Teaching Reform of Scenario Simulation in Military Finance and Economics Course Based on Confrontation Exercise

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Abstract. By taking the military financial and economic courses as an example, this paper aims at the teaching goal of on-job training, analyzes the necessity of actual combat teaching reform, and sorts out the current research and “scenario simulations” on this basis, and puts forward a fusion of practical teaching reform and construction plans, which are elaborated from the aspects of construction ideas, general framework, teaching method design and positive significance. This paper also suggests that teaching case should focus on the authenticity, versatility and experience effect of scenario simulation design.

Introduction

The contents of military finance and economics courses are closely related to the military financial management position. Especially in the context of the current deepening adjustment of military system, the requirements and methods of military financial management are undergoing profound changes. How to further standardize the financial management of the armed forces, straighten out the business relationship between the financial works during the “military reform” period, improve the level of financial management for military troop at the basic level, intensifying consciousness of business standard for military financial officers, and give full play to auxiliary decision-making function of financial work. To improve the efficiency of security and combat effectiveness is a new challenge for financial and economic courses in military colleges and universities. Therefore, this article aims at the reform of education in military colleges and universities “focusing on actual combat and moving closer to the troops,” focusing on the needs of the military's financial positions and business interfaces, and organically combining the training methods of confrontation drills with teaching of scenario simulation. We will explore the approaches, models and methods of fine-tuning education and teaching activities in military finance and economics courses, complete the precise orientation and effective supply of knowledge and skills for students training, so as to achieve the ultimate goal of improving the systematized business ability of military finance officers.

Necessity of Developing Teaching Reform of Scenario Simulation Practice Based on Confrontation Exercise

Firstly, it meets the general requirements of the Central Committee of the New Century Party and the Central Military Commission for the financial management of armed forces. In 2013, President Xi attended the People's Liberation Army delegation at the First Session of the 12th National People's Congress and pointed out that “we must advocate a spirit of hard struggle, practice diligent and thrifty, oppose extravagance and waste, and use military expenditure to make the best use of national defense investment.” On Oct 26th, 2014, with the approval of the Central Military Commission, the PLA fully implemented military performance management, which focused on tracking the performance of spending funds and clear accountability for inefficiency. It has optimized the allocation of financial resources, improved the control of spending and expenditure, and responded...
positively to President Xi's directive spirit. Therefore, the financial management of armed forces, with military expenditure as the object of management, is a policy-oriented, cost-effective and highly sensitive task. How to urge the troops to manage and use the huge amount of equipment and logistical supplies, ensure the generation and improvement of the combat effectiveness of the armed forces, and exert auxiliary decision-making function of financial work became a major challenge for military financial personnel. However, how to cultivate the talents who meet the requirements of the real financial position is the fundamental way to solve this major challenge.

Secondly, conforms to the development goal of military educational reform and the request of the era of “new liberal arts construction” advocated by the Ministry of Education. The Outline of the Education Reform and Development Plan for Military Institutions and Colleges before 2020 clearly proposed the development goals of “talent training system with job demand as the traction” and “modern teaching system oriented by ability training.” In 2018, the Ministry of Education also put forward the concept of “new liberal arts construction,” focusing on creating “gold courses” with the manners of hybrid, virtual simulation, and social practice in teaching content, curriculum system, methods, and practical teaching. For this reason, the teaching of financial and economic courses in armed forces shall observe the above goals and requirements, adjust the personnel training programs and ideas, implement the training concept of “strong practice and innovation,” and aim at the reform direction of military college education “focusing on actual combat and moving closer to the troops.”

We will adopt innovative teaching methods, such as situation simulation teaching, confrontation exercise teaching, and scenario operation design, so as to optimize curriculum planning, strengthen the interface between teaching and actual combat, cultivate a workforce with military service competency which is politically strong, professionally proficient and correct in style, as well as knowledge, skills, and qualities for military positions.

