

Discussion on the Management Mode of Educational Service Quality in Colleges and Universities based on ISO9000 Family Standard

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Abstract: In view of the current problems such as poor management and evaluation of university education service quality, this paper studies the standard management model of university education service quality based on ISO9000standards, improves the ISO9000standards of university education service management, standardizes teaching course services and supervision standards, optimizes the management model of education service quality based on the standard, smoothes the order and process of education service management, and finally completes the optimization of university education service quality management model. The experiment proves that compared with the traditional management model, the quality management model of university education service based on ISO9000standards has obviously improved in the practical application process and fully meets the research requirements.

Keywords: ISO9000family; University education; Quality of education; Management model

1. Introduction

With the further deepening of educational reform, the current quality of educational services has gradually become the central content of the competition among universities and colleges, and improving the quality of educational services plays an important role in promoting and promoting the current development of higher education. Therefore, in the process of optimizing teaching management in colleges and universities, in addition to actively expanding the scale of educational enrollment, we should actively integrate social development and improve the quality standards of educational services[1]. Therefore, combining with the ISO9000educational service quality management standard, this paper analyzes and discusses how to make the educational service quality more scientific and applicable by constantly optimizing and revising the ISO9000management standard. Due to the rich connotation of ISO9000family standard system, it can effectively provide reference for teaching services, facilitate colleges and universities to use their advanced management concepts, optimize the quality of teaching services, improve service management theory, and further promote the deepening of education reform. On the basis of following the educational concept and scientific development law, combining advanced teaching service management concepts and innovative methods, we will actively introduce a high-quality education service management model, comprehensively improve

the quality of education service and efficient teaching management ideas, and test the management model with advanced education service evaluation systems at home and abroad, so as to better apply the management method of university education service quality to the actual innovation and construction[2]. Through in-depth discussion of ISO9000as the standard of the quality management system of education service in colleges and universities, reform the traditional concept of non-management of teaching service and construct a new teaching quality management system, so as to form a management method conforming to the law of education service. So as to achieve the research goal of improving the teaching quality and competitiveness of the college.

2. ISO9000 Family Standard Education Service Quality Management Model

2.1. ISO9000 education service management standard for colleges and universities

At present, there are still many deficiencies in the management control of education service management standards and teaching course content in major universities. In order to ensure better teaching services in colleges and universities, the study of students, the expectations of parents and the development requirements of the society and the country are analyzed in full combination with the current laws and regulations, and the quality of teaching services in colleges and universities is actively improved

so as to fully meet the development requirements[3]. At present, the teaching service quality management mode in our country's colleges and universities still uses the traditional method, but this method still has some shortcomings and needs further optimization. Therefore, it is necessary to optimize and improve the ISO9000education service standards in order to control and manage the shortcomings of the current traditional education service model more simply and effectively. The typical characteristic of ISO9000education service quality management system is that it has a relatively stable and complete management procedure compared with the traditional teaching service management mode, can effectively guide and control education service scientifically and reasonably in all key links, and has a stylized and standardized teaching service management characteristic[4]. Therefore, new requirements are put forward for the evaluation process and method of teaching service quality management system standards[5]. The management organization and mode are identified through the system, the interaction relationship among the processes

is clarified, the management elements of education service quality are established, ISO9000standard clauses are implemented, and the rationality and perfection of the teaching service quality management system are guaranteed. The teaching service quality management process and application effect are effectively identified by organizing ISO9000standard clauses, comparing and referring to relevant clauses[6]. Clarify the process and sequence of education services so as to effectively operate and control ISO9000teaching service standards and methods, ensure timely access to necessary information resources in the process of teaching service inspection, monitor, measure and analyze the management effect, and actively implement necessary improvement and optimization measures for different test results so as to track and continuously optimize and improve the test results of teaching services and make up for problems in the process of teaching services in time. The contents of the evaluation of teaching quality management standards in colleges and universities are shown in the table:

Table 1. Evaluation elements of teaching quality management standards in colleges and universities

