



Research on “Online and Offline” Blended Teaching Mode of Military English based on MOOC -----Take the Teaching Practice of Aviation Knowledge as an Example

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Abstract. Under the background of the information era, “online and offline” blended teaching is increasingly popular, while the military English teaching in our university still stays in the traditional teaching mode dominated by teachers, which cannot effectively achieve the teaching objectives of military English. Based on the Rain classroom “classroom online” platform and the existing information-based teaching environment of our university, this paper proposes the construction of a blended teaching mode of military English in our university.

Keywords: MOOC; Military English; Blended teaching mode

1 Introduction

With the continuous development of information technology, the learning environment and learning methods are changing, and the teaching thinking, ideas and methods based on the Internet environment are also innovating. The country attaches great importance to informationized education and teaching work, and has successively formulated a series of documents such as the National Medium- and Long-Term Education Reform and Development Plan (2010-2020), the Ten- Year Development Plan for Education Informatization (2011-2020), the 13th Five Year Plan for Education Informatization, and the Action Plan for Education Informatization 2.0. In recent years, large-scale online open courses (MOOCs) and learning platforms have rapidly emerged globally, expanding the time and space of “teaching and learning”, enhancing the attractiveness of teaching, and stimulating the learning enthusiasm and autonomy of learners. These have all promoted the transformation of teaching content, teaching methods, teaching models, and teaching management systems, bringing new opportunities and challenges to the reform and development of higher education teaching. The traditional curriculum system and teaching mode are unable to meet the personalized learning needs of students, and the limitations of the teacher centered teaching mode in the classroom hinder the development of current higher education. At present, higher education institutions

urgently need to change the traditional teacher centered teaching model and adopt a student-centered "online and offline" hybrid teaching model, in order to mobilize students' initiative, cultivate English talents with an international perspective, and help students develop towards self-directed and personalized learning in university English courses ^[1].

2 Current Situation of Military English Teaching

Military English effectively supports the overall goal of talent cultivation, adheres to the guiding principle of cultivating morality and cultivating talents for war, enables the trainees to master the basic knowledge of military English and proficiently apply it, highlights the cultivation of listening and speaking abilities, cross-cultural communication abilities, critical thinking and self-learning abilities, broadens international perspectives, and adapts to the needs of career development and foreign military exchanges. The current teaching mode and methods commonly used in military English teaching cannot effectively achieve this teaching goal, mainly due to the following problems:

2.1 Urgent Demand for Professional Communication Skills in English Language among Pilots

With the increasing number and deepening of international combat and non-combat tasks carried out by our aviation units, the demand for language proficiency in communication depth is also increasing. The demand for English language proficiency among pilots has evolved from the most urgent stage of simple professional English communication to a stage of "basic professional English communication + more proficient language communication". This change has put forward new and higher requirements for teaching English for pilots.

2.2 Traditional Teaching Models are Deeply Rooted

The traditional teacher-centered teaching model emphasizes what the teacher is teaching while neglecting what the students are learning. The "cramming style" teaching and "nanny style" education are not conducive to achieving the goals of military English teaching, not conducive to cultivating students' self-learning ability, and cannot help them truly master the knowledge points of the course.

2.3 Insufficient Systematic Blended Learning Training

In recent years, with the development of college English teaching reform and the advancement of classroom revolution, English teachers at our university have actively participated in and completed online learning courses such as Peking University's Flipped Classroom and MOOC Micro Course Production. In terms of teaching, they have also tried various teaching modes and methods such as Flipped Classroom, Rain

Classroom, and Micro Course. However, some teachers have not fully implemented the student-centered teaching philosophy and still adopt the traditional teacher centered teaching model; In addition, the research and application time of information technology teaching models is relatively short, and the accumulated work experience is shallow. The advantages of multimedia technology have not been fully utilized in classroom teaching^[2].

2.4 The Course Assessment and Evaluation System is Relatively One-Sided

The traditional teaching assessment system mainly adopts "30% process assessment+70% final assessment". This assessment system focuses more on the final (final) exam results, while ignoring the differences in the learning process caused by individual differences among students, and cannot comprehensively and objectively evaluate students' learning. Taking "Aviation Knowledge" as an example, the traditional assessment system focuses on "reading and writing", and the proportion of "listening and speaking" is relatively small. Although some students have high exam scores, their actual English communication ability is very poor, and the phenomenon of high scores but low abilities is common.

