

Research on the Application of Smart Classroom in Practical Teaching in Military School

Ziyan Shi^a, Bolin Cheng^b, Liangsi Wang^c

AirforceEarly-warning Academy, Wuhan, Hubei 430017, China

^a158749926@qq.com, ^bcb11972@163.com, ^ctkldewo@163.com

Keywords: smart classroom; military school teaching; practical teaching; teaching mode application

Abstract: The development of information technology has promoted the birth and application of smart classrooms. Smart classrooms have subversively changed the traditional classroom teaching methods. This article first analyzes the current status of practical teaching in military schools and introduces the concept and connotation of the teaching mode of smart topics. Based on the teaching model of wisdom topics, the design plan for the construction of the military school's practical teaching environment and the teaching process is given, which provides new ideas and methods for the military school's practical teaching reform, and gives "intelligence" to the construction of the military school's teaching practice environment and teaching organization. s solution.

1. Introduction

In today's world, new military reforms centered on information technology are in the ascendant, military reforms with Chinese characteristics are accelerating, and the epoch-making evolution of war patterns and the overall transformation of army building interact with each other. The situation is pressing. Innovative military theory and training new military talents This poses a severe challenge for the mission military academies. Facing new challenges, designing, transforming, arming, and reshaping military education and training methods with brand-new educational concepts and information technology is the source of vitality and vitality for military academies. These changes have put forward new requirements for the teaching of military academies. This article uses the teaching mode of the smart classroom to sort out and adjust the current teaching situation of military academies, and try to apply the smart classroom teaching mode to military academy teaching. It provides new methods and methods to improve the overall teaching effect of the military academy and promote the improvement of the commanding ability of the students. Ideas.

2. Analysis of Application Requirements of Smart Classrooms in Practical Teaching in Military Academies

2.1 The Status Quo of Practical Teaching in Military Academies

President Xi clearly pointed out that military academies education must keep pace with the times, persist in facing the battlefield and facing the army, focus on actual combat, and focus on training talents so that the trainees meet the needs of army building and future wars. In March 2014, the Central Military Commission issued the "Opinions on Improving the Actual Combat Level of Military Training", which put forward new requirements for the education of military academies, and required military school practice teaching to improve the level of actual combat teaching. Keeping close to the actual combat, the military academy should focus on the teaching mode of "theory teaching + case teaching + imaginary homework + comprehensive exercises", further increase the proportion of military practical teaching, and focus on the needs of future positions for students to conduct simulated appointments. Training allows trainees to understand job

requirements in advance. In the practical teaching stage, instructors can set up a teaching environment based on actual combat, lead the students to experience in the actual environment, and improve their ability to solve problems. However, the current military academy's practice teaching in the military academy cannot meet the requirements of the comprehensive quality training of military combat command, whether it is the actual combat construction level of the teaching environment or the teaching organization implementation process. There is an urgent need to upgrade and transform the existing military academy teaching practice through new teaching models.

2.2 Introduction to Smart Classroom Teaching Mode

The so-called smart classroom refers to a new teaching environment that organically integrates education and teaching and information technology, which can be seen as a reshaping of teaching by technical and intelligent tools. This kind of terminal product or platform is based on big data and other technologies, which can satisfy students' convenient access to learning resources while also realizing human-computer interaction and remote real-time teaching^[1].

In the smart classroom teaching model, the smart goals include general goals and specific teaching goals, as the basis of the classroom model teaching activities, the realization of each sub-objective in the teaching process is the basis for achieving the goals of the smart classroom teaching. The cultivation of students' intellectual ability requires careful guidance and cultivation of teachers in the teaching process. Technical support is the key basic technology for the development of smart classroom teaching, including information network technology, big data analysis technology, expert system, artificial intelligence technology, etc. The classroom teaching process is divided into three parts, including: before class, during class, and after class. It contains the implementation steps of specific teaching parts. Teachers who implement the model can choose the steps according to the content of specific subjects. The wisdom evaluation method is mainly two parts: formative evaluation and summative evaluation, including practice and classroom learning. Specifically, it refers to the combination of all practical performance and student classroom learning performance, and the two are combined to form formative evaluation. The summative evaluation is the evaluation carried out after the end of the teaching activities. The evaluation of the completion of the learning objectives of the students throughout the learning period and the learning unit is mainly carried out in the form of final tests and summary practice reports^[2]. The specific teaching mode structure is shown in Figure 1.

