

# *Online Course Construction in the Context of Scientific Fitness*

Yuan Shao\*

*Furong College, Hunan University of Arts and Science, Changde, Hunan, 415000, China*  
*1433884927@qq.com*  
*\*Corresponding author*

**Keywords:** Scientific Fitness, Online Fitness Courses, Opportunities and Challenges, Student Evaluation

**Abstract:** In the post-epidemic era, people are becoming more and more receptive to online courses. Likewise, with the rapid development of 5G, online courses that break time and space will gradually become part of everyone's life. Recently, the online fitness classes brought to you by Liu Keng Hong, the man who sparked the overall fitness craze, are blossoming everywhere, and the "Liu Keng Hong girls" can be seen everywhere. Moreover, the country also attaches great importance to the overall construction and fitness industry, and fitness for all has become a national strategy. However, an unscientific approach to fitness can cause irreversible damage to the body. So with the wave of comprehensive fitness on the rise, it has become particularly important to build a sound scientific online fitness programmed. This article will first briefly introduce online fitness courses, then analyse the advantages of scientific online fitness courses and the challenges that online fitness courses will encounter in the future. Afterwards, a sample survey will be conducted to examine the need for scientific online fitness courses, using university students as a model, and finally, measures to build scientific online courses will be proposed.

## **1. Introduction**

As the fitness market in China continues to develop, more and more people are participating in fitness activities, and this has led to a wave of national fitness, with institutions, including vocational colleges, offering fitness courses to help students establish a healthy lifestyle and master fitness skills. Under the background of "Internet +", the traditional fitness course model has been greatly impacted, especially in the context of the normalisation of the new coronavirus epidemic prevention and control, the development of online courses has become a trend, which has also brought a huge impact on the fitness industry, but also provides a good opportunity for its development.

In recent years, the state has introduced a series of policies to strengthen the construction of comprehensive fitness projects. The Central Politburo has issued an outline of the "Health China 2030"[1] plan, which calls for the active role of national fitness in health promotion, chronic disease prevention and rehabilitation. In 2019, the State Council also issued a number of implementation

documents, including the "Opinions on Implementing Health China Action", which further clarifies the need to continue to promote a body management approach that combines science and fitness[2].

Therefore, the fitness industry should seize the opportunity to actively create online fitness courses, gradually realise the purpose of being teachable and trainable, and complete the goal of building a healthy living concept for the contemporary student population. Based on this, it is of great practical significance to strengthen the research related to the implementation strategy of online fitness courses.

## 2. Online Fitness Courses

By online fitness courses, we mean that teachers use SPOC, MOOC and other online course modes to teach, introducing advanced fitness knowledge based on fitness course materials and releasing them and some quality fitness skills into the online platform, which can be imitated and trained by people with fitness needs. On a social level, fitness centres employ professional fitness instructors to teach and also bring in experts in the fitness field for theoretical guidance to help students gain a deeper understanding of the sport and enable them to view fitness from a more innovative perspective so that they can actively participate in it. In the new educational landscape, it has become a trend to develop a mix of online and offline teaching as a way to help students make up for their lack of learning in the course[3]. Online fitness courses are also designed to increase student engagement in fitness courses. In terms of school fitness courses, fitness is an important branch of the physical education[4] field, similar to courses such as bodybuilding and gymnastics, which are designed to help students develop good exercise habits and a healthy physique. The development of online fitness courses requires teachers to be able to make full use of the Internet platform to tap into quality fitness courses for different students' needs, enhance the dissemination of online fitness courses, and at the same time reasonably determine the target orientation of fitness theory and practical guidance, so as to contribute to the promotion of the national fitness movement.

## 3. Current Development Status of online Fitness Courses

### 3.1 Advantages of online Fitness Courses

#### (1) Online fitness courses have autonomy

Traditional physical fitness, whether on campus or in the community, fitness teachers are arranged, and it is generally difficult for us to choose a teacher by our own interest. On the other hand, there is autonomy in the choice of platform. Most of the self-publishing platforms, such as Jitterbug, B-site, Racer, Xiaohongshu, etc., we can see all kinds of teachers teaching fitness courses on them. There are also many hot fitness bloggers on these, such as Liu Weihong, Saturday Wild and Pamela. Fitness users can choose the bloggers they want to follow according to their needs. On the other hand, gym goers have some autonomy over the length and intensity of their workouts. People can arrange their workout time and intensity according to their own physical fitness and personal needs.

