

**QUALITY MANAGEMENT MEASURES OF SPECIALTY
CONSTRUCTION PLANNING OF HIGHER VOCATIONAL EDUCATION
IN CHINA - INTERNAL DIAGNOSIS AND IMPROVEMENT**

^{1,2}*Hejun Zhao,*

³*Guohou Li*

¹Sumy National Agrarian University Ukraine

²Xinxiang vocational and technical college China

³Henan Institute of Science and Technology China

Abstract: Since 2015, China has gradually established and promoted the diagnosis and improvement of teaching work in vocational colleges across the country. As the core content of this work, the quality management of specialty construction planning is very important in the diagnosis and improvement of teaching work. It involves the objectives, standards and plans of specialty construction. It is the basis for establishing talent training plans and the core element to ensure the teaching quality of vocational education. This paper expounds the main contents and working principles of diagnosis and improvement of specialty construction planning, discusses the working measures that should be taken for diagnosis and improvement, and puts forward solutions to the problems existing in the current work, which plays a certain role in promoting the quality of specialty construction planning.

Keywords: Vocational education, Specialty construction, Management, Diagnosis, Improvement

On June 23, 2015, the General Office of the Ministry of Education of The People's Republic of China issued a document, deciding to gradually promote the establishment of a teaching diagnosis and improvement system in vocational colleges nationwide and carry out teaching diagnosis and improvement in an all-round way from the autumn semester of that year. The introduction of this policy is to implement the decision of the State Council on accelerating the development of modern vocational education and establish a mechanism for normalized vocational colleges to independently ensure the quality of talent training. Its purpose is to improve the training quality of technical and skilled talents, build a modern vocational education system, so that vocational education can actively adapt to the new normal of economic development, serve made in China 2025 and create greater talent dividends.

In the past seven years, in the process of implementing this system, higher vocational colleges have successively established the diagnosis and improvement system of teaching work, give full play to the main role of the school in educational quality assurance, and constantly improve the internal quality assurance system and operation mechanism. Therefore, this system is an important measure and institutional arrangement to continuously improve the training quality of technical

and skilled talents. It is also an important form for China's education administrative departments to strengthen supervision during and after the event and perform management responsibilities. It is of great significance to accelerate the development of modern vocational education.

In the guidance plan for the diagnosis and improvement of the internal quality assurance system of higher vocational colleges issued by the Ministry of education, a total of 15 diagnostic elements and 37 diagnostic points are set, involving five aspects: the overall framework of the system, the specialty quality assurance, the quality assurance of teachers, the comprehensive development assurance of students and the operation effect of the system. Among them, the quality diagnosis and improvement of specialty construction planning is the core content.

Specialty is the main body and basic unit of talent training in higher vocational schools. It is also the core carrier for higher vocational schools to realize social functions such as talent training, social services and scientific research and college characteristics. The implementation of specialty diagnosis and improvement is an effective measure to implement the independent guarantee and monitoring of specialty teaching quality and promote the continuous improvement of specialty construction level and talent training quality. [1] This paper will focus on the quality diagnosis and improvement of specialty construction planning.

1. Main contents of diagnosis and improvement of specialty construction planning

The diagnosis and improvement goal of specialty construction planning is the main basis for standard formulation, and the goal is the source of the power of diagnosis and improvement. Diagnosis and improvement is to find the existing problems and deficiencies through the comparison between the actual situation and the construction goal, so as to correct and solve the problems and promote the benign development of the school specialty. [2] Therefore, the diagnosis and improvement of specialty construction planning mainly involves the following three diagnosis points. (see Table 1)

From the table, we can see that the diagnosis of the quality of specialty construction planning needs to be made from three diagnostic points: planning formulation and implementation, objectives and standards, and condition guarantee. Correspondingly, each diagnosis point is set with relevant diagnosis contents, so as to provide basis for the work of managers. All higher vocational schools need to combine the diagnosis content with the usual management work to make the school management meet the national requirements for education quality management.

