Strategies to Improve Learners' Self-regulated Learning Ability under the Innovative Development of Military Vocational Education

Jing Zhao¹,a, Guo Li²,b, Xiao Shuang Wang³,c*, Xin She Qi⁴,d, Dong Qiu Xing⁵,e

¹School of Information and Communication, National University of Defense Technology, No. 5 Guangming Road, Wangqu Town, Chang'an District, Xi'an City, 710106, China
²School of Information and Communication, National University of Defense Technology, No. 5 Guangming Road, Wangqu Town, Chang'an District, Xi'an City, 710106, China
³School of Information and Communication, National University of Defense Technology, No. 5 Guangming Road, Wangqu Town, Chang'an District, Xi'an City, 710106, China
⁴School of Information and Communication, National University of Defense Technology, No. 5 Guangming Road, Wangqu Town, Chang'an District, Xi'an City, 710106, China
⁵School of Information and Communication, National University of Defense Technology, No. 5 Guangming Road, Wangqu Town, Chang'an District, Xi'an City, 710106, China

*a282986394@qq.com, cwx163jundui@163.com, dyqxs_163.com

*Corresponding author

Keywords: Military Vocational Education, Military personnel, Self-regulated learning ability.

Abstract. The development of internet technology and the establishment of lifelong learning system require learners to learn and attach importance to the cultivation of learners' autonomous learning ability. On the basis of defining the connotation and composition of self-regulated learning ability, this paper briefly expounds the necessity of improving the self-regulated learning ability of military personnel in the network era, and puts forward three strategies to improve the self-regulated learning ability: renewing learning concept strategy, system intervention strategy and learning mode innovation strategy. Through the research, we hope to provide theoretical basis and methodological guidance for military vocational education to develop self-regulated learning ability.

1. Introduction

Military vocational education in our army refers to the organized and independent modern continuing education for all officers and soldiers on duty. Military vocational education emphasizes learner-centered, emphasizing self-participation, self-learning and self-improvement. The officers and soldiers should make flexible choices on what to learn, how to learn and when to learn[1]. In view of these characteristics of military vocational education, how to cultivate and improve the self-learning ability of military personnel has become a hot issue in the research of military vocational education. Among them, what is the connotation and ability composition of self-regulated learning, why to improve self-regulated learning ability under the background of innovative development of military vocational education, and how to improve self-regulated learning ability need to find clear answers. This is exactly the problem of this paper.

2. The connotation of self-regulated learning ability

Henry Holec first studied and advocated autonomous learning in the field of language learning in 1981. He defined "autonomous learning" as "improving the ability of self-learning"[2]. Self-regulated learning regards students as the main body of learning and teachers as the dominant part of learning, so as to enable students to cultivate their ability of independent thinking under the guidance of teachers. Through the process of question analysis, teamwork, questioning and creative solutions, learning objectives can be achieved. Pintrich defines it as a self-regulated learning process[3].

Copyright © 2019, the Authors. Published by Atlantis Press.
This is an open access article under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/).
This paper holds that self-regulated learning is a form of learning that highlights the learner's subjectivity. It has the following characteristics: ①Self-regulated learning is a learning process that integrates cognitive, metacognitive and behavioral factors. It is manifested in the regulation and monitoring of cognitive processes and behaviors by learners. ②Self-regulated learning is a form of learning in which learners actively participate in the whole learning process. It includes self-planning and formulation of learning objectives, self-selection and adjustment of learning content, self-regulation and monitoring of learning process, self-expectation and evaluation of learning results. ③In the process of autonomous learning, learners have strong internal motivation and produce positive emotional experience[4].

3. Constitution of self-regulated learning ability

Self-regulated learning is the basic requirement of various forms of education for learners, which cannot be realized only in the network environment. Because autonomous learning in the network environment is carried out in a relatively special environment, it has considerable specificity and particularity. Therefore, we need to re-examine the characteristics of autonomous learning ability in the network environment, combining with the characteristics of the network environment.

From the perspective of autonomous learning process, cognitive and non-cognitive dimensions, or from the aspect of lifelong learning, domestic and foreign researchers have analyzed the composition of autonomous learning ability in the network environment, which includes the following aspects. ①Information processing and management ability refers to the ability to collect, organize, select, analyze and utilize resources and information in the process of learning. ②Cognitive ability and metacognitive ability refer to the ability to plan, monitor and evaluate the learning process with sufficient cognitive strategies and skilled application. ③Motivation refers to the ability to use a variety of motivational factors, such as self-efficacy, learning interest and so on, to motivate oneself and ensure the intrinsic driving force of learning. ④Network collaboration capability refers to the ability to communicate and cooperate by using network tools and technologies.

The author thinks that the self-learning ability of military personnel under the network environment mainly includes self-planning ability, self-selection ability, self-regulation ability, information processing ability, communication and cooperation ability, self-evaluation ability and knowledge application ability. Specifically, self-planning ability and self-selection ability are the basic abilities. Self-regulation ability is a key ability. Information processing ability and knowledge application ability are the core abilities, communication and collaboration ability and self-evaluation ability are the auxiliary abilities.

