

Optimization for External Quality Assurance Mode of Higher Education

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Abstract—Based on the analysis of the development trends of higher educational quality assurance at home and abroad, the system design of the external quality assurance mode of higher education is studied from administrative power, academic power, and market influence, and some strategic suggestions of educational quality assurance such as policy support, organizational structure innovation, quality review orientation, administrative inspection and supervision, quality assurance motivation mechanism etc. are proposed.

Index Terms—institutions of higher education, educational quality, assurance mode

I. INTRODUCTION

The quality of education in colleges and universities is formed internally, but it is inseparable from external support, monitoring and guidance. The establishment of external quality assurance system of higher education is the need for improving the management of institutions, strengthen macroscopic guidance, mobilize the initiative of institutions in autonomous education and independent development, and continuously improve the quality and efficiency of running schools. It is of great significance to learn from the characteristics of the external assurance modes of higher education quality at home and abroad and find the development path of that for own.

II. THE CHARACTERISTICS ANALYSIS OF EXTERNAL QUALITY ASSURANCE SYSTEM OF HIGHER EDUCATION AT HOME AND ABROAD

Although the external quality assurance systems, the assurance models and the assurance measures of higher education in different countries are different, but compared with the external quality assurance models of higher education at home and abroad, there are some common characteristics as follows[1]-[3].

A. Have One or More External Quality Assurance Organizations that Enjoy Greater Autonomy and Independence

The quality assurance organization is crucial to whether the external assurance system is widely accepted by all sectors of the society. From the perspective of the situation of each country, there are both national institutions and regional departments; there are entities supported and funded by the government, but

independent of the government and established in accordance with the law, and there are also organizations directly managed by the government. There are four main types of institutions. One is based on unofficial evaluation agencies represented by the United States; the second is based on official evaluation agencies represented by France; and the third is based on intermediate evaluation agencies represented by the United Kingdom and Denmark; and the fourth is the coexistence of official and intermediate evaluation agencies represented by the Netherlands and Japan. Higher educational quality external assurance organizations in various countries have great autonomy and are independent from other government agencies largely and have the responsibility of meta-evaluation. The quality assurance organization is for the entire higher education system, not a specific institution.

B. Form an Operating Mechanism Based on the Internal Self-Evaluation of Colleges and Universities

The external assurance system must be based on the institution's internal self-assessment. Only when the faculty and staff regard quality assessment as their own activity, the external assurance system can be successful [4]. The internal evaluation of institutions can increase the sense of ownership and responsibility of the evaluated unit, and increase the possibility of quality improvement after evaluation. Therefore, the internal self-evaluation of the institution is a very important part, and it is also very important to invite people outside the school (such as the owner and alumni) to participate in the consultation during the self-evaluation process. The evaluation steps of external quality assurance are roughly the same in various countries. Generally, the assessed institution or the assessed discipline submits an application and a detailed self-assessment report, and then the quality assurance agency refers to the self-assessment report through on-site visits, seminars, etc. to learn about the actual situation, and finally write evaluation report and notify the evaluated unit, etc.

C. Emphasizes Peer Review, Especially On-site Visits by Outside Experts

Peer review is a process of giving legitimacy to the entire evaluation process on the basis of self-evaluation. The sources of assessment experts are diversified. They not only invite experts and educators in their own disciplines and majors, but also extensively recruit

representatives from the employing department. Both domestic scholars and authorities, and foreign experts in the field are also required. For visits of different nature, such as reviewing the content and level of a major, or reviewing management at the college level, experts should have different academic and management backgrounds.

D. Variety of Content and Forms of Quality Assurance Assessment

From the perspective of quality assurance evaluation content, most countries have both academic evaluation and professional evaluation [5], [6]. The quality assurance model in the United States is relatively complete, including three levels: First, professional and academic accreditation. Now it has 6 national-level appraisal institutions, 9 regional institutions and 40 professional institutions. The second is the reputation survey of colleges and departments. Reputation survey is a survey aimed at the results of professional education in colleges, departments and disciplines. It can be carried out by the school itself, or by academic groups, government departments, quality assurance intermediaries, and news organizations. It is usually conducted through alumni surveys, peer review, etc., or the community, the press, students, and parents participated in the selection. The third is academic ranking. The conclusion of academic ranking is applicable to a certain college or subject group of teachers and students, not to individuals. Academic ranking is mainly the evaluation of educational institutions from outside educational institutions, which has the nature of social supervision and inspection.