Present Status Research of Teaching Reform Based on Situation Simulation Practice

Research Results of Local Institutions

Retrieving CNKI (China National Knowledge Infrastructure) (www.cnki.net), we found that although there is a lot of focus on the concept of “actual combat teaching” in the current academic community, most of them are actually only speculation concepts, and the research is vacuous and over simplification, which lacks of concrete countermeasures and methods to carry out practical teaching. However, the literature on the theoretical and practical research on the “situation simulation of confrontation drills” and “actual situation simulation” involving the study of specific actual combat teaching is quite rare.

According to the statistical results in table 1, the search for the two core keywords “confrontation drill” and “situation simulation” are carried out in their respective fields. Although some documents can be found, the effective information is obviously insufficient. The “confrontation drill” mainly focuses on physical quality confrontation, including fighting skills and technical investigation, obviously far from the main purpose of this project. “Situation simulation” mostly involves the training of practical training skills in science and engineering, which is not consistent with the liberal arts attributes of this project. However, in the joint search of the two aspects, no relevant literature can be found at all.

No directly relevant literature was found in the teaching of the confrontation exercise. We can only expand our vision into the field of actual combat teaching, and conduct research from the macro level of teaching reform ideas and methods, trying to relate the actual combat and confrontation exercises. F. Lei [1] takes the logistics course as an example, introduced the practical experience of case method in actual combat teaching, and pointed out that the case setting should be typical and representative of personnel, machinery, materials, operating methods, and work environment. Moreover, case selection should present some challenges. J. Zhao [2] puts forward the constructivism theory of teaching model design of Business English Writing. The core idea is to independently build a situation design of practical Business English Writing that matches the international financial
environment with students as the main body. Through the process of teacher-student communication, the difficulty and antagonism are continuously increased, and the learning effect is improved as well.

In terms of situation simulation teaching, nearly 90% of the retrieved literature refers to practical exercises and simulator training in the fields of biology, information, electronics, engineering, machinery, and architecture, which emphasizes on hardware environment construction and somatosensory substitution. The literature on economic management, especially financial direction, is very rare. Representative literature includes, H.H. Zhang [3] proposed the optimization of the teaching concept of engineering integration, that is, the introduction of real work situations into teaching process. However, engineering integration needs to coordinate the relationship between economic development and vocational education, business and school, work and learning, theoretical teaching and practical teaching. The role of students needs to be reasonably positioned to ensure the interests of students. Y. Chen [4] pointed out that there are outstanding problems such as outdated teaching methods and the disconnection between teaching content and students' job requirements in the current in-service education.

Table 1. Retrieval of Statistical Information on Similar Topics.

<table>
<thead>
<tr>
<th>Retrieval Properties</th>
<th>Title Retrieval</th>
<th>Theme Retrieval</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retrieval Area 1: Confrontation and Relevant Confrontation</td>
<td>219</td>
<td>358</td>
<td>Most of them are concept research, lack of realization path, and do not involve antagonistic teaching content.</td>
</tr>
<tr>
<td>Practical Teaching</td>
<td>136</td>
<td>397</td>
<td></td>
</tr>
<tr>
<td>Anti-exercise Teaching</td>
<td>1</td>
<td>1</td>
<td>Belongs to confrontation exercise of criminal investigation.</td>
</tr>
<tr>
<td>Anti-simulation Teaching</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Anti-simulation Exercise</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Actual Combat Teaching</td>
<td>2</td>
<td>2</td>
<td>Refers to the actual combat of tactical and fighting courses</td>
</tr>
<tr>
<td>Retrieval Area 2: Context Simulation, Scenario Introduction, etc..</td>
<td>59</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Context Introduction Teaching</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Scenario Assignments Teaching</td>
<td>5</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Scenario Simulation, Scenario Teaching</td>
<td>6</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1+2 Joint Domain Search</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Research Results of Military Academy

