

# Several Considerations on Enhancing the Practical Teaching Capability of Noncommissioned Officer (NCO) Academies

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**Abstract:** As the backbone of grassroots units, noncommissioned officers (NCO) play a crucial role in training and management during peacetime and serve as the primary combat force on the battlefield during wartime. They are a key factor in assessing the combat effectiveness of the military. Therefore, the cultivation of NCO talent is of utmost importance for military development. In order to enhance the practical teaching capability of NCO academies and improve the quality of NCO talent cultivation, this paper conducts an in-depth analysis of the current issues in practical teaching and proposes several approaches to enhance the capability of practical teaching. These findings have significant implications for the reform of practical teaching in NCO academies.

## 1. Introduction

The NCO corps is the backbone of grassroots units in terms of combat training, equipment operation, and daily management. As the largest and most widely distributed talent group in the military, NCOs will play an increasingly important and prominent role in future wars. It is crucial to focus on the cultivation of NCO talents for military construction. As the main channel for improving the capabilities of NCOs, the education and training in NCO academies play a significant supporting role in talent supply to the military.

Currently, most NCO academies adopt a combination of theory and practice in their training of NCO students. Considering the needs and competency requirements of NCO positions, practical teaching is indispensable, especially for combat positions, where the emphasis is on the development of professional skills and command abilities of classes (or groups). Practical teaching significantly contributes to the development of their job-related competencies and occupies a considerable proportion of the curriculum. To implement the requirement of focusing on real combat in teaching and further enhance the practical teaching capability of NCO academies, this paper focuses on the realistic needs of NCO talent cultivation in the Army combined-arms units. It analyzes the current status of practical teaching in NCO academies, identifies the weaknesses, and conducts research and exploration from five aspects: strengthening team building, improving teaching content, emphasizing the concept of real combat, enriching teaching methods, and innovating teaching models, providing references for the reform of practical courses in NCO academies.

## 2. Analysis of Practical Teaching Issues in NCO Academies

As the reform of practical teaching in NCO academies deepens, many institutions have realized the importance of practical teaching in NCO cultivation and have significantly increased the proportion of practical teaching. However, the effectiveness of practical teaching varies, and the generation of competencies among NCO students is not satisfactory.

### 2.1. Limited Teaching Methods and Lack of Innovative Consciousness

After the adjustment and reform of the military, the professional divisions in the Army combined-

arms units have become more detailed and the positions more diverse. Therefore, practical teaching should flexibly adopt teaching methods that highlight the job-related competency needs of different professional NCO students. However, some instructors in NCO academies still adhere to traditional teaching methods, lacking innovation in teaching methods. In the process of practical teaching, they stick to the "hand-holding" teaching concept, where instructors demonstrate and students imitate, assuming that competency is developed through repetition. The lack of opportunities for active student thinking and heavy reliance on rote memorization as the sole method of assessing learning outcomes result in inadequate extrapolation and divergent thinking abilities. The limited teaching methods not only affect the quality of practical teaching but also constrain the improvement of professional skills and the application of combat abilities among NCO students.

## **2.2. Traditional Teaching Tools and Low Level of Information Technology**

NCO academies primarily focus on cultivating the professional skills of NCO students, and during the practical teaching phase, they usually rely on practical equipment training. After instructors' explanations and demonstrations, students directly engage in training using the equipment. The advantage of this approach is that students can quickly develop the required competencies based on the practical equipment, and the training content is highly targeted. However, there are significant drawbacks. Firstly, the theoretical instruction and practical training progress too quickly, and many students have insufficient knowledge about the equipment, leading to incorrect operations and damage to teaching equipment. Secondly, due to the limited number of teaching equipment in the academies, the training duration for students using practical equipment cannot be guaranteed, which affects the effectiveness of teaching. Lastly, with the deepening of military reform and rapid updates of weapons and equipment in recent years, new equipment is usually first deployed to grassroots units after design finalization. It is difficult for academies to synchronize the update of teaching equipment with the equipment used by operational units. Therefore, many training sessions for operating and maintaining new equipment can only rely on similar models, making it challenging for students to quickly develop combat effectiveness when they return to their units and face new equipment<sup>[1]</sup>. It is evident that relying solely on traditional practical training methods cannot meet the demands of practical teaching for NCO students.