#### (2) Online classes are interactive

In addition to some pre-recorded fitness course videos, there are also fitness courses that are taught through live streaming [5]. In particular, the short video platform represented by Jitterbug has a relatively open and easy to use interactive mechanism. Its interactivity is reflected in the form of "live streaming + short video", which allows users to be online in real time, with interactive pop-ups scrolling every second in the live streaming room, and a sense of companionship of millions of people working out together. The coach's guidance and encouragement during the live streaming process is like face-to-face, and is more motivating than a video course. At the same time,

during the course of the live course, users can ask questions through the pop-ups at any time, and the blogger will answer them in time to complete the anchor's timely feedback on the teaching content. This function of communication, comment and participation guarantees the interactivity of the live webcast platform.

### (3) Online courses are convenient

The convenience of "online fitness" means that users can easily find the right course for them, and it is very convenient to obtain resources. [6] Compared with the traditional fitness mode, "online fitness" does not have high requirements for fitness equipment and fitness space, users can follow exercise videos at home anytime and anywhere, buy relevant exercise equipment according to their own needs, or even achieve the purpose of fitness without any equipment. There is also a high degree of flexibility in the use of online video resources.

## 3.2. Challenges for online Fitness Courses

In teaching traditional physical education courses, teachers also did not anticipate that the full online course would one day be conducted in the future. Many physical education teachers adhere to the inherent teaching philosophy that physical education programmes such as fitness are skill-drilling, physical practice based curriculums that cannot be taught through the screen[7]. Admittedly, compared to cultural courses, many physical education courses cannot be taught in a virtual, distance-learning mode, and conducting online teaching can easily lead to human-computer separation, lack of field-sense communication between teachers and students, and the inability to build a communication platform between teachers and students for them, which can have a certain impact on the teaching effectiveness of physical education courses.

On a technical level alone, online fitness courses make use of voice transmission and screen docking to enable students to punch in pictures and videos, but compared to face-to-face communication and instruction, the implementation of online fitness courses tends to cause a lag in information feedback, which can also affect the proprioception of teachers and students. Combined with the differences between individual students and the differences in equipment and apparatus and venues, there are certain shortcomings in organizing large-scale, full-scale online fitness. In addition, the relatively short duration of online fitness courses sometimes makes it impossible to implement the original teaching objectives, and for some students with poor self-discipline, they may be reluctant to participate in online fitness courses and cannot achieve the same results as on-course training.

## 4. Research Design

### 4.1 Experimental Data

A number of data points suggest that people who feel engaged in the 'cloud fitness' approach are more enthusiastic and active about fitness. A survey by China Sports News showed that 78% of people said they would continue to work out at home after the epidemic [8]. In order to understand what kind of attitude university students have towards current online courses, we conducted a questionnaire survey with a sample of students from different majors, and a total of 100 valid samples were selected.

The students' majors were mainly from the School of Physical Education, the School of Arts, the School of Chemical Engineering, the School of Mathematics and Information Technology, and the School of Software Engineering. (As shown in Figure 1)

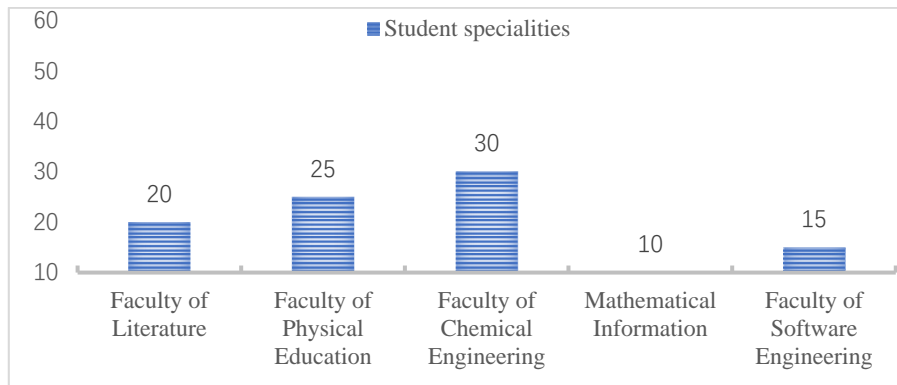


Figure 1: Student majors

Preference for online or offline fitness. Most students prefer independent exercise, while a small percentage will simply choose online or offline instruction, but more will combine the two. (As shown in Figure 2)