Due to the objective demands of military attributes, military colleges and universities have always emphasized the development of actual combat teaching featuring situation simulation and confrontation exercises. However, in terms of actual development, the military education community's summary and understanding of the teaching rules of anti-rehearsal teaching are still not thoroughly understood, which lacks effective application and promotion. The teaching of confrontation drills is usually limited to light weapons shooting, military tactics, military command, and military sports with distinctive military combat characteristics, which are not common in
application of military finance courses. In the representative literature related to the field of military finance and economics courses, X.Y. Cheng pointed out that the actual combat teaching reform of military logistics education should strive to build a logistics practical training platform, such as building a simulation training platform based on the Internet, establish a combat situation and simulate logistics actual combat cases, complete the preparation of logistics operations documents, formulate support plans, and revise logistics operations plans. P. Han conducted an in-depth analysis of the counter-exercise type of scenario operation, and believed that the form of countervailing exercise should be chosen reasonably in concrete implementation, and do a good job in the two stages of combat preparation and combat implementation of the confrontation drill.

Conception of Reformation and Construction Scheme of Situational Simulation Practice Based on Confrontation Exercise

Construction Idea and Overall Design Framework

In teaching concept, we shall follow the guiding ideology of quality education and innovative education, and focus on cultivating innovative ability of military financial training students based on the needs of financial work positions and interactive learning. In the course framework design, the main task is the combination of ability and quality training, which keeps practical application as traction to highlight learning subject status of training students, stimulate learning interest, and improve systematic financial business practice ability of training students. The overall project construction scheme in Fig.1 is systematically constructed according to the “function-module” level design idea. The overall construction plan of the project consists of three parts: the situation simulation teaching of entire process of military financial business, military financial supervision, standardized management situation simulation teaching, and situation simulation teaching of military financial regulations construction system construction. It covers the basic functional requirements of three functional domains and teaching tasks of six modules.

Figure 1. Structure Diagram of Programme Framework.

In Fig. 1, Functional Domain I mainly implements the real situation restoration function of annual military financial business implementation process, under which four teaching task modules (modules 1 to 4) are positioned for corresponding to the main business activities such as the preparation of the integrated budget, the preparation of the project funding budget, the accounting and accounting processing, and the preparation of the project funding accounts in the process of managing the budget and final accounts respectively. The purpose is to examine actual knowledge of trainees on daily financial operations of troops, strengthen training students’ business skills level, standardize financial work requirements, and focus on financial work details training. Functional domain II...
mainly realizes the function of self-supervision and self-standardization of military finances to receive task situation simulation, under which a module of simulated teaching task (module 5) is positioned for management of military funds. The purpose is to investigate training students' familiarity with the common problems of military financial supervision and inspection, so as to improve the training students' awareness of financial norms, awe awareness and business literacy, including difficult problems and emergency situations management. Function III mainly realizes the simulation training function of the legal management of the military's financial work, under which a simulated teaching module is positioned for preparation of military financial regulations (module 6). The purpose is to investigate and train trainees' ability to understand, master and flexibly apply financial regulations.

Teaching Methodology Design

Based on the basic contradiction of job training and teaching, the author aims to achieve the organic integration of military finance and economics course teaching in “situation simulation” and “confrontation exercise,” so as to create a systematic teaching method that combines antagonism with fun, virtual business and simulation environment. The specific implementation process is as follows:

![Figure 2. Schematic Diagram of Project Teaching Method.](image)

With the main task of “deployment-implementation-evaluation” of intended operation, a variety of modern teaching methods are integrated into the teaching process, as follows:

The first is integrated theoretical study and practice research. Based on learning general organization and implementation methods of teaching scenario simulation and confrontation drills, we shall conduct in-depth research on real business of the military financial posts, Moreover, we shall master specific management and implementation requirements of military financial personnel in carrying out systematically the daily business operations such as the management of their own financial accounts, settlement of funds, accounting and accounting affairs, management of financial norms, and construction of financial systems, sort out the important and difficult issues in their business work, and ensure effective supply of teaching in teaching design.

The second is independent learning method based on constructivism theory. Constructivism theory attaches great importance to the inheritance and development of students' own original knowledge and experience, and advocates students to carry out independent learning under the appropriate guidance of teachers, and guides innovative thinking and innovative activities. In the course of teaching military finance and economics courses, it is required to use the theory of constructivism in ration. The trainees may give full play to take the advantages of their own practical work experience. The topics for the design of imaginary assignments and confrontation exercises are more realistic and more closely related to the actual situation of troops, which shall be helpful to improve the actual training effect.

