



ISBN: 978-1-948012-15-7

Asia-SAME Transactions on Engineering Sciences, ISSN: 2377-8970

<https://doi.org/10.7508/aste.01.2020.49.55>

MOOC on College Physical Education in the Age of Big Data

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From 2020 International Conference on Engineering Research, Beijing, China. 12-14 April 2020, Organized by University of Science and Technology Beijing and International Association of Management Science and Engineering Technology (IAMSET).

Abstract: Under the background of extensive promotion of quality education in the new era, many colleges and universities attach more importance to students' physical exercise and are gradually cultivating students' physical awareness. With the rapid development of education informatization in our country, the development of informatization industry has greatly promoted the development of MOOC. Big data, or huge amount of data, subverts people's traditional ideas with its characteristics of large amount, high speed, variety and value and brings about huge waves of change in many fields. With the development of the network, education is constantly innovating its educational model. MOOC has become the focus of the innovative educational model. The emergence of this model has greatly changed the traditional educational concepts and teaching methods in most colleges and universities. Based on the discussion of Big Data and massive open online course in the background of Big Data era, this paper analyzes what opportunities and challenges they bring to college physical education.

Keywords: Big data, MOOC, physical education, influence.

Introduction

Due to the development of society, today's information technology and network technology are also constantly developing, and big data is their development trend. Its generation is based on people's extreme desire and need for high-quality teaching resources in the context of the big data era. Compared with traditional education and teaching, it does have many incomparable advantages, breaking the time and space constraints [1]. In recent years, the Internet has penetrated into all fields of social life, and MOOC has provided us with the possibility to realize this vision. We should try to link physical education with the Internet and establish a new model of physical education to make up for the single form of physical education in our country. As an important basic discipline in higher education, college physical education must conform to this trend under the background of big data and MOOC, and realize the integration of information technology and physical education.

MOOC

MOOC is also known as “Mu Class”. The first letter “M” stands for Massive, which refers to the large number of registered students; the second letter “O” stands for Open; the third letter “O” stands for Online large-scale, open online learning courses [2]. MOOC curriculum integrates various social networking tools and various forms of digital resources to form diversified learning tools and rich curriculum resources. From the birth of massive open online course to now, it is very popular and very popular. The development of digitalization has also greatly promoted the development of massive open online course. Its development and popularization show great vitality. MOOC is a free form of education, facing the public and emphasizing the mutual nature of teaching. “Large-scale” refers to unlimited number of learners, “open” refers to free courses, and “network” refers to teaching activities conducted through the network [3]. Diversified teaching resources, novel teaching methods, flexible teaching time and place, personalized education services enable learners to give full play to their subjective initiative, thus achieving better teaching results. With the support of the Ministry of Education, some excellent colleges and universities have taken the lead in adopting MOOC mode to construct excellent open courses and realize the sharing and flow of college curriculum resources nationwide.

Opportunities and challenges brought by MOOC for college physical education reform in Big Data era

Opportunity

MOOC network teaching mode, can make students of physical education not affected by external factors, can study online anytime and anywhere, provides convenient place for students of physical education, also provides the support point of professional skills and teaching skills for physical education teachers [4]. From the perspective of physical education teachers, through the study and research of MOOC online physical education courses in Chinese universities, physical education teachers have improved teaching methods, updated educational concepts, carried out self-reflection on teaching, established the awareness of lifelong learning, and achieved the purpose of improving teaching ability and teaching level. Students master the basic knowledge and skills of sports in a certain class hour, so as to achieve the goal of improving sports ability and realize the desire of improving physical quality. Encourage intercollegiate cooperation among colleges and universities to be open to each other, learn from each other and share resources in scientific research, equipment, information, teachers and training team experience. MOOC Sports Education Alliance can form the implementation of sports education core expertise in different regions and improve the overall level of sports education. To enable students to obtain more equal opportunities for educational resources, but also to broaden the ways and means of education for students, so that learning efficiency has been further improved [5].

With the rapid development of society, the communication between people has become very close under the connection of the Internet, the distance between people has become closer and closer, the information circulation is very large, and things as far away as thousands of miles can often spread rapidly in a few seconds. The high-tech era has created the generation of big data. Under MOOC mode, the teaching mode and the teaching method of knowledge and skills have undergone tremendous changes. Teachers have changed from simple knowledge and skills teachers and demonstrators to participants in the learning process of students and learning partners of learners [6]. In the era of big data, the experience in the learning process is more prominent in the interactive experience in the new media environment. This experience transcends the limitations of space, time and specific objects, thus expanding the boundaries of learning and becoming a new type of learning experience. Let sports students acquire complete teaching contents through new technologies, encourage sports students' ability to learn independently, and participate in online teaching and interaction without worries. MOOC course solves the contradiction between learning and training well. It is necessary to combine training with learning to better accomplish the tasks of learning and training. Breaking the traditional "full house filling" in teaching, reducing the time occupied by teachers in classroom teaching, and providing students with sufficient time and space for autonomous learning as much as possible to make autonomous learning possible [7].