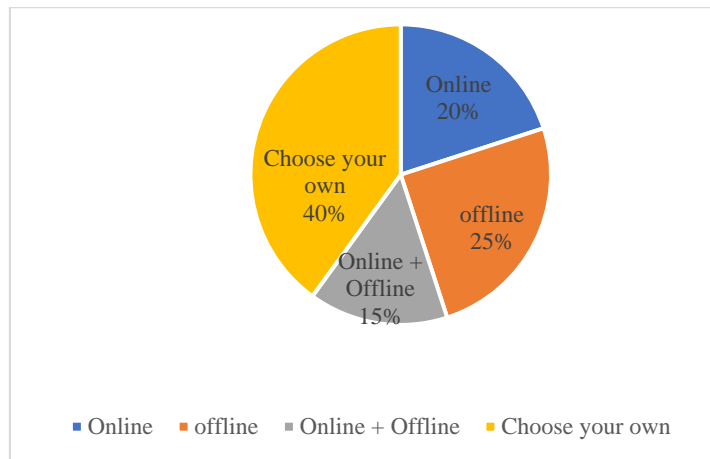


Figure 2: Fitness instruction

Evaluation of the effectiveness of the course, the level of acceptance of the online fitness course and the teacher's teaching. A small number of students thought that the courses were very good, and very few did not agree at all that the teachers were poor, and most students had a positive attitude towards the online courses. (As shown in Figure 3)

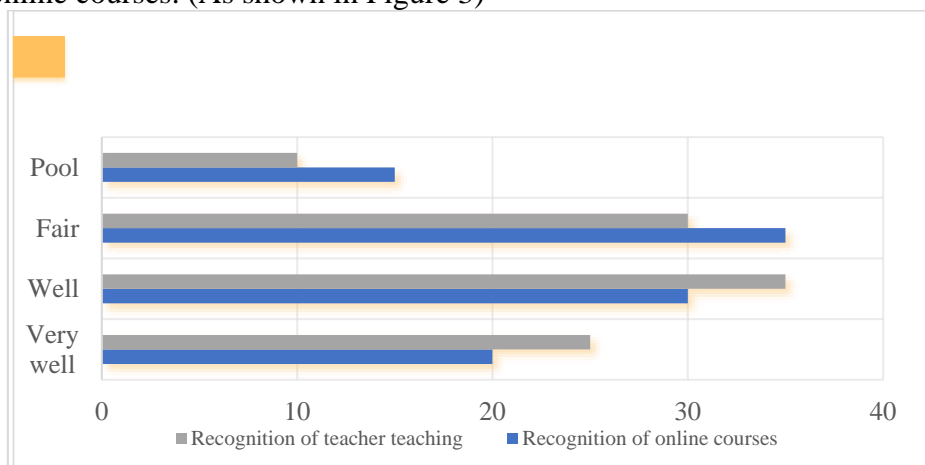


Figure 3: Course evaluation

A number of improvements are given from the student's perspective regarding some of the problems faced by online fitness courses. These suggestions have good implications. (As shown in Figure 4

