

Research and Practice on the School-enterprise Joint Training Mode of Students

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Abstract: The teaching mode of school-enterprise joint education and training of talents has achieved certain results in vocational colleges, and it is a teaching mode for the cultivation of applied talents. This paper discusses the significance of the school-enterprise joint training of students, and analyzes the examples of the joint training of students in the school and the maintenance factory. In addition, this paper summarizes the achievements of the school-enterprise joint training of the students. On the basis of this, the paper studies the ideas of the school-enterprise joint training of the teaching model of the students.

1. Introduction

With the rapid development of modern industry, the enterprises have higher and higher requirements for the ability and quality of the applied talents. At present, the training of the students is mainly based on group-based curriculum guidance. And its curriculum is difficult to achieve uniformity in students' quality and requirements of enterprise jobs, which leads to a certain gap between the quality of students and the enterprise jobs. Therefore, improving the training ability of students is of great significance to the quality of personnel training in colleges and universities [1]. School-enterprise joint education is a teaching model for applied talents [2], using the rich practical resources of the professional enterprises and the real operation site to train the students, which can improve the practical skills of the students and meet the requirements of enterprise jobs.

2. The Significance of the School-enterprise Joint Training of Students

The school-enterprise joint training mode of the applied talents refers to the joint training of the colleges and related professional enterprises in the training of the maintenance of the applied talents. The colleges and universities cooperate with relevant enterprises. The enterprises participate in the research and formulation of the teaching content and training methods of the students, and provide corresponding conditions according to the requirements put forward by the schools to assist in the completion of the training tasks of the students' practical teaching links. The training goal of school-enterprise joint education is to improve the practical training ability of the students, so that the students can meet the requirements of "zero distance". At the same time, it can also enrich the teaching and equipment support experience of the instructors, and improve their "double teacher" ability. It can also promote the completion of factory tasks and improve the efficiency of manufacturers.

School-enterprise joint training puts the classroom in the workshop, and uses the project index to implement the teaching. It can make full use of the factory's installation, testing tools and the equipment maintenance working environment close to the enterprises, so that the students can directly participate in the factory. In the production and maintenance tasks, the existing knowledge is verified and applied in the actual work and the actual equipment maintenance experience and skills close to the enterprise jobs are learned. Schools can make up the gap between training students and enterprise jobs through school-enterprise joint education, and improve the quality of personnel training.

3. The Effectiveness of the School-enterprise Joint Training Model

After careful planning in the early stage, a school carried out the teaching activities of the school-enterprise joint training for the first time during the factory's equipment overhaul, using the internship opportunities of the students. With the joint efforts of both schools and enterprises, the profession has achieved initial success in the operation of the new teaching model.

3.1 Improve the students' equipment theory knowledge and practical training ability level

The training tasks of the students of the colleges are expanding year by year. However, due to some objective reasons, the training conditions of the colleges and universities are difficult to meet the teaching requirements. Firstly, due to the limited equipment in the school, the number of actual operation training in the classroom is limited, and most of the students do not have the hands-on equipment opportunities, which lead to a large lack of students' operational skills. Secondly, due to the lack of school testing equipment and maintenance tools, the training subjects required for many maintenance positions cannot be carried out.

The corresponding professional factory has both sufficient equipment and comprehensive maintenance testing equipment. It also has a real equipment maintenance working environment, allowing the students to be built in the environment of actual maintenance training for a period of time and at the factory master. Under the specific guidance, the students exercise in the real equipment maintenance work and strictly complete the daily tasks as required. Different from the practical training in the classroom, the equipment maintenance task of the factory has repetitive operation. By completing the tasks assigned during the internship, the students can consolidate the knowledge acquired during the school and deepen the structure and working principle of the equipment. Through repeated hands-on operations, they can master the steps and skills of the equipment training course. At the same time, they can also master the operation methods of testing, maintenance, repair of various systems and the use of various tools and equipment. They can verify their own equipment repair capabilities in the actual work. In the practice of accumulating work experience, they can test and adjust the knowledge structure, and constantly improve the skills and quality of practical skills. During the work of the workshop, they can understand which parts of the equipment in operation frequently maintenance and which parts are prone to failure. By grasping the relevant equipment failure information, they can find out the failure mechanism and occurrence rules and characteristics of the equipment, which guides the students to study the preventive measures for multiple and dangerous faults and improve the ability of the students to eliminate equipment failures.