	ISO9000Family Standard Terms	Management Elements of Educational Service Quality
Management Function	Management responsibilities	Management responsibilities
	Focus	Focus on education services
	Quality policy	Quality policy of education services
	Quality objective	Education service quality objectives
	Quality management system	Planning of teaching service management system
	Responsibility and authority communication	Responsibility and authority communication
	Management evaluation	Management review
Resource Management	Resource provision	Resource provision
	Human resources	Human resources
	Infrastructure	Infrastructure
	Environmental settings	Environmental settings
Product Realization	Product realization planning	Implementation Planning of teaching services
	Related process	Teaching services, supporting services
	Design and development	Design and development of teaching service quality
	Production services	Procurement
Analysis Improvement	Satisfaction survey	Internal audit, investigation and testing
	Detection control	Management service insight measurement and service control
	Data analysis	Analysis improvement

The traditional teaching service mode and teaching service method lack characteristics, which is not conducive to the further development of education reform. In the process of optimizing the teaching service quality management standards, the organization of teaching quality management activities is completed by combining the cultivation of students' comprehensive quality, serving students' teaching quality, providing a large number of excellent teaching resources and refining teaching courses[7]. Effectively solve the problems that the current teaching service management is difficult to meet the needs of the society and enterprises for professional high-quality talents. In the process of organizing activities, we should solve the problems that the traditional curriculum allocation is relatively rigid and inflexible, and the super-

vision of students' satisfaction and learning effect is weak. Therefore, we need to strengthen the supervision effect of teaching service management and refine the education curriculum allocation and supervision standards, as shown in the following table.

As shown in the below table, through the refinement of the curriculum allocation and supervision standards for the quality of service management in colleges and universities, the credit hours of required courses and elective courses are reasonably allocated in order to effectively cultivate students' ability and improve the quality of service in colleges and universities. Complete the improvement of ISO9000educational service management standards.

Table 2. ISO9000 family standards education curriculum services and regulatory standards

Course classification		credit	Hours	Course classification		credit	Hours
Compulsory course	Professional required course	40	12	Elective course	Restricted elective courses	30	12
	Public required course	55	16		Any required course	20	8
	Practice class	40	12		Practice class	10	20
	Total	135	40		Total	60	40

2.2. Establishment of educational quality management model in colleges and universities

Combined with the above ISO9000management standards, the teaching service quality management system is optimized, the teaching service organization process is improved, and the teaching service quality and management mode are identified, thus effectively ensuring the efficiency of teaching service activities[8]. The education service quality management model based on ISO 9000 is to give reasonable guidance and control to education service activities, and actively formulate policies, teaching service planning, service quality standard control and improvement in order to establish an education service quality management system. It is scientific, reasonable and feasible to actively introduce ISO9000 quality management system standards into the teaching ser-

vice quality management model of colleges and universities. This paper studies the standard ISO9000educational service management mode in colleges and universities[9]. Its main management system presents a three-dimensional space state, and clearly divides the operation sequence and interaction of the quality management system. In order to ensure the operation and control of effective educational services, it is necessary to define relevant management criteria and select targeted management methods through the obtained information to support the process of monitoring, measuring and analyzing the quality of educational services so as to achieve continuous improvement of planning. The improvement standard of teaching service quality planning is shown in the figure below.

