

Exploration on Ideological and political measures of equipment course in sergeant education

Shangfei Qiu^{1, a}, Lunsheng Xue^{2, b} and Junfeng Fan^{1, c}

¹ Aviation Maintenance NCO school, Air Force Engineering University, Xinyang 464000, China;

² Air and Missile Defense College, Air Force Engineering University, Xi'an 710051, China.

^aqiufei514338459@163.com, ^bxuelunshengl@163.com, ^cjunfeng_fan@163.com

Abstract. "Ideological and political education in courses" is a necessary path to establish morality and cultivate people in military colleges and universities and cultivate revolutionary soldiers in the new era. According to the characteristics of equipment courses in sergeant education, this paper explores the ideological and political measures of equipment courses in sergeant education from three aspects: theoretical teaching, practical teaching and course teaching mode reform, so as to provide reference for promoting the equipment teaching reform of military colleges and universities and improving the teaching quality of equipment courses.

Keywords: Sergeant Education; Equipment courses; Ideological and political education in courses.

1. Introduction

Ideological and political education in courses means that all non ideological and political courses in Colleges and universities should play the role of Ideological and political education and bear the responsibility of cultivating morality [1]. In May 2020, at the "video conference on comprehensively promoting the ideological and political construction of courses in Colleges and universities" held by the Ministry of education, The leaders of the Ministry of education stressed that "we should deeply understand the strategic significance of comprehensively promoting the ideological and political construction of college courses, give full play to the role of professional course teachers' main force, professional course teaching 'main battlefield' and professional course classroom 'main channel', promote the continuous progress and new results of curriculum ideological and political construction, make professional courses go hand in hand with ideological and political courses, build a long-term mechanism for building morality and cultivating people, and realize the all-round education of all staff in the whole process" [2]. In June of the same year, Jinping Xi, chairman of the Central Military Commission, signed an order and promulgated the newly revised regulations on education in military colleges and universities (for Trial Implementation), which defined the method and path of Building Morality and cultivating people, that is, to "study and publicize the party's Theory, promote the reform and innovation of political theory courses, and pay attention to the ideological and political education in various courses". It can be seen that both local colleges and universities and military colleges attach great importance to the curriculum ideological and political construction of the course [3].

Equipment course is a compulsory course for sergeant cadets directly facing the army and future jobs. If we can reasonably integrate educational elements into the teaching process of equipment courses, carry out "ideological and political education in courses", and realize the effective combination of professional knowledge learning and value cognition sublimation, it is of great significance to cultivate the combat will of students, deepen their military literacy and strengthen their ideals and beliefs. Therefore, combined with the characteristics of equipment course, this paper explores how to carry out "ideological and political education in courses" of equipment course, so as to provide theoretical reference for the development of "ideological and political education in courses" in military colleges and universities.

2. The characteristics of equipment course

The equipment course belongs to the post compulsory course in the sergeant education talent training plan. The teaching content of the course is oriented to the actual posts of the army, focuses on the work contents and responsibilities of the posts, and adopts the teaching mode of integration of theory and practice to carry out the theoretical content teaching and equipment training content teaching of specific equipment working principles, equipment operation and maintenance contents, methods and precautions, so as to finally enable the students to master the theoretical knowledge of equipment and have the ability of operation, maintenance Training objectives of maintenance equipment. Generally speaking, the equipment course mainly has the following four characteristics [4]:

First, strong job orientation. Equipment courses take specific equipment as the main body, connect with the actual needs of posts, and get close to the actual combat needs to the greatest extent, so as to adapt to the future war. Therefore, equipment courses have strong post orientation. Strong job orientation requires teachers not only to master the theoretical knowledge of equipment, but also to teach the corresponding equipment operation and use methods and maintenance work contents according to the job requirements.

Second, the teaching content is comprehensive. The rapid development of science and technology promotes the complexity and informatization of all kinds of aviation weapon equipment systems. The invention of each type of aviation equipment is the result of joint research and development in many disciplines and fields. Taking an air-to-air missile as an example, it is an integrated system composed of guidance system, fuze system, propulsion system and launch control system. Each system is composed of many different devices or components, which makes the teaching of this course involve the knowledge of circuit, machinery, signal and other aspects, and the teaching content is highly comprehensive.

Third, the teaching process is inseparable from theory and reality. Equipment course is the post holding module in the sergeant education course system. The core purpose of its teaching is for students to master the working principle of equipment, form the maintenance and support ability of equipment, and ensure that they can go to the corresponding posts of the army. Therefore, this determines that the equipment course teaching must be closely combined with the actual equipment, help form the maintenance ability through the theoretical content teaching, and promote the understanding of the theoretical content through the maintenance practice, so as to form the curriculum attribute of "theory practice integration". In the teaching process, only by fully implementing the concept of close combination of theory and practice can students master the equipment theory, operation, and maintenance support ability required for their posts.