Table 1. Diagnosis and improvement content of specialty construction planning

Diagnostic items	Diagnostic point	Diagnostic content
Specialty construction planning	Planning formulation and Implementation	Whether the specialty construction plan is in line with the actual development of the school and whether it is feasible; How about the implementation of the plan and whether the specialty structure is continuously optimized.
	Objectives and standards	Whether there are clear specialty construction objectives and standards; Whether the specialty talent training program is standardized, scientific, advanced and continuously optimized.
	Condition guarantee	Whether the new specialty setting procedure is standardized; Whether there are clear guarantee measures for specialty construction conditions (funds, teachers and experimental training conditions).

2. Basic principles of diagnosis and improvement of specialty construction planning

The diagnosis and improvement of specialty construction planning must follow certain working principles. First of all, the diagnosis and improvement work should be mainly based on the analysis of the working state data of school talent training, combined with flexible and effective practical investigation and research, so as to realize the combination of data analysis and practical investigation. [3]

Secondly, while the Ministry of education issues the work plan, it allows all provincial education administrative departments to adjust and supplement the provincial implementation plan according to the actual situation on the basis of the national plan. Vocational schools can also supplement diagnosis and improvement contents conducive to personalized development on the basis of provincial programs. In this way, we can not only adhere to standards, but also pay attention to characteristics.

Third, this work is based on the independent diagnosis and improvement of higher vocational schools, and the education administrative department carries out sampling review of schools according to needs.

The setting of the above three working principles reflects the scientificity and effectiveness of the internal quality management diagnosis and improvement of China's higher vocational education. On the premise of ensuring unified quality control standards, we should create higher vocational education with regional characteristics to meet the needs of economy and society. [4]

3. Diagnosis and improvement measures

In the process of diagnosis and improvement of specialty construction planning, the education administrative department requires that the independent higher vocational colleges should complete the diagnosis and improvement of quality assurance system at least once every three years. In addition, the Ministry of education of the people's Republic of China requires all provincial education administrative departments to sample and review no less than 1 / 4 of the total number of schools every three years on the basis of independent diagnosis and improvement of schools.

Since the effect of diagnosis and improvement is related to the evaluation of school education quality, each school has incorporated the diagnosis and improvement into the routine education quality management of the school according to the above requirements. Among them, the following measures have been taken for the diagnosis and improvement of specialty construction planning:

3.1. Self diagnosis and improvement

Autonomous diagnosis and improvement requires higher vocational colleges to regularly diagnose and improve the operation and effect of the internal quality assurance system according to the provincial diagnosis and improvement implementation plan and the data of the national talent training work status data collection and management platform of higher vocational colleges, and write the autonomous diagnosis and improvement into the annual quality report of the University. Of course, the school can arrange internal staff to carry out self diagnosis and improvement, and can also independently hire external experts to participate.

To diagnose and improve the specialty construction plan independently, the following work shall be completed:

3.1.1. Determine specialty construction objectives

Generally speaking, the specialty construction goal is determined by the specialty construction Steering Committee of the university through careful research according to the basic conditions of the specialty and the current situation and future trend of specialty development.

3.1.2. Determine specialty construction standards

When establishing specialty construction standards, we should refine and decompose the specialty construction objectives into specific construction tasks, and form monitorable, quantifiable and descriptive data or indicators, which is the concretization, quantification and task of construction objectives. The specialty construction standard should have both quantitative data and qualitative description, including estimating the scale of specialty students, determining the composition and structure of specialty teaching team, clarifying the quantity and quality of teaching resource construction (including courses, teaching materials, etc.), the practical teaching conditions of construction (in school training room, out of school practice base, etc.), the ways and methods of organizing and carrying out teaching activities, and the mode and degree of implementing the integration of industry and education, etc. [5]

