

Research on Teaching Methods for Vocational and Technical Education

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Abstract. The paper analyzed the needs of student's vocational skills from the aspects of basic knowledge and technical skills, comprehensive quality and teaching ability, environmental adaptation and self-learning ability. The main problems were pointed out, such as the cultural quality, professional skills and management group training applies modern educational concept and combines teaching practice. Finally, the combination methods were given out to train student's professional skills, such as lectures with guidance, cases and exercises, discussions and interactions.

Introduction

With the continuous progress of science and technology and the widespread application in the military field, the scientific and technological content of weapons and equipment is getting higher and higher, which puts forward new requirements for the scientific and technological quality and professional skills of equipment and technical personnel.

As the organizer and implementer of the training, professional and technical personnel take on most of the courses and teach independently. Their position and role in military training has been greatly improved. The role of professional and technical personnel directly affects the level and quality of military training. It is of great significance to train and bring up a group of high-quality equipment and technical personnel needed for long-term construction of the army to improve the maintenance and support ability of equipment under the condition of information in our army. Talents training should focus on the actual combat and close to the army, focus on the needs of the mission and task of the army, closely meet the needs of equipment development, meet the requirements of actual combat support, deepen the reform of education and teaching.

In teaching work, based on the requirements of the army for talents, knowledge and quality, and with advanced educational concepts, focus on the requirements of military training and assessment syllabus, reform and improve the teaching content system. Professionals and technicians with excellent quality, qualified posts and adapting to actual combat are demanded.

Skills and Quality Requirements of Vocational and Technical Education Students

Improving vocational skills and comprehensive quality is the basis and prerequisite for bringing talents into full play. With the acceleration of military equipment updating, the demand for professional knowledge and competence of professional and technical personnel in information war has been significantly improved, which is embodied in the following aspects.

Solid Professional Basic Knowledge and Skilled Equipment Technical Skills. Having solid equipment professional knowledge is the basis for talents to stand on their posts. Only by mastering the knowledge of equipment, can we ensure the smooth completion of our work, and adapt to the changes of weaponry and equipment, especially new types of equipment, and the changes of work posts. Skilled technical skills are one of the essential qualities of professional technicians themselves, and also the essential elements for the teaching and training of professional technical skills. Professional technicians should not only possess excellent technical skills in common military subjects, but also possess excellent professional technical skills. They should be skilled in operating, using and maintaining all kinds of weapons and equipment within their management. They should be faster and better able to master their performance, operation and maintenance methods than their subordinates.

Higher Quality of Guaranteed Command and Stronger Ability of Teaching and Training.

Guarantee of command quality is a necessary element for professional and technical personnel to better perform their management functions. Training management ability is an important aspect of testing the training ability of professional and technical personnel, which is related to the smooth implementation of daily training, the quality of training in peacetime, and the enhancement of the overall combat ability of the army. Only with good management ability, can the management and training objectives of the subordinates be realized smoothly. Professional technicians are not only administrators of their personnel. Therefore, professional and technical personnel should not only have skilled technical skills, but also have a strong teaching level. Only in this way, can they improve their professional and technical skills faster and better, and improve their overall equipment support ability.

Good Environmental Adaptability and Strong Autonomous Learning Ability. With the rapid development of science and technology and the continuous enhancement of China's comprehensive national strength, the army's weapons and equipment are also in the process of rapid renewal, which puts forward higher requirements for the environmental adaptability of professional and technical personnel. Especially in the future information battlefield, all kinds of unexpected new situations and new problems may occur at any time. This requires that professional and technical personnel must have strong adaptability. They should resolutely abandon the decadent thinking of sticking to conventions and complacent with the status quo, and lead their personnel to improve the overall combat effectiveness of the army in the continuous development and innovation. With the continuous progress of science and technology and the continuous renewal of knowledge, professional and technical personnel must have a strong learning ability, especially the ability to acquire knowledge and improve themselves through the network, and constantly discover, analyze and solve the main problems in reality through learning and upgrading.

Problems in Vocational and Technical Education for Professional and Technical Personnel

Professional and technical personnel have been examined at various levels. They are selected from the positions of equipment support with stable thinking, excellent technology and rigorous style. They all have the belief of being based on their own positions, strong sense of mission, stable thinking and reliable politics. The vast majority of the students have high school or higher education. Some of them have college learning experience, have basic knowledge of physics, chemistry and other basic scientific and cultural knowledge. Professional and technical personnel mostly come from the front-line forces, and have a certain understanding of the types, uses, use and maintenance of the equipment. Most of them have experienced more than two years of army life, and are familiar with the daily operational activities and working environment of the troops.