3 Principles for Constructing a Blended Online and Offline Teaching Approach for Military English based on MOOC

3.1 Principle of Comprehensive Development

The Outline of the National Medium - and Long Term Education Reform and Development Plan (2010-2020) proposes to "draw on advanced international education concepts and experiences, promote China's education reform and development, enhance the international status, influence, and competitiveness of China's education; cultivate a large number of international talents with international perspectives, understanding of international rules, and the ability to participate in international affairs and competition."^[3] As the main battlefield for cultivating high-quality international flying talents in the Chinese military, the teaching process of teachers is not limited to imparting basic knowledge of military English, but also focuses on cultivating and enhancing critical thinking and self-learning abilities, broadening international perspectives, and meeting the needs of personal career development and foreign military exchanges.

3.2 Principle of Student Subjectivity

In traditional college English classrooms, teachers often occupy a dominant position while neglecting the subjectivity of students. Therefore, when constructing a mixed teaching model for military English based on MOOC, teachers should conduct a comprehensive analysis of the characteristics, teaching objectives, teaching content, teaching methods, teaching media, etc. of the learners before teaching design, design micro

lesson videos suitable for student learning, use teaching methods that can fully stimulate student initiative and enthusiasm, and enhance students' interest in military English courses ^[4].

3.3 Principle of Interactive Participation

The blended learning model not only achieves a student-centered interactive mode, but also enables interaction between students and teaching resources (MOOCs), teachers and students, and students. In online blended learning, it is not only necessary to create interaction between students and platform teaching resources, but also to design teacher-student interaction and peers 'interaction. In offline blended learning, teachers use teaching methods such as discussion and cooperation, case exploration, and immersive situational learning to answer questions and improve application, guide students to think deeply, focus on the integration of ideological and political elements, and ultimately achieve the goal of improving language application ability and implementing the timeliness of education.

4 Construction of a Blended Online and Offline Teaching Model for Military English based on MOOC

The five elements of blended learning are students, teachers, network technology, learning environment, and the integration of online and offline resources ^[5]. Our school has established a teaching environment that meets the requirements of information-based classrooms; Using Rain Classroom "Xuetang Online" as a platform for students to learn online; Teachers upload relevant MOOC courses before the start of the semester; Select two companies from a certain period of flight trainees as experimental companies to carry out blended online and offline teaching. This article integrates the five core elements of blended learning and divides the MOOC based aviation knowledge blended learning model into online teaching stage, offline teaching stage, and teaching evaluation stage (as shown in Figure 1).

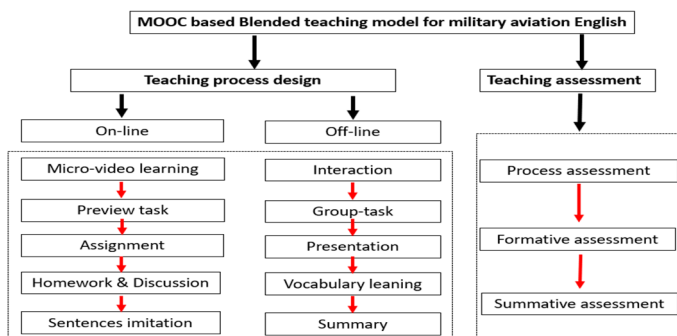


Fig. 1. MOOC based Blended teaching model for military English.