## **2.3. Unclear Teaching Focus and Insufficient Differentiation of Content**

NCO academy training tasks are mainly divided into three directions: vocational and technical education, upgrading training, and specialized training. Each direction can be further divided into different professional orientations, such as application and maintenance. For students at different training levels in the same profession, the teaching content in the theoretical instruction phase can be differentiated according to the characteristics of the students. However, in practical teaching, some teaching teams have unclear understanding of the students' roles, lack accurate grasp of the actual training and combat needs of operational units, resulting in similar teaching content, lack of clear teaching emphasis, and absence of distinctive teaching features. As a result, there is a phenomenon where one practical teaching content applies to all training levels.

## **2.4. Lack of a Real Combat Concept and Insufficient Creation of Teaching Situations**

Chairman Xi has repeatedly emphasized that military academy education should focus on real combat and aim at winning battles, which not only reveals the rules of running schools but also sets the overall requirements for the direction of military academy education. The fundamental purpose of military academy education is to serve combat. However, due to constraints such as teaching venues and logistical conditions, it has been challenging to implement practical teaching in a satisfactory manner, particularly in practical training courses for NCO students. The concept of real combat in teaching is not strong, and there is a lack of battlefield context and scenario construction. Students find it difficult to think and solve problems in the context of actual combat situations. Even in outdoor practical training, without the introduction of battlefield situations and battlefield display effects, it is equivalent to professional skills training in an outdoor environment.

### **3. Approaches to Enhancing the Practical Teaching Capability in NCO Academies**

#### **3.1. Strengthen Team Building and Improve Teaching Capability**

Firstly, we should diversify instructor development models. It is necessary to conduct in-depth assessments of the practical teaching capability level of teaching teams through methods such as random classroom observations and comprehensive supervision. It systematically analyzes the shortcomings of teaching capabilities. It facilitates the role of professors and teaching backbones in mentoring young instructors and civilian instructors to rapidly develop teaching capabilities. Through collective lesson preparation, teaching research, and regular trial lectures, it continuously improve the overall quality of the instructor team.

Secondly, we should establish a mechanism for serving in operational units. Only frontline instructors who truly understand the units and are familiar with the equipment can provide targeted teaching content. For instructors who lack experience in operational units, could be organized to serve in units in batches, especially civilian instructors, we need to help them understand the practical training exercises and improve the targetedness of practical teaching content<sup>[2]</sup>.

Thirdly, we should conduct regular research visits to operational units. It is necessary to establish a long-term cooperation mechanism with grassroots units and regularly organize personnel to visit units. Through on-site visits and discussions, they can timely understand the application of new equipment and training methods, and update the curriculum and teaching content accordingly.

Fourthly, we should participate in military exercises. We can rotate instructors to participate in major exercises and send them for on-site observation or participate in tasks. We also need to learn from the best practices in real combat training, conduct targeted teaching research, and accumulate experience and methods for practical teaching.

#### **3.2. Identify Job-related Needs and Improve Teaching Content**

Firstly, it needs to conduct in-depth research on different professional NCO students, determine the positions they may engage in at grassroots units, identify the competencies needed for different positions, and establish a framework for practical teaching content accordingly.

Secondly, it needs to establish cooperation with operational units. We can introduce training data and case studies from operational units into the classroom, to make the teaching content more vivid and closely related to actual operational situations. We can also stimulate students' interest in learning, help them understand the application scenarios of training content, and improve their comprehensive application abilities.

Thirdly, it needs to actively communicate with the units that send students to the academies. It is necessary to understand their evaluations of students' competency development as the sending unit, identify the key competency needs of different levels of students for unit positions, and extensively communicate with graduates to learn about the professional challenges and urgent needs they encounter in their actual work. We should identify the limitations of the existing knowledge system. Based on this, we can optimize the curriculum and teaching content and update the key and difficult points of teaching.

#### **3.3. Emphasize the Concept of Real Combat and Highlight Teaching Situations**

Firstly, it requires to highlight the "combat" essence in teaching content. In practical teaching, we can set the teaching content based on the requirements of combat situations. It align the teaching with the requirements of combat operations to ensure that the training focuses on the competencies required in combat situations. We can set the teaching content and standards based on the competencies needed in combat positions<sup>[3]</sup>.

