

# Thoughts on the Reform and Development of Graduate Education in Military Science with Chinese Characteristics

Lei Li

The Experimental Training Base of College of Information and Communication  
National University of Defense Technology  
Xi'an, China 710106

Ke Yao

The Experimental Training Base of College of Information and Communication  
National University of Defense Technology  
Xi'an, China 710106

Yongjie Xia

Army Academy of Border and Coastal Defense  
Xi'an, China 710108

Ling Zhao

The Experimental Training Base of College of Information and Communication  
National University of Defense Technology  
Xi'an, China 710106

**Abstract**—Since the beginning of this century, in order to meet the needs of the new military revolution with Chinese characteristics, military postgraduate education has entered a transitional period. In the process, it has encountered some challenges and encountered many problems. In order to promote the comprehensive, coordinated and sustainable development of military graduate education, it should profoundly understand its development rules, rationally clarify its training objectives, and strive to improve the quality of its education.

**Keywords**—military science; postgraduate education; education reform

## I. INTRODUCTION

Since the 1990s, the rapid development of high technology with information technology as the core has given birth to new military changes on a global scale. This revolution is in its unique way to promote qualitative changes in the formation of the military and the war form, and at the same time put forward new and higher requirements for military personnel. In order to meet the needs of the new military revolution, the country has re-adjusted and deployed military postgraduate education since the beginning of this century, clarifying the development goal of cultivating academic talents and focusing on cultivating applied talents, and has been promoting graduate education. The reform has continued to deepen and strive to explore a sustainable, scientific and rational graduate education system. Although the author has achieved some achievements and gained some experience in this process, the author has encountered some challenges and encountered many problems. This requires us to seek steady progress in constant reflection.

## II. DEEPLY UNDERSTANDING THE DEVELOPMENT LAW OF MILITARY GRADUATE EDUCATION

Law 1: The development of graduate education should be compatible with social and economic development.

The advancement of any education is based on the social economy. Whether it is primary education or higher education, whether it is national education or military education, their development depends on the effective input of social and economic resources. As a graduate education for cultivating high-level talents in the country, its development is inevitably influenced and restricted by social and economic development, and it also counteracts the development of social economy. Therefore, regardless of whether the socio-economic development is fast or slow, stagnant or even retrogressive, it will directly affect the development of postgraduate education, and it will lead to high tides and lows. Looking around the postgraduate education in the developed countries of the world, they can clearly see which developed countries are all based on the speed and level of their socio-economic development, to determine the speed and level of their graduate education, and to make postgraduate education effective. The land promotes economic and social development, the rise of comprehensive national strength and the enhancement of military strength. Take the United States as an example. In the 1960s, the US economy developed rapidly. In line with this, graduate education in the United States also entered a period of rapid development. In the early 1970s, the US economy was in crisis, and graduate education also fell into a trough, directly affecting the reserves of high-level talents. As a result, there was a shortage of high-level talents in the mid-1980s. After the mid-1980s, the US economy gradually resumed its development momentum. As graduate education

embarked on a path of steady growth, the situation of lack of high-level talents was alleviated. The development of military graduate education, which is an important part of graduate education, is also inextricably linked with social and economic development. Therefore, under the current environment of rapid, stable, sustained and healthy development of China's social economy, the rapid development of military graduate education is in line with the law and can be sustained.

Law 2: The development of military graduate education should meet the needs of military development.

The reform and development of everything is basically guided by actual needs and promotes the promotion or leap of certain capabilities. The reform and development of military postgraduate education should also be based on the development of military science and technology and to win the actual needs of information warfare, and promote the improvement of overall capabilities. Since the 1980s, the process of reform and development of military graduate education has fully reflected this law. At the beginning of the postgraduate education in military science, due to the lack of high-level specialized personnel in military science at that time, there was a phenomenon that could not meet the needs of military scientific research. For this reason, the state has developed a military graduate student who is mainly engaged in training "academic" talents. However, since the 1990s, especially since the beginning of the new century, with the constant deepening of the new military revolution in the world, the country has profoundly realized that the high-level talents cultivated by the military graduate education can no longer meet the needs of the future. Make reforms and adjustments. To this end, in September 2003, a postgraduate education reform work conference was held in Beijing, which made major adjustments to the postgraduate education in military science, and clearly pointed out that accelerating the transformation from the cultivation of academic talents to the cultivation of applied talents. The postgraduate education in military science has thus entered a transitional period, which is also accompanied by the overall transformation of the power system.

### III. REASONABLY CLARIFYING THE TRAINING OBJECTIVES OF GRADUATE STUDENTS AT DIFFERENT LEVELS

For the education and training of military graduate students, the training objectives should be determined according to different stages and levels. It is not wise to generalize that the military graduate education is the application of talents or academic talents and ignore the actual situation and specific practice required. Although the postgraduate education in military science is the overall goal of cultivating high-level military talents, graduate education itself is divided into two stages and levels of postgraduate education and doctoral education. The two should have different emphasis on the cultivation of talents. Therefore, when establishing their respective training objectives, they should be targeted according to actual conditions and specific needs.