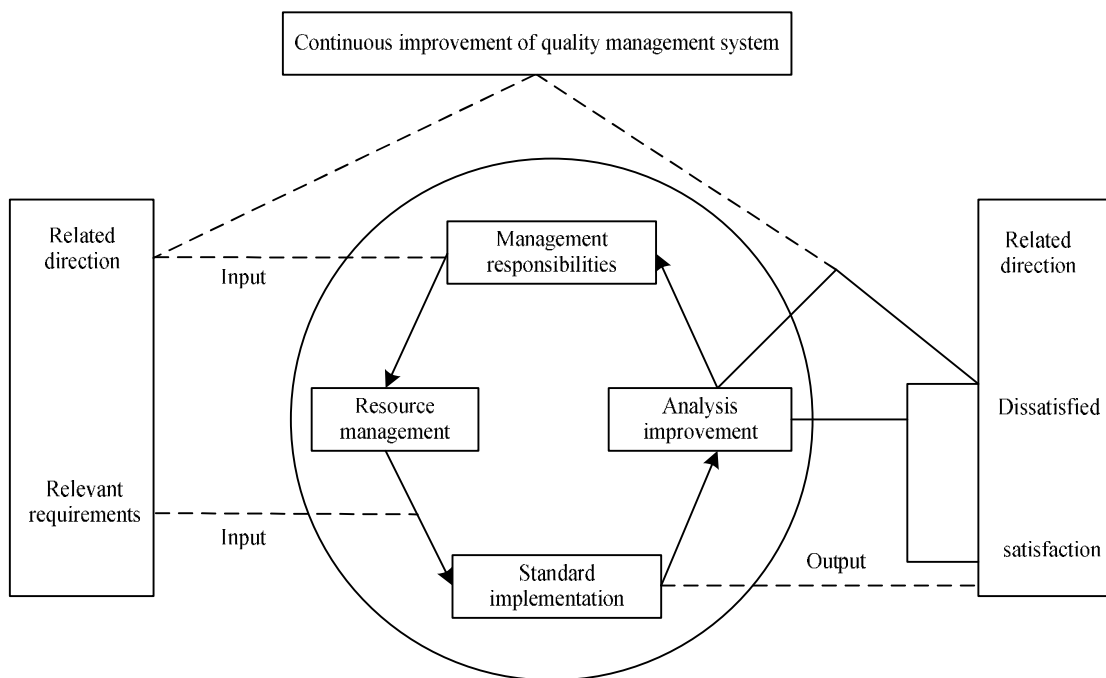


Figure 1. Improvement standard of teaching service quality planning

According to the ISO9000quality management theory of university education service, the quality of education service products mainly depends on the quality of teaching service process management and work management, while the quality of teaching service process management and work management depends on the scientificity and rationality of quality management standards. In the

improvement of ISO9000educational service management standards, actively establishing a standardized quality management system is one of the important tasks of teaching service quality managers and an important reference to ensure the quality of education work in all relevant departments. Therefore, the ISO9000standards should be optimized in order to achieve the goal of scien-

tific, reasonable, sustainable and stable guarantee of product (i.e. quality of teaching service in colleges and universities). By effectively identifying the process system of quality management of educational services in colleges and universities, analyzing the process of educational services, listing reasonable and effective management processes, and making scientific and reasonable management and implementation procedures of educational services according to the results of the analysis, and building a non-quality management model of educational services[9]. Educational service quality management planning is an important optimization process of

teaching services. Generally speaking, the composition of educational service quality management planning activities mainly includes scientifically setting educational service quality management objectives, actively identifying the affected customers (i.e. students) in the management process, and effectively mastering customer needs and effectively developing product (i.e. educational service quality management) feature development according to customer needs in order to clarify the educational service quality management control process [10]. The main process is as follows:

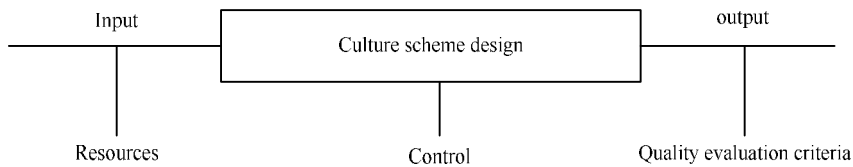


Figure 2. Input process of educational quality management standards

Among them, the input module needs to explicitly input data such as educational service objectives, directions and requirements, and analyze and study the results of the application of the teaching service quality management model. And according to the content of the input and follow-up investigation, the teaching quality management information is output and reviewed. According to the characteristics and needs of current education services in colleges and universities, the planning of training quality mainly includes: identifying customers and their needs; Setting training quality objectives, determining training service management characteristics, analyzing the specialty of students in the teaching process, the setting of teaching modes and contents of courses, and related educational service arrangements, so as to effective-

ly ensure the standardization of educational service management standards. In the process of optimizing the teaching and educational service quality management mode, ISO9000family training standards should be designed in combination with educational contents so as to be developed for the management standards of educational services in colleges and universities. Prescribe the process and sequence of education service management, stabilize the interface of education management process, clarify the input and output of innocent standard process, draw the planning sequence diagram of education service, and mark the input and output of process interface with arrows. The sequence diagram of education service planning is shown in the following figure.

