Development and Application of Mooc in Higher Vocational Education under the Background of Informatization

Wanzhi Ma

Korea Youshi University, Korea, Jeonju City, 55338, Korea

Ningxia Industrial School, Shuzuishan City, Ningxia Province, 753000, China

40374936@qq.com

Keywords: Informatization, Mooc, Higher Vocational, Development

Abstract: under the Background of Informationization, the Purpose of Mooc Construction is to Promote the Transformation of Educational and Teaching Concepts and the Development of Flipped Classroom and Mixed Teaching. Mooc (Massive Open Online Course) is a New Thing in the Application of Modern Information Technology in the Field of Education. It Will Be a Transforming Force in Reshaping the Educational Concept, System and Method in the New Era. Mooc is a Product of the Integration of Information Technology and Educational Ideas. Its Essence is the Reform and Application of New Teaching Methods. Its Purpose is to Enhance the Efficiency and Effect of Knowledge Dissemination. in the Development Process of Higher Vocational Education, Higher Vocational Colleges Should Take the Initiative to Meet the New Opportunities Brought by the Mooc Wave, Strengthen the Construction and Application of Mooc, and Promote the Reform of School Curriculum Teaching and the Innovation of Personnel Training Mode. Based on the Exploration of Mooc in Practice, This Paper Effectively Combs the Development Process of Mooc and Its Application in Teaching, So as to Further Explore the Development and Application of Curtain Class.

1. Introduction

Mooc Refers to Large-Scale Online Open Courses, and Its Concept is to Share High-Quality Curriculum Resources of Global Universities with Students through Online Education [1]. as a New Thing in Education in the Network Era, It Has Shown a Global Trend in a Short Period of Two Years. Mooc is a Product of the Integration of Information Technology and Educational Concepts, and Has Changed from a New Educational Model to a Social Phenomenon That Has Been Widely Concerned and Widely Used Teaching Methods. Information Technology is an Effective Way for High-Quality Schools to Maximize Their Social Responsibilities. Mooc's Use of Information to Lead the Innovation of Educational Concepts Will Have a Profound Impact on Higher Vocational Education [2]. in the Development Process of Higher Vocational Education, Higher Vocational Colleges Should Take the Initiative to Meet the New Opportunities Brought by the Mooc Wave, Strengthen the Construction and Application of Mooc, and Promote the Reform of School Curriculum Teaching and the Innovation of Personnel Training Mode [3]. All Schools Must Give Full Play to Their Own Characteristics and Advantages, Build Outreach, Focus on Building a New Teaching Model Based on Mooc, Do a Good Job of Connotation Construction, and Improve the Teaching Level of Teachers.

In the Field of Higher Education in China, the Integration of the Internet and Education Has Experienced the Stages of Distance Education, Network-Assisted Instruction, and Online Video Open Class Teaching [4]. the Essence of the Curtain Class is the Reform and Application of the New Teaching Method. the Purpose of Using the Curtain Class in College Teaching is to Enhance the Integration and Substitution of Knowledge to Promote the Dissemination of Professional Knowledge and the Acceptance of Students [5]. Mooc Decomposes, Processes, Organizes, Integrates and Integrates Traditional Classroom Teaching with Modern Technology, Promotes the Transition of Closed University Classrooms to an Open and Shared Era, and Realizes the Real-

Time and Convenient Course of the Course to Learn Vocational Education. the Learner's Technical Skills Are At the Core, and the Mooc Establishes a Flexible, Diverse and Inspiring Curriculum System for the Joint Construction and Sharing of High-Quality Resources and Scarce Resources in the Field of Higher Education [6]. Teaching Reform Based on Mooc Teaching Concept Has Been Carried out in Colleges and Universities Across the Country, Which Has Effectively Promoted the Reform of Teaching Mode and the Transformation of Talent Training Methods in Colleges and Universities. the True Maximization of Serving the Public is of Great Significance to Promoting Fairness and Popularity of Education.

2. Basic Understanding of Mooc

MOOC's core competitiveness lies in its clear positioning. MOOC takes curriculum as its product form, selects the world's best teachers, and develops curriculum with world brand effect with technology with distinct sense of the times. MOOC is generally evaluated as an innovative educational model based on the revolution of network technology, which is conducive to solving the problems of fairness, sharing and lifelong education. MOOC courses, with their excellent brands and flexible forms, will be chosen voluntarily by more and more learners from all over the world and at all levels, because people's pursuit of high-quality products and resources is an objective demand [7]. The MOOC curriculum teacher team is very important to the MOOC construction, so whether it is the curriculum integration or the MOOC construction, especially the MOOC knowledge points will be more comprehensive and effective after repeated discussions and tempering by the MOOC teacher team. Educational resources are the foundation of education development, and the construction of quality education resources will involve more quality schools. The national education information infrastructure system has taken initial shape, and digital education resources are also constantly enriched.