From the development history of military graduate education, in the initial stage, because the number of doctoral students in our military is very small, it cannot fully meet the needs of scientific research. Therefore, the training goal of master students is basically to cultivate "academic" senior talents. The main, together with the doctoral students, meet the needs of scientific research. This has led to the convergence of the goal of military graduate education to a goal: to cultivate "academic" senior talent. However, with the overall advancement of national education reform, the enrollment of doctoral students in military academies and research institutes has been large, and doctors have become the main source of scientific research and can meet the needs of scientific research to a large extent. It gradually replaced the original status of the graduate students. At the same time, with the advent of the new military revolution, in order to promote the deepening of the new military revolution with Chinese characteristics, modernization has entered a stage of comprehensive development, and the requirements for the types and specifications of master students are increasingly diversified, except that a small number of basic and theoretical studies are required. In addition to the academic talents of sexual research, there are more advanced application talents who need to meet actual positions. It can be seen that the training objective of the master's degree in military science can no longer be positioned to cultivate "academic" senior talents. In the long run, the cultivation of "academic" senior talents should focus on the doctoral stage. Therefore, at the present stage, in the process of transformation of my military postgraduate education, it should clearly understand the different needs of the mastermind and doctoral students in the construction of the national defense system, and accurately grasp the different training objectives of the two stages, that is, the training of master students should be From academic talents to application-oriented talents, the cultivation of doctoral students should continue to be based on academic talents.

### IV. STRIVING TO IMPROVE THE QUALITY OF MILITARY GRADUATE EDUCATION

Although the postgraduate education of military science has expanded the enrollment scale in the context of national education reform, and the number of graduate students trained has developed rapidly, it should be clearly seen that this quantitative growth and development is only obvious when being compared with that in the past in terms of the scale of graduate students. Seen from this perspective, the current military graduate education is indeed exponentially larger than before in China. However, if graduate education is compared with undergraduate education, its scale is still limited, and the number of talents cultivated is still a small part. Therefore, for undergraduate education that has become popular, military graduate education is still Elite education, the primary grasp and resolution is still the quality of education. How to deal with the relationship between the quantity and quality of graduate students on the basis of existing graduate education resources, to ensure the quality of postgraduate education, and to seek comprehensive, coordinated and sustainable development of postgraduate education is the primary issue currently facing us.

Training high-quality military graduate students is the lifeblood of military graduate education. Only by cultivating high-quality graduate students can the quality of the national defense force be more effectively promoted. To ensure and improve the quality of postgraduate education, it should systematically adjust and reform from the entire educational process, and grasp every aspect of talent cultivation such as admission enrollment, curriculum setting, research topic selection, scientific research, and thesis defense.

From the perspective of enrollment, useful experience of the US military can be learned from in this regard. The US military's postgraduate education for officers is based on the principle of "broad-in and strict-out". On the issue of enrollment, the implementation is a selection. For officers who are educated, admission is usually based on their experience in the military rather than it is determined by the exam. Therefore, when the graduate student enters school, the exam is generally not required. This method is also in line with the needs of our military for the rapid development of military modernization and postgraduate education. Corresponding to "wide-entry" is "strictly out", which is an effective guarantee for the quality of education, the US military's requirement for military officers to receive postgraduate education is that it is not easy to get a graduate degree, because nearly one-third of students do not get a degree every year, so they must study hard and reach the colleges and military schools they study. A degree can be obtained only by the standards agreed by the Board of Education. This kind of training principle actually puts a certain pressure on the students. If the students want to complete the postgraduate studies, they must study hard, which naturally guarantees the quality of education.

For the curriculum construction of postgraduate education, the principle of curriculum construction should be followed by the frontier of development, so that the postgraduate curriculum can truly reflect the frontier of the development of this discipline and related disciplines. In addition, they must adhere to the principle of people-oriented, strengthen the scientific research training of postgraduates, cultivate students' inquiry spirit and inquiry ability; adhere to the originality requirements of doctoral thesis, attach importance to practical teaching links such as experiment, internship and practical exercise, and cultivate the theory and practice of graduate students. Flexible time system should be adopted to give graduate students more space for self-selection in learning and research and improve their ability to solve practical problems.

## V. CONCLUSION

As the forefront of national defense personnel training, the graduate education in military science is the vane for the development of national defense education, and the intellectual foundation and personnel guarantee for the birth and application of new military science and technology and military thoughts. In the face of the accelerating development of new science and technology represented by artificial intelligence and quantum technology, graduate education must abandon the cultivation orientation of purely academic talents, and establish as soon as possible a graduate

education system of military science with Chinese characteristics that focuses on cultivating applied talents and adapts to the national conditions.

## REFERENCES

- [1] Feng Huayu. Reflections on the transformation of military graduate student training objectives [J]. Culture and Education Materials, 2007 (1): 14.
- [2] Shang Chunming. Research on cross-century military construction [M]. Beijing: People's Liberation Army Press, 2008: 156-168.
- [3] Zhang Linna. Reflections on the reform and development of graduate education [J]. Contemporary Education Science, 2008 (3): 55.