The Effect of Teacher Training Program on the Reform of Practical Teaching

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Abstract: With the development of practical teaching, more and more attention has been paid to practical teaching. In view of the existing problems and difficulties in practical teaching, this paper puts forward to increase practical teaching investment, improve practical teaching conditions and strengthen practical teaching management. The practical teaching work of the school has been progressing smoothly and developed rapidly through the teaching reform and research. Innovative spirit is the key to implement quality education and improve the quality of personnel training, and also the basic condition to promote the establishment of practice teaching system of various specialties, to strengthen the cultivation of practical ability.

1. Introduction

Focusing on the training of applied talents, the Binzhou University actively adapts to the needs of the industry and regional economic and social development, adjusts and optimizes the structure of disciplines and specialties, and strives to build seven applied specialty groups, including civil aviation, mechanical and electrical engineering, ecological environment, chemical and chemical engineering, with the proportion of applied specialty reaching 70%. It has initially formed a group with engineering as the main feature and aviation as the main feature, with science, engineering, culture, education, and economy with coordinated development and mutual support of Arts and other disciplines [1]. The University attaches great importance to scientific research, implements the "first-class discipline construction plan" and "1355 science and technology innovation project", continuously strengthens the advantages and characteristics, and improves the ability of science and technology innovation. It has 7 provincial key disciplines and 11 first-class disciplines at school level [2]. There are 18 university level scientific research institutions, such as the research center of ecological environment in the Yellow River Delta, the Research Institute of aeronautical engineering technology, the Research Institute of aircraft manufacturing technology, the Research Institute of friction and wear, the Research Institute of culture in the Yellow River Delta, with 1 National Science Popularization Education base, 10 provincial and ministerial key laboratories, 5 provincial science popularization education bases, 5 provincial university key laboratories and 26 municipal innovation Platform.

With the continuous development of intelligent manufacturing technology, artificial intelligence and industrial robot technology are more and more used in the aviation manufacturing industry [3]. The Institute of mechanical and electrical engineering has core disciplines such as aircraft manufacturing engineering, mechanical design and manufacturing and automation. In order to keep the development of the major in line with the pace of the times, it is necessary to add teaching contents related to intelligent manufacturing and industrial robot technology [4]. Especially after the establishment of the new aeronautical Intelligent Manufacturing Laboratory, both theoretical teaching and practical teaching, both teaching materials and experimental equipment need to be further improved. Therefore, in order to better understand the aeronautical intelligent manufacturing and robot technology, and fully apply the relevant content to teaching and practice, improve the course content, and speed up the construction progress of practical teaching.

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2. Analysis of Existing Problems

2.1 Current Situation of Training Problems

Aircraft manufacturing industry is a national high-tech industry. The particularity of its production determines that the teaching and training base of aviation specific professional work is different from that of general work. At present, the training conditions and training effects cannot meet the requirements of talent training objectives. There is a big gap between the training site environment and the actual production environment. The training equipment seriously lags behind the actual production of the enterprise, and cannot connect with the actual technology of the production line, resulting in the unsatisfactory training effect, which is difficult to meet the requirements of students' professional operation ability training [5]. The training base of aviation specialty such as aircraft manufacturing technology is different from the training base of other general specialty. The starting point of the construction is relatively high, with certain conditionality and large investment. It is very important to build the training base in the school with "simulation teaching products as the link of production". It can fundamentally improve the training teaching conditions, improve the training effect, and meet the needs of the development of higher vocational education. Since the 11th five year plan, China's civil aviation industry will achieve greater achievements in the manufacturing of major civil aviation products, such as large aircraft, new regional aircraft, new helicopters, general aircraft, civil aviation engines, civil aviation airborne equipment, etc., in accelerating the industrialization process of civil aviation, enhancing the scientific research and production capacity of civil aviation, and enhancing the independent innovation capacity of civil aviation industry Progress.