Through seamless integration between online learning and offline learning, MOOC has realized a student-centered teaching philosophy and a flipped classroom teaching model. Teachers need to be trained in modern educational technology before they can produce online course resources. Make it understand the characteristics of modern teaching design, network teaching and methods, and be able to use computer and network-assisted teaching. The openness of MOOC may provide a new way of choice for higher vocational colleges such as enrollment, teaching, academic qualifications and student employment. The computer ownership of college students and the distance learning through computers are shown in Table 1.

Table 1 Statistics on The Personal Computer Ownership of College Students

Education	Specialist	Undergraduate	Master	Doctor
The number of participants	14	15	15	9
Number of owners	30	30	20	10

The professional work in human society varies greatly, so that employment-oriented vocational education covers a wide range of specialties and courses. The front-line teachers in vocational colleges should become the main force in the development of MOOC for vocational education. The combination of production and teaching is an important feature of higher vocational teaching, but in the process of teaching organization, there is often a contradiction in time and space between practical teaching and classroom teaching [8]. Higher vocational education personnel training should be based on regional economic construction and social development, adapt to the needs of the job market, and train practical, applied and compound talents recognized by the market. MOOC will link China's higher vocational education with the world. In the worldwide competition, China's higher vocational education will have the opportunity to go to the world and face the challenge of the impact of higher vocational education in developed countries. For professors, it is more important to pay attention to and strengthen the cultivation of students' autonomous learning ability. Otherwise, students will not be able to effectively manage themselves, and of course they will not obtain ideal learning results.

3. Analysis on the Development and Application of Mooc in Higher Vocational Education

3.1 Strengthen the Pertinence of School-Enterprise Cooperation

In the MOOC era, higher vocational teaching reform should focus on the growth of students, integrate the respective resource advantages of schools and enterprises, and train talents for industry. This is the purpose of higher vocational teaching reform. Under the traditional teaching mode, different teachers have different teaching levels, and the number of excellent teachers is limited, so that students in each class cannot obtain the best teaching resources. This differentiated teaching leads to inconsistent quality of personnel training. MOOC is a product of the integration of information technology and educational concepts. It publishes the developed courses, which are mainly based on teaching videos and have interactive functions, to the Internet and provides them to learners through the Internet platform. Facing the development trend of integration of network and education, higher vocational education needs to actively promote the construction and application of MOOC on the basis of standardized management and emphasis on quality [9]. Teachers use MOOC in teaching practice, and timely absorb and integrate the learning assignments submitted by learners in the course learning and the interaction between teachers and students, as a dynamic auxiliary resource for curriculum learning.

Influenced by information and network technology, the application of MOOC in higher vocational colleges has become a trend. MOOC is a new teaching mode, and it has become a new resource type and manifestation. Autonomous learning based on curriculum resources and cooperative learning based on teacher guidance can be applied to undergraduate course preview, assisted learning, review and teacher-student interaction on the Internet. Online homework system and virtual experiment system can be effective complements to the relevant teaching links. For example, Table 2 shows the average similarity of the four algorithms. Figure 1 shows the accuracy under different similarity thresholds.

Table 2 Preparation Rates At Different Thresholds

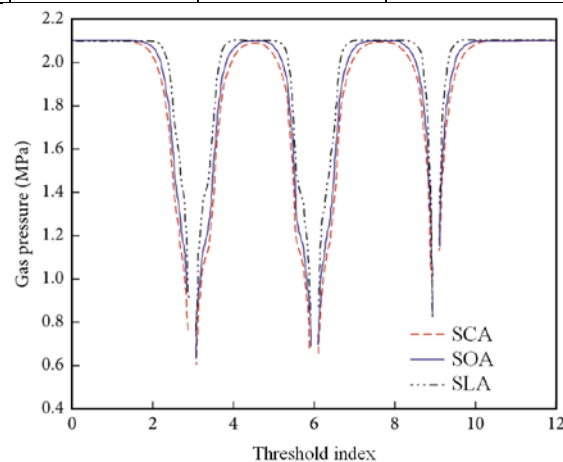| Threshold	0.05	0.1	0.2	0.3	0.4	0.5
SCA	0.823	0.858	0.574	0.593	0.622	0.632
SOA	0.589	0.623	0.771	0.754	0.879	0.813
SLA	0.571	0.611	0.616	0.627	0.581	0.598

