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Innovations and Practices in Teaching Military English under Situational Simulation

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Abstract

Military English is a general education course of science and culture offered by our university, which is crucial for cultivating the humanistic literacy of military academy cadets and their capabilities for foreign military exchanges. In response to the needs of national strategic development and educational reform in the new era, the course takes "combat-oriented teaching" as the basic guideline to achieve the construction goal of "language embedded with combat effectiveness"; takes "human-machine collaboration" as the fundamental concept to achieve the reform goal of "language learning assisted by intelligence"; and takes "simulated interaction" as the experimental channel to achieve the innovation goal of "context becoming reality". Teaching innovations have strengthened the military characteristics of the course, formed a new ecological model of foreign language learning featuring "human-machine collaboration", and created a new teaching paradigm of "foreign language + virtual simulation".

Keywords

Situational simulation, Military English, Combat-oriented teaching, Human-machine collaboration, Simulated interaction.

1. Teaching Problems

A questionnaire survey was conducted among freshmen and sophomores of our university to analyze their learning conditions from three aspects: foreign language learning motivation, learning habits, and learning abilities. Based on the learning conditions, an in-depth analysis of the course and teaching conditions was carried out, identifying the following pain points in teaching:

Problem 1: Difficulty in integrating learning with application, and a gap between foreign language learning serving career development and meeting job requirements.

Military English in our university has added a module on military branch English. Although the course has built a content gradient from shallow to deep and from general to specialized, due to the tight arrangement of daily teaching and training and the lack of language output opportunities for cadets, the concept of "learning by using" is poorly implemented, and there is still a certain gap between foreign language learning serving military career development and meeting job requirements.

Problem 2: Difficulty in focusing on higher-order competencies, and inaccurate alignment between knowledge and skill-oriented classrooms and the cultivation needs of high-quality military personnel in the digital intelligence era.

Intelligent teaching tools represented by generative language models have impacted language classrooms, requiring a shift from application-oriented to critical thinking-oriented teaching, with more attention to higher-order competencies centered on critical thinking, logical thinking, and innovative thinking. However, traditional language skill-oriented classrooms focus on output capabilities, and teaching design insufficiently focuses on higher-order competencies.

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Therefore, constructing a new ecological model of foreign language teaching with artificial intelligence participation is an urgent issue to be solved for the reform and innovation of language classrooms in the digital intelligence era.

Problem 3: Difficulty in maintaining learning motivation, and lack of immersive environments and interactive channels for language learning output practice in autonomous learning settings.

Output practice in autonomous language learning faces many difficulties. First, the relatively closed management model of military academies makes it difficult for cadets to have the rich and diverse immersive foreign language environments that students in ordinary universities enjoy. Meanwhile, interactive channels are relatively scarce, mostly limited to in-class output activities. This leads to cadets struggling to maintain the freshness of foreign language learning and experiencing weak a sense of achievement in autonomous learning, thus affecting the continuity of foreign language learning motivation.

2. Combat-Oriented Teaching: Language Embedded with Combat Effectiveness

Guided by "combat-oriented teaching", the course has reconstructed a "thematic and three-dimensional" content system, integrating language, military affairs, culture, and critical thinking into different themes, presenting course content in a three-dimensional manner, taking military cases as the main channel for ideological and political education, highlighting the characteristic of "combat-oriented", and making content settings fit cadets' career development and job requirements.

Military English takes 12 military themes as the main line, diverges the knowledge objective system, and constructs the ability objective system in a three-dimensional manner. It integrates scattered language knowledge and skills into task modules under different themes. Cadets improve their language abilities and learning capabilities, cultivate cross-cultural capabilities, and strengthen military literacy while completing situational tasks, solving the problem of "inadequate integration of learning and application" and achieving the course construction goal of "language embedded with combat effectiveness".

The course adopts a combination of introduction and self-construction to integrate online and offline teaching resources from multiple dimensions. It has self-constructed 18 class hours of *Military English* series micro-courses, introduced 2 national first-class online courses, publicly published the first military branch English textbook *Missile Weapon System*, built a *Military English* question bank including above 3,000 reading, listening, and speaking questions, and used AI tools to generate a teaching design case bank of 50 class hours and an electronic lesson plan bank of 90 class hours.

