**Mooc Method of Military Theory Course Based on Network Technology**

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**Abstract.** With the development of information technology and the increasingly mature of network teaching, it has become an indispensable part of teaching reform to introduce moocs into the public curriculum system of colleges and universities. Combined with the characteristics of the Internet and big data, moocs and teaching have greatly improved the teaching effect and brought many advantages to the traditional teaching methods. Under the background of information technology era, military theory courses in colleges and universities have ushered in new development opportunities. Faced with the new teaching form of moocs, many colleges and universities have successively introduced military theory moocs, but the effect is not satisfactory. Therefore, it is very important to accelerate the combination of theory and online and optimize the teaching methods of military theory. The purpose of this paper is to explore the research on the application of military theory courses under the theoretical basis of network technology, so as to update the existing teaching Internet model by combining the application technology of Internet of things. This paper will adopt the research method of concrete analysis of specific problems and make data comparison to draw conclusions. The research results of this paper show that the advantages and disadvantages of moocs reflect the teaching reform path of military theory course based on moocs, which requires the establishment of professional moocs team and the provision of abundant course resources.

**Keywords:** Network Technology, Military Theory Course, Information Service, Platform Design

**1. Introduction**

With the development of modern information technology and the deepening of the reform of colleges and universities, MOOC courses have entered the teaching system of colleges and universities. It has become an effective way to solve a series of problems in the teaching of military theory course, such as the introduction of MOOC teaching, the construction of MOOC teaching platform for military theory course, and the combination of online and offline teaching mode. However, it needs further exploration and practice in many aspects, such as course production and evaluation system. In order to realize the standardization and institutionalization of the operation of military theory course, it needs
the joint efforts of the government, schools, teachers, curriculum producers and other multiple subjects.

In this context, the military theory course MOOC emerged as the times require and became an important practice in the teaching of military theory course in Colleges and universities. It is necessary for all parties to improve their understanding and attention to the military theory course and improve the relevant laws and regulations. We should strengthen publicity and promotion and expand the coverage of courses [1-2]. Strengthen the scientificity and standardization of course production, comprehensively improve the quality of course production, strengthen the applicability of teaching, and vigorously optimize the teaching effect [3-4]. With the rapid development of information technology, learning methods and learning options are more diversified. MOOC learning has become an irresistible trend. In order to improve the quality of teaching, we should actively carry out practical innovation, timely improve the deficiencies in the operation and use of military theory courses, and actively optimize the teaching effect of military theory courses in the new era. Since its birth, MOOC has been studied by many scholars at home and abroad, with different perspectives and research methods [5-6]. Domestic scholars have studied MOOC, military theory course and military theory course, but due to national conditions and other reasons, foreign military theory knowledge teaching is generally interspersed in various courses, and few special military theory courses are offered [7]. Generally speaking, the main research direction of scholars at home and abroad is a large number of MOOC and military theory MOOC research materials, most of which define the concept of military theory MOOC. At the same time, the latest progress of MOOC teaching in military theory course has also been investigated by means of questionnaire survey, comparative study and interview survey [8-9]. The survey found that the military theory course MOOC has made great progress since its emergence, and has become an effective supplement to the teaching of military theory course in Colleges and universities. However, there are still many problems in the system specification, production, promotion and use. In view of these problems, the author tries to explore the countermeasures to improve the quality and teaching effect of military theory course[10-11].

The research focus of this paper is mooc of military theory course, and the development of military theory course is still in the preliminary stage. Compared with previous relevant researches, the research innovation of this paper is mainly divided into theoretical innovation and practical innovation. First, theoretical creation mainly refers to the summary and research of literature on mooc of military theory course [12]. Second, practice innovation. The exploration of any theory serves for practice. The research on moocs of military theory course in this paper is to improve the quality of moocs of military theory course and prepare for the improvement of teaching effect of military theory course in colleges and universities. In view of the problem of distance between teachers and students proposed by some learners, it is bold to imagine that the future development of moocs for military theory courses can effectively combine VR, AR and other advanced technologies, as well as put forward some improvement Suggestions for the current moocs course quality is not high enough.