Fig.1 Accuracy under Different Similarity Thresholds

3.2 Renew the Concept of Teaching and Learning between Teachers and Students

MOOC is developed for a certain number of teaching objects. Therefore, the professor should specify the professional characteristics, personality characteristics, knowledge and cognition, academic level, interest in learning, and learning style of the subjects. A professional program in colleges and universities will open many courses, but the professional courses set up in the traditional way are not suitable for the construction of MOOC courses to a certain extent. The MOOCs currently promoted internationally are generally based on general education courses, with

a wide range of object-oriented and popular teaching design. Teaching interactions are often based on the interaction between learners and MOOC platforms [10]. The course content mainly adopts modular structure, carefully designs the teaching content and methods, and highlights the course characteristics. In the field of Higher Vocational Education in China, various forms of higher education resources informationization and network exploration and practice activities have been carried out, but these courses lack competitiveness, the quality of courses is not high, and the utilization rate of resources is not high. The goal of talent cultivation in higher vocational education requires that the process of education and teaching should realize the combination of production and learning, which is embodied in the process of enterprises participating in education and teaching, students participating in social practice and working practice.

4. Conclusion

MOOC is a new thing, its construction and application will inevitably involve the exploration and innovation of higher vocational education and teaching management system. MOOC can not replace the traditional classroom teaching at present. After all, the influence of campus culture and classroom atmosphere is irreplaceable by online courses. Whether the knowledge is complete, integrated or the comprehensive quality of learners will be greatly affected by MOOC. Higher vocational colleges should be open and compatible with the differences between inter-school teaching evaluation system and teaching management system. For MOOC courses with excellent evaluation of curriculum quality, we should establish a credit recognition mechanism for MOOC courses among different colleges. The school can demonstrate and adjust the personnel training plan according to the actual construction and application of MOOC, and design and stipulate the credits of MOOC study in the personnel training plan according to a certain proportion. MOOC teaching should strengthen the monitoring of students' learning process, realize timely evaluation and feedback of students' learning, and urge students to complete the course learning with high quality. Facing the arrival of MOOC era, higher vocational colleges should, according to their own characteristics and advantages, vigorously strengthen the construction of MOOC, promote education and teaching reform, and realize the goal of training applied talents.

References

[1] Kellogg, S., Edelmann, A. (2015). Massively Open Online Course for Educators (MOOC-Ed) network dataset. British Journal of Educational Technology, vol. 46, no. 5, pp. 977-983.

[2] Raffaghelli, J.E, Cucchiara, S., Persico, D. (2015). Methodological approaches in MOOC research: Retracing the myth of Proteus. British Journal of Educational Technology, vol. 46, no.3, pp. 488-509.

[3] Huang, L., Zhang, J., Liu, Y. (2017). Antecedents of student MOOC revisit intention: Moderation effect of course difficulty. International Journal of Information Management, vol. 37, no. 2, pp. 84-91.

[4] Chiou, Y., Shih, T.K. (2015). Auto Grouping and Peer Grading System in Massive Open Online Course (MOOC). International Journal of Distance Education Technologies, vol. 13, no. 3, pp. 25-43.

[5] Bicen., Huseyin. (2017). Determining the effect of using social media as a MOOC tool. Procedia Computer Science, vol. 120, pp. 172-176.

[6] Sebastian, Möller., Ahrens, J., Altinsoy, M.E., et al. (2017). A cross-university massive open online course on communication acoustics. The Journal of the Acoustical Society of America, vol. 141, no. 5, pp. 3556-3556.

[7] Sun, Q., Zhang, D. (1998). Analysis and Simulation of Non-Newtonian Flow in the Coat-Hanger Die of a Meltblown Process. Journal of Applied Polymer Science, vol. 67, no. 2, pp. 193-

200.

[8] Karnouskos., Stamatis. (2017). Massive open online courses (MOOCs) as an enabler for competent employees and innovation in industry. Computers in Industry, no. 91, pp. 1-10.

[9] Bordjiba, Yamina. (2018). Collaborative Calibrated Peer Assessment in Massive Open Online Courses. International Journal of Distance Education Technologies, vol. 16, no. 1, pp. 76-102.

[10] Salmon, G., Gregory, J., Lokuge, Dona.K., et al. (2015). Experiential online development for educators: The example of the Carpe Diem MOOC. British Journal of Educational Technology, vol. 46, no. 3, pp. 542-556.