

# Research on the Adaptability of Specialty Setting in Military Vocational Education Institutions

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**Abstract:** Military vocational education undertakes the core task of cultivating skilled military personnel for troops and supporting the generation of combat effectiveness, which is essentially different from general vocational education serving the market economy. Specialty setting, as the core carrier of talent cultivation, directly determines the post adaptability quality and actual combat capability of military personnel. At present, in the process of standardized schooling, some military vocational institutions copy the construction model of general vocational institutions, which leads to problems such as the market-oriented construction of specialties, insufficient actual combat orientation, and disconnection from troop post requirements, thus restricting the quality and effectiveness of education for war. This paper compares in detail the core differences in specialty setting between military and general vocational institutions. Based on the practical problems existing in the specialty construction of some military vocational education institutions, such as serious homogenization, insufficient battlefield adaptability, lagging specialty iteration, and shallow integration of combat and education, and in combination with the core requirements of education for war, this paper, from the five dimensions of construction orientation, specialty layout, curriculum system, talent cultivation mode, and evaluation standards, systematically studies the adaptive setting of specialties in military vocational education institutions. It specifically proposes practical paths for optimizing the specialty system, promoting actual combat reform, and building a dynamic adaptation mechanism in military vocational institutions, so as to construct an exclusive specialty development model that is different from local vocational education and closely fits troop combat needs. This study provides practical reference for military vocational institutions to build a first-class professional and combat-oriented specialty system and improve the quality of military personnel training.

**Keywords:** Military Vocational Education; Vocational Institutions; Specialty Setting; Integration of Combat and Education

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## 1. Introduction

### 1.1 Research Background

The standardized development of national vocational education has promoted local higher vocational institutions to form a mature specialty development system that adapts to industrial development and connects with market employment, which has effectively met the demand for vocational talent supply for regional economic development<sup>[1]</sup>. Military vocational education is a special type of vocational education that serves national defense and military development. Its core function is to cultivate skilled military personnel needed by grassroots troops for equipment operation, combat readiness support, duty performance,

and training<sup>[2, 3]</sup>. Its core educational goal focuses on war preparedness and combat, rather than market employment and industrial service.

At present, some military vocational institutions directly adopt the specialty development paradigm of general vocational institutions. This copying model has caused obvious deviations in military specialty construction: specialty layout refers to local industrial structures, the curriculum system emphasizes general vocational skills, and talent cultivation standards benchmark market post requirements, which weakens the combat attributes of military specialties. With the development of new war patterns, the commissioning of new weapons and equipment, and the growth of new-domain and new-quality combat forces, the actual combat requirements for military personnel posts in troops continue to rise. The current homogenized and market-oriented specialty setting model can no longer adapt to the demand of grassroots troops for practical and specialized talents. Based on this, this paper focuses on comparing the core differences in specialty setting between military and local vocational institutions and explores an exclusive path for specialty development in military vocational institutions around the goal of education for war, so as to help improve the quality and efficiency of military vocational education.

## 1.2 Research Significance

**Theoretical significance:** Existing studies on vocational education mostly focus on local higher vocational institutions, mainly examining the adaptive relationship between specialties and industry and the market. There are relatively few special studies on military vocational education, and there are even fewer studies that systematically compare the essential differences in specialty setting between military and local institutions. A theoretical system for specialty development that meets military war-preparation needs and adapts to the concept of education for war has not yet been formed. Through multidimensional comparison, this paper clarifies the unique attributes, development logic, and evaluation standards of specialty setting in military vocational education, defines the theoretical boundary between military vocational education and general vocational education, fills the theoretical gap in differentiated development of military vocational education, and enriches the theoretical research on specialty construction in military vocational education.

**Practical significance:** Based on the real self-evaluation data of military personnel institutions, this paper accurately identifies the prominent problems in current military specialty development, such as copying the local vocational education model and insufficient actual combat adaptability. In combination with the rigid requirements of education for war, it puts forward targeted and practical solutions for adjusting specialty layout, reconstructing the curriculum system, reforming the talent cultivation mode, and optimizing the evaluation mechanism, which can effectively solve the problems of homogenization and marketization of military specialties. The research results can be directly used for specialty reform and development in military personnel institutions, promote specialty construction from “benchmarking the market” to “benchmarking the battlefield,” and effectively improve the actual combat adaptability of military personnel, thus providing practical reference for building first-class military vocational institutions oriented toward combat.

