work of colleges and universities can be organized in a scientific, standard and efficient way. If the teaching process is not well managed, the quality of teaching cannot be improved, and the quality of personnel training is difficult to be guaranteed. Therefore, the quality of teaching Monitoring and security has always occupied an extremely important position in the teaching work of colleges and universities.

The establishment of teaching quality monitoring and security system is an important basic work for the construction of teaching management information. At home and abroad, except for a small number of university organizations who develop their own research or jointly develop with other universities and scientific research institutions, most universities pass the direct method of

purchasing a commercial software system realizes the establishment of a teaching quality monitoring and security system. To this end, in the process of teaching quality monitoring and security system information construction, it is subject to many uncertain factors and many objective factors. The main problems are as follows:

- The teaching quality monitoring and guarantee system based on the purchase of commercial software ignores the lack of personalized customization of the school's own teaching management features.
- The information management of the teaching management personnel is general. Managers are accustomed to the traditional working mode, lacking the initiative and ability to develop software extension functions, and are not sensitive to the development of new computer technologies.
- Teaching quality monitoring and security system information construction lacks overall. The information between the various subsystems is mostly scattered and isolated, focusing on the display of information points. It is difficult to establish direct contact and comparison between the information, lack of systematic nature, and cannot provide complete and interrelated relationship for the teaching quality monitoring and security, system, measurable information.

Fuzhou University of International Studies and Trade put into use Hunan Green Education Network Management System in 2006, relying on its teaching evaluation Fuzhou University of International Studies and Trade subsystem. At present, the system can realize the function of online evaluation of students and teachers, and provide the ranking of teachers in the whole school, but cannot explain the reasons for the ranking of teachers; Evaluation indicators cannot be evaluated according to the subject category. With the construction needs of undergraduate colleges and universities, the existing teaching management system can no longer meet the actual needs of the implementation of the school's teaching quality monitoring system.

The teaching quality monitoring and guarantee system of Fuzhou University of International Studies and Trade is composed of five systems: teaching quality target system, teaching quality standard system, teaching quality assurance system, teaching information collection and evaluation system, teaching quality feedback and improvement system, forming a closed-loop type loop. However, most of the current operation of this system uses traditional teaching quality monitoring methods. Paper type requires a large amount of printing. Once the printing cannot be changed immediately, the statistical evaluation results are manually sorted out, which is time-consuming, labor-intensive, and inefficient. The teaching tasks use the same lecture quality evaluation form. The evaluation index system uses a fixed model (several evaluation indicators) to evaluate the teaching quality of different courses, directly affecting the credibility and objectivity of the evaluation results, and the teacher cannot adjust according to the actual situation. The teaching

work will inevitably affect the effectiveness of teaching quality monitoring.

### *B. Significance of Constructing the Information System of Teaching Quality Monitoring and Guarantee System in Local Undergraduate Colleges and Universities*

According to the connotation of teaching quality monitoring and security system, it is necessary to build a monitoring system that can be implemented on the next, reciprocating, multi-channel, multi-faceted and step-by-step implementation. The whole process realizes the teaching quality monitoring, evaluation and feedback mechanism one by one, and the effective and effective monitoring means to make full use of the campus network information technology platform to achieve. Exploring the functional requirements of the information quality monitoring and guarantee system of Fuzhou University of International Studies and Trade on this information technology platform is the primary condition for the school to promote the information quality monitoring and security system informatization. Only based on the characteristics of school teaching quality monitoring and security system, explore the development of functions provides a theoretical basis for improving the existing teaching quality evaluation system in schools. Closely combined with the status quo of the teaching quality monitoring and guarantee system of Fuzhou University of International Studies and Trade, the author puts forward the information function requirements of the teaching quality monitoring and security system, constructs the teaching quality evaluation index system suitable for different functional needs, establishes the teaching quality evaluation database, and gives full play to the campus. The network has convenient and fast advantages, and gradually establishes and improves the teaching quality monitoring and guarantee system of the school. This is a very realistic situation in the current situation where the school attaches great importance to the quality of teaching and has urgent needs for the construction of teaching quality monitoring and security system. It has very practical significance.

### **III. FUZHOU UNIVERSITY OF INTERNATIONAL STUDIES AND TRADE'S TEACHING QUALITY MONITORING AND SECURITY SYSTEM INFORMATION SYSTEM REFORM MEASURES**

The information system of the teaching quality monitoring and guarantee system of Fuzhou University of International Studies and Trade is under the guidance of the school-running thinking. According to the overall quality management concept, the teaching quality organization, standards, resources, procedures, processes are used to ensure and improve the teaching quality management system. Information system is an important measure to guarantee and improve the quality of teaching. Therefore, the specific measures for the reform of the teaching quality monitoring and security system of Fuzhou University of International Studies and Trade are as follows:

#### *A. Analysis of the Information Construction Needs of Each Link*

Comprehensively analyze and study the information construction needs of the teaching quality monitoring and security system of Fuzhou University of International Studies and Trade, improve the function of the school teaching evaluation subsystem, and support the construction of school informatization teaching quality monitoring system with modern computer network technology and statistical analysis methods.