4.1 Online Teaching Stage

Firstly, teachers design a questionnaire survey before teaching, mainly focusing on the learning foundation, learning methods, learning needs, and attitudes towards the "online and offline" teaching mode of the students in experimental classroom. According to survey data, the majority of students (65.42%) agree with the adoption of a blended online and offline teaching model in military English teaching. They believe that online self-directed learning cultivates students' independent thinking and cooperative coordination abilities, while offline Q&A exercises students' communication and critical thinking abilities. This truly achieves student-centered classroom teaching, output oriented teaching, and improves the quality of talent cultivation. Then, when designing teaching videos for military English "Aviation Knowledge", teachers should formulate specific teaching objectives and choose appropriate teaching methods based on the learning situation of students; In addition, teachers also need to design pre class learning guides to help students better understand the key and difficult points of the unit during the online self-directed learning stage. There is a significant difference between MOOC teaching videos and regular offline teaching. Therefore, MOOC teaching videos should limit the weekly teaching time to about 2-4 class hours and divide it into several units, with each small unit having a video time of 5-8 minutes; At the same time, each micro lesson is equipped with relevant PPTs and lecture notes, expanded learning materials, exercises, and topic discussions; A discussion area should be set up for topic discussions. On the one hand, teachers can post topic discussions with student participation and mutual evaluation in the discussion area. On the other hand, students can raise questions about the knowledge points from the micro-videos in the discussion area, provide feedback on the MOOC teaching process, and also help other students answer questions and clarify doubts. After the preparation work for MOOC online teaching is completed, teachers can issue learning task notifications to students through the platform, making it convenient for students to complete online learning in a timely manner. Teachers should adjust their teaching methods in a timely manner based on online feedback from students, in order to better grasp the teaching focus and difficulties. Finally, set up unit assignments or unit assessments, and set corresponding deadlines. If the deadline is exceeded, students will not be able to submit assignments or participate in assessments, and will not receive corresponding scores ^[6].

4.2 Offline Teaching Stage

Teachers will use the test results and feedback from students during the online learning stage as the basis for offline teaching. Compared to traditional teaching methods, it not only strengthens the process supervision of student learning effectiveness, but also pays attention to different levels of student learning feedback, and can adjust the teaching forms and methods of subsequent classroom activities in a timely manner. In offline teaching, teachers mainly play the roles of guides, observers, and helpers; Students mainly complete various tasks designed by the teacher through group cooperation, discussion and exploration. This not only tests and consolidates the learning effectiveness of online learning, but also cultivates their thinking ability, cooperative communication,

and self-learning ability. After class, teachers post assessment tasks, expand reading, and video materials on the platform.

The feedback from the questionnaire survey on the completion of experimental classes suggests that compared to traditional English classrooms, this teaching method can provide students with more opportunities to output English and enable them to fully immerse themselves in the learning atmosphere of the military English, effectively improving their military English proficiency and communication abilities. At the same time, advocating a combination of teaching and practice, focusing on practice and using diverse teaching methods such as task-based, situational, seminar based, and participatory, to guide students to choose personalized learning methods that are suitable for their own requirement and development.

4.3 Evaluation Stage

The evaluation system of the blended online and offline teaching mode is determined by multiple factors, including the auxiliary support of online teaching platforms, student self-directed learning, teacher Q&A, and an evaluation and assessment system that connects the overall learning activities [7]. Therefore, building a comprehensive and diversified evaluation system is conducive to improving the effectiveness of blended learning mode and better achieving teaching objectives. The course evaluation system of the blended online and offline teaching mode for military English mainly includes: online MOOC network learning records (50%, including video learning, online testing, online homework peer evaluation and self-evaluation, online discussion and sentence listening and speaking imitation), classroom group discussion, personal presentation and offline homework (20%), mid-term and final exams (30%). Integrating formative evaluation, process evaluation, and summative evaluation into the entire process of blended military English teaching, so that summative evaluation is no longer the core part of the evaluation system. In addition, a tripartite evaluation mechanism is introduced in the classroom activity display section, namely student self-evaluation, student comments, and teacher comments, to more scientifically and effectively evaluate students' classroom performance [8].

5 Analysis of Practical Results

At the end of the semester, we conducted another questionnaire survey on the students in the experimental classroom. The results are as follows: firstly, the students' perspectives for blended learning were positive and the students considered it useful, helpful for improvement, and motivating in general. The students were very satisfied with both technological aspects and pedagogical aspects, particularly with interaction enabled through blended learning; secondly, blended learning had positive effects on understanding and applying the military terminology and aviation knowledge, and there was an overall increase of test scores; finally, blended learning was found to be effective to promotes learner interaction, learner autonomy, and collaborative learning.