3. Human-Machine Collaboration: Language Learning Assisted by Intelligence

Guided by the concept of "human-machine collaboration", the course focuses on language development and intelligence growth with the assistance of intelligent tools[1], requiring cadets to maintain thinking and judgment in human-machine interaction and actively adjust and improve. This model focuses on higher-order thinking and complex problem-solving abilities, truly cultivating cadets' critical thinking, logical thinking, innovative thinking, and communication and collaboration abilities.

The course integrates large language models into daily teaching, initiating a new foreign language teaching model of alternating "AI-assisted" and "non-AI-assisted" approaches, giving full play to AI tools as intelligent teaching assistants and learning companions. Outside class, "AI-assisted" autonomous learning and personalized learning are prioritized, focusing on basic

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abilities such as grammar, vocabulary, military knowledge, and shallow thinking. In class, cooperative learning and inquiry-based learning (non-AI-assisted) are prioritized, alternating with interactive learning and growth-oriented learning (AI-assisted), focusing on higher-order abilities such as application, critical thinking, emotion, and cognition.

Taking military cases as the main channel for ideological and political education, the course has built a "full-link" ideological and political path from the first classroom to the second classroom, combining implicit infiltration with explicit implantation, highlighting the course's humanistic care, enhancing cadets' cultural confidence and patriotism, strengthening identity and job responsibilities, and clarifying the mission of strengthening the military and the responsibility of strengthening the country.

Relying on intelligent tools to track language learning data before, during, and after class, the course takes self-evaluation, peer evaluation, and teacher evaluation as the main evaluation subjects, with diversified evaluation dimensions. The evaluation system strengthens the tracking of the language learning process. Formative evaluation focuses on the incentive role of the feedback mechanism in language learning, giving full play to the collaborative effectiveness of humans and machines in language feedback[2].

4. Simulated Interaction: Context Becoming Reality

Taking "simulated interaction" as the innovative channel, the course explores a new paradigm of "foreign language + virtual simulation teaching" with the help of the UNIPUS Virtual Simulation Foreign Language Training platform[3]. Taking the international peacekeeping theme of *Military English* as a pilot, it creates immersive online language interaction scenarios for cadets through the virtual simulation experimental course *United Nations Peacekeeping Operations and Global Security Governance*.

In the experiment, cadets attend UN Security Council meetings as representatives of China to the United Nations, vote and speak on behalf of China on resolutions to resolve the crisis in Country M. As members of Chinese peacekeeping forces, they perform peacekeeping tasks in the refugee camp in Country S, make reasonable decisions and handling of emergencies in the refugee camp in accordance with the three principles of peacekeeping operations, use standardized working languages to carry out effective communication in peacekeeping operations, complete tasks such as investigations and negotiations, and report on the causes of the conflict, the development of the situation, and the results of peacekeeping operations to the head of the UN mission in that country after the operation.

The UNIPUS virtual simulation training platform breaks the limitations of traditional virtual simulation teaching by equipment and space, allowing immersive learning and training to happen anytime, anywhere[4]. Cadets can realize role-playing mode through interactive devices online, interacting with the virtual world through vision, hearing, touch, and perception, which maximizes learning interest and expands disciplinary thinking. Artificial intelligence natural language processing technology and speech recognition technology can automatically transcribe students' oral output into text; intelligent speech evaluation technology comprehensively evaluates the fluency, integrity, and accuracy of students' audio, saving evaluation time, improving the quality and efficiency of language classroom teaching, solving the problem of "difficulty in maintaining learning motivation", and achieving the course innovation goal of "context becoming reality"[5].

5. Conclusion

With the core concepts of "war-oriented teaching, human-machine collaboration, and simulated interaction", the *Military English* course has effectively solved the pain points in

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traditional military English teaching, such as "difficulty in integrating learning with application", "difficulty in focusing on higher-order competencies", and "difficulty in maintaining learning motivation" through reconstructing teaching content, innovating teaching models, and optimizing technical means. The course takes military tasks as the guide to strengthen the integration of language ability and military literacy; relies on intelligent technology to build a "human-machine collaboration" foreign language learning ecology to improve cadets' higher-order thinking abilities; and relies on virtual simulation technology to create immersive interactive scenarios to stimulate cadets' learning motivation and practical abilities. These teaching innovations have not only improved cadets' foreign language application abilities and military professional qualities but also provided a reference practice paradigm for military foreign language teaching in the new era. In the future, the course will further deepen the integration of technology and teaching, expand the application scenarios of virtual simulation, and continuously optimize the "war-oriented education" military English teaching system to provide strong support for cultivating military talents with international vision and practical combat capabilities.

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