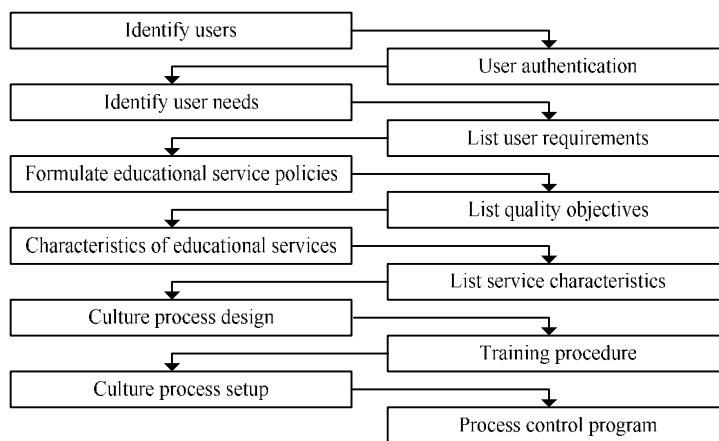


Figure 3. The picture is a sequence diagram of education service management according to ISO9000 family standard

As shown in the figure, in the process of optimizing and perfecting the planning sequence of educational services,

a large amount of human resources, facilities, environment and other resource information need to be utilized.

To improve the teaching service quality management process method, in the planning process of education service quality, it is necessary to clearly allocate the required resources to ensure the maximum effect of resources in the application process, to ensure the rationality of resource input in the process of education service, to strictly enforce the tasks and responsibilities of human resource allocation, to actively establish communication channels between teachers and students, to stipulate how to effectively obtain the internal and external information of education service and to feed back the inspection results of education service in time, and to screen and keep records of the collected data. By establishing the evaluation information of teaching quality management standards in colleges and universities, the teaching service quality management system can be better established. Therefore, the teaching service identification quality management system must be managed in terms of the teaching service process and activity organization form, the management process and management process must be clearly defined, and the establishment of the teaching

service management process standards, and its main activity organization steps are shown in the following figure.

In the process of formulating the educational service quality management standard, the relevant staff members need to formulate the management standard in combination with the educational service and talent training plan of the school's top leaders, compare the teaching effect of similar schools according to the real achievements of the students in the school, analyze their own advantages and disadvantages in the teaching service process, and set the teaching service quality management goal as conditions permit. Based on the existing education service quality management system, the guiding ideology is determined, and the teaching management system is improved with reference to ISO9000 standards, education service management responsibilities, service realization and other aspects, so as to achieve continuous improvement of teaching management standards and further achieve the requirements of improving the education service management mode.

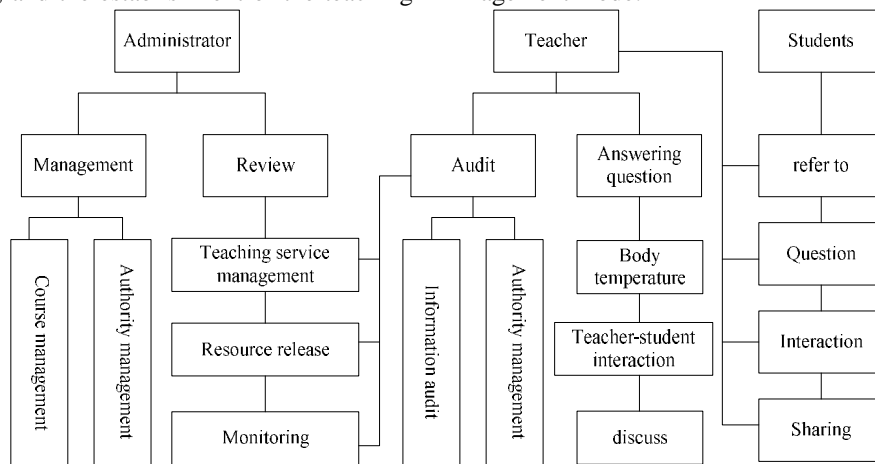


Figure 4. Organization steps of ISO9000 family standard teaching service quality management activities