## 1.3 Research Ideas and Methods

**Research ideas:** This paper takes the principle of education for war in the new era as the core orientation and the comparative analysis of differences in specialty setting between military and local vocational institutions as the main research content. First, it defines the core concepts and constructs an analytical framework for the differences in specialty setting between military and local vocational education. Second, combined with empirical self-evaluation data of institutional operation, it analyzes the current situation of specialty setting in military vocational institutions, identifies problems such as homogenized construction and insufficient actual combat adaptability, and examines their causes. Finally, based on the needs of war preparedness and combat, it proposes optimization paths for military specialty development that fit the goal of education for war, thus forming a complete research logic of “difference analysis–current situation assessment–problem analysis–path optimization.”

**Research methods:** First, the literature review method was used to sort out policy documents and academic achievements related to vocational education and military education, to consolidate the theoretical foundation of the study. Second, the comparative analysis method was used to compare the core differences in specialty setting between military and local vocational institutions from five dimensions: construction orientation, specialty layout, curriculum system, talent cultivation

mode, and evaluation standards. Third, the causal analysis method was used to analyze the deep causes of homogenization and weakening of actual combat in military specialty development.

#### **1.4 Research Status at Home and Abroad**

Domestic research on specialty setting in vocational institutions has become relatively mature. Research mainly focuses on the connection between specialties and industry in local institutions, the integration of industry and education, and dynamic adjustment of specialties, thus forming a complete market-oriented specialty development system. Existing studies on military vocational education mostly focus on single directions such as combat-oriented teaching, faculty development, and talent cultivation reform. There are few studies focusing on the differentiated comparison of specialty setting between military and local institutions, and no systematic research has been conducted on specialty development based on the exclusive needs of military vocational education, such as battlefield adaptability and the core requirement of education for war. There are obvious gaps in both research perspective and content.

Foreign military vocational education emphasizes post-task training and specialized skill cultivation, but the education systems, post systems, and training goals of foreign militaries differ greatly from those of our military, so their research results do not have direct reference value. Overall, the current academic community lacks research on the adaptability of military vocational specialties that take the differences in specialty setting between military and local institutions as the core, is based on the goal of education for war, and relies on empirical data. The content of this paper can effectively fill the existing research gap and has certain innovations and practical value.

## **2. Analysis of Differences in Specialty Setting Between Military and Local Vocational Education**

### **2.1 Definition of Core Concepts**

Education for war is the core educational purpose of military vocational education in the new era. Its core requirement is to abandon market-oriented educational thinking, take the improvement of troop combat effectiveness as the only standard, and integrate war preparedness, actual combat posts, and combat empowerment into the whole process of specialty development, curriculum teaching, and talent cultivation. All specialty development work serves the actual combat talent needs of the troops, which is the core sign distinguishing it from general vocational education.

The specialty setting of general vocational institutions takes serving regional industrial economy and adapting to market employment as its core goal and follows the development logic of “industry determines specialties, posts match courses, and employment tests education.” It mainly cultivates students’ general vocational skills, with market employment rate and industrial adaptability as the core evaluation indicators, and has typical market-oriented and industrialized characteristics.

The specialty setting of military vocational institutions differs from the market adaptation logic of general vocational education. It refers to the degree of match between specialty layout, resource allocation, curriculum system, training mode, and educational standards in military institutions and troop post requirements, weapons and equipment iteration, and actual combat support tasks. Its core evaluation criteria are learners’ post competence, actual combat adaptability, and contribution to combat effectiveness, while considering both vocational skill cultivation and military actual combat empowerment.

### **2.2 Comparison of Core Differences**

The essential differences in school orientation, service objects, and training goals determine that there are fundamental differences in the specialty setting modes of military and local vocational institutions. This paper systematically summarizes the differentiated characteristics of the two types of institutions from five core dimensions, as follows.