2.2 Difficulties in Practical Teaching

Due to the shackles of traditional educational thoughts and teaching concepts, as well as the influence of long-term theoretical teaching as the main and practical teaching as the auxiliary, there are still many teachers who have insufficient understanding of the importance of practical teaching. They always think that practical teaching is only a test of theoretical knowledge and attached to theoretical teaching, and one-sided think that the quality of students mainly depends on the level of theoretical knowledge, while the practical ability is not enough Weight. Many teachers have not clear understanding of practical teaching, especially the theoretical basis, system structure, attribution and the relationship with theoretical teaching [6]. As a result, practical teaching has its own characteristics and its objectives and teaching methods are not standardized.

With the increase of the number of students in our school, the teaching quantity is more and more large. However, the lack of experimental instruments and equipment in the teaching infrastructure and the lag in the construction of experimental teaching base bring many difficulties to the practice teaching. Many experimental projects had to be replaced, and the time of production practice had to be shortened. The off campus practice projects were arranged in the school, which did not meet the requirements and purposes of practical teaching. The quality of graduation thesis needs to be improved. In addition, there are still some problems, such as the low educational background and professional title of the experimental teachers, the shortage of some professional experimental teaching resources and so on.

3. Training Project Construction Objectives

3.1 Constructing a New System of Experimental Teaching

First of all, the experimental course is divided into three levels according to the content, and the experimental teaching system of basic experiment, comprehensive experiment and design experiment is established. According to the different levels of students, students are taught according to their aptitude, and their practical ability is gradually strengthened. Secondly, set up experiment course independently and integrate experiment teaching content. Focusing on the

cultivation of students' innovative spirit and practical ability, we should reform the contents and methods of experimental teaching, change the practice that the past experimental courses were mainly limited to the verification of theory, the simple mastery of operation technology, and the application of medicine according to the prescriptions, and increase the experimental contents of comprehensive, design and self-designed topics. Third, open the laboratory and gradually realize the network management of the laboratory. The "computing teaching center", which undertakes the experimental teaching tasks of "Computer Culture Foundation" in the whole school, is open all day. Students are free to choose the computer time. Create conditions to provide places for students to participate in scientific research activities, independent experimental projects, graduation thesis experiments and other activities. Form a training base for strengthening practical ability, which integrates practical teaching, scientific research training and social practice. These bases play an important role in cultivating students' practical consciousness, strengthening the training of students' practical ability, understanding the basic process of industrialization and marketization of technological innovation achievements [7].

Three aspects are required to strengthen the management of graduation thesis. Highlight the close combination of topic selection and production practice to ensure the requirements of comprehensive training. Do a good job in the standardized guidance of graduation thesis. Teachers are required to prepare practical instructions, form a teacher guidance log that can reflect the regular and regular guidance process for students, and standardize the evaluation system for the teaching quality of teachers' guidance of graduation thesis.

3.2 Expand new Space for Innovative Personnel Training

Through carrying out the training plan of scientific research ability of college students, the undergraduates receive the research training earlier, which promotes the communication between teachers and students and the development of teaching and learning. The training of students' innovation ability has a good effect on Teachers' teaching according to their aptitude, and explores a new way to cultivate innovative talents. Through a series of activities, our school has made remarkable achievements in practical teaching reform. Students' innovation awareness has been significantly enhanced, students have more opportunities to participate in scientific research and social practice, which has an important impact on the improvement of students' comprehensive quality, and also has a good effect on the improvement of school education and teaching quality.

3.3 Strengthen the Training of Practical Teaching Teachers

We should encourage and attract young teachers to engage in experimental teaching through the promotion of educational background, further study, class hours and treatment. Adhere to the principle of people-oriented, constantly improve the treatment of the practice team, and strengthen their training and training. On the one hand, for the professional teachers of our school, we should strengthen the training, regularly send professional teachers to affiliated units to exercise and improve their professional skills; on the other hand, we should build a part-time practical teacher team that not only understands the theory, but also has strong practical operation ability, as a strong supplement for school teachers. Employ experienced and high-level teachers to participate in practical teaching guidance. These people can not only improve the professional level of practice teachers, but also play the role of information staff. What new systems and methods are implemented in practice, through them can be quickly reflected in the teaching [8].