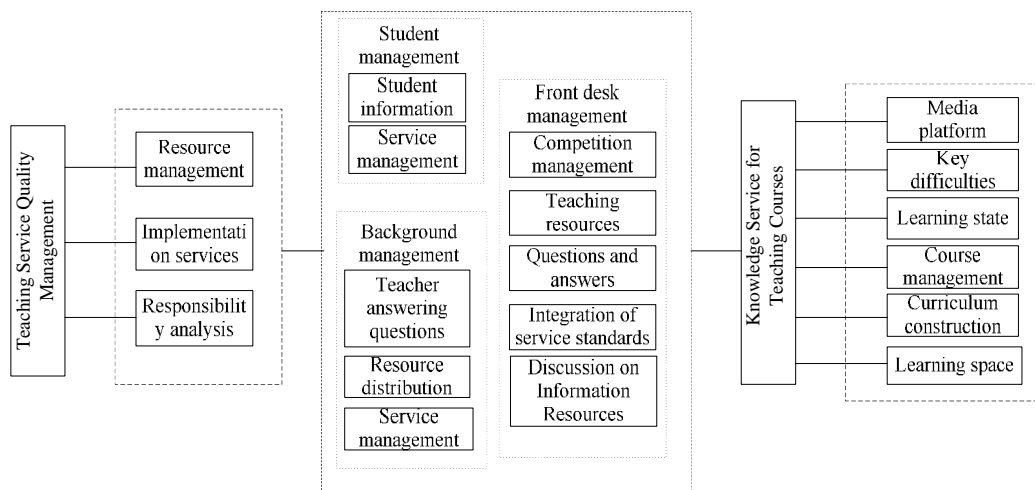


Figure 5. Teaching service quality management mode under ISO9000family standard

Under the model of continuous optimization of teaching service management under ISO9000family standards, through optimizing and integrating the three modules of teaching resource management, teaching quality service realization and teaching responsibility analysis, through classifying and integrating the basic quality of teaching service, standardizing the front, back and user management standards, teaching service management is completed, and the highest management responsibility of teaching service is scientifically stipulated, so as to provide resources and material service support for students' users through effective management of educational resources, and make teaching service resources play their maximum value and effectively realize the optimization of quality management of teaching service quality management service.

2.3. Implementation of teaching quality management model

In order to ensure the optimization requirements of the quality management model of university education services based on ISO9000standards, this paper analyzes the quality standards of teaching services and the problems existing in the current education service process, and puts

forward targeted solutions. To optimize the main links in the education service quality management mode, we can achieve the goal of improving the teaching quality policy and service management measures by effectively implementing the quality management standards of the teaching service links. In the process of dividing the teaching quality management function, we should add a feedback module for teaching service information to provide an important reference for the reasonable regulation of the quality of education service. At the same time, through strengthening the real-time monitoring and tracking comparison of the operation effect of teaching service quality management, we can effectively detect the teaching results and improve the teaching service quality management mode. On the basis of in-depth analysis and research of the information, some optimization suggestions are put forward. According to the actual situation of quality management, the quality of teaching management should be effectively regulated to ensure that it meets the requirements of quality standards. Therefore, the teaching quality management standards and processes are optimized, and the specific structure is shown in the following figure.