(1) Differences in development orientation and employment direction. The specialty setting of general vocational institutions adheres to market and industry orientation, adjusts specialty directions closely according to industry development and market post changes, and its core task is to provide technical and skilled personnel for local industries and serve regional economic development. The specialty setting of military vocational institutions adheres to battlefield and war-preparation orientation, and is completely arranged around troop establishment posts, equipment operation and maintenance, and combat support tasks. Its core task is to cultivate military personnel who can quickly adapt to grassroots combat readiness duty and practical support, and all development work serves the improvement of military combat effectiveness.

(2) Differences in specialty setting logic. The specialty layout of general vocational institutions follows the principle of industrial agglomeration, relying on regional leading industries and emerging industries to plan specialty clusters, pursuing specialty scale and employment coverage. Specialty setting has high flexibility, and its iteration speed fluctuates with the market, with repeated construction of popular specialties. The specialty layout of military vocational institutions follows the principles of full battlefield post coverage and priority to rigid combat effectiveness needs. It strictly plans the specialty structure according to the military specialty catalog, troop post establishment, and combat support system. It does not pursue school scale or specialty quantity, but focuses on ensuring talent supply for main combat posts and core support posts. Specialty layout has mandatory, stable, and war-preparation rigid-demand characteristics, and the blind addition of specialties detached from troop needs is strictly prohibited.

(3) Differences in curriculum system construction. The curriculum system of general vocational institutions takes general vocational skills as the core, builds course modules according to general post ability standards, and focuses on market-oriented skills teaching such as technical application, production practice, and service management. Theoretical courses and practical training content are mainly adapted to enterprise production scenarios. The curriculum system of military vocational institutions takes actual combat support capability as the core, and constructs course content around equipment operation, combat readiness duty, emergency response, and battlefield support. In addition to basic technical skill teaching, it adds exclusive courses such as military literacy, combat readiness regulations, battlefield emergency response, and joint combat coordination. Practical training projects are fully benchmarked against troop exercises, combat readiness, and emergency task scenarios, highlighting high-intensity, combat-oriented, and military-style training characteristics.

(4) Differences in talent cultivation mode. General vocational institutions adopt the cultivation mode of “school-enterprise cooperation and integration of industry and education,” relying on enterprise training bases to carry out internship training, and focusing on cultivating students’ independent employment ability and career development ability. The educational process is relatively flexible and relaxed, with skill qualification and smooth employment as the main goals. Military vocational institutions adopt the cultivation mode of “institution-troop coordination and integration of combat and education,” relying on grassroots troops to carry out post-following practice and exercise-based training, and implementing military-style full-process management. While cultivating professional skills, they also focus on tempering learners’ fighting style, discipline, stress resistance, and coordinated combat ability. The whole cultivation process fits troop management standards and battlefield actual combat requirements.

(5) Differences in quality evaluation standards. The evaluation of specialty construction in general vocational institutions takes industrial adaptability, student employment rate, enterprise satisfaction, and skill competition results as the core indicators, with emphasis on market value and social benefits. The evaluation of specialty construction in military vocational institutions takes battlefield adaptability, post competence rate, troop satisfaction, actual combat support capability, and contribution to combat effectiveness as the core indicators. Market employment-related indicators are not assessed. The focus is on judging the actual effect of specialty construction in serving war preparedness and combat, thus forming an actual combat evaluation system that is completely different from local vocational education.

### **3. Current Situation and Existing Problems of the Adaptability of Specialty Setting in Military Vocational Institutions**

#### **3.1 Overall Current Situation of the Adaptability of Specialty Setting**

According to the self-evaluation data of military personnel institutions, military vocational institutions have basically completed the establishment of a standardized specialty system, set specialties strictly according to the military specialty catalog, and achieved full coverage of major combat posts and conventional support posts in grassroots troops, which can meet the basic supply needs of military personnel for troops. In terms of standardized specialty development, institutions have benchmarked national higher vocational school standards, improved specialty training programs, curriculum systems, training conditions, and faculty allocation, and significantly enhanced the standardization of specialty operation. At the same time, institutions have initially established a specialty iteration mechanism, regularly inviting troop equipment experts and frontline commanders to participate in specialty demonstration, and can make small adjustments to specialty directions and course

content according to changes in troop establishment and equipment updates, thus basically realizing the initial adaptation of specialty construction to the routine post needs of troops.