4. The necessity of improving the self-learning ability of military personnel

Military vocational education has incomparable advantages in the form of self-learning under the network environment. It not only achieves high-speed information transmission and resource sharing, but also breaks through the limitations of time and space. Military personnel grasp solid post knowledge and skills of performance development through independent learning.

4.1 Problems existing in military personnel's self-learning ability

According to the survey of the self-regulated learning ability of military personnel, it is found that the self-regulated learning ability is on the low side in general. Mainly in the following aspects. First, internal learning motivation is not strong. The learner's learning motivation is highly utilitarian. The main purpose of learning is to gain recognition from others, to develop his career and to improve his own value, or to be forced by external factors such as pressure from family and unit leaders, rather than renewing knowledge and improving ability. The learner's interest in knowledge itself is not strong, and his internal learning motivation is weak or even lacking. Second, there is a lack of scientific self-learning methods. Learners lack scientific and systematic knowledge of learning
strategies and application skills, and are unaware of the importance of learning. Third, the ability of self-control is poor. For example, when facing difficulties in learning, it is easy to produce anxiety and annoyance, unable to calm down to seek solutions, weak willpower, learning can not start well and finish well, etc.

4.2 Self-regulated learning ability is the requirement of the goal of strengthening the army

In order to realize the goal of strengthening the army in the new era and build our army into a world-class army in an all-round way, it is necessary for the whole army to focus on building a new high-quality military personnel array to support the great cause of the army, firmly grasp the strategic basic project of military vocational education, and enhance the ability of self-learning for the army personnel. In the information age, the iterative development of high and new technology, the accelerated evolution of war patterns and the accelerated renewal of weapons and equipment all put forward higher and higher requirements for the professional accomplishment of soldiers. For the officers and soldiers, it is far from enough to rely on the study of colleges and the practice of troops, and it also needs accumulated self-learning. To adapt to the change of reform, our army has put forward the Trinity military personnel training mode, and no matter which training mode, it is urgent to improve the self-learning ability of military personnel[5].

5. Strategies for improving self-regulated learning ability

There are many strategies to improve the self-regulated learning ability of military personnel. Due to the limitation of space, this paper puts forward the strategies of renewing learning concept, system intervention and innovation of learning mode.

5.1 Strategies for renewing learning ideas

Military personnel must establish the concept of lifelong learning. Lifelong learning has become an important condition for every military personnel to adapt to their posts and development and the trend of the 21st century. It is the cornerstone of building a lifelong education system and a learning society. It is not only an educational concept, but also a way of life and a social behavior. This requires military personnel to adapt to the situation of the times, establish the awareness of self-learning and lifelong learning, and transform passive learning into active learning. We should fully realize the importance of learning to learn, strive to cultivate self-learning awareness and enhance the sense of responsibility for self-learning.

5.2 Institutional intervention strategies

The cultivation of self-regulated learning ability involves the establishment and improvement of laws and regulations system, teaching management system, school roll management system, teaching motivation mechanism, learning motivation mechanism, credit bank system and supervision and evaluation system of military vocational education. Substantive incentive policies should be introduced to guide all departments of the army to participate in military vocational education, and efforts should be made to explore and establish the dynamic mechanism of "learning", "teaching" and "management". The integration of education and training system and selection and appointment system should be designed as a whole, education and training experience should be promoted into the career development path of officers and soldiers, rigidity of education and training should be strengthened, and consistency of training and management and construction should be fundamentally solved.

5.3 Innovative strategies of learning mode

In the network environment, the separation of teachers and learners makes them have to study independently, so it is particularly important to get rid of the dependence on teachers. Therefore, in order to cultivate the self-regulated learning ability of military personnel, first of all, it is necessary to achieve a thorough change in learning concept from passive acceptance of teachers' knowledge
imparting to active play the role of learning subject. Secondly, after autonomous learners have the driving force of autonomous learning, they must have the correct learning methods and scientific learning strategies to ensure that they can carry out effective and efficient autonomous learning and improve their learning efficiency. Finally, autonomous learning will fundamentally force the comprehensive reform in the field of military vocational education. All kinds of training and education institutions must speed up the pace of practical exploration, strengthen process reengineering from the aspects of educational ideas and teaching modes, and establish a new online and offline integrated teaching mode with "learner-centered"[6].

6. Summary

Autonomous learning ability is a kind of comprehensive ability in learning activities. The self-learning ability of military personnel is an indispensable prerequisite for improving the quality and efficiency of military vocational education or promoting the individual development of cadets. Otherwise, the expected goal of military vocational education will be difficult to achieve. It is impossible to cultivate learners' autonomous learning ability overnight, which requires the great attention of educational and training institutions and gradual progress. As long as we can break through the shackles of traditional educational concepts and cultivate them to develop good self-learning habits, improve the learning support service system, over time, adult learners' self-learning ability will gradually improve.

Acknowledgement

This research was financially supported by the thirteenth five-year plan of Shanxi Province for the 2018 project (Grant NO. SGH18H23), Special Topic of Education Informatization of China Higher Education Society in 2018 (Grant NO.2018XXHYB07) and the Institute of information and communication, National University of Defense Technology (Grant NO.2018JY18B033).

References


