

Feasibility and Development of PE Online Course

——Take North China Electric Power University as An Example

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Abstract: In recent years, the network of curriculum has gradually become a new development direction of college curriculum. Many subjects have launched a large number of network courses, but the network of physical education curriculum has not been paid attention to and promoted. Therefore, this paper takes the network of physical education curriculum as the research direction, takes North China Electric Power University as an example to carry out the investigation and research in the university, and narrate in detail the thinking and process of exploring the network of physical education curriculum for half a year. Affected by the epidemic, we encountered many difficulties and inconveniences in the research process. After many discussions, we made two questionnaires to analyze students' subjective wishes about online sports courses. We through the survey results of data analysis to explore the feasibility and contents of physical education curriculum network, then draws the conclusions in the following three aspects: sports network course is suitable for in the form of reality course of auxiliary and complement, time arrangement in about 20% of the total time, and content to fitness training and technical essentials would have more attractive.

1. Introduction

With the development of network video technology, the online course is gradually going deep into university courses. According to the statistics of the Ministry of Education, up to 2019, there are more than 12500 MOOCs in China. The MOOC has become a new trend in the development of university courses. These online courses have greatly helped to reduce the teaching pressure of university teachers and make full use of university teachers' resources.[1][2] However, in MOOCs, there are still few sports courses. There are only 248 sports courses on the biggest MOOC platform. Also, in North China Electric Power University, there are no sports online courses. We take this school as an example to study students' opinions about sports online courses.

In the current college PE curriculum mode, the traditional PE class still occupies a large proportion. As early as 2012, some researchers studied the impact of online courses on college PE courses.[3] But limited by the development of Internet technology at that time, there was no promotion. Since then, some researchers have proposed to use MOOC as an assistant to carry out college PE by web or other else.[4][5][6] However, it only proposed solutions, discussed the feasibility and mode, and did not conduct in-depth investigation and research on the actual ideas and wishes of students.

Based on the above research, and the actual situation of the example school. Through questionnaire and other ways, we analyzed the students' opinions on the sports online course, and explored the feasibility and content.

2. Research thought and process

Whether an event can be carried out and carried on to achieve long-term development, the first

point needs to consider whether it is feasible, to prove that it is not a fantasy, but can be carried out. We discuss the network of physical education curriculum is no exception. Taking North China Electric Power University as an example, first of all, we discussed the feasibility of the network of physical education courses. If there is a demand for the network of physical education courses, and the demand form can be completed by the school, we think that it meets the feasibility. So we designed the first questionnaire sharing by Internet to investigate the students' willingness to network physical education curriculum. However, the results are not satisfactory. From the data point of view, students' desire for the network of physical education curriculum is not very strong. According to the analysis of the data, we discussed the results. The results are as follows: due to the impact of the epidemic, the current form of physical education online class may have an impact on the judgment of students, resulting in some differences in students' understanding of the proposed network of physical education courses, but this just tells us that the current form of physical education online class (online courses replace physical courses) is not accepted by students. Moreover, the proposed network of physical education curriculum is a new thing for the current students, and people tend to be skeptical or conservative about the new things, which is one of the reasons for the formation of data.[7]

In view of the problems exposed in the first questionnaire, we watched many open physical education online courses in other schools, and drew lessons from the teaching aspects and thinking framework, but it would only be self-defeating to copy mechanically, so we designed a more detailed questionnaire to investigate the relationship between physical courses and online courses in the eyes of students in North China Electric Power University. After a few days of data collection, we draw a clear conclusion from the data: students prefer the form of online courses to assist the reality courses.[8][9]

We have preliminarily come to the conclusion that the reality courses are the main part and the network class is the auxiliary part.[10] But considering the development of the network class, we need to investigate the form of the physical education network class in the eyes of the students so that such network class can really make the students interested and willing to learn. Therefore, we investigated the students' willingness to allocate time for online courses and physical courses, the contents of online courses in the eyes of students, and the length of online courses, so as to provide reference for the future production of physical education online courses.

3. Data Analysis

First of all, we studied the students' ideas and wishes for the online PE class through the questionnaire. In this survey, 89 people took part in and completed the answers, 87 of which were valid, accounting for 97.75%. Through this survey, we found that most students hope that online courses can only be used as auxiliary courses of reality courses.