In terms of educational adaptation effectiveness, graduates of the institutions can quickly become competent in routine equipment operation, daily combat readiness, and basic support work in grassroots troops. The stability of talent supply is strong, and the overall recognition of employers is high. The institution-troop coordinated education mechanism has been initially implemented. Through troop post-following internships and special exercise training, learners' basic post adaptability has been effectively improved, providing stable talent support for the construction of grassroots military personnel teams.

### **3.2 Prominent Adaptation Problems in Specialty Setting**

First, specialty development tends to be homogenized, and the exclusive military characteristics are weakened. In the process of benchmarking national higher vocational standardized development, some specialties directly apply the development framework and talent training system of general vocational institutions. Their course modules, training projects, and teaching standards are highly similar to those of local vocational education, with a relatively high proportion of general skill courses and insufficient exclusive content such as military actual combat, battlefield support, and emergency response. Specialty development overemphasizes standardization and regulation while neglecting the actual combat attributes of military vocational education, resulting in specialties with "too much vocational education flavor but insufficient military flavor and combat flavor," which cannot reflect the core orientation of education for war.

Second, specialty iteration lags behind the development of military forms, and forward-looking adaptation is insufficient. At present, institutional specialty updating mainly relies on periodic passive adjustment and lacks a rapid response mechanism that connects with troop equipment iteration, tactical innovation, and the development of new-domain and new-quality combat forces. For emerging posts such as intelligent equipment, joint combat support, and new service support, specialty layout lags behind and course updating is slow. Traditional specialties are not transformed and upgraded in a timely manner, resulting in a large gap in talent supply for new posts, and specialty development cannot keep up with the pace of upgrading troop actual combat needs.

Third, the integration of combat and education is not deep enough, and the connection between specialties and battlefield needs is loose. The institution-troop coordination mechanism mostly stays at the level of superficial cooperation such as internships, practical training, and expert lectures. The latest exercise achievements, actual combat cases, and equipment operation standards of the troops have not been systematically integrated into the specialty curriculum system. In the process of specialty development demonstration, frontline combat posts have insufficient voice, and course content is disconnected from real battlefield tasks and sudden combat-readiness scenarios. Training projects are mostly standardized process training and lack practical drills in complex battlefield environments, which results in shortcomings in cultivating learners' practical adaptability and emergency support capabilities.

Fourth, the evaluation system is overly standardized, and combat-oriented assessment is lacking. At present, the evaluation of specialty development mostly refers to higher vocational school standards, focusing on internal indicators such as course development, faculty ratio, training venues, and teaching standards. Core actual combat indicators such as troop post competence, actual combat support effectiveness, and employer evaluation have not been included in the rigid assessment system. The evaluation orientation tends toward schooling standardization rather than actual combat effectiveness improvement, which leads specialty development to focus more on compliance than combat, and more on norms than empowerment.

### **3.3 Analysis of the Deep Causes of the Problems**

First, the implementation of the educational orientation is not thorough enough. Some schooling and development work has the cognitive deviation of "valuing regulation over combat." More effort has been made to benchmark general vocational education standards, while reform efforts focusing on war preparedness and battlefield needs have been insufficient. The concept of education for war has not been fully integrated into the whole process of specialty development, resulting in the gradual weakening of the uniqueness and actual combat nature of military specialties.

Second, the differentiated development mechanism is imperfect. A specialty development standard and iteration mechanism

completely different from those of general vocational education has not yet been established. There is a lack of exclusive norms in specialty layout, curriculum development, training construction, and quality evaluation. The long-term dependence on the general vocational education development paradigm makes it difficult to meet the special needs of military war preparedness.

Third, the feedback loop of troop needs is not sound. The mechanisms for regular post-demand investigation, graduate post-tracking, and troop evaluation feedback are not yet complete. Changes in troop actual combat needs and shortcomings in talent ability cannot promptly drive specialty reform and curriculum iteration in reverse, and the dynamic adjustment ability of matching supply and demand in specialty development is insufficient.