The third is a 360-degree comprehensive evaluation method based on role-exchanging. The so-called 360-degree comprehensive evaluation method refers to comprehensive evaluation of teaching effects from the guidance of teachers, the observation of students, the practice of offensive
and defensive, the practice of defending square and other multi-level subjects, which used to continuously improve teaching methods, improve teaching methods, and optimize teaching process evaluation methods. In this project, we have added the links of offensive and defensive transposition and role exchange through confrontation exercise, which has further enriched the category of evaluation subjects and improved the scientific evaluation effect.

The fourth is based on the multi-channel open research teaching method. Research teaching is a common teaching method in in-service education, which has the advantages of strong practice and wide application. By summarizing and commenting on the confrontation between attacking and defending sides after confrontation exercise, we can stimulate the sense of competition and confrontation among students, encourage collision of ideas among students, and help students listen to different opinions from multiple channels when faced with complex practical issues. It also combines personal cognition with deep, independent and open-minded thinking to generate teaching resonance.

Positive Aspects of Teaching Reform

Firstly, it is beneficial to enrich the existing teaching theory system and initially form academic theory and practice results of situational simulation teaching. According to the requirements of actual combat teaching, simulating real environment of financial positions of troops, and refining and integrating elements such as unit business departments and unit financial institutions, personnel duties, and business processes in a virtual environment, it is conducive to enhancing students' sense of substitution for situational teaching. The simulation role of military finance personnel under the background of thinking operation is changed more quickly. Through theoretical research, the feasibility of situational simulation teaching method is demonstrated, and the application object of situation simulation teaching in post-oriented training education is illustrated.

Secondly, it is beneficial to expand the traditional teaching group training methods and carry out exploration of teaching organization characterized by confrontation exercises. Based on the premise of setting the background of scenario operation, this paper explores a combination of teaching organization and implementation scheme, and improves teaching efficiency. The plan follows the people-oriented education concept, optimizes the link design of the teaching confrontation exercise, clarifies working requirements and support requirements for each stage of teaching implementation, and systematically deducts the entire process of the situational teaching model based on the confrontation drill, which is a mature and rigorous theoretical plan.

Suggestions on Teaching Reform of Scenario Simulation and Practical Practice Based on Confrontation Exercise

The first is to highlight authenticity of the situation simulation design. Through continuous and in-depth investigation of financial work of troops, we can find out the actual needs in current work and achieve a close combination of job training theory and practice. By orienting to the current requirements of the financial management of troops, we shall give full consideration to the differences in functions and responsibilities of different geographical areas and mission units in specific financial posts, focus on the problems in financial work, and establish an inclusive and systematic system of scenario modules. Case writing shall emphasize on effectiveness of the connection between theory and practice, and reduce the inefficient and ineffective supply in teaching process.

The second is to pay attention to strengthening the generality of presentation form of confrontation drill. According to the training requirements of actual combat teaching, we should focus on studying the presentation of training model of the counter-training group in the military financial and economic courses, and form a teaching standard with certain versatility. In preparing cases, attention shall be paid to use of traditional methods of training in combat exercises such as military tactical training, military combat exercises, physical combat and confrontation, and observe the characteristics of military financial and economic courses. Adaptability of application field shall be
expanded and scientific presentation shall be highlighted, so as to form a systematization of practical results.

Third is to optimize the experience effect of students entering the simulated teaching situation. A good situational simulation design can easily realize the teaching function of situational simulation based on following the law of personnel training, enhance the sense of substitution and teaching appeal, and achieve the effect of teaching implementation with half effort. Therefore, when designing a scenario simulation teaching case, we shall give full play to the complementary advantages of different modules in location functions, improve the attractiveness of teaching cases, and enable training students to consciously exert their subjective initiative in course of confrontation drills and scenario simulation, so as to enjoy the teaching process, feel the charm of teaching, and promote the teaching of beneficial results, and achieve the purpose of improving business capability.

References