3.1.3. Determine the specialty construction plan

After determining the specialty construction objectives and standards, it is necessary to formulate the specialty construction plan and form the implementation plan of specialty construction. Based on the analysis of the current situation of the specialty, the scientific specialty construction planning should put forward the objectives and standards of specialty construction, systematically plan the specialty talent training mode, curriculum construction, textbook construction, teaching staff construction, practice and training base construction and teaching resources construction, and formulate corresponding construction measures or improvement strategies. At the same time, the planning should be transformed into specific phased work tasks to form an annual implementation plan, Organize the implementation by year to ensure that the construction objectives and standards are completed according to the plan. [6]

3.2. Sampling review

The main purpose of sampling review is to test the effectiveness of school independent diagnosis and improvement. The provincial education administrative department is responsible for organizing sampling review. Schools listed in the review need to submit relevant specialty construction planning materials. These materials include: Research Report on specialty talent demand and ability demand, specialty teaching standards and talent training plan, curriculum and textbook construction report, teaching resource construction report, teaching condition construction report, teaching means and method reform report, teaching quality management system, social service achievements, etc. Moreover, these reported materials are required to be fully publicized on the campus network 30 days before reporting, so that the teachers and students of the school can exercise the right of supervision. [7]

Through the self diagnosis and improvement of higher vocational colleges in accordance with the standards and the sampling review of provincial education administrative departments, the continuous improvement of specialty teaching quality is ensured and the healthy development of the profession is promoted.

4. Existing problems. When diagnosing and improving the specialty construction of vocational colleges, some existing problems are also found, mainly in the following aspects:

4.1. Lack of quality awareness. Vocational colleges are used to formulating their own rules and regulations according to the policies and plans of higher education authorities, and generally lack a sense of self quality assurance. [8]

4.2. Qualitative data evaluation is difficult. In the process of diagnosis and improvement, there are some qualitative data, but it is very difficult to evaluate these qualitative data. For example, in the evaluation of whether the talent training program is scientific and effective, it is very difficult to determine whether to pay attention to the all-round development of students. It is difficult to evaluate the results of this problem effectively and accurately only by some words. [9]

4.3. In the evaluation of qualitative problems, the quantitative data used can not express the evaluation results very accurately However, the data collected and improved by the national specialty training platform can not be used to accurately measure the status of all specialty training and management of colleges and universities. Therefore, it will cause the error of evaluation results.

4.4. The evidence of individual diagnostic points is difficult and complex. For example, when evaluating the characteristics of specialty construction, the data needed to be used involve specialty training objectives, training mode, curriculum system and teaching content, practical teaching, teaching design and teaching methods, teaching staff, social services, apprenticeship reform, the connection between secondary vocational education and higher vocational education, demonstration guidance, international cooperation and other aspects. It is obvious and very complex. This kind of complex analysis needs to use a large amount of data, and the workload is very large. In addition, there may be some errors in each data involved, so the final analysis results may not be accurate. [10]

4.5. Lack of data management platform makes it difficult to diagnose data. At present, most vocational schools lack a data platform that can directly collect the real-time information of grass-roots teachers, students, courses and majors. These schools often diagnose with the help of the national vocational college talent training status data collection platform system. In this way, the effective data of specialty development cannot be collected from the source in time, and it is difficult to accurately analyze the adaptability of specialty development to specialty needs, the compliance of specialty school running conditions, the realization of specialty development objectives and the compliance of specialty school running quality. The specialty diagnosis and improvement report for further specialty development cannot be accurately formed. [11]

5. Improvement measures.

5.1. Set evaluation criteria scientifically and reasonably. In the diagnosis and improvement of specialty construction planning, setting evaluation standards scientifically and reasonably can better explain the quality control effect of quality management on diagnosis points. The establishment of evaluation standards should achieve the diversification of evaluation subjects and evaluation contents, the evaluation standards should also be flexible and open, and the evaluation methods should be practical and operable. Only in this way can the evaluation results be more convincing. At the same time, the evaluation criteria should be quantifiable to eliminate the impact of subjective evaluation on diagnosis and improvement. [12]