Challenge

The development of MOOC (massive open online course) teaching has shocked the teachers' dominant position in traditional teaching. Teachers have changed from imparting knowledge and explaining curriculum materials to organizing students' learning and guiding knowledge construction. The students themselves cannot correctly understand sports, cannot realize the importance of sports, and have no interest in learning sports. Therefore, MOOC network teaching mode breaks the traditional teaching mode well known by people, and needs to change the students' ideas. If the limited classroom teaching time is still used for the teaching of memory knowledge, the amount of information, effectiveness, practicability and attraction to students will be greatly reduced, which will inevitably lead to the increasingly prominent "classroom silence" in recent years [8]. The types of big data include network logs, audio, video, pictures, geographic location information and other types. In the Internet era, personal computer users have also become producers and disseminators of information when they acquire information through the network. Since the appearance of online video courses such as massive open online course, it has caused a great impact on the actual curriculum teaching in schools, and even many students have put forward the idea of canceling the school curriculum for online teaching, which has run counter to the essence of education. MOOC has brought a great sense of crisis to those teachers who do not attach importance to teaching and do not care about the reform of teaching mode, prompting

them to put more energy into teaching research and improve teaching quality. In the era of big data, different MOOC platforms will recommend relevant courses according to your preferences and the types of courses you study. As the difficulty of the courses gradually deepens, the sources of knowledge continue to expand. The traditional classroom teaching has been changed into discussion, and the traditional teaching has been changed from “teaching-oriented” to “learning-oriented”. In traditional teaching, the teacher is “starring” instead of “directing”. The introduction of MOOC into daily physical education practice classroom teaching will certainly improve students’ interest in learning. Combined with teachers’ explanation, the teaching emphasis and difficulty are clear at a glance. The open nature of MOOC enables students to have a great understanding of physical education courses in universities outside schools, regions and even abroad after acquiring classroom knowledge. Physical education teachers should have the ability to help physical education students solve all kinds of difficult problems. They should not only have rich professional knowledge and master relevant professional skills, but also have the courage to dare to challenge the application of new technologies and dare to try and explore the advanced network platform. With the help of this information, first-hand data on students’ learning status can be obtained, which provides decision-making basis for the adjustment of teaching methods.

MOOC’s effect on college physical education

Promoting effect on physical education demonstration in colleges and universities

To carry out MOOC teaching, scientifically use data technology, use information technology supported by computer cloud technology to carry out online teaching, and establish a comprehensive and detailed evaluation system. In MOOC online teaching, PE teachers guide students to participate in the learning and discussion of courses independently, and supervise PE students’ online classroom tests by means of online evaluation. In the era of full popularization of MOOC, teachers should at least know something about MOOC courses in their major and related fields, which can guide and help students to better enhance their professional quality and broaden their academic horizons through large-scale open online courses. Therefore, the MOOC curriculum construction in sports colleges should be surrounded by the above two types of curriculum groups and adopt the construction ideas of “please come in” and “go out”. “Please come in” is to cooperate with MOOC production company to focus its core business on the construction of professional courses. With the advent of the big data era, traditional knowledge transfer methods with boundary restrictions have been unable to keep pace with today’s information society, and people are more accustomed to acquiring knowledge from the network. College students learn MOOC physical education courses in advance. Without the guidance of physical education teachers, they use their mobile phones to watch videos of sports

teaching demonstration actions repeatedly in the playground to learn sports technical actions on the spot so as to improve their autonomy in learning.

The guiding function to the college physical education course learners

In the practice of innovative classroom teaching, the teaching management in colleges and universities is turning to the teaching construction of “learning for the middle school”, paying attention to the management of students’ learning process, and giving students a complete and rich learning experience. If based on this educational understanding, even in the original ecological classroom, teaching can be actively changed: teachers become regulators and consultants, “regulation” and “consultation” mean internal force, initiative, negotiation and humanistic care. Students who have completed the courses should be given the same credits as university courses, and the recognition of their learning ability should be given, including exemption from relevant courses. In the era of big data, the data of learners’ learning time, learning habits and learning interests can be easily captured. Full mining and utilization of these data will help education providers to improve course content and assessment methods according to students’ needs and abilities. Sports colleges and universities can enhance their MOOC awareness, information technology and teaching management capabilities by strengthening technical guidance, inviting experts from outside schools to make special reports, and sending teachers and teaching management personnel out to participate in seminars and trainings. As a result, the coverage of sports teaching content has been greatly expanded, and the popularization of sports knowledge and the utilization of teaching resources have been greatly improved.

Auxiliary function to classroom teaching

The era of big data has promoted the birth of MOOC, and massive open online course based on big data has brought impact and integration to traditional teaching in universities. The main aspects of the impact are teaching concepts and teaching methods. Through the integration of high-quality resources between schools, a new type of physical education system is formed. College students evaluate the correctness and error of the demonstration actions of physical education teachers by learning the demonstration actions of physical education teaching in advance. After the teaching methods and methods have been adjusted, the students’ mentality and learning habits may have changed again. It is difficult to monitor and adjust flexibly in real time. Therefore, the traditional teaching concepts and teaching methods in college physical education must be changed to incorporate this completely different teaching mode. Overall arrangement is made from the macro level to realize balanced and orderly development of online and offline physical education courses, and to improve students’ physical education theoretical knowledge and practical application ability. The evaluation of the course should not only look at the final examination results, but also strengthen the monitoring of the learning process and the invigilation mechanism of the examination

process in combination with the course content, teaching methods and students' participation and interaction. Therefore, the implementation of MOOC mode in sports colleges must be targeted and targeted. The theoretical part of technical and experimental courses can be implemented with MOOC mode, and independent research and development of MOOC courses with our own characteristics are encouraged.

Conclusion

In the era of big data, the application of MOOC in college physical education has become the general trend. Everyone must conform to the development of the times, grasp opportunities and meet challenges. Physical education is a subject with strong applicability. The arrival of MOOC has injected new vitality into college physical education. However, both traditional physical education and sports massive open online course are the means and methods to cultivate students' sports ability and transfer physical education knowledge. However, traditional classroom teaching should also find new breakthrough points and reform paths in this new wave of education. It should fully learn from and absorb MOOC's teaching concepts and teaching methods, so that traditional classroom teaching can be moderately innovated in form and content. Focusing on technology realization and teaching design can improve the quality of online physical education, creating courses that exceed students' expectations is of vital importance and will bring huge space for physical education reform.

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