Horizontal comparison shows that compared to the students in non-experimental classroom, students in the experimental classroom who implement the "online and offline" blended teaching mode have significantly improved their written and oral scores in the final exams when using the same evaluation criteria and methods (see Figure 2 and Figure 3), indicating that the "online and offline" hybrid teaching mode is necessary, valuable, and meaningful; Vertical comparison is also a follow-up research direction. The author will conduct a follow-up survey on the comprehensive application ability of military English among the transfer students of the experimental classroom, and hold an optimistic attitude towards their sustainable English comprehensive application ability.

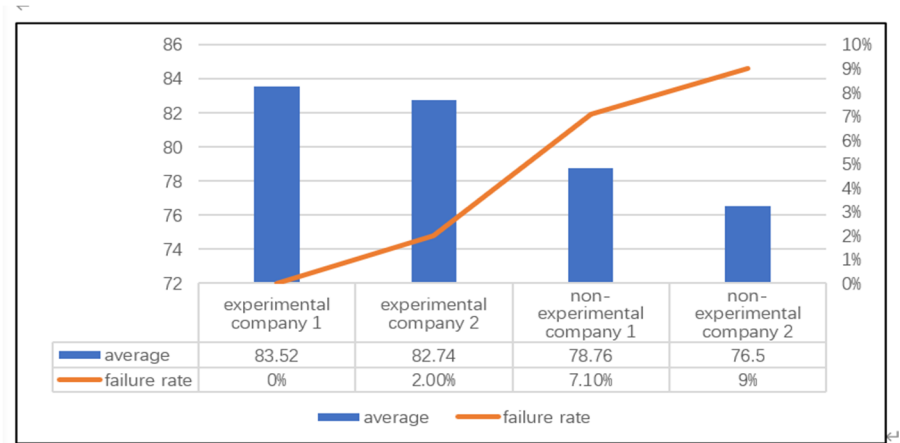


Fig. 2. Comparison of final written examination scores between students in non-experimental and experimental classroom.

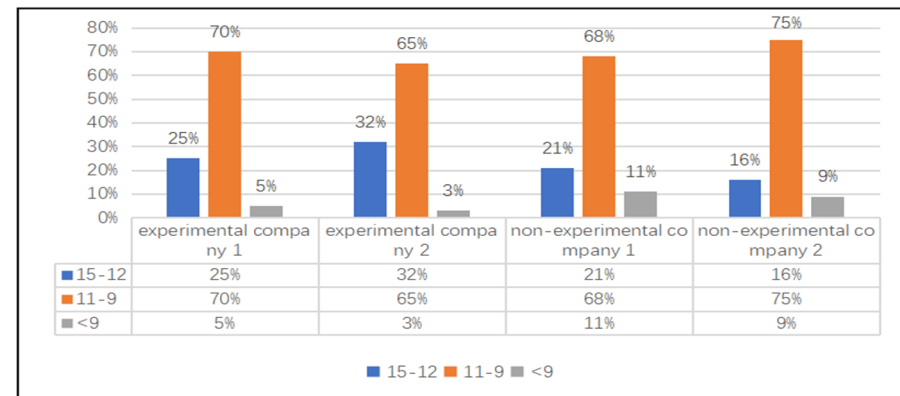


Fig. 3. Comparison of final oral performance between students in non-experimental and experimental classroom (out of 15 points).

6 Conclusion

The students' perspectives for "online and offline" blended learning in military English seemed to be useful, helpful for improvement, and timesaving. Military universities are different from local universities, as learning and training require unified action and obedience to commands, so students need to make full use of fragmented time to preview, think, explore, and revise. Besides, blended learning was also effective in both technological aspects and pedagogical aspects. The scores of students in experimental classroom have steadily increased in midterm and final exam.

In order to effectively apply blended learning in military English, however, there are two factors that need to be taken into consideration. First, Firstly, if peers do not provide high-quality peer feedback or actively participate, students may feel frustrated. It is recommended that each group have a student leader to encourage interaction within the group, send deadline reminders, and organize chats. Secondly, teachers need to be particularly aware of the various needs of learners. Attention should be paid to using different evaluation methods according to different evaluation purposes, focusing on cultivating and stimulating the enthusiasm and confidence of students in learning, integrating formative evaluation into classroom teaching, and creating an open and relaxed evaluation atmosphere.

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