However, professional and technical personnel also have some outstanding problems, mainly reflected in the following aspects.

The Educational Level is Uneven and the Cultural Quality is Quite Different. Although the overall academic level of college students has improved to some extent, because most of the professional and technical personnel are in the army, some have college education, some only have high school education, there are certain differences in academic level and cultural quality, so the way of knowledge acquisition and thinking is also different. In addition, with the continuous advancement of our army's modernization construction, the scientific and technological content of military equipment is also constantly improving, which puts forward new requirements for professional and technical personnel. At present, most professional and technical personnel know little about high-tech knowledge. Because they do not know enough about the principles of new equipment, they can not give full play to their combat performance and affect the training of new equipment.

There are Differences in Job Positions and Professional Skills. Professional and technical personnel are engaged in different positions before entering school. Some of the students are the same or have some relevance with their major, but there are still some students who know nothing about the

positions they are studying or know little about them. Some trainees are weak in military knowledge and professional skills, lack of proper vocational knowledge, little knowledge of new knowledge, unskilled in the operation of new equipment and their own skills.

The Management Ability is Relatively Low and the Training Ability is Insufficient. Some of the trainees are soldiers before enrollment, lack of management experience and management practice, and lack of systematic learning of military theory, lack of in-depth understanding of military management and military operational regulations, resulting in relatively low management level and inadequate training ability. Even those who have experienced professional and technical personnel, because of their shallow seniority, lack of group training practice, single and inflexible training methods, many problems and few root causes, the group training ability is low-level circulation and inefficiency.

Research on the Training Method of Professional and Technical Personnel's Vocational Skills

Professional and technical personnel's vocational teaching should be guided by their post requirements, and strengthen the training of professional knowledge and skills. Modern educational view holds that in order to make students learn not only knowledge, but also learning ability, thinking ability, innovative consciousness and ability, language expression ability, and the ability to find, analyze and solve problems should be trained in the teaching process. According to the needs of Vocational skills, according to the characteristics of professional and technical personnel, combined with teaching practice, mainly from the following aspects of vocational skills training.

Imparting Vocational Knowledge and Skill Base through Knowledge and Skill Teaching. Equipment management has the characteristics of systematicness, comprehensiveness and comprehensiveness. Therefore, according to the basic contents of teaching methods and the different levels of equipment, the system mainline is taught from top-level planning to middle-level linking to the implementation of grass-roots level, and the modern management concept and thinking mode of trainees are trained. According to the requirement of professional technicians for equipment operation and use, inspection and maintenance, troubleshooting and so on, combined with experimental equipment and practical equipment, arrange for the use and maintenance, packaging and storage, registration and statistics of typical technical equipment to carry out experiments and implementation, improve student's hands-on ability, cultivate equipment operation and vocational skills, and provide guidance and guidance to train student's analytical knowledge. Ability to solve and solve problems.

Improving Language Expression Ability through Teaching Interaction. The small number of students is suitable for small classes, making full use of this feature. The traditional classroom teaching mode is mainly based on the teacher's initiative to speak on the three-foot platform, and the students sit down and listen passively. It reflects the authority of the teachers and maintains the classroom order, but lacks the interaction between teachers and students, and restrains the collision of thinking between them. Classroom organization enables students to become the main body of teaching and the autonomy of learning behavior, so as to better mobilize student's learning enthusiasm. As for the content of vocational management, teachers should give priority to explaining, instead of adding interactive teaching links, adopt discussion-based teaching methods, train students to use their knowledge to analyze management problems, solve practical problems, and improve their comprehensive quality and ability.

Attention should be Paid to Teaching Students in Accordance with their Aptitude and Exploring their Learning Potential. Teaching in accordance with one's aptitude is the individualization of teaching methods. According to the different situations of individuals or groups, different guidance methods are adopted to make each student strengthen and strengthen their weaknesses and improve their overall quality and ability in communication and interaction. According to the different work experience and personal characteristics of the trainees in the army and the basic principles, methods and requirements of management, the trainees are guided and

arranged to give lectures on special topics and specific problems, to explore the potential of different trainees, and to carry out vocational skills training in a targeted manner.

Highlighting the Training of Thinking and Cultivating the Ability of Innovative Thinking.

Teachers should pay attention to the cultivation of student's abstract thinking ability and image thinking ability, such as analysis and judgment ability, generalization and synthesis ability, divergent thinking ability, intuitive thinking ability, imaginative thinking ability and so on. Teachers should train student's thinking ability throughout the whole teaching, guide them to think, encourage them to express different views and opinions, and cultivate student's innovative thinking ability by combining specific cases.

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