

Exploration of the implementation path of Specialty diagnosis reform in higher vocational colleges

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Abstract: To effectively address the pressing issues in the current specialty diagnosis and reform in higher vocational colleges, the research team proposes the concept of developing a hierarchical and classified specialty diagnosis and reform system through practical experimentation. Highlighting the implementation, process, and impact of this reform, with reference to the reform system and its application in the Yangzhou Polytechnic Institute, it demonstrates that this system can significantly improve the quality assurance system in the experimental school, enhance the quality of major construction, and provide theoretical references for specialty diagnosis and reform work in other higher vocational colleges.

1. Introduction

Recently, the Ministry of Education of the People's Republic of China issued a circular of the General Office, outlining the establishment of a diagnosis and improvement system for teaching in vocational colleges. This serves as a crucial measure and institutional framework to guide and assist schools in conducting teaching diagnosis and improvements, continuously refining their internal quality assurance systems and operational mechanisms. However, the objectives for specialty construction in higher vocational colleges are often overly generalized, lacking the specificity and tailored approach required for each individual specialty^[1-2]. Moreover, the standards for specialty development and diagnostic points are overly uniform, disregarding the unique characteristics of each specialty, thus significantly hampering the scientific and effective implementation of reforms. Therefore, there is an urgent need to upgrade the specialty reform framework. As one of the second-batch experimental colleges in Jiangsu Province, our school has passed the evaluation of internal quality assurance system, therefore, our experience can serve as a reference for other colleges.

2. The implementation of specialty reform ideas

The purpose of diagnostic reform at the specialty level is to establish a targeted system for specialty construction, refine the standard system and overall framework, elevate the level of specialty construction, and enhance the quality of technical talent training. It is recommended that self-diagnosis and continuous improvement should be conducted based on semesterly monitoring and early-warning mechanisms. The specialty leader serves as the primary agent for specialty diagnosis and improvement. In accordance with the specialty development plan, the major construction is executed, the major construction is implemented, the specialty diagnosis and reform are coordinated, and the specialty development is advanced. As a member of the National Diagnosis and Reform Committee, our school has pioneered in creating the 2.0 version of specialty diagnostic reform, proposing the construction of a hierarchical specialty diagnostic reform system that classifies according to national, provincial, institutional, and general specialties. Based on the National Benchmark, provincial high-level specialty group, institutional high-level specialties, and institutional general specialties, the specialty development goals, major construction standards, and

specialty construction diagnosis criteria are formulated.

3. The Implementation Process of Specialty Reform

(1) Setting Goals and Standards

Pursuant to the school's five-year development plan, the school's teaching committee formulates the construction plan for the school's specialties^[3], which defines the objectives and tasks for the next five years of specialty construction, as well as the evaluation criteria for such construction. Secondary-level colleges are responsible for devising their own college-specific professional construction plans, outlining detailed annual construction tasks and assessment standards, and clarifying the annual construction tasks for each specialty. The teaching and research departments conduct professional construction in accordance with the professional construction plan, organize teaching implementation, carry out self-diagnosis and reform, and regularly submit a report on the previous year's professional diagnosis and reform.

(2) Operational Monitoring and Early Warning

Each secondary college, in conjunction with and relying on the specialty diagnosis and reform system, shall be responsible for examining documents such as specialty development plans, implementation plans, specialty standards, reports on diagnosis and reform, annual reports on the quality of personnel training, and so forth. The colleges will systematically push forward the work of professional diagnosis and reform^{[4]-[5]}. Each major focuses on the core elements of specialty (group) development in accordance with the construction tasks, considering aspects such as personnel training, curriculum and resources, teaching staff, platform carrier, service ability, communication, and cooperation. They formulate diagnostic elements and set diagnostic standards, primarily utilizing the specialty (group) diagnostic reform system, high-level school construction management system, and intelligent vocational education platform as supplementary tools. Real-time data collection on the status of the major (group) is conducted, and self-monitoring and continuous improvement are achieved. Relevant functional departments effectively manage the process of major construction in terms of personnel training, curriculum and resources, teachers' team, platform carrier, service ability, communication, and cooperation.

(3) Implementing Diagnosis and Improvements

Based on the classification of national benchmarking specialties, provincial high-level specialty group, institutional high-level specialties, and institutional general specialties, the specialties (or groups) are stratified for management, taking into account their respective construction objectives, standards, and diagnostic points (as outlined in Table 1, which details construction objectives, construction standards and diagnosis points of high-level specialty). Each specialty (or group) conducts independent diagnostic assessments and pursues continuous improvement, constantly optimizing its design and adjusting target standards in accordance with the quality improvement spiral.

①Semesterly Feedback and Improvement. Second-level colleges rely on the specialty diagnosis and reform system to provide timely feedback on the semester's work accomplishments, track progress, and make prompt improvements to existing issues. Any problems or difficulties requiring school-level intervention should be reported to relevant functional departments in a timely manner. The relevant departments and the school's leadership should coordinate and assist in resolving these issues, thereby fostering a robust linkage mechanism.

②Academic Year Diagnostic Improvement. At the end of each academic year, each major conducts a self-diagnosis of the fulfillment of the academic year goal task. The objective is to summarize the phased work of reform in that academic year and highlight the work focus and improvement direction for major construction in the subsequent academic year. For tasks that are not completed on time, each college must formulate an adjustment plan, which, upon approval by the responsible leadership of the school, will be optimized and adjusted accordingly.