According to the above situation, we sorted out the evaluation contents in the diagnosis and improvement of specialty construction planning. [14] (see Table 2)

Table 2. Diagnosis and improvement work items of specialty construction planning

Project	Content
Construction of teaching staff	The number of teachers, double teacher ratio, student teacher ratio, the proportion of specialty experts in the industry, the number of master studios, the level of specialty teaching team, the number of core journal papers, the number of training and refresher teachers, the number of edited textbooks, the amount of off campus technical services, the number of enterprise exercises under full-time teachers and the total length of enterprise exercises under full-time teachers;
Course construction	Number of specialty courses, number of completed course standards, degree of achievement of course teaching objectives and course learning satisfaction;
Construction of training base	The number of on campus training bases, the number of on campus training rooms, the utilization rate of on campus training rooms, the area of on campus training rooms, the number of training projects, the number of off campus training bases, and the number of interns received by off campus training bases;
Construction of teaching resources	The level of specialty resource pool, the number of specialty resource pool resources, the level of quality online shared courses, the number of quality online shared courses, the level of quality online open courses and the number of quality online open courses;
School enterprise cooperation	The number of cooperative enterprises, the number of internship positions provided, the number of interns, the number of employment of school enterprise cooperative units, and the number of students trained by orders;
Talent training quality	Number of students in school, employment rate, skill certificate acquisition rate, specialty counterpart rate, total number of awards in student skill competition, number of student innovation and entrepreneurial activities, and average salary level;
Social recognition	The first voluntary rate, specialty stability rate, actual admission rate, actual check-in rate, employment specialty counterpart rate, and employer satisfaction rate.

5.2. Highlight the improvement of teaching work

Some schools mistakenly put the focus of their work on diagnosis in the diagnosis and improvement of teaching work. Diagnosis is important, but the focus should be on improving the problems found, which is the purpose of the country's implementation of teaching diagnosis and reform. Understanding the core requirements of this work requires us not only to pay attention to the diagnosis process of finding problems, but also to improve the deficiencies in the work through active work measures, and constantly

improve the teaching quality assurance system, so as to make the control of teaching quality in a normal and high-standard operation state.

5.3. The evaluation of teaching quality should collect source data and highlight the role of core data

If there is a gap between the current situation or development state of a thing and our expectations, it indicates that there must be some influencing factors, but some of these factors are primary factors and some are secondary factors. In the process of diagnosing the teaching quality, it is also necessary to distinguish between the main factors and secondary factors, innovate the teaching quality evaluation system based on information technology, build the source data collection platform, and find the most core elements. [13] Compared with some extended data, students' evaluation of teaching effect and employers' evaluation of graduates' quality are the most important. In the process of evaluating teaching quality, we must highlight the role of such data in order to make the evaluation results closer to objective facts.

6. Conclusion

The specialty construction of higher vocational colleges is the core content and an important part of the school. The specialty construction standard is an important factor affecting the quality of specialty construction and specialty development. It directly affects the improvement of talent training quality and teaching level. At the same time, it is also the core element of diagnosis and improvement of specialty teaching. Although there are still some problems in the diagnosis and improvement of teaching work, with the continuous improvement and perfection of the work plan, the source power of quality management is more focused on the school itself, give full play to the functional role of quality elements and the enthusiasm and initiative of school self quality assurance, and formulate scientific and perfect Specialty construction standards that meet the requirements of regional economic development and the orientation of school running objectives, constantly improve the relevant standard system of specialty construction, and standardize the objectives, contents, measures and quality requirements of specialty construction, teaching diagnosis and improvement will certainly achieve more outstanding results, which will make an important institutional guarantee for the improvement of the quality of Vocational Education in China.

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