Fourth, the teaching content is highly confidential. The equipment taught in the equipment course are all military equipment in active service, and the teaching object is also sergeant students, which makes the teaching activities must be carried out through relatively confidential ways and methods. In other words, it will limit the use of teaching means in the teaching process. For example, the rain classroom teaching mode based on the Internet cannot be used. The confidentiality of the teaching content makes the equipment course have certain particularity in the course of ideological and political education.

3. The necessity of ideological and political education in equipment courses

The equipment course of sergeant education takes specific equipment as the main body, and teaches sergeant students the function, composition, working principle, operation and maintenance of equipment. The ultimate teaching goal is the students' operation and maintenance ability. However, the traditional teaching mode of equipment course is generally the teaching idea of first principle and then operation. The whole process is mainly taught by teachers, and the participation

of students is low. At the same time, the cultural foundation of sergeant cadets is relatively weak and their logical thinking ability is not strong, so it is difficult to keep consistent with the train of thought of teachers at any time. This will easily lead to the obscurity of the theoretical content, and the maintenance operation stops on the surface, which will further reduce the students' learning enthusiasm, make it difficult to achieve the teaching objectives of the course, and the teaching effect is poor. However, by exploring the ideological and political elements related to the course content, innovating the classroom teaching mode, improving the students' classroom participation and realizing the courses ideological and political of the equipment course, we can well solve the disadvantages of the traditional equipment course teaching and indeed improve the teaching effect of the course.

4. Measures of ideological and political education in equipment courses

The ideological and political education of course focuses on implicit education, which quietly infiltrates the elements of ideological and political education into the teaching content and teaching process, so as to realize the natural influence. Therefore, the ideological and political education of the equipment course needs to combine the characteristics of the course teaching content and teaching mode, excavate the unique ideological and political elements of the course, reasonably design the ideological and political links of the course, innovate and optimize the course teaching mode, fully mobilize the enthusiasm, initiative and participation of students, and achieve good ideological and political teaching results.

4.1 Ideological and political implementation of theoretical teaching

The teaching of equipment theory focuses on the teaching of the principle content of equipment. In the process of theoretical teaching, we carry out "ideological and political education", should pay more attention to the cultivation of students' patriotism and value cognition, and strengthen students' modern military core values. Therefore, in the process of preparing the teaching content, we need to deeply excavate the ideological and political elements related to it according to the specific course content, reasonably adopt teaching methods such as problem traction and case explanation and analysis, and make full use of various teaching means such as video, animation, pictures and real equipment to integrate the ideological and political elements with the classroom content, so as to achieve the teaching effect of Ideological and political education and moral cultivation while teaching the theoretical knowledge of equipment.

Taking a certain type of ejection seat course as an example, in the teaching of seat overview content, when introducing the development process of seats, by comparing and explaining the development history of seats at home and abroad, students can fully understand the development process of ejection seat technology at home and abroad, deeply understand the gap between China and foreign countries, experience the difficulties of developing seat technology at home, and understand that each type of seat is the tenacious struggle of Chinese scientific and technological workers. The portrayal of self-reliance and self-improvement is also the best embodiment of the continuous enhancement of Chinese comprehensive strength. Through the study of this content, strengthen the students' sense of national identity and patriotism, and stimulate the students' enthusiasm for learning and cherish the equipment. When teaching the main content of the seat, after teaching the fixed installation of the seat, timely introduce relevant accident cases, analyze the causes of the accident, and emphasize the importance of relevant maintenance work. While enabling the students to master the working principle of fixed connection of seats, strengthen the students' rigorous, meticulous and meticulous maintenance style through accident cases, and deepen the students' understanding of life philosophy such as "details determine success or failure, and a mistake becomes eternal hatred", so as to realize the educational role of course ideology and politics.

4.2 Ideological and political implementation of practical teaching

The practical teaching of equipment course focuses on the cultivation of students' equipment operation and maintenance ability, in which students have high participation and strong content interaction. In the process of practical teaching, on the one hand, we should make full use of the practical conditions of training, reasonably design the teaching module, make the students fully carry out practical training, timely correct the students' incorrect behavior in the training process, and shape the students' rigorous, meticulous and meticulous work style. On the other hand, the teacher's words and deeds in the classroom are undoubtedly the best demonstration for the students. The teacher sets an example, teaches by example, infects the students with their own excellent style and professional spirit of love and dedication, and imperceptibly inherits these spirits, so that the students can gradually develop a rigorous maintenance style and good professional ethics.

For example, in an automatic weapon practice course, the "post simulation experience" training mode is adopted to simulate the construction of the actual task background. The students are divided into groups, responsible for different post roles in turn, and work together to complete the corresponding equipment maintenance tasks. By being as close to the actual combat atmosphere as possible, while cultivating the students' professional maintenance skills, it can also strengthen the students' sense of post responsibility and improve the students' consciousness of training hard and studying attentively. At the same time, the practical teaching mode of individual or group martial arts competition shall be adopted in a timely manner to stimulate the students' individual fighting consciousness, cultivate the team spirit of mutual cooperation and win-win cooperation among students, and fully experience the sense of achievement of individuals or groups in overcoming hardships and reaping results. Finally, in combination with the development of practical teaching, the teachers timely organized the students to summarize their experience and shortcomings, and further guided the students to realize that professional knowledge, personal strong will to fight and fight, and the fighting style of unity and winning are all essential factors for going to the post.

