On the Optimization Strategy of College English Informatization Teaching in Military Academies

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Abstract. The development of science and technology in the era of the internet has brought profound changes to education. Traditional college English teaching models are facing unprecedented challenges, and the reform of talent cultivation models, classroom teaching models, and educational teaching methods is urgent. Military academies need to rely on network technology platforms for the scientific cognition of information-based teaching of English in military academies, reproduce the construction and management of informationization resources, and cultivate a high-quality informationization teacher team, Establish a scientific evaluation mechanism for information-based teaching to promote the optimal development of information-based teaching of English in military academies.

Keywords: Optimization strategy; information-based teaching of English in military academies; measures

1 Introduction

Education informatization is an inevitable choice for the future development of education, a necessary path for China's education to modernize, and an important support for the implementation of China's strategy of strengthening the country with talents and cultivating high-end talents. In April 2018, the Ministry of Education formulated and issued the "Education Informatization 2.0 Action Plan", clearly proposing to actively promote the "Internet + Education The plan clearly proposes to actively promote the development of "Internet + education", accelerate the modernization of education and the construction of a strong education country, and realize the leap from "education informatization 1.0" to "education informatization 2.0". [1] The Education Informatization 2.0 Action Plan covers important significance, general requirements, objectives and tasks, implementation actions, and safeguard measures. In terms of objectives and tasks, the Education Informatization 2.0 Action Plan clearly states: "By 2022, we will basically achieve the development goal of 'three full, two high and one big', i.e. teaching applications covering all teachers, learning applications covering all school-age students, digital campus construction covering all schools, informatization Application level and information literacy of teachers and students generally improved. And build

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a large platform of 'Internet + education', promote the transformation from education-specific resources to large resources for education, from enhancing teachers' and students' information technology application capabilities to comprehensively improving their information literacy, and from integrated application to innovative development, and strive to build a new model of talent training under 'Internet +' conditions, and develop a new model of Internet-based educational services, and explore a new model of educational governance in the information age." From the perspective of implementing actions, eight action plans have been established: the "action of popularizing digital resource services", "action of covering network learning space", "action of tackling network wisdom project", "Action for optimization of education governance capacity", "Action for leading thousands of schools and classes in hundreds of districts", "Action for standardizing construction of digital campuses", "Action for Innovation and development of smart education" and "Action for comprehensively improving information literacy". In the text analysis of the Education Informatization 2.0 Action Plan, three key words appear more frequently, namely "Internet+", "Big Data" and "Artificial Intelligence".[2]

2 Current situation of information based college English teaching in military academies

With the development of the new round of international revolution in the world, international exchanges of various countries have become increasingly frequent. As an important tool for our army to communicate with the military forces around the world, the importance of English is becoming more and more prominent. College English is a basic course for the undergraduate education of military officers in military academies and its goal is to improve the comprehensive English application ability of students and lay a good English foundation for their career development. In order to improve the effectiveness of college English teaching, military academies have carried out a series of information based teaching reform practices, making significant progress in the construction of information based teaching hardware such as infrastructure and information resources, and accelerating the pace of information based reform. However, there are still some tendency problems of information-based teaching remained.

2.1 Problems existing in informatization construction of military academies

In some military academies, there is a misconception that "emphasizing hardware over software, construction over application, and form over quality". Information-based teaching has high requirements for campus information construction and supporting software and hardware facilities. However, in the process of information-based teaching reform, military academies tend to focus on the infrastructure construction of education letters, such as the "hard" indicators of the environment and equipment, and pay less attention to the incentives, management and operation mechanisms and information-based teaching resource construction, which have practical significance and far-reaching influence in information-based teaching reform.[3]

2.2 Problems existing in teachers' teaching

First, teachers' information based teaching ability is weak. Teachers passively apply many means of educational technology, and their theoretical and practical levels of information based teaching applications are relatively low. They have insufficient research on the deep integration of information technology and curriculum teaching, and their literacy and ability in software tool application, data processing and analysis, and comprehensive information service are still weak. Second, the form of information based teaching is too isolated. Some teachers rely too excessively on multimedia courseware, spending most of their time in the classroom demonstrating and switching PPTs, ignoring teacher-student communication and student feedback, resulting in a flashy classroom that has changed from "'chalk and talk'" teaching" into "full screen" teaching. If such teaching form is adopted, there would be rare interaction in the classroom, the atmosphere would be dull, students will not have the opportunity to think, and the teaching effect is greatly impacted and discounted. [4] Furthermore, the integration of information technology and teaching is superficial. Some teachers think that the use of more information technology can make the classroom more attractive, blindly pay attention to the use of information technology forms, blindly pursue the "lofty" technical means, but ignore the teaching objectives and teaching content, lack of deep teaching design, so that the information teaching into the "technology for the sake of technology" misunderstanding. There is even a tendency of "informatization for informatization's sake", which seriously weakens the informatization teaching effect.