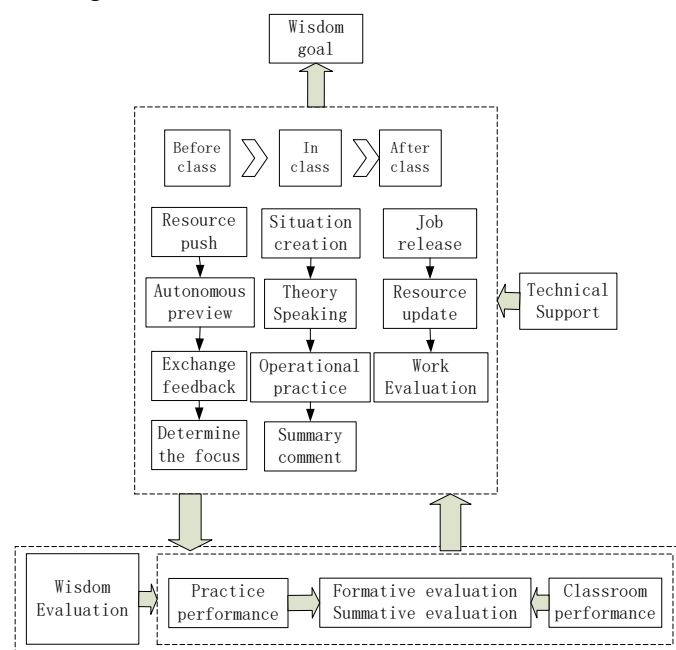


Figure 1 The structure of the teaching model of wisdom topics

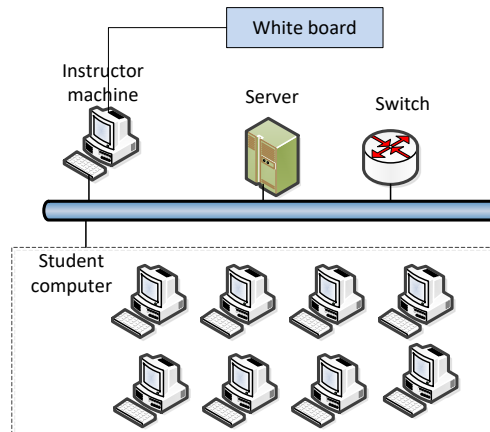


Figure 2 Hardware environment system

2.3 Software environment

The application and implementation of the smart classroom teaching mode requires strong functional support in the teaching software environment. The military school teaching practice software platform is mainly used for the development of military school teaching practice. According to the application implementation requirements of the smart classroom teaching mode, it can be based on C/S or B/S. The system structure of the S hybrid architecture model consists of two parts: the server side and the client side. The server side includes system management function modules and the storage of various database files required by the system. The system management can also be operated on the client side through permission settings. System role users are divided into trainees, tutors and administrators. The client sets up corresponding functional modules for users in different roles, including four functional modules: basic theory learning, operation simulation module, assessment and evaluation, and data resource management. The overall functional structure is shown in Figure 3.

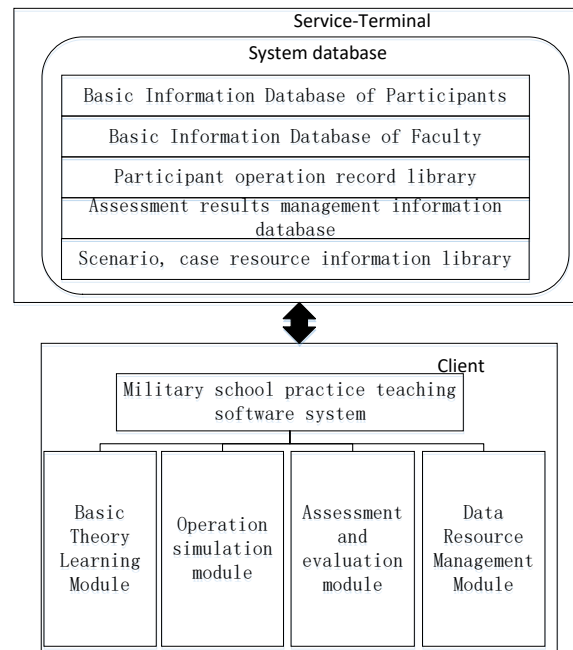


Figure 3 The overall structure of the system

3. The teaching process of military academy based on smart classroom

The main feature of the smart classroom teaching model is real-time feedback. According to the

smart classroom teaching model, the military academy's teaching process can be divided into three stages: pre-class, classroom and after-class. The specific process is shown in Figure 4.

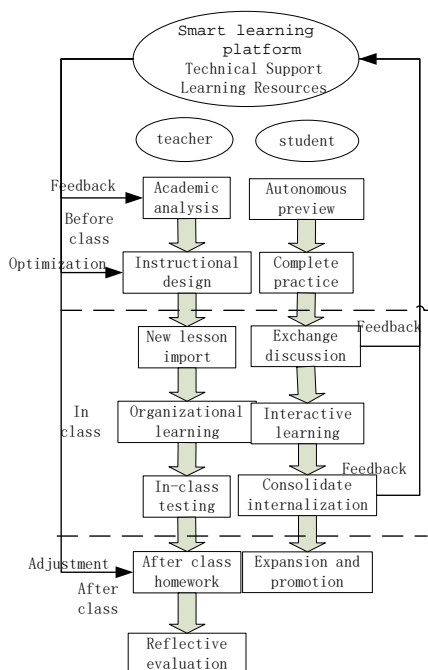


Figure 4 The teaching process of military academy based on smart classroom

3.1 Pre-class stage

The main work in the pre-class stage includes two parts: academic analysis and teaching design. The specific implementation process is as follows:

3.1.1 Academic analysis

The analysis of learning situation is the starting point for teachers to carry out teaching design, and it is also a crucial part of teaching design. The teaching platform of the smart classroom can use the basic information database of the students in the software platform to analyze the basic situation of the students. Each course work After completion, you can use the assessment and feedback module to analyze the completion status of the students' homework and other training modules to analyze the relevant data of the students, and analyze the students' preview status, historical results, and exchanges and discussions based on the smart platform for more in-depth and rigorous analysis. So as to get the students' current knowledge level and learning situation, and realize the purpose of learning by learning [3].