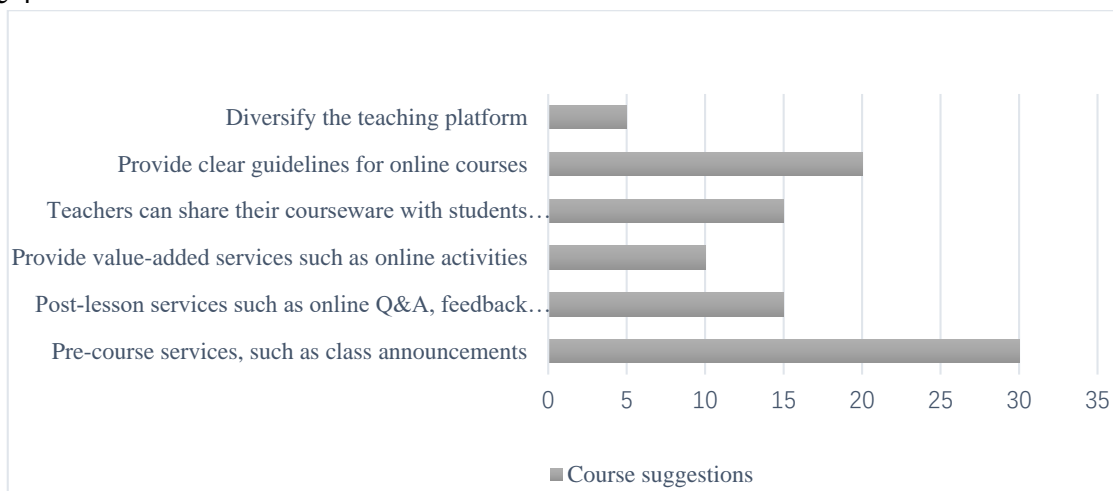


Figure 4: Course suggestions

## 4.2. Results of the Experiment

This paper provides a brief summary and analysis of this from the students' perspective and from the implementation of the fitness course. A self-assessment and improvement analysis of the course was carried out in relation to the teaching and learning process of fitness and the assessment of student learning. A combination of a comprehensive survey of students and a sample of different types of students was used to find out what students experienced and gained from the online fitness course, while suggestions and feedback were also received from students. In this paper, a sample of students were surveyed to understand their feedback and to see if the teaching of the course, especially the use of the online teaching model, could achieve comparable or better results than the traditional teaching model, as a way of assessing the effectiveness of the online fitness course and the achievement of student learning outcomes.

Based on the previous phase of online fitness teaching evaluation activities, we still need to do the following: ① we also need to strengthen the guidance of students in online fitness courses; ② according to the implementation of online fitness teaching in the whole school, we can provide decision support for fitness teaching management and form scientific planning guidance for future blended teaching; ③ timely detection of special situations that occur during the online fitness teaching phase, such as making additional suggestions for the impact caused by students' learning environment (3) timely identification of special situations that arise during the online fitness teaching phase, such as making additional suggestions for the impact caused by students' learning environment.

## 5. Online Fitness Course Implementation Strategies

### 5.1. Restructuring of the Fitness Teaching Knowledge System

Transferring fitness-specific courses from offline to online, the progress on line cannot be absolutely corresponded to offline, and in the implementation process of offline fitness courses, according to the arrangement of the syllabus, certain class time needs to be spent to familiarize with the venue, equipment and equipment, etc., and also to test whether the students' physical quality is

up to standard [9]. However, in the implementation of online fitness courses, these elements are clearly impractical and effective restructuring designs must be adopted. For example, in a beginner's fitness course, a typical 32-hour course contains more than 10 sessions of new instruction, with the rest of the course content consisting of fitness recovery, introductory orientation, and quality testing. In the process of implementing changes to the online fitness curriculum, transferring all of this content online or setting it up as review and self-study sessions would result in a waste of teaching resources and would not meet the needs of students for fitness learning. Therefore, it is important to combine the characteristics of online teaching and to reorganise the theoretical knowledge points and movement skills content of the fitness course to form a new curriculum system.

## **5.2 Enhancing Students' Physical and Mental Experience in Multiple Directions**

Under the background of information technology, knowledge crowdfunding [10] is a kind of information aggregation method, in which everyone can act as the subject of information dissemination and form a relatively perfect knowledge system through the sharing of different subjects, while everyone has the right to enjoy this part of the jointly constructed knowledge system. In the process of building the online fitness course system, teachers should make full use of the concept of "knowledge crowdfunding" and change their role from being a single provider of teaching resources to being a guide and encourager, encouraging students to share their knowledge about fitness to enrich the online fitness course system. In particular, with the fragmentation of knowledge, teachers should change their position of knowledge authority and guide students to actively participate in the exploration and learning of knowledge, so that they can extract the information they need from the vast amount of information.

At present, fitness knowledge presents the characteristics of networking and fragmentation, and many students have certain fitness experience or have the habit of physical exercise, gradually forming a set of their own fitness knowledge system [11], coupled with the strong ability of vocational college students to acquire network information resources and accept new technologies and ideas, the adoption of online teaching methods can make a diffusion of the topics provided by teachers. The use of online teaching and learning can complement the topics provided by the teacher. It is not an empty phrase to say that "teaching grows with each other", but only by allowing teachers and students to promote and improve each other can we promote the sustainable development of online fitness courses.

## **5.3 Real-time Interaction Through online Platforms**

In the process of building an online fitness course, the teaching platform should be given full play, using it to link up teachers, students, and teaching resources to form an organic whole. Unlike offline teaching, the online teaching mode is about virtual classrooms [12], and can use virtual classroom scenarios to teach, and answer students' questions in the teaching platform to achieve communication and interaction between teachers and students, and form a complete online fitness activity system through a series of online aids, such as platform sign-in, submission of homework, and fitness results display. In the teaching platform, the teacher and student terminals are docked through network communication tools, especially in the context of the normalization of the prevention and control of the new coronavirus epidemic. Many network platforms have emerged, including teaching platform tools such as Xuedang Online, Tencent Classroom, Love Course and Learning Pass, in addition to the original WeChat and QQ chat tools[13]. Different teaching platforms all have different characteristics, and multi-platform collaboration can be built according to the characteristics of fitness courses[14-15]. QQ groups can be used to post teaching courseware and routine announcements, as well as receiving daily check-ins from students, using WeChat

groups to answer students' queries, or using public numbers to forward links and receiving video assignments submitted by students via email[16].