3.4 Constructing Scientific Practical Teaching System

Practice teaching is an important part of teaching plan. The implementation and quality of practice teaching work is related to the realization of the goal of specialty and curriculum, and the realization of the goal of talent training. Therefore, we must attach great importance to the importance of practical teaching. Reform the structure and level of experimental teaching content, reduce repetitive verification experiments, increase applied, comprehensive and innovative experiments, and according to the specific situation of students, form different experimental courses in different stages, and gradually cancel the course experiments. We should set up experiments in

different levels to change the traditional confirmatory experiment into the design experiment, the single experiment into the comprehensive experiment, and form the training mode of practical teaching which adapts to the modern education concept.

To improve the assessment of practice teaching process will effectively standardize all aspects of practice teaching in our school and improve the quality of practice teaching. Practical teaching is a teaching process corresponding to theoretical teaching. Process assessment is to investigate and evaluate the whole process of College Students' practice, to combine in class and out of class, theory and practice, to strengthen the process management in systematic learning, and to increase the examination strength of learning links. Regard the practical teaching as a whole, regard all personnel involved in the practical teaching as the assessment object, carry out continuous and timely assessment on the whole process of the practical teaching, and form timely and effective feedback, so as to comprehensively standardize the practical teaching activities of our school.

3.5 Strengthen the Leadership of Practical Teaching

We should establish all-round quality standards, all-round system guarantee and all-round dynamic monitoring. Establish a comprehensive and integrated monitoring system of practice teaching objectives, processes and information. Strengthen the examination and inspection of practical teaching. According to the teaching requirements, the implementation of practical teaching is examined from the aspects of experimental teaching and concentrated practice. Through on-the-spot investigation, we can understand the construction of practical teaching conditions, the construction of practical teaching team and the construction of practice bases inside and outside the school. By means of spot check, the quality of practical teaching is examined.

The school should put the practical teaching work on the important agenda of the school, and give active support in the aspects of people, finance and materials. The main leaders of the school should personally grasp the major problems of the practical teaching, such as the guidelines, guiding ideology, planning and team building of the laboratory construction. In order to further improve the implementation plan and relevant management system of practice teaching, the school should carry out unified leadership, overall planning and overall arrangement of practice activities, so as to promote the orderly development of practice teaching, prevent students from letting go, and make practice teaching activities really become an important channel for training innovative talents.

3.6 Building a High Quality Practical Teaching Faculty

To build a team that can meet the needs of practical teaching is the key to ensure the quality of practical teaching. This team should include experimental practice teaching instructors, experimental teaching technicians and managers, who not only have a relatively solid theoretical basis and strong practical teaching ability, but also have noble ethics. At present, there are few talents engaged in laboratory construction and practical teaching in our university and the practical teaching team presents "two low": that is, low education background and low professional title. Therefore, we should take corresponding measures and policies to train a group of practice teaching leaders, just like training discipline leaders, stabilize practice teaching team, and further optimize the age, education background and professional title structure of experimental teaching team.

3.7 Strengthen Cooperation between School and Enterprise

The close combination of school enterprise cooperation and industry university research is an effective way to cultivate innovative talents. It is necessary to gradually establish and improve the management and operation mechanism of two-way promotion and close combination of production, teaching and research between schools and cooperative units, and optimize the organization and management of practical teaching according to the reform trend of cooperative units. We should give full play to the advantages of talents, technology and resources of the school, actively provide scientific and technological services for cooperative units, change the situation that cooperative units passively accept students' practical practice in the past, and make practical teaching outside the school truly receive actual results. The school should always keep in touch with and communicate with the off campus practice base to get their support. In order to make full use of the

advantages of open education students, they can be arranged to practice in their own units or in the same major.

4. Conclusion

We should further improve our understanding of the importance of practical teaching and set up an educational concept centered on the cultivation of talents with practical ability and innovative spirit. We also should grasp the connotation of practice from multiple perspectives, and establish the important position of practice teaching in personnel training. Strengthening the cultivation of practical ability and innovative spirit is the key point of implementing quality education and improving the quality of personnel training. With the implementation of a new round of undergraduate talent training program as the main line, we should further promote the reform of practice teaching system, practice teaching content, practice teaching methods and practice teaching means of various specialties.

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