#### *B. Designing Evaluation Forms for Different Courses*

According to the different characteristics of the undergraduate majors of the Department of Literature, Economics, Management, Arts and Engineering of the State University of Foreign Languages, the evaluation forms suitable for different courses are designed according to different categories, and the evaluation index system for teaching quality suitable for the characteristics of the school is developed.

#### *C. Constructing a Teaching Quality Evaluation Database*

The evaluation of teaching quality should be a comprehensive evaluation result. For example, in the teaching system, the most influential influence on the quality of teaching is students, peer experts, and teachers themselves. They are in different positions and have different perspectives on observation. Therefore, the comprehensive evaluation of the three evaluations will make the evaluation results more fair and reasonable. By improving the teaching quality evaluation subsystem and introducing different levels of evaluation indicators into the database, it is possible to achieve student evaluation. A multi-level teaching evaluation system should combine experts' lectures, peer review and self-evaluation. At the same time, the preservation of evaluation data over the years is beneficial for teachers to query and manage personnel to analyze the reasons, find out countermeasures, and provide them to decision makers for reference.

#### *D. Improving the Function of Teaching Quality Evaluation System*

To explore the needs of the teaching quality monitoring and security system information function of Fuzhou University of International Studies and Trade, and improve the evaluation system function of the school teaching management information system. Specifically, the information inquiry module includes the basic information inquiry, the teacher personal information inquiry, the teaching material information inquiry, the instant evaluation module and the stage evaluation module. According to the different characteristics of the various professional courses of the five university departments, the general evaluation design, foreign language evaluation form, experimental evaluation form, computer mathematics evaluation form and extracurricular practice evaluation form are preliminarily conceived. The teaching quality evaluation database constructed by the school should maintain the original data status, and there are preliminary statistical results. There

should be teaching evaluation, student evaluation, expert evaluation, peer review, including all aspects of teaching quality monitoring and security system evaluation data.

### **IV. THE EFFECTIVENESS OF THE INFORMATION SYSTEM CONSTRUCTION OF THE TEACHING QUALITY MONITORING AND SECURITY SYSTEM OF FUZHOU UNIVERSITY OF INTERNATIONAL STUDIES AND TRADE**

The information system of the teaching quality monitoring and guarantee system of Fuzhou University of International Studies and Trade embodies the requirements of "teaching based on teaching and student-oriented teaching", which embodies "quality school, talented school, special school, rule by law" Connotative development strategy.

#### *A. Organization of a Teaching Quality Monitoring and Assurance System*

The teaching quality monitoring and assurance system organization consists of three levels: decision-making level, leadership level and executive level. First, the board of directors, the school council, constitute the decision-making level of the organization; the second is the school's teaching quality management committee, the school teaching and steering committee, which constitutes the leadership of the organization; the third is the teaching quality management center, the school center, the teaching development center, The Student Development Center, the Research and Development Center, the Teacher Development Center, the General Affairs Center, the International Education Center, the Teaching Resource Center, the School Teaching Supervision Team, and the Secondary Teaching Unit constitute the executive level of the organization.

#### *B. Restructuring the Five Subsystems of the Information System of Teaching Quality Monitoring and Security System*

The information system of teaching quality monitoring and guarantee system of Fuzhou University of International Studies and Trade is divided into five subsystems: teaching quality target generation system, teaching quality resource guarantee system, teaching quality process management system, teaching quality supervision and evaluation system, teaching quality feedback and improvement system.

1) *Teaching quality target generation system:* The teaching quality goal generation system is the basis of quality formation. It mainly includes four items: school orientation and school management ideas, quality objectives and professional settings, including school positioning and planning, educational ideas, teaching center status, talent training objectives, and teaching quality standards, school professional setting planning, professional structure adjustment, new professional declaration.

2) *Teaching quality resource guarantee system:* The teaching quality resource guarantee system includes organizational guarantee, teacher team guarantee, student source quality guarantee, teaching fund guarantee, teaching

basic facilities guarantee, teaching basic construction guarantee, information resource guarantee, teaching and research reform and academic platform guarantee.

3) *Teaching quality process management system*: The teaching quality process management system mainly includes teaching process management and student development process management two processes, including teaching plan management, regular teaching management, theoretical teaching management, practical teaching management, teaching file management, daily management, academic management, and study style construction, Ideological and political education, innovation and entrepreneurship education, mental health education, physical exercise, employment guidance and services.

4) *Teaching quality supervision and evaluation system*: The teaching quality supervision and evaluation system mainly includes stable teaching order, standardized teaching behavior and teaching management, scientific interpretation evaluation index system, clear evaluation procedures, operational evaluation programs, and teaching supervision and teaching evaluation projects for high-quality evaluation work.

5) *Teaching quality feedback and improvement system*: The teaching quality feedback and improvement system mainly includes timely feedback information, diverse channels, smooth communication, proper feedback information, and effective feedback of teaching quality information and continuous improvement of teaching quality.

## V. CONCLUSION

Fuzhou University of International Studies and Trade establishes a mechanism to promote the continuous improvement and improvement of the school's own education and teaching quality through the implementation of the quality management system throughout the teaching process, and realize the quality assurance of the whole process, all links and all-round quality of undergraduate teaching. Therefore, it promotes the continuous improvement of teaching activities and the continuous improvement of teaching quality.

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