## 6. Conclusion

Through the above analysis, it can be seen that fitness is a kind of physical activity to strengthen the body, and has the advantages of simple operation and small venue requirements. In the setting of fitness courses in vocational colleges, the traditional offline teaching mode can no longer meet the students' fitness learning needs. Developing online fitness courses, giving full play to the advantages of Internet technology, actively building an online teaching platform, and giving full play to the advantages of mixed online and offline teaching can help students deepen their knowledge of fitness sports and develop correct fitness concepts. The data sample in this paper is not large enough and therefore not generally applicable.

## Acknowledgements

The work presented in this paper is financed by Ministry of education's second batch of University-Industry Collaborative Education Program in 2022 (No.:202102277015) .

## References

- [1] Tan X, Zhang Y, Shao H. (2019) *Healthy China 2030, a breakthrough for improving health. Global health promotion*, 26(4): 96-99.
- [2] Bai Y, Zhang Y, Zotova O, et al. (2022) *Healthy cities initiative in China: Progress, challenges, and the way forward. The Lancet Regional Health-Western Pacific*, 27(6): 100539.
- [3] Jena H. (2022) *Difficulties and Improvement Measures Faced by College Sports under the Current Epidemic Situation. Journal of Sports Science*, 10(3): 12-18.
- [4] Wang Y, Sun C, Guo Y. (2021) *A multi-attribute fuzzy evaluation model for the teaching quality of physical education in colleges and its implementation strategies. International Journal of Emerging Technologies in Learning (iJET)*, 16(2): 159-172.
- [5] Guo J, Fussell S R. (2022) *"It's Gre at to Exercise Together on Zoom": Understanding the Practices and Challenges of Live Stream Group Fitness Classes. Proceedings of the ACM on Human-Computer Interaction*, 6(CSCW1): 1-28.
- [6] Liu B. (2022) *Internet-Based Approaches to Designing an Online Fitness Platform. Journal of Healthcare Engineering*, 5(2):16-20
- [7] Pandit D, Agrawal S. (2022) *Exploring challenges of online education in COVID times. FIIB Business Review*, 11(3): 263-270.
- [8] Nyenhuis S M, Greiwe J, Zeiger J S, et al. (2020) *Exercise and fitness in the age of social distancing during the COVID-19 pandemic. The Journal of Allergy and Clinical Immunology: In Practice*, 8(7): 2152-2155.
- [9] Ahshan R. (2021) *A framework of implementing strategies for active student engagement in remote/online teaching and learning during the COVID-19 pandemic. Education Sciences*, 11(9): 483.
- [10] Martínez-Climent C, Mastrangelo L, Ribeiro-Soriano D. (2021) *The knowledge spillover effect of crowdfunding. Knowledge Management Research & Practice*, 19(1): 106-116.
- [11] Cheung P. (2020) *Teachers as role models for physical activity: Are preschool children more active when their teachers are active. European Physical Education Review*, 26(1): 101-110.
- [12] Rajaram K. (2019) *Flipped classrooms: Providing a scaffolding support system with real-time learning interventions. Asian Journal of the Scholarship of Teaching and Learning*, 9(1): 30-58.
- [13] Darling-Aduana J, Good A, Geraghty E. (2022) *The Culture of Power Online: Cultural Responsiveness and Relevance in Vendor-Developed Online Courses. Urban Education*, 57(4):714-742.
- [14] Alsuwaida N. *Online Courses in Art and Design During the Coronavirus (COVID-19) Pandemic: Teaching Reflections From a First-Time Online Instructor. SAGE Open*, 2022, 12(1):59-66.
- [15] Xu J. *Research of Online Courses Construction Based on the Theory of Interaction. Journal of Higher Education Research*, 2022, 3(1):26-28.
- [16] Harvey K, Griffin M. *Exercise Instructors for Older Adult Fitness: A Review of the Literature. Canadian journal on aging = La revue canadienne du vieillissement*, 2019, 39(3):1-12.