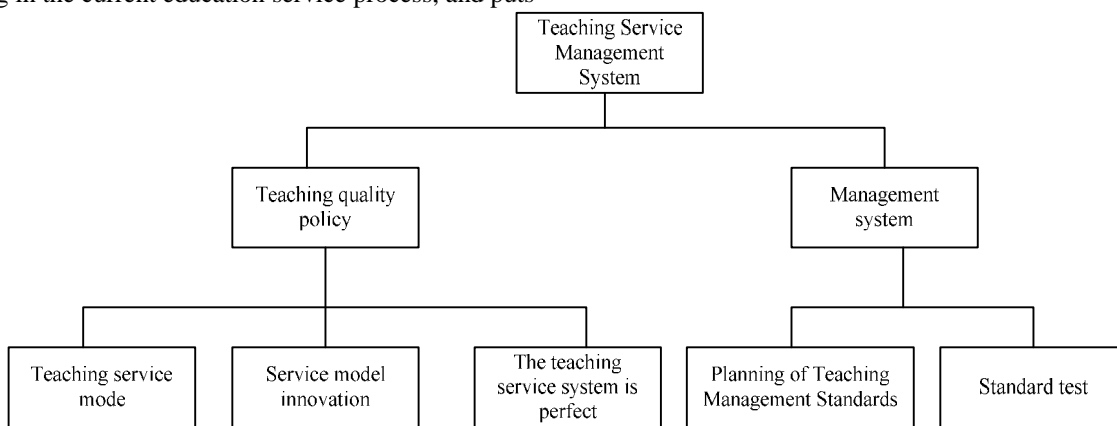


Figure 6. Teaching quality management standards

Because the ISO9000teaching service quality management standard was originally set up to reasonably control the service management quality of related enterprise organizations. In the process of applying ISO9000 standards to teaching service management, the importance of teaching service quality management principles and teaching methods has become increasingly prominent, setting the wide applicability and effectiveness of other teaching service organizations and management in colleges and universities. In order to better help colleges and universities to see a reasonable and effective educational service management model, improve teaching quality management and implement ISO9000family standards, and effectively exert the highest effect of college teaching. Therefore, in the process of studying the

management mode of educational service quality in colleges and universities, it is necessary to optimize the design of system management ideas and principles in order to better realize the close combination of teaching service process management and teaching service target management, scientifically and reasonably compile quality monitoring management documents, and accurately input teaching quality management elements, teaching management requirements and ISO9000standard management regulations in document management, so as to facilitate later comparative processing and testing. The teaching quality management document system is divided into four levels according to the programmatic document, guidance document, normative document and procedural document in the ISO9000 family standard, so

as to standardize the service management level, including the plan scheme and measures. The fourth level is to

record authentication documents, including appraisal and evaluation reports and records, as shown in the figure.

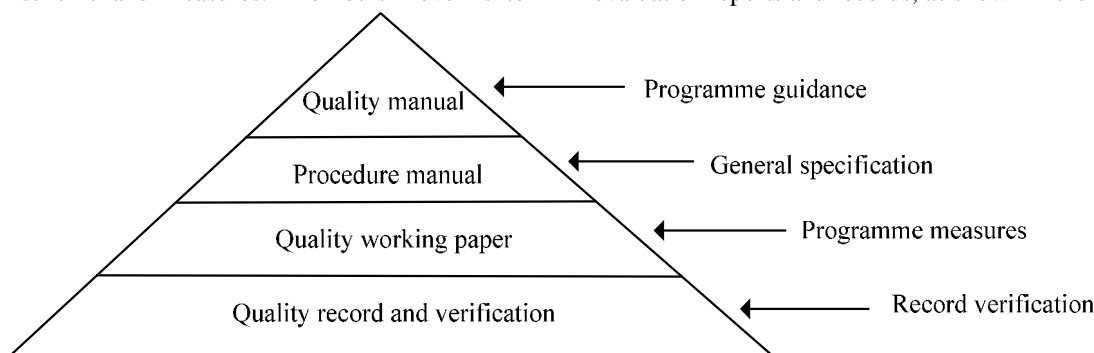


Figure 7. Division of service quality management levels in ISO9000 family standards universities