E. Establish an Evaluation Result Report System and Attach Importance to the Use of Evaluation Reports

It is very important to report peer review conclusions in an appropriate manner. The main function of the quality assessment report is to help colleges and disciplines to improve the quality level [7], [8]. In the report, colleges and universities are allowed to put forward opinions that are different from peer review. Between the quality evaluation results and the government's higher education funding decision, a flexible indirect relationship is generally established, that is, the quality evaluation results are input into the funding decision-making process as one rather than the only factor. In many developed countries, the systems, policies, and mechanisms for external quality assurance are closely matched, and the goals of the upper and lower levels are the same. This has become a necessary and objective two-way choice. Government departments use the results of quality evaluation to ensure the educational quality and talent quality requirements of colleges and universities, and realize the macro-control of the colleges and universities; With the help of the quality assessment results, the colleges and universities have obtained funding and support from government and social, and have achieved sustainable development in the fierce competition.

F. Establish an Evaluation Result Report System and Attach Importance to the Use of Evaluation Reports

Throughout the quality assurance systems of higher education in various countries, many quality assurance guidelines, policies, and organizations are recognized and supported by laws, and are legal and authoritative [9]. For example, the French National Evaluation Committee was established with the approval of the President and the Parliament. It is recognized and protected by law and is a national institution with greater authority. In a sense, the reason why higher education quality assurance activities have received increasing attention from all countries is that in addition to the gradual increase in people's requirements for the quality of education, the legal support of various countries has played a very important role.

III. OPTIMAL DESIGN OF THE EXTERNAL ASSURANCE MODEL OF EDUCATIONAL QUALITY IN HIGHER EDUCATION

Society, academia, and employers (as well as individuals and families) are the three major interest groups faced by higher educational institutions. This shows that administrative power, academic power, and market influence have an important impact on the education system. Establishing an educational quality assurance model of administrative power, academic power, and market influence is an ideal choice for optimizing the external assurance system of educational quality in higher education institutions [10]-[12].

A. Take Administrative Power as the Main Body, and Improve the School Running Level and Comprehensive Evaluation System of Teaching Work

The administrative power in the education management of colleges and universities refers to the ability of the leading agencies and personnel of colleges and universities to manage the colleges and universities in accordance with certain laws and regulations in order to achieve the goals of construction and management[13]. The function mode of administrative power is to require obedience and compliance from top to bottom through instructions, commands, and resolutions, which is mandatory to a certain extent. The purpose of administrative power in the educational management of colleges and universities is to ensure the implementation of school policies and school-running ideas and principles, and to ensure that the construction goals and educational quality of colleges and universities can be realized. Colleges and universities can realize their own value and be recognized by the society when they meet the talent needs of modernization. It can be seen that the long-standing practice of organizing peer experts to conduct educational evaluations by the competent departments or functional agencies of institutions at all levels is reasonable. Only in this way can the leading agencies control the development direction of the colleges and universities at a macro level, ensure the formulation of various policies is reasonable, and make the evaluation work receive support smoothly from all aspects.

Due to the characteristics of strong planning in talent training and high degree unified requirements in colleges and universities, it should be said that administrative power occupies a dominant position in the process of external assurance of the educational quality of colleges and universities. In the external assurance model of educational quality in higher education institutions, the totality and dominance characteristics of administrative power should be fully reflected, and the overall quality of education should be supervised, checked and controlled. The first is to establish and improve a comprehensive evaluation system for the running level of higher education institutions. Through the comprehensive evaluation of the school-running level of the institution, the quality and level of the school's guiding ideology, talent training, scientific research, and social service are comprehensively inspected, to grasp the overall functional status of the evaluated institution, affirm the results, diagnose problems, promote the coordinated development and continuous improvement of various tasks of the colleges and universities, promote the close contact between the colleges and the society and provide a basis for the decision-making of the competent departments of the colleges and universities. The second is to establish an evaluation system for teaching work in higher education institutions. Based on the experience accumulated in the evaluation of teaching work in colleges and universities in recent years, the evaluation of teaching work should be improved in terms of improving the evaluation index system and standard requirements suitable for different types and levels of colleges and universities, strengthening classification guidance, evaluation guidance, and use of evaluation results.

B. With Academic Power as the Main Body, Establish Third-party Appraisal and Certification of Majors and Courses

The participation of academic power in the management of higher education institutions is determined by the laws of higher education. Institutions of higher education are not ordinary social organizations, and their special missions require a high degree of centralization and unification of command. The internal power structure has its own particularities; however, institutions of higher education are an organic part of the country's higher education and when maintaining the characteristics of education, the laws of higher education must be followed, so there is an inevitable requirement for academic power to participate in the management of institutions. Judging from the actual situation of the education of higher education institutions, the decision-making management of higher education institutions has always been centered on administrative power. The participation of academic power in the management of institutions is not sufficient in depth or breadth, which caused that on one hand, there are unbalance and incoordination between academic power and administrative power, on the other hand there are also not conducive to the scientific and democratic decision-making and management of colleges and universities, and ultimately is not conducive to the development of colleges and universities.