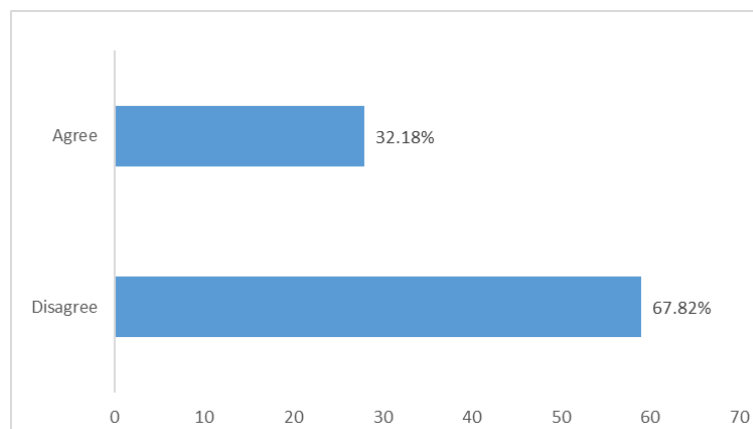


Figure 1. Questionnaire result 1

In addition, the survey of the remaining 32.18% of the students shows that most of them are still in a wait-and-see attitude towards PE online classes. This is probably because most of the students

don't know much about physical education online class, leading to most people's expectation is not so high.

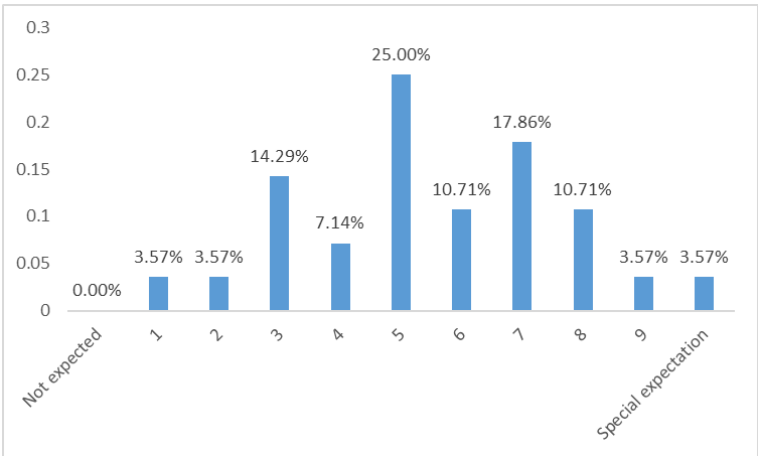


Figure 2. Questionnaire result 2

All of the above reflect that students prefer online course as auxiliary courses.

Next, we investigated students' willingness to allocate time between online courses and reality courses. The mean willingness of students was 1.93:8.07, and the median was 2:8. This also reflects the students' hope that online courses can be used as supplement and assistance for reality courses. So, 2:8 is also the appropriate proportion of online courses that students think.

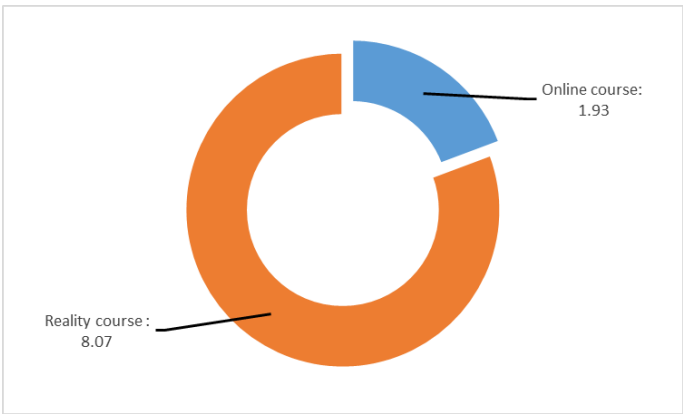


Figure 3. Questionnaire result 3

At the same time, we also learned what students want in the online course. The results are as follows:

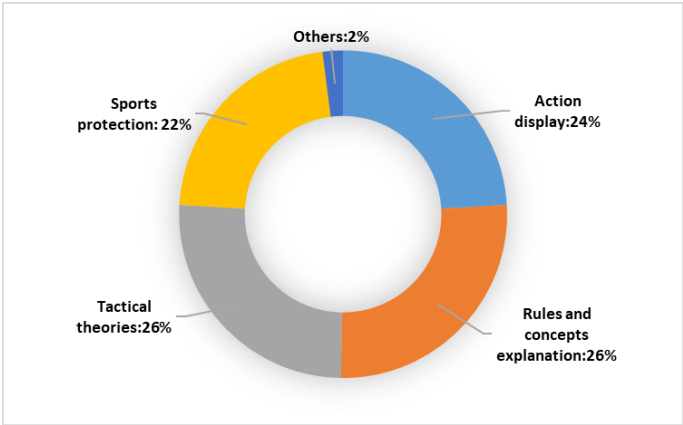


Figure 4. Questionnaire result 4

There is a high demand for rules and concepts explanation and tactical theories, but the overall

gap between the four is not large.