As shown in the figure above, the organizational level of service quality management in ISO9000 standard universities mainly includes the recording and verification of teaching service quality, the analysis of teaching service quality working documents and the related links to propose targeted measures, the general link of teaching service quality procedure manual specification, the guiding link of teaching service activities and quality management leadership program. In order to standardize the teaching service quality management standards through reading, scientifically decide the teaching management standards in colleges and universities, reasonably divide the teaching management links, effectively implement the teaching service management activities, optimize the management standards and process sequence to complete the activity allocation and related settings of the education service quality management, and specify the teaching service quality information, thus forming a closed-loop system, effectively retaining important information in the process of the education service management, and carrying out timely information feedback in a targeted manner, thus completing the optimization research on the management mode of the education service quality in colleges and universities.

The ISO9000 standard university service quality management model will be applied in the teaching process of a university. The model will be randomly applied to the teaching process of three different specialties and set as an experimental group, with 120 students in the experimental group. In order to better test the effect of the ISO9000 standard university service quality management model, the same number of students in the same specialty will be selected as a comparison group to obtain the quality information of teaching service management for a one-year comparative test. In the process of comparative testing and research on the management model of education service quality in colleges and universities, the relevant factors such as superior purpose and function are different, so the evaluation methods, methods and results are also different. In the process of efficient education service management, the evaluation criteria need to be classified to ensure that problems such as substitution and confusion are avoided between management regulations. Therefore, information integration on management criteria and coverage is needed in the process of teaching service quality management. First of all, statistics are made on the audit information of education standardization service quality management evaluation in institutions of higher learning, as shown in the following table:

3. Analysis of Experimental Results

Table 3. Audit information of educational service quality management evaluation in experimental group

Projects	Internal Audit	External Audit	
Audit Criteria	Organize QMS documents, contract requirements, laws, regulations and standards	Standard requirements Standard laws and regulations Audited party QMS file	Standard requirements Standard laws and regulations QMS file
Audit Coverage	Comprehensive audit Partial audit	Standard requirements	Registration certification or review Comprehensive audit Supervision and follow-up auditing are partial auditing
Auditor	From the organization	Relevant parties or their representatives	Independent certification / registration machine
Power	It's small on the surface	According to ISO9000standard	On the surface is very big
Proposal	To propose	Depending on existing problems	Put forward
Audit Time	It is up to the organization to decide	The two sides agreed	Specified person / days

In the same way, the review information of the education service quality management evaluation of the control

group students is integrated, and the specific information is shown in the following table.

Table 4. Review information of educational service quality management evaluation in comparative group

Projects	Internal Audit	External Audit	
Audit Criteria	Education and teaching laws and regulations	Contract requirements Audited party	Contract requirements
Audit Coverage	Education service quality audit	Contract requirements	Supervision and inspection
Auditor	From the organization	Relevant parties or their representatives	Independent certification / registration machine
Power	Larger on the surface	Total contract value determination	On the surface is very big
Proposal	To propose	Depending on the relevant policy	No
Audit Time	It is up to the organization to decide	The two sides agreed	Specified person / days

As shown in the above table, in the process of testing the education service quality management model, the ISO9000standardized education service quality management needs to be evaluated. The evaluation process is divided into internal and external audit modules. Through the integration and optimization of internal and external audit information, the quality of education service management can be more accurately obtained. By comparing the data information in Table 3 and Table 4, it

can be seen that although the educational service quality management standards are different, the main audit information is basically the same, so the two have the same effect in the experimental detection process. Combined with the above information for tracking and testing, the effectiveness and practicability of university education management mode are compared and tested, and the tracking and testing results of two groups of personnel are plotted as shown in the following figure.