Secondly, it requires to create teaching situations with a "combat" essence. In practical teaching, we could construct battlefield scenarios to guide teaching and use simulated situations to guide teaching by setting scenarios, role-playing, assigning tasks, and implementing tasks. It provides different inducements for different tasks, allows students to participate in training in different roles, keeps the students in a larger battlefield context, transforms them from teaching "recipients" to "participants", encourages them to think and solve problems in a battlefield context and enhances

their combat capabilities<sup>[4]</sup>.

Thirdly, it requires to enhance the environmental construction with a "combat" essence. For practical teaching, particularly for combat-related courses, it increases the display effects in training areas, simulates the enemy positions, sets up obstacles in front of blue force positions, conducts aerial drone reconnaissance, releases smoke canisters and uses blank ammunition. Through these means, it can create a realistic battlefield environment as much as possible, cultivate students' awareness of the enemy situation and develop their psychological resilience and anti-interference capabilities.

### **3.4. Enrich Teaching Methods and Improve Training Effectiveness**

Firstly, It is necessary to implement simulation training. We can establish semi-realistic simulation training classrooms equipped with software systems that can achieve training effects close to practical training. Before students engage in practical training, they can familiarize themselves with the equipment and operating procedures using the simulation training platform. Particularly for disciplines such as driving, shooting, and communication, after repeated training using simulation platforms, students can master the operating procedures before transitioning to practical training, significantly reducing errors in operations.

Secondly, It is also necessary to implement virtual training. We can utilize the resources of virtual training platforms to conduct practical teaching, employ teaching methods such as "scenario setting, role-playing, task assignment and task implementation" in a virtual training environment. With virtual training equipment, students can experience various combat situations and environments, improving their tactical command level, rapid response capabilities, and psychological endurance. Compared to conventional practical training methods, teaching and training in a virtual environment have the advantages of diverse scenes and realistic battlefield situations. It can also address the issue of limited access to new equipment in academies, which hinders the development of teaching effectiveness. Virtual training is particularly suitable for practical teaching in tactical command courses. By executing combat tasks in a virtual environment, students become familiar with various task action points, tactical and technical disposition procedures, and acquire targeted and cost-effective training, laying a foundation for practical training.

### **3.5. Innovate Teaching Models and Adapt to Role Transformation**

The fundamental purpose of teaching is to facilitate "learning." Traditional practical teaching models usually follow the process of theoretical review, demonstration, group research, group implementation, and summarization. The students' active "learning" plays a minimal role, and the focus remains on the instructor's "teaching." To innovate teaching models, it is necessary to break through established ideas and return the classroom to the students.

Firstly, adopt a student-guided teaching model. In this model, students engage in self-study and practice under the guidance of the teacher. The teaching focus shifts from "teaching" to "learning." The notable advantages of this model are: students become the main participants in practical teaching, their classroom engagement increases, and they develop a desire for learning and inquiry. Students prepare questions through pre-class review, seek solutions during practical training, and instructors provide targeted guidance based on the students' training performance. This promotes active student thinking, scientific and effective learning, and discourages rote memorization.

Secondly, implement a seminar-based teaching model. Conduct seminar-based teaching focusing on real-world problems that may arise on future battlefields. Instructors transform teaching content into real problems and construct them within actual battlefield contexts. When setting up problems, real-world hot topics and challenging issues can be used as the main thread, supplemented by research on past "problems" and exploration of potential future "problems." Students rely on group discussions and scenario simulations to develop problem-solving solutions. These solutions are then validated through practical training, with instructors acting as guides and consultants to help students identify areas for improvement. The seminar-based teaching model enhances students' analytical and problem-solving abilities and cultivates their innovative spirit.

#### **4. Conclusion**

To build a world-class military, it is crucial to have a strong backbone of highly skilled NCOs. As the main channel for NCO talent development, military academies shoulder important mission and tasks. To implement the military training guidelines of the new era and take effective measures to achieve the goal of educating for combat, military academies should focus on the competency needs of NCO students for their assigned positions. They should strengthen research on practical teaching methods, means, and concepts, improve the supporting conditions for practical teaching, enhance the systematicness, relevance, and effectiveness of practical teaching, and elevate the quality and level of practical courses in NCO academies.

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