In this regard, we redesigned a questionnaire to conduct a careful investigation of the specific content students hope to have in the online course. In this survey, a total of 80 people participated in and completed the questionnaire, of which 79 were valid, accounting for 98.75%. The results are as follows:

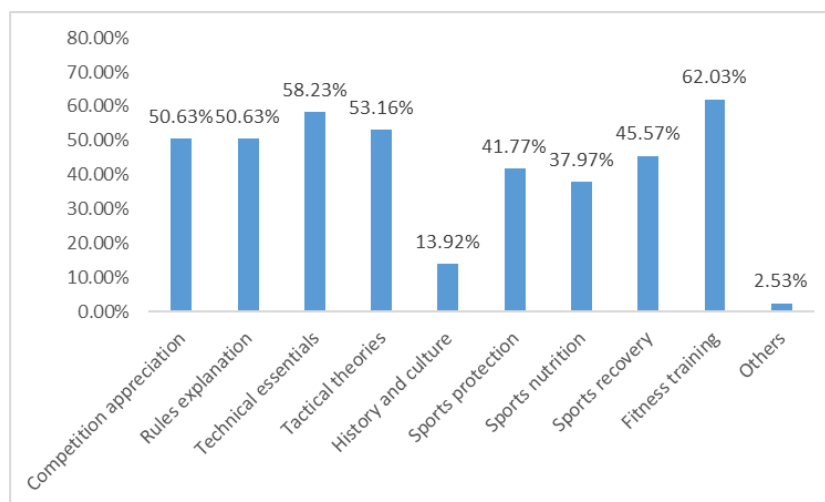


Figure 5. Questionnaire result 5

According to the survey, students prefer fitness training (61.5%) and technical essentials (57.5%) to online courses, but they are not interested in history and culture (15%) and sports nutrition (38.75%). Therefore, if we want to have sports online courses, online courses on fitness training and tactical theories may be more popular.

In addition, about the length of online courses, 43.04% of the students prefer 10-30 minutes for an online course, and only 8.86% of the students prefer more than one hour for an online course. In this regard, we think that the duration of online courses should be controlled at about 10-30 minutes, which is enough time to speak a small piece of knowledge, and convenient for students to absorb and understand.

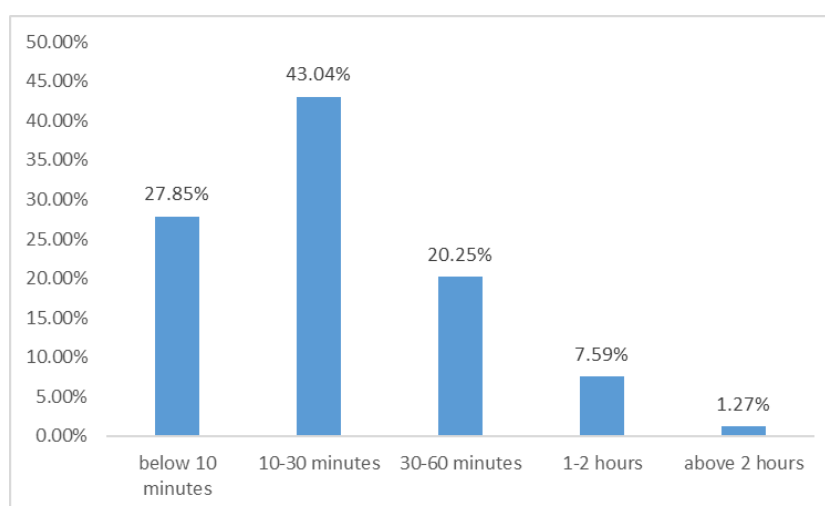


Figure 6. Questionnaire result 6

As for the requirements of online courses, we also investigated the students' ideas. 50.63% of the students think that online courses should also be counted as part of the total course hours. Other students think that online courses can be regarded as extra courses.