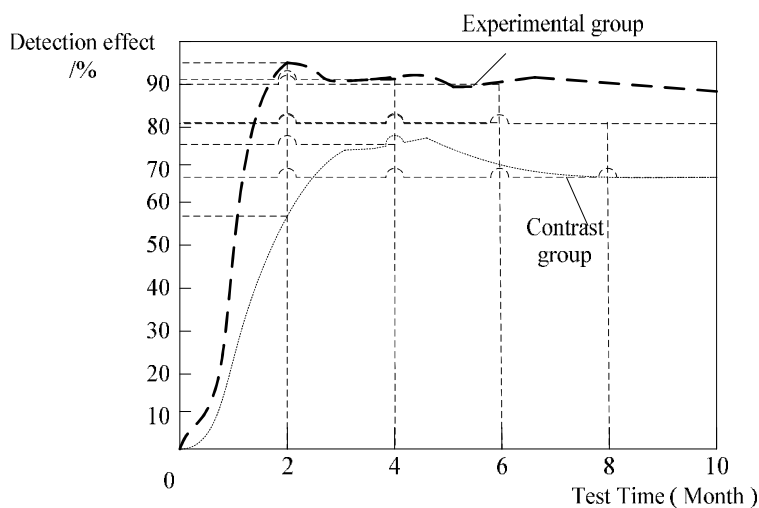


Figure 8. Compares the experimental results

By observing the above test results, it is not difficult to find that although the educational service quality management effect of the control group is better in the short term, its management effect program is slowly declining with the extension of time. In contrast, the experimental group's overall detection effect is relatively good in the observation process, and its detection result is relatively stable over time. Therefore, it is confirmed that the high-efficiency education service management model based on ISO9000family standard is relatively better than the traditional management method, and fully meets the

reform requirements of the teaching management model in colleges and universities.

4. Concluding Remarks

With the deepening of education reform, more and more attention has been paid to the research requirements of the education service quality management model. Therefore, the development status of the current university education quality management model is analyzed and studied, and the ISO9000 family standard is used to optimize and establish the education service quality management model and clarify the concept of education qual-

ity management. By comparing the actual application effects of the traditional education service management model and the education service management model based on ISO9000 family standards, the test results show that the ISO9000 education service quality management model is more effective than the traditional management model, and the stability is significantly increased compared with the traditional management model, fully meeting the research requirements.

References

- [1] Wang S.P. Analysis on the construction of quality management and evaluation system of university archives based on ISO9000 family standards. *Science and Technology Innovation Guide*. 2017, 14, 210 - 211.
- [2] Wang H.L. Research on evaluation of satisfaction degree of modern apprenticeship education service in higher vocational colleges based on ISO9000. *Industrial Technology and Vocational Education*. 2017, 15, 3, 62 - 65.
- [3] Li W.J. Research on the application of quality management system in the construction of internal quality assurance system in vocational colleges. *Science and Technology*. 2017, 24, 181 - 181.
- [4] Wang C.L. Practical significance and popularization value of research on quality management system of vocational skill appraisal in vocational colleges. *Science and Technology Information*. 2017, 15, 235 - 235.
- [5] Wang Q., An Q.J., Sun J., et al. Analysis of the objective requirements and significance of introducing ISO9000series management system into scientific research institutes. *Economist*. 2017, 34, 9 - 11.
- [6] Lu M., Liu X.Z., Wang X.R. Construction and enlightenment of higher education students perceived service quality evaluation model based on " internet plus" concept. *Modern Education Management*. 2016, 35, 8 - 13.
- [7] Zhang N.Y. Discussion on the work mode of integrating " Party Building +" into education management of ethnic preparatory students - taking education college of hubei university for nationalities as an example. *Science for the Public (Science Education)*. 2017, 34, 123 - 123.
- [8] Zhu R., Chen D.M., Zhu M.S. Quality evaluation of higher education under the development of government, university and society - taking typical models of france, britain and america as examples. *Journal of Hebei Economic and Trade University (Comprehensive Edition)*. 2016, 16, 116 - 122.
- [9] Liu L.W. Construction and practice of project management mode of educational reform in colleges and universities based on TQM theory. *Journal of Nanchang Institute of Education*. 2017, 32, 46 - 48.
- [10] Tu J.X. On the construction of student education management system matching with teaching-learning-doing integrated teaching mode-taking foreign affairs tourism college as an example. *Examinations Weekly*. 2017, 13, 27 - 28.