3.2 Strengthen the development of students' good maintenance style

During the internship of the factory, the students are required to strictly abide by the operating procedures of the factory floor, take every job in their hands seriously, and pay attention to the development of daily maintenance work, such as the orderly placement of disassembled parts and the tools after daily work finishing and so on. For subjects that are completed by many people, students are required to have a clear division of labor, cooperate with each other, and organize closely. This will help the students gradually develop good maintenance habits and improve their professional ethics. And also, it can cultivate the ability of unity, cooperation and hard work between the students.

3.3 Promote the improvement of the teaching ability of teachers and strengthen the construction of the “double-type” faculty team

At this stage, there are many young teachers in the school. Most of them do not have the work experience of the enterprises. They do not have many opportunities for contact with the installation. They are not even the origin of the profession, lack of understanding of professional knowledge, the structure and principle of certain critical parts of the equipment. They have blind spots in the maintenance operation process, and it is difficult for the school's teaching equipment to carry out

large-scale decomposition for them to learn and improve. Therefore, the degrees of understanding and practical operation ability of the equipment are lacking. School faculty members usually have heavy tasks, and it is difficult to arrange a large number of faculty members to go to equipment production and repair manufacturers for further training.

Using the school-enterprise joint training mode, the school's professional faculty members can use the opportunity of the students during the internship period of the factory to directly contact and understand the actual maintenance situation at the site. They can study equipment at a deep level, and master the relevant knowledge of construction, testing and maintenance of the equipment. It can apply a large amount of materials collected to the course teaching content, enrich the connotation of the class and enhance the level of teaching. The instructors can work with the students to participate in the operations of equipment decomposition, inspection and maintenance to improve the faculty's practical skill level and master the first-hand equipment maintenance information, consolidating the faculty's own equipment maintenance experience. Therefore, the joint training of schools and enterprises can make the construction of the "double-type" faculty team get twice the result with half the effort.

3.4 Improve the efficiency of the manufacturers and achieve a win-win situation for schools and enterprises

On the one hand, enterprises provide internship opportunities for college students, which solves the seamless connection between students and actual training, and improves the quality of personnel training in colleges and universities. On the other hand, the overhaul tasks of equipment repair manufacturers are relatively heavy. Especially for the newly-increased repair equipment manufacturers, it will have certain defects in technology, personnel and maintenance equipment. The experienced college teachers can provide technical support for the work of the enterprise, guide the development of the factory overhaul tasks, and solve the technical problems of some manufacturers. The corresponding maintenance tools and equipment developed by the colleges and universities can be applied to all aspects of equipment overhaul. And the students with certain professional foundations can also provide technical personnel with supplements. Therefore, school-enterprise joint education can improve the efficiency of enterprises and achieve a win-win situation for schools and enterprises.

4. Thoughts On the School-enterprise Joint Training of Students

4.1 Optimize the curriculum system and develop a complete teaching plan

The professional curriculum system is the basis for formulating a reasonable practical teaching plan outside the school. In order to strengthen the practical skills training of the students, the curriculum system of the major should be optimized and the number of hours of off-campus training can be appropriately increased to achieve the time of off-campus practice and factory overhaul time consistently. The school takes the initiative to lead the maintenance factory to understand the overhaul tasks of the manufacturers. Based on the personnel training objectives and teaching contents, the school thoroughly evaluates the content and process of the internship period, and formulates an internship plan that meets the requirements of the manufacturer and its own teaching needs to the unity of theoretical teaching and practical teaching. During the training period, the students must have full participation of the instructors, which can not only enable the instructors to continuously enrich their equipment maintenance experience, but also solve the problems encountered by the students during the internship process of the students anytime and anywhere. And also, the teachers must urge the students to perform daily tasks and make a summary in the end to ensure the training effect.

In order to make full use of the learning opportunities during the factory and improve the training effect of the students, it is necessary to formulate specific training programs, which can develop a specific teaching plan for the school-enterprise joint training in the context of equipment overhaul. Through the complete overhaul task, the students can understand the fault information in

the use of the equipment and the complete process of the overhaul task to master the operational skills of each task in each link.

4.2 Strengthen the daily management of students during their stay abroad

In order to ensure the effectiveness of joint school-enterprise training, schools should pay attention to the safety education of students, improve their safety awareness and strengthen the daily management of students during their stay abroad to guide them to consciously strengthen their own normative behaviors. At the same time, enterprises should strengthen their pre-job safety training of the students and strict implementation of the workshop system.

5. Conclusion

The school-enterprise joint training is beneficial to the students in the real work environment. Learning the equipments in the real status is conducive to the organic teaching of the school and the equipment training of the factory. The combination has realized the complementary advantages and joint training of schools and enterprises. The establishment of a long-term effective school-enterprise joint training mechanism requires the institutions and relevant enterprises to jointly explore and constantly improve, so that the role of school-enterprise joint training of teaching models can be maximized.

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