3.1.2 Teaching Design

After the analysis of the academic situation, the instructors carry out the teaching design based on the characteristics of the current teaching content, curriculum standards and the results of the analysis of the academic situation. The teaching design based on the smart classroom pays more attention to the analysis of the students' academic situation, the teaching goals of the teacher and the learning of the students than the traditional classroom teaching. Presupposition of goals, selection and design of teaching resources, arrangement and design of teaching methods, based on the analysis of students' academic conditions, teachers design teaching goals and learning goals in a planned way, and use the teaching resources of military school teaching practice to arrange suitable teaching Content, compile the scenarios and case content needed for teaching practice, and complete the teaching design work.

3.2 In-class stage

Real-time feedback is the key to the in-class stage. Smart classroom-based teaching provides a

more convenient teaching environment than traditional classrooms. The in-class stage includes topic introduction, organizational learning, and in-class testing. The specific implementation process is as follows:

3.2.1 Project introduction

There are many ways to introduce topics. For example, at the beginning of military school classroom teaching, you can use animation, video and other resources to create a background or case analysis and discussion background to introduce the curriculum, introduce the basic theoretical content of military school teaching, and give some classic examples for students to comment. Let the students give explanations and discuss, deepen the students' understanding and mastery.

3.2.2 Organizational Learning

In organizing the learning process, teachers should embody the student-oriented teaching environment, and use the favorable conditions and resources provided by the teaching environment to independently study, think and create in the teaching environment constructed by the smart classroom teaching model. Teachers need to explore teaching strategies suitable for student learning to promote For students to learn, the teacher sets up certain drill backgrounds, drill tasks, enemy conditions, and our feelings in the course teaching, which are completed by the students independently, and then collectively "graded", so that the students will gradually become familiar with the principles and essentials of combat in practical use. Classroom discussions can also be organized at the right time to allow students to gain knowledge and improve their abilities through constant comparison, analysis and induction. Through actual cases of the troops, the trainees can directly experience the actual combat needs of the troops, and the trainees understand quickly, remember and use them flexibly^[4].

3.2.3 In-class testing

After the teaching content is explained, you can use the military academy teaching practice platform to test the students in class. After completing the test exercises, the students will get immediate learning feedback. The feedback includes correctness and error, analysis, cause of error, knowledge points and vulnerabilities, etc., to help Students consolidate and strengthen the knowledge content in a targeted manner, so as to achieve the goal of efficient learning.

3.3 After class

The after-school stage focuses on personalized requirements, including homework and reflection evaluation. The specific implementation process is as follows:

3.3.1 Homework

Teachers use the smart learning platform to obtain feedback on the learning situation detected by students, and according to the feedback data from the detection, they can arrange homework for most of the weak knowledge links in a targeted manner. The homework is divided into two sections. One is for this section. The second is the preparation work for the next lesson. With the support of the military school's teaching practice platform function and relevant learning resources, personalized homework pushes are made for each student's detection results in class, that is, the students' wrong knowledge content is provided with corresponding targeted exercises to help students Fill in knowledge loopholes to consolidate and deepen knowledge.

3.3.2 Reflective Evaluation

Teachers should consider the whole teaching process when conducting reflection and evaluation, from the analysis of the academic situation before class to the organization of learning in class and the arrangement of homework after class. There may be loopholes in the teaching process in order to improve the follow-up teaching and achieve higher teaching efficiency. The reflection of teaching in the smart classroom should consider the whole teaching process. Teachers' reflection evaluation should be carried out from three aspects: before class, during class and after class. The

specific evaluation indicators are shown in Table 1:

Table 1 Evaluation indicators after class

Classroom Stage	Evaluation Index
Before Class	Preview of push materials
Class	Attendance
	Classroom interaction performance
	Imagine homework or case analysis situation
	Discuss the exchange situation
After class	Homework, feedback

4. Summary

In the era of intelligence, the form of war has changed greatly. Military academies are facing many new problems and new demands. The technical means and resources of smart classrooms are becoming more abundant. The implementation of teaching organization has a very strong guiding significance. This article integrates the teaching mode of the smart classroom into the teaching application of the military school, conducts a preliminary research on the software and hardware construction of the military school teaching practice platform, and conducts the teaching process of the military school on this basis. The preliminary design has promoted the "teaching revolution" of smart classrooms in military academies.

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