Creating an effective mechanism for the use of academic power in education quality management is an important part of optimizing the external assurance model of educational quality in higher education institutions^[14]. Specific conceive: First is to establish a quality assurance academic institution under the guidance of the competent department of institutions, and conduct qualification appraisal on the discipline settings of institutions of higher education based on peer evaluation in academia. The second is to establish a regional professional quality assurance organization and conduct curriculum construction quality certification for core courses or main courses of universities under the guidance of the competent departments of large institutions and universities, or rely on the collaboration center of universities and colleges. The third is to take the lead by the quality assurance academic institutions of higher education institutions, attract local higher education authorities, employer experts, and institutions in charge to participate in regular academic rankings of similar majors in higher education institutions.

C. Take Market Influence as the Main Body, Improve the Mechanism for Employers and Students to Evaluate the Quality of Education

The conformity of market influence with actual demand determines that market influence plays an indispensable role in the external assurance of the quality of higher education institutions. When measuring whether the quality goals of higher education institutions are achieved, the status of employers and students as the main body of the evaluation undoubtedly needs to be fully reflected. In terms of what is the quality of higher education, what are the factors that affect the quality of higher education, how to measure the quality of higher education, and other issues, employers and individual students as the subject of evaluation have a unique perspective and understanding, and their focus is different from that of colleges. The focus of the requirements of school authorities and academic institutions will be different as reflected in the content of education quality assurance. This will play a very good role in promoting the educational reform and quality improvement of colleges and universities, and play a complementary role in establishing and improving the educational quality assurance system of colleges and universities.

The following countermeasures can be adopted to establish and improve a mechanism for employers and individual students to assess the quality of education. The first is to establish a quality evaluation mechanism for the employers to graduate students from institutions of higher education. The quality of talent training is lagging and latent, and the effect of education can only be manifested gradually within a period of time after graduate. Colleges and universities control and improve the quality of education, and it is necessary to frequently collect feedback on the quality of graduates. The employer's assessment of the quality of graduates from colleges and universities can timely and truly reflect the actual situation of student quality, and then reflect the overall quality level of college graduates and the education and

teaching situation of colleges and universities, so this evaluation becomes a mirror that reflects what the society actually needed. The second is to establish a mechanism for students to assess the teaching level of teachers. Long-term research and empirical investigations conducted by education experts at home and abroad have shown that students' evaluation of the teaching level of teachers has a high degree of validity and reliability. Students' assessment of teachers' teaching level activities can be arranged one or two years after the end of the course to improve the effectiveness of "teaching assessment by learning". The third is to establish a reputation investigation mechanism for institutions. Use the peer review method and follow-up investigation method to conduct a school reputation survey. Focusing on experts from the employers, appropriately absorbing experts from quality assurance academic institutions, and evaluating the reputation of colleges and universities where talents in various positions in the society are educated. It can also organize alumni to make a fairer evaluation of the alma mater on the basis of comparing similar institutions.

IV. EXTERNAL ASSURANCES MEASURES FOR THE EDUCATIONAL QUALITY OF COLLEGES AND UNIVERSITIES

For higher education institutions, the external assurance of educational quality is mainly to create an atmosphere conducive to maintaining and improving the quality of education in terms of legal regulations, organizational structures, school funding, social influence, and competition incentives. That is to say, external assurance is the effect of ensuring the quality of education by means of regulating the survival and development of colleges and universities. Generally, the following assurance measures should be taken.

A. *Regulatory Policy Support*

The legal and policy support for the educational quality assurance system of higher education institutions includes not only the educational regulations and policies formulated by units at all levels, but also the application of laws and policies promulgated by the state. The characteristic of legal policy assurance is that its formulation and modification have to go through certain procedures, which are serious, normative, coercive and stable. It is backed by state power and has corresponding authority and coercive force.

B. *Innovation of Organizational Structure*

External quality assurance should be implemented by a relatively independent organization with specific institutional status, clear responsibilities. The author believes that the organizational structure of the educational quality assurance system of higher education institutions can be constructed on two levels: administrative power system, and academic power with market influence system. In the administrative power system, based on the relative separation of educational administration and education quality assurance in high educational institutions, and the consideration that

managers and supervisors perform their duties, it is recommended to set up a leading institution for educational quality assurance in higher educational institutions in the General Staff Department, and establish a higher educational quality assurance committee and its expert database. At the level of large units and colleges, establish corresponding leading institutions and expert organizations. The positioning of the leading institutions for educational quality assurance in higher educational institutions lies between administrative units and academic organizations. In the academic power and market influence system, relying on academic organizations, professional associations, and college collaboration centers, establish quality assurance academic institutions and regional professional quality assurance organizations, and conduct quality assurance activities of college education under the authorization or entrustment of the competent departments of colleges and universities at all levels.