Fourth, support from practical teaching resources is insufficient. Some teachers' frontline troop practical experience is outdated, and their understanding of new equipment, new tactics, and new tasks is insufficient. The development of intelligent and combat-oriented training resources is slow, making it difficult to support the combat-oriented reform of specialties and the cultivation of new-quality talents, thus restricting the improvement of specialty adaptability quality

## **4. Optimization Paths for Specialty Setting in Military Vocational Institutions Under the Orientation of Education for War**

### **4.1 Focus on Battlefield Orientation and Build a Differentiated Specialty Development System**

Military vocational institutions should thoroughly get rid of the market-oriented and industrialized development thinking of general vocational institutions, take war preparedness and combat as the only core orientation, and establish exclusive specialty development standards for military vocational education. Specialty layout should be strictly planned according to troop combat systems, post establishment, and equipment systems. General specialty directions with weak adaptability, serious homogenization, and insufficient military characteristics should be removed, while the specialty structure should be optimized around core areas such as main combat support, equipment operation and maintenance, combat readiness service, and new-type combat support. The development logic of industrial adaptation and employment orientation should be abandoned, and battlefield adaptability, contribution to combat effectiveness, and post competence rate should be taken as the primary basis for specialty setting and adjustment, so as to form an exclusive specialty layout system characterized by "rigid battlefield demand, actual combat adaptation, and distinct military characteristics."

### **4.2 Focus on Combat Empowerment and Reconstruct the Militarized Curriculum and Training System**

Compared with the general curriculum system of ordinary vocational education, targeted reduction and reconstruction should be carried out. The proportion of market-oriented general skill courses should be compressed, while exclusive military course modules such as battlefield support, emergency response, equipment operation practice, and joint combat coordination should be added. A mechanism for transforming troop practical achievements should be established, so that frontline exercise cases, equipment fault-handling experience, and tactical innovation achievements can be regularly integrated into classroom teaching, thus realizing the synchronous updating of course content and troop actual combat tasks. The training mode should be reformed by reducing standardized process-based training and increasing scenario-based training and comprehensive practical drills under complex battlefield environments and sudden combat-readiness tasks, so as to build a four-in-one practical training system of "equipment operation practice + combat readiness training + battlefield support + emergency response" and comprehensively improve learners' actual combat support capability.

### **4.3 Deepen the Integration of Combat and Education and Establish an Institution-Troop Coordinated Education Mechanism**

A specialty development demonstration mechanism with deep troop participation should be established. Frontline commanders, equipment technical backbones, and practical support experts should be regularly invited to participate in specialty layout, revision of talent training programs, curriculum development, and other core work, so as to ensure that specialty development fully matches practical post needs. The system of troop post-following practice and exercise-based temporary assignment for learners should be improved, and the duration of practical post training should be extended, so that learners can participate in troop combat readiness, exercises, and support tasks throughout the process, thus realizing the seamless connection between the teaching process and battlefield tasks. The dual-teacher teaching mode of "institution

teachers + troop backbones” should be implemented to compensate for the shortcomings of practical teaching within institutions and promote the integration of combat and education from superficial cooperation to deep coupling.

#### **4.4 Improve the Dynamic Iteration Mechanism to Adapt to the Development of New-Quality Combat Effectiveness**

An annual troop demand investigation mechanism should be established to systematically identify changes in post competence caused by the commissioning of new equipment, the development of new-domain and new-quality combat forces, and tactical innovation, and to form an annual specialty optimization list. The fixed-cycle iteration model should be broken, and an emergency adjustment and dynamic optimization mechanism for specialty updating should be established. New specialty directions such as new-type combat support, intelligent equipment operation and maintenance, and joint combat service should be arranged in a timely manner. Traditional specialties should be transformed and upgraded, and course content lagging behind practical combat needs should be eliminated, so as to ensure that specialty development always matches the pace of troop combat effectiveness upgrading.