4.3 Course teaching mode reform

In addition to the close integration of ideological and political elements and teaching content to realize course ideological and political, the reform and innovation of traditional teaching mode is also an important direction of course ideological and political.

Traditional equipment teaching generally adopts the teaching mode of "function main line method + integration of theory and practice". Relying on the main line of equipment function, it carries out theoretical and practical teaching. Although this teaching mode has clear ideas, it still does not get rid of the traditional mode of "teachers' speaking + students' listening", especially for non commissioned officers and cadets with poor cultural foundation, the teaching effect of this teaching mode is more general. Therefore, we must innovate and reform the teaching mode of equipment course.

In this regard, the discussion teaching method can be introduced into the teaching process of the functional main line method, and one or several links can be used for classroom discussion and communication, so as to improve the students' ability to analyze and solve problems, stimulate the students' learning enthusiasm, increase the students' classroom participation, activate the classroom atmosphere and improve the classroom efficiency. This method, which we call the deliberative functional mainline method, is mainly implemented in the following six steps:

Dividing discussion groups and assigning discussion tasks

According to the number of student in the class, the group is divided into three to five students in each group, and the team leader is appointed to be responsible for the management of group learning tasks and personnel in the teaching process. The teacher shall reasonably divide the classroom teaching content into several questions and assign them to each discussion group some time in advance, and then each group shall receive and assign the tasks.

(2) Individual autonomous learning and group discussion

After receiving the task, the team members first conduct personal learning, exploration and analysis in combination with various existing materials, and draw personal conclusions. After that, the group will discuss together, listen to the different opinions of other members, and finally work out the most reasonable scheme together, and make relevant preparations for the classroom display.

(3) designing the classroom and paving the way for discussion

The teacher designs the equipment teaching classroom according to the function main line method, and divides the classroom content into four parts: function, structure and composition, working process and maintenance precautions. During classroom teaching, the teacher first summarizes the corresponding equipment in the classroom, guides the students to fully understand the equipment, and paves the way for subsequent classroom discussion.

(4) Explaining, discussing and jointly prepare for Q & A

According to the tasks received, each group selects a student to explain the relevant contents of the equipment in class. At the same time, other members of the group can make supplementary explanations to ensure that the relevant problems are explained thoroughly. After that, the group members are ready to answer questions for other students on site.

(5) Asking and answering questions on site

When a group explains the specific content of equipment, the students of other groups listen carefully and think actively. After the explanation, they can put forward their own questions on the spot. In response to the questions raised, the on duty group answered the questions on site and jointly solved the students' questions. Through this link, fully mobilize all students to think deeply and learn the teaching content of the classroom.

(6) guiding the discussion and commenting timely

In the discussion link, the students are the main body and the teachers are the leading. Due to the different cognitive basis of different students, it is inevitable that students will have deviation in the cognition of some problems in the process of discussion. At this time, teachers need to judge the situation, timely guide the direction of classroom discussion, ensure that the purpose of discussion is clear, the idea is clear, and ensure the efficiency of classroom teaching. After the discussion, on the one hand, the teacher should comment on the explanation of each group and affirm the efforts and positive thinking of the students. At the same time, we should combine the students' explanation, find out the omissions and make up the deficiencies, sort out and summarize the equipment content learned in the classroom, and further improve the teaching effect of the classroom.

5. Summary

The course ideological and political construction of equipment course is a long-term and continuous process, which requires the majority of teachers to stick to the equipment, face the army and face the actual combat, deeply excavate the course Ideological and political elements, reasonably design the course Ideological and political links, boldly innovate the course teaching mode, actively explore from various aspects such as teaching design, teaching content and teaching methods, realize the deep integration of Ideological and political and specialty, and give full play to the real due effect of "course ideological and political education".

References

- [1]. Jun Gao. Synergy Between Curriculum Ideological and Political Education and Ideological and Political Courses in Colleges and Universities. *Journal of Tianjin Normal University (Social Sciences)*. Vol 281(2022) No. 02, p. 122-128.
- [2]. Xing Wu, Jianmin Gu. Historical Logic of the concept "Curriculum Ideology and Politics": Institutional Appeal and Action Orientation. *University Education Science*. Vol 175(2019) No. 03, p. 54-60.

- [3]. Cheng Peng, Qingyang Liu, Niu Ting, et al. On the Ideological and Political Education of Material Specialty Courses under the Background of the Internet. Journal of Higher Education Research, Vol 03(2022), No. 01, p. 79-82.
- [4]. Dongsheng Cheng, Wen Wu, Yudong Yin, et al. Practical exploration on“ideological and political education in courses” in radar equipment teaching. Journal of Air Force Early Warning Academy. Vol 34(2020) No 06, p. 448-450.