C. *Quality Review Orientation*

The results of quality evaluation obtained through evaluation, auditing, problem diagnosis, information and consulting services, etc. are not only linked to the training tasks and professional setting adjustments of the colleges and universities, but also affect key construction projects, funding and equipment resource investment, and the satisfaction of employers. Therefore, the external quality evaluation has become the "baton" of the internal education and teaching activities of the colleges and universities to some extent, forming external situation of "what to evaluate" and internal "what to value". What needs special attention is that in the educational quality assurance system of higher education institutions, it is necessary to change the phenomenon of excessive reliance on administrative power for decision-making management, give full play to the role of academic power in decision-making management, and improve decision-making, deliberation and consultation, executive command, and supervision and assurance, making the academic power and administrative power to complement and coordinate and play a role together. Through the objective, fair and scientific review of educational quality assurance academic institutions (professional organizations), not only can it better diagnose the advantages and disadvantages in the education and teaching process, correct deviations in a timely manner, and sum up successful experiences and failures, but also pass on the requirements of superiors, the diversified needs of the society and the advanced experience of other colleges and universities in education quality assurance to the evaluated institutions in a timely manner. Based on the specific problems of the colleges and universities, corresponding correction measures should be proposed to increase the pressure, motivation and vitality of evaluated institutions for teaching reforms, and thus playing a guiding role.

D. *Administrative Inspection and Supervision*

Although the departments of colleges and universities at all levels are based on macro-control, but necessary administrative orders, instructions, regulations, and

inspection and supervision measures are still very important to assure the quality of education. For example: inspect and supervise the rules and regulations of the educational administrative agency and the provisions of the system to see if there is any violation of the laws and regulations related to education quality assurance; inspect and supervise the educational administrative agency and its staff in the implementation of the relevant education quality assurance laws to check whether there are problems with poor implementation in the process of laws and policies, etc. In recent years, all levels have conducted teaching quality inspections and random tests on the main basic courses and basic skills training of some colleges and universities, and the inspection results has been notified, which has played a good monitoring role in urging colleges and universities to improve teaching quality.

E. Quality Assurance Power Mechanism

With the transition from micro-management to macro-management in the functions of the departments of institutions at all levels and the continuous improvement of the degree of independent education by institutions in accordance with the law, institutions of higher education have entered a period of unbalanced development. They must provide high-quality education and cultivate high-quality talents for seeking their own survival and development. Therefore, it is possible to establish a motivation mechanism for educational quality assurance in institutions through institutional constraints, spiritual incentives, and interest-driven methods to form incentive and restrictive effects, and guide institutions to consciously, actively and actively do educational quality assurance work [15], [16]. One is construction support of key project. Link the results of quality evaluations such as level evaluation, appraisal, academic ranking, reputation survey, etc., with key construction projects such as key colleges, key disciplines, key professions, key laboratories, high-quality courses, and quality textbooks. Ensure that it has direct or indirect impact on the construction of colleges and universities, subject authorization points, and professional settings. The second is performance appropriation incentives. Break the "big pot meal" phenomenon of educational funding distribution, establish a merit-based funding method based on the evaluation of educational quality, school running level, effectiveness and efficiency of organizational management, and implement performance funding for a certain proportion of the total funding to ensure the quality of education Colleges and disciplines with high levels of education can receive more investment in education and encourage their further development. The third is the enrollment plan constraints. The training method reform of the "integrated training of academic qualifications and separation of job-holding education" has given greater scope for regulation and control of the enrollment scale of higher education institutions. Using quality assessment as a means, using competition and market mechanisms to allocate enrollment plans can increase the importance of colleges and universities on education quality assurance. For

colleges and universities with high education quality and high level of education, the number of enrollment can be appropriately increased to expand the scale of school; conversely, for institutions with poor management and low education quality, the number of enrollment should be reduced and rectification and improvement should be made within a time limit. The fourth is the influence of public opinion propaganda. According to the results of the quality review, some colleges and disciplines will be awarded corresponding honorary titles or certifications, and public opinion propaganda will be strengthened to expand social influence. It can not only stimulate the sense of responsibility and honor of the faculty and staff of relevant colleges and universities, and attract better students, but also increase the internal motivation, external pressure and target attraction of other colleges and universities to strengthen education quality assurance.

V. CONCLUSION

By analyzing the development trend of higher education quality assurance at home and abroad, the system design of the external quality assurance model of higher education can be deeply considered in terms of administrative power, academic power, market influence, etc., adopting policy support, organizational structure innovation, quality review orientation, Administrative inspection and supervision, quality assurance incentive mechanism and other safeguard measures.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Li Haiyan wrote the main content of the thesis; Huang Huang made corrections; other authors did literature review and other work. All authors approved the final version.

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