2. Method

2.1 Core Concept

2.1.1 Military Theory Course
Military theory course is a compulsory course for college students. It is a comprehensive and popular basic knowledge of national defense knowledge, and an introductory course for college students to learn and master basic national defense knowledge. At present, due to the heavy learning tasks and the large number of courses, many students have arranged classes on weekends or even evenings. Because the teaching time of military theory course is relatively short, it can continuously push more updated and perfect teaching resources to students with the help of MOOC course. Students can choose online learning time according to their own life and learning rhythm, and choose corresponding learning materials according to their own learning needs. Online teaching platform can also record students'
learning situation through corresponding software, such as which learning materials are frequently used, which test questions have high error rate, which problems are of high concern in the discussion community, so as to help teachers understand different students' learning needs. Teachers provide learning materials and answer questions and exchange with students through the network, or group students according to the online learning situation and difficult problems, carry out group discussion, so that the teaching process is really aimed at cultivating students' ability.

2.1.2 MOOC
MOOC is a new online and offline teaching mode, which improves the vividness of curriculum theory through MOOC teaching. Many colleges and universities have also used this teaching mode for reference, and even MOOC has entered the army and military schools. National Defense University of science and technology has created a special MOOC platform in a unique form. This open education platform has opened a new practice of improving the informatization quality of officers and soldiers, known as "online military school". The application time of MOOC is relatively short, so there are some problems in the combination of MOOC and military theory teaching. Therefore, educators should find the best combination between the two and make continuous improvement, so as to give full play to the advantages of MOOC and promote the teaching reform of military theory. On the one hand, the rapid development and popularization of the Internet has made MOOC a new teaching method. On the other hand, China has paid more and more attention to the role of national defense education. As an important part of national defense education, military theoretical courses need to be explored and developed continuously.

2.2 Research Methods
This paper mainly uses two research methods. First, literature research. Literature method is a kind of research method to obtain the required information from the literature related to the subject. The author collected a large number of documents about MOOC by using the full-text database and network resources of school library and journal network. The related literature mainly includes the following aspects: first, the relevant research on the development status of MOOC at home and abroad, including the definition of relevant concepts and MOOC development, which provides the relevant historical and social basis for a better definition of MOOC and a full understanding of MOOC development of military theory course; second, the Research on the advantages and problems of MOOC, mainly referring to the analysis of MOOC The research and the domestic research on MOOC in other disciplines provide reference for the analysis of the problems existing in the practice of MOOC in military theory course, as well as material and data support for the causes of the lack of systematic analysis, and lay a foundation and expand ideas for their own research through selection, comparison and analysis.

The second is comparative research. Comparative research method is to select two or more related things as the research object, according to certain standards, to investigate and analyze them, and to explore their common characteristics and laws. According to the learning process, learning object, learning task and learning role of user portrait elements, the filtering rule EF of teaching resource demand is constructed, the similarity degree of user portrait is calculated, and the sorting weight is assigned. The specific content of the definition rule is as follows, which is based on the teaching resource demand discovery of user portrait.

\[
\sin(U, U') = \sum_{i=1}^{n} w_j \cdot \sin P_i(U, U')
\] 

\[
\begin{align*}
\text{Role} \\
\text{Task} \\
\text{Process} \\
\text{Object}
\end{align*}
\] 

maps⇒ OR

(1)

(2)
The author collected and collated the comparative research results of MOOC and traditional classroom teaching, and compared the implementation effect of MOOC under different operation modes through the investigation of school library and literature database, electronic journal, electronic library, etc. and analyzed them to explore the research results that can be used for reference and reference as the basis of this study.

3. Experiment

3.1 Experimental Data Source
In this paper, the use and problems of military theory course MOOC are mainly based on the questionnaire survey of the freshmen in the local university who have just finished the military theory course MOOC in the last semester. The investigation and analysis of the users will help us to know more about the use of military theory course MOOC It is helpful to put forward more pertinent suggestions for the improvement of military theory course.

3.2 Experiment Implementation
Moocs for military theory courses are basically arranged in accordance with the requirements of the syllabus, including chapters on China's national defense, military ideology, strategic environment, military high technology, and informationized warfare. In offline teaching, on the one hand, teachers summarize the online course learning and solve the perplexing and representative problems in the videos watched by students. Basically, most students think the teacher's teaching content to be able to keep up with the development of The Times, it also reflects the teaching contents for students, scripted already can not adapt to the new teaching requirements, for military theory class for class, its purpose is to let more students to enjoy the high quality teaching resources, makes no difference if the teacher's course content and the book, and there is no need for class. In the survey, we formulated some questions. Students also had their own ideas about the knowledge system of moocs for military theory courses. Some students believed that the teaching content of moocs should "conform to the mixed characteristics of online and offline moocs teaching, and develop integrated moocs teaching materials". Also represents a significant proportion of students thought that course content can be adjusted according to the needs of the teacher's teaching "in order to effectively coordinate the progress of military theory class for class, innovation teaching methods, teaching of knowledge can be adjusted slightly, on the one hand, to outline the required knowledge can be arranged according to the teaching requirements of teachers, it doesn't have to be carried out in accordance with the general outline of teaching order, on the other hand, in order to effectively play to the role of the mu class, for different knowledge, can also be specific issues specific analysis, some sections can be directly to let the students self-study, some sections can be use for class platform to explain in detail, in order to deepen students memory of knowledge effectively, at the same time, the teacher also should make full use of offline classroom platform, especially the content of the students care about timeliness strong timeliness of content analysis and interpretation.