③Periodic Diagnostic Improvement. After the completion of the target tasks for each academic year, specialty leaders will promptly provide feedback on the platform regarding the completion of

each task (specific reasons and improvement measures are required for unfinished tasks), along with relevant supporting materials. Each second-level college will evaluate the accomplishment of the major construction goals. Within one month following the end of each major’s three-year cycle, a report on the reform of the major should be compiled and submitted to the school administration.

Table 1. Construction objectives, construction standards and diagnosis point of high-level specialty

Construction objectives	Construction standards	Point of diagnosis	Notes
High-level Specialty at the School Level	1. The quality of personnel training	(1) Winning provincial teaching achievement awards, striving for national teaching achievement awards.	Choose one out of three
		(2) Winning awards in the National Vocational College Skills Competition, aiming for the first prize.	
		(3) Winning awards in the National College Students’ Innovation and Entrepreneurship Competition, aiming for the first prize or gold medal.	
		(4) The number of students trained through modern apprenticeship and order-based classes accounts for 25% of the graduating students.	
		(5) The high-quality employment rate of graduates is not lower than 40% (with the enrollment rate not lower than 30% and the entrepreneurship rate not lower than 5%).	
		(6) The satisfaction rate of employers is not lower than 85%, and the average salary of graduates after graduation is not lower than the average of the entire school.	
	2. Teaching resources	(1) the establishment of provincial-level curriculum, aiming for the creation of national-level curriculum	
		(2) the approval of provincial-level vocational education “Project Revolution” typical cases	Choose one out of two
		(3) a provincial-level political and ideological demonstration classroom	Choose two out of three
		(4) a provincial-level planning textbook or a provincial key textbook	
		(5) a provincial-level and higher education reform project	
		(6) a national specialty standard	
	3. A team of top teachers at the provincial level and above	(1) winning first prize in the provincial teaching competence contest	Choose two out of three
		(2) having a teaching and research team at or above the provincial level	
		(3) having a provincial teaching and research team	
		(4) The proportion of teachers with doctoral degrees in the major should not be lower than 20%	
		(5) having a provincial training base for “Double-qualified” teachers; The proportion of double teachers is not less than 70%	Choose one out of two
		(6) the professional teachers hold the posts of the National Executive Committee or teaching committee or above	
	4. Platforms at the provincial level and above	(1) establishing a provincial-level industry-education integration project	Choose one out of two
		(2) Developing significant collaborative projects or institutional reform projects.	
	5. The social service capability ranks in the top 10% of the same professional group in the province.	(1) Having provincial-level research projects	Choose one out of two
		(2) Establishing a provincial-level scientific research and innovation platform	
		(3) Receiving 2 million yuan per year in research and social service funding	
		(4) Having at least 3 authorized invention patents.	
(5) Achieving 400,000 yuan per year in income from technology transfer and training.			
6. International Exchanges and cooperation	(1) Having international students pursuing academic degrees or overseas training bases.	Choose one out of two	
	(2) Exporting teaching (training) standards		

4. The Effect of Specialty Diagnostic Reform

(1) Application of Professional Diagnostic and Reform Results

At the end of a diagnosis and reform cycle, the school conducts a statistical analysis and summary of the implementation of the target tasks. This is based on the completion of the target tasks within the diagnostic reform management system cycle and the reports of each major’s diagnostic reform. Subsequently, a task execution report is formed, outlining the school’s specialty diagnostic and reform goals. Through analyzing the annual completion of tasks via the data displayed in the system, for major construction tasks that are not completed during the cycle, except

for those that cannot be completed due to objective reasons and are clearly cancelled, the institute should, based on the actual situation, include them in the next cycle of major construction target tasks.

Meanwhile, the second-level colleges and teaching and research departments should strengthen learning exchanges, enhance the level of major construction, and creatively achieve specialty reform objectives. According to the situation of monitoring and early warning, combined with the reality of major construction, timely adjustments to the construction work should be made. Furthermore, organizational and management should be strengthened, and existing problems should be addressed in real-time. Based on the issues identified in the diagnosis, combined with relevant documents, the work of outstanding teams and individuals should be praised. At the same time, departments or individuals with slow progress should be encouraged to expedite their relevant work, thereby stimulating internal motivation. If the specialty reform work cannot be completed on time or results in significant losses due to subjective reasons such as lack of responsibility or inaction, the relevant departments shall, in accordance with their scope of duties, notify the relevant provisions and hold the responsible persons accountable.

(2) The Effect of Specialty Diagnostic Reform

Through the implementation of specialty diagnostic reform, it has achieved fruitful results in both major construction and educational and teaching reform. Specifically, it has led the construction of two national-level specialty teaching resource libraries, won five national-level online quality courses, received the first prize at the First National Textbook Construction Award, secured 15 national planning textbooks for the 14th Five-Year Plan, and won two second prizes at the National Teaching Achievement Award. Consequently, the professional layout has been further optimized, and the quality of personnel training has been significantly improved.

5. Conclusion

The purpose of professional diagnosis and reform in higher vocational colleges is to improve the quality of education and teaching and the level of personnel training, so that schools can better adapt to social economic development and market demand. For the higher vocational colleges, according to their own school-running ideas, school-running orientation, personnel training objectives, it is of great significance to find and improve the key factors of personnel training, such as specialty setting and teachers team building, curriculum system and reform. Higher Vocational Colleges should seize the opportunity of diagnosis and reform, and adopt the standards of actual production talents in industry enterprises as a benchmark. By using the third-party evaluation and standard system certification, we can grasp the status quo of specialty construction, clear up the problems and define the development strategy, so that we can reflect on the gains and losses in specialty layout construction, and force the reform and construction of specialty, to maintain continuous quality of personnel training.

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