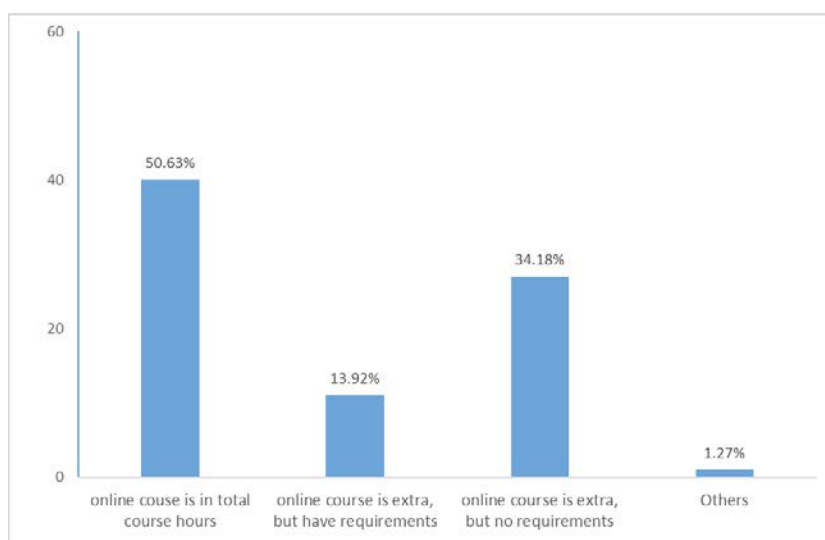


Figure 7. Questionnaire result 7

To sum up, the network course in PE course is more suitable to be realized in the classroom as the supplement of entity course. The contents of online courses about fitness training and tactical theories will be more popular with students. Students are more willing to include online courses in the total course hours, and students think the most suitable proportion of online courses and reality courses is about 2:8.

4. Conclusion

1. According to the needs of students, it can be seen that the network course of physical education is more suitable to be realized in North China Electric Power University as an auxiliary and supplement to the physical education course. We should make appropriate supplement and expansion based on the reality course when designing physical education course.

2. In terms of the schedule of online courses, according to students' requirements for online courses, the estimated duration of each video production should be controlled between 10 minutes and 30 minutes, and all videos should account for about 20% of the total course time. We should reasonably allocate the course time, such online courses will have more value and significance.

3. In terms of the content of online courses, more students will accept and be willing to watch fitness training and technical essentials. When making videos, we should consider more students' knowledge needs in these aspects, which will effectively improve students' enthusiasm and initiative.

References

- [1] Du Yunyun. Research on the Application of Information Technology in School Sports[C]. Information Engineering Research Institute. Proceedings of 2013 2nd International Conference on Advances in Computer Science and Engineering (CSE 2013). Information Engineering Research Institute:2013:355-357.
- [2] Lü Junli. Sports Teaching Pattern under the Computer Network Environment[C]. Singapore Management and Sports Science Institute, Singapore. Proceedings of 2012 International Conference on Arts and Sport Education (ICASE 2012). Singapore Management and Sports Science Institute,Singapore:2012:93-96.
- [3] Tiexiong Zhang. Research on applying the network-based learning model into public PE courses in a university. 2012, 22(1/2):108-116.
- [4] Wu, Yang, Zhang, Binhua, Yan, Qiaozhen. The reform research of colleges and universities sports teaching under the mobile Internet platform[C]// International Conference on Economy. 2015.

- [5] Yin Yu, Ping Gao Wuhan Institute of Physical Education Wuhan, 430079, P.R. China. Construction and Application of Web-Based Physical Education Model[A]. Hubei University of Technology, China. Proceedings of 2010 Third International Conference on Education Technology and Training (Volume 1) [C].Hubei University of Technology, China:,2010:4.
- [6] Zhang Y, Yang W. Research on the Construction of China Capital College Sports Network Information Platform[M]. Atlantis Press, 2013.
- [7] Chang Liang. Analysis of Integration Model of Sports Teaching Information Resources under Digital Information Platform[C]. Institute of Management Science and Industrial Engineering. Proceedings of 2019 Asia-Pacific Conference on Advance in Education, Learning and Teaching (ACAELT 2019). Institute of Management Science and Industrial Engineering: Computer Science and Electronic Technology International Society,2019:1590-1594.
- [8] Li Qin, Zimin Chang. Analysis on the Effective Development of Sports Network Educational Resources[C]. Proceedings of 2016 3rd International Conference on Education, Management and Computing Technology (ICEMCT 2016). Computer Science and Electronic Technology International Society,2016:325-328.
- [9] Xiaolong Weng. Design and Implement of PE Network Education Platform Facing to Network Sports Teaching Resources[C]. Singapore Management and Sports Science Institute, Singapore. Proceedings of 2015 3rd International Conference on Social Science and Humanity (ICSSH 2015 V76). Singapore Management and Sports Science Institute,Singapore:2015:330-335.
- [10] Xiang Yu. Application and Practice of Information Technology in Physical Education in Colleges and Universities[C]. Singapore Management and Sports Science Institute, Singapore. Proceedings of 2015 2nd International Conference on Creative Education (ICCE 2015 V10). Singapore Management and Sports Science Institute,Singapore:2015:601-605.