4. Discussion

4.1 Data Visualization
In the questionnaire survey, a total of 120 questionnaires were sent out, and 100 questionnaires were recovered, of which 95 were valid questionnaires, the effective recovery rate was 95%, and the experimental results were valid. The basic information of the respondents is shown in Table 1.
Table 1. Respondents' Understanding of MOOC

| Learning Convenience | Facilitate | Commonly | Inconvenient |
|----------------------|------------|-----------|--------------|
|                      | 65%        | 26%       | 11%          |
| Content              | Novel      | Easy to Understand | Boring |
|                      | 55%        | 40%       | 12%          |
| Teaching Form        | Teaching Form | Monotonous | Easy to Operate |
|                      | 20%        | 30%       | 42%          |

4.2 Analysis and Discussion

At the micro level, Mu Ke has a direct impact on Teachers' teaching methods, students' learning methods and traditional evaluation concepts, which often results in uneven qualifications of military theory teachers. However, the military theory of MOOC not only requires teachers to have professional quality, but also to understand MOOC teaching technology. Therefore, it is very important to establish a MOOC team of military theory. According to statistics, military theory teachers in universities are not all full-time military related professional teachers, but also teachers of pedagogy, linguistics, law and other majors participate in teaching together, which makes military theory teaching inevitably uneven. Due to the wide range, strong political and technical nature of military theory MOOC teaching in Colleges and universities, teachers should not only have professional theoretical knowledge, but also fully grasp MOOC operation technology. Some schools even set up MOOC teaching assistant teams to provide professional technical support for teachers. In this case, in the stronger universities, teachers of various specialties are organized to designate teaching plans. Through the design and processing of MOOC, courses can be published on the Internet platform. The advantages of MOOC's education and teaching fill in the shortcomings of traditional teaching. However, MOOC teaching can not completely replace the traditional teaching. It belongs to the open teaching on the Internet. There are some problems in the teaching process, such as the lack of communication between teachers and students, the high requirements of teaching equipment, and the imperfect teaching feedback mechanism. As the world enters the era of information technology and the integration of teaching theory and science and technology, MOOC's self-learning network teaching mode has a great impact on the traditional teaching mode. In this context, people's educational needs will be increasingly diversified and personalized. With the emergence of MOOC, informal learning and mobile learning have become a part of daily life. However, many colleges and universities make MOOC as a film and television "blockbuster". For MOOC, they only pay attention to the investment of funds, but there is no new thinking and concept in the teaching content, and some contents are not innovative.

Figure 1. Evaluation of Students' Online and Offline Teaching Effect on Teachers
5. Conclusion
The military theory course MOOC in Colleges and universities is an important attempt to improve the teaching effect of national defense education in the new era. It has achieved certain results in practice. The military theory course MOOC has realized resource sharing by using the Internet platform. Under the condition of the shortage of teachers in the military theory teaching major in our country, it can effectively expand the coverage of the course and make more students accept the high-quality military education. This kind of quality not only refers to listening to the class of excellent military theory teachers, but also includes the unique high-quality services provided by MOOC, such as online questions, learning community discussion, convenient examination and credit acquisition. Moreover, MOOC also fully embodies the characteristics of the era of big data development, which can meet the learning needs of students while also enabling learners to learn. The process of learning is recorded and analyzed electronically, which not only provides scientific feedback for the teaching of teachers, but also provides a basis for the development of military theory course.

MOOC teaching is a purposeful teaching activity according to the curriculum standard. The contents of national defense education include military system, weapons and equipment, strategic environment, high-tech war, information war, military civilian integration and other aspects. This requires that in the construction of MOOC, we should consciously abide by the technical specifications of MOOC production, and constantly optimize, feed back and modify in the teaching process after MOOC online to obtain the best teaching and social benefits.

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