2.3 Problems in students' learning

Students generally lack the ability to learn independently. In addition to traditional classroom teaching, a considerable portion of multimedia teaching in the information technology environment is allocated to extracurricular self-learning activities, which requires students to have clear learning motivation and great independent learning ability, and to log on to the relevant course platform to use network resources for self-study outside the classroom. Traditionally, the educated no longer simply play the role of listeners, not only in a passive way to intervene in activities, but transformed into active participants in educational activities, collaborators in the design of educational activities, suppliers of educational content, and verifiers of educational effects, reading the Internet, watching screens, experiencing, and audio-visual becoming a habit. However, due to the fact that the vast majority of students were previously learning in a teacher led passive mode, some students were not well adapted to autonomous learning in an information environment. Students do not have the ability to arrange learning content independently, resulting in low self-directed learning ability and poor self-awareness, greatly reducing the expected effect of information-based teaching.

3 Theoretical foundation for optimizing information based college English teaching in military academies

The theory of multimedia cognitive learning is the theoretical foundation for optimizing the information-based teaching of college English in military academies. This theory was proposed by Richard E. Meyer, a contemporary American educational psychologist and cognitive psychologist. According to Meyer, there are three types of cognitive processing that lead to cognitive load in the process of multimedia learning, namely, necessary cognitive processing, extrinsic cognitive processing, and generative cognitive processing, each of which requires the utilization of learners' limited cognitive capacity. [5] Among them, necessary cognitive processing is an indispensable cognitive processing for learners to understand learning materials. It depends on the complexity of learning materials themselves, that is, the number of interactive elements that must be simultaneously maintained in the brain. External cognitive processing (also known as "irrelevant cognitive processing") is cognitive processing that the learner engages in that does not support the accomplishment of the learning goal, is caused by poor instructional design, and can be increased by poor layout of learning materials (such as printed words on one page and related diagrams on another). Generative processing is a deep level of processing carried out by learners (such as organizing materials in the brain and linking them with prior knowledge), including the process of organizing and integrating materials, which not only depends on learners' motivation and prior knowledge, but also depends on the scaffolds of suggestive language and non-verbal forms in teaching. [6]

4 Optimization strategies for information based college English teaching in military academies

Under the premise of following the college English teaching syllabus, curriculum standards and teaching plans, this paper puts forward the optimization strategies for information based college English teaching by strengthening the application ability of teachers in information based teaching, strengthening the construction of information resources in military academies, and intensifying the implementation of information based teaching, so as to provide abundant information-based teaching resources and means for the faculty and multiple information-based learning resources for students.

4.1 Optimization measures for individual faculty members

At the first place, improve the information literacy of teachers. It is necessary to focus on the application of information system in teaching, combined with the teaching requirements of college English, training teachers on the basic knowledge and skills of educational technology, guiding and assisting teachers to carry out the teaching design of the course content and the whole teaching process, strengthening the course content of The Times, the closeness of military training and the practicability of professional

development, and promoting the promotion of teachers' information-based teaching ability. [7] The second is to broaden the scope of teachers' knowledge and enhance their ability to identify and apply information resources. Teachers in the information era should own insightful thinking or ultimate thinking, big data thinking, and use big data to carry out teaching decisions, teaching management, evaluation, and teaching design.

4.2 Optimization measures for military academies

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5 Optimization measures for the implementation of information based teaching

The first step is to establish a new form of learner-centered information-based classroom teaching. By providing full play to the main position of the students and their sense of innovation, we change the procedural and stereotypical classroom teaching into a constructive and dynamic classroom teaching, with the students trying first and the teacher guiding afterwards. The second is to adopt blended teaching and restructure the classroom teaching process. By deeply integrating information technology with curriculum teaching, drawing on the concept of flipped classroom teaching, reshaping teaching processes, and constructing a blended online and offline teaching model, we aim to achieve a high degree of integration between teaching and learning, and effectively improve the learning effect. Design the three teaching links before, during and after the class with thorough consideration,reduce the amount of time teachers spend teaching in class and fully leverage the subjectivity of students. The third is to conduct effective information based teaching design. information based design should focus on the sustainable development of students and promote further learning. Take the cultivation of job competence as the starting point of teaching design, design appropriate teaching objectives based on students' learning condition, and using derivative problems that can fully stimulate students' interest in exploratory learning as the main thread throughout the teaching design. Additionally, pay attention to the best combination with traditional teaching. If we simply incorporate teaching and lesson plans into the courseware without studying the way and style of class, it will inevitably lead to another

type of "formalistic and ostentatious" teaching, which will make the teachers and students feel exhausted and bored, and the teaching effect will not be satisfying.

6 Conclusion

College English is the basic course of undergraduate education for growing officers in military academies, and its goal is to improve the comprehensive use of English of military cadets and lay a good English foundation for their career development. Military academies should focus on students and carry out educational and teaching activities according to their needs; In addition, there are minimalist thinking, extreme thinking, and so on. Teachers in the information age should have excellent or extreme thinking, big data thinking, and use big data to carry out teaching decision-making, teaching management, evaluation, and teaching design.The integration and development of traditional education and information technology has become a new education mode more suitable for the current development. This educational model provides a broader space for college English classroom teaching to play, and brings a good opportunity for the improvement of the effectiveness of college English classroom teaching, so that college English classroom teaching has a new luster in military academies.

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