#### **4.5 Improve the Combat-Oriented Evaluation System and Strengthen Closed-Loop Quality Control**

The evaluation model benchmarking local vocational education should be thoroughly reconstructed, and a specialty quality evaluation system with actual combat effectiveness as the core should be established. The weight of internal standardization indicators should be reduced, while core evaluation indicators such as troop post evaluation, learners’ post performance, actual combat support effectiveness, and employer satisfaction should be added, with contribution to combat effectiveness as the ultimate criterion for judging specialty quality. A full-chain closed-loop mechanism of “demand investigation–specialty development–talent cultivation–post feedback–optimization reform” should be established, so that troop actual combat feedback can reversely force the continuous optimization of specialties, thus forming a positive cycle of evaluating teaching by combat and promoting reform by posts.

### **5. Conclusions and Prospects**

#### **5.1 Research Conclusions**

Military vocational education and general vocational education are two different types of vocational education systems. There are fundamental differences between them in development orientation, specialty layout, curriculum system, talent cultivation mode, and evaluation standards. The market-oriented and industry-adapted specialty development model of general vocational institutions cannot be directly applied to military vocational education. Through multidimensional comparison and empirical analysis, this paper draws a clear conclusion: in the process of standardized development, current military vocational institutions have obvious problems of homogenized copying in specialty setting. Specialty development shows prominent market-oriented and generalized characteristics, while actual combat nature and military characteristics are insufficient. At the same time, there are adaptation problems such as lagging specialty iteration, shallow integration of combat and education, lack of practical evaluation, and poor supply-demand closed-loop connection. The root causes lie in the incomplete implementation of the education-for-war orientation, the imperfect differentiated development mechanism, and the unsound practical talent cultivation system.

To fit the core goal of education for war and adapt to the actual combat talent needs of troops, specialty development in military vocational institutions must completely separate from the market-oriented development paradigm of general vocational education, adhere to battlefield-centered orientation, and build an exclusive military specialty layout system, practical curriculum and training system, institution-troop coordinated education mechanism, dynamic iteration mechanism, and combat-oriented evaluation system. Through comprehensive differentiated reform, the problem of disconnection between specialty development and battlefield needs can be solved, promoting military vocational education specialty development from “benchmarking standards” to “benchmarking combat effectiveness,” and truly realizing the core goal that specialty development serves war preparedness and combat, and talent cultivation supports the generation of combat effectiveness.

#### **5.2 Research Limitations and Prospects**

This paper takes the self-evaluation data of a single military personnel institution as the empirical basis. Although the research conclusions are highly targeted, the sample coverage is limited, and the general applicability still needs to be further

improved. At the same time, this paper mainly focuses on macro-level difference comparison and system construction, while the detailed study of differentiated adaptation rules for different types of military specialties is not sufficiently refined.

Future research can expand the survey sample to cover more military vocational institutions and different services and branches, further improve the adaptability evaluation system for military vocational specialties, and refine the practical development standards for different specialties. With the continuous development of intelligent warfare and new-domain and new-quality combat forces, the demand for military personnel posts in troops will continue to evolve. Future studies can focus on new-quality combat posts, explore the dynamic adaptation of military vocational specialties and the deep integration of combat and education under the background of intelligence, and continuously improve the specialty development system of military vocational education under the orientation of education for war, so as to cultivate more high-quality practical military personnel for strengthening the military.

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## **Conflict of Interests**

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## **Reference**

- [1] Pema, E., & Mehay, S. (2012). Career effects of occupationrelated vocational education: Evidence from the military's internal labor market. *Economics of Education Review*, 31, 680–693. <https://doi.org/10.1016/j.econedurev.2012.04.005>
- [2] Zhang, Q., Cheng, P., Xu, S., Hu, J., Tan, Y., & Ma, X. (2026). Research on generating and dynamically adapting personalized learning pathways for military vocational education. In *Proceedings of the 2026 3rd International Conference on Informatics Education and Computer Technology Applications* (pp. 1029–1035).
- [3] Pires, P. P., Pinto, G. H. S., Souza, M. A., Macambira, M. O., & Figueira, G. L. (2021). Career adaptability, engagement and job satisfaction: A psychological network in the military education context. *RAM Revista de Administração Mackenzie*, 22, Article eRAMG210114.