

The Application of Mobile Network Technology in the Reform of Physical Education Classroom Teaching in Universities

Zhaoxi Li^{1,2,*}

¹Department of Public Foundation Teaching, Yunnan Open University, Kunming, China

²Bangkokthonburi University, Bangkok, Thailand

*Corresponding author

Abstract: Mobile network technology is an inevitable product of the development of the times, and has been applied and achieved good results in the field of higher education. It has the characteristics of portability of mobile terminals, convenience of mobile networks, and universality of mobile network application services. In college physical education teaching, the application of this technology will inevitably have a certain impact on college physical education teaching. This paper adopts research methods of literature and Delphi. The study found that the application of mobile network technology in physical education teaching can promote teaching and communication between teachers and students, as well as between students and students, provide support for students' mobile learning, and optimize the management of physical education teaching. In addition, it may also have some negative impacts on the classroom teaching of physical education in universities, students' psychology, and life patterns. Based on the characteristics of mobile internet in teaching application, this paper proposes countermeasures and suggestions for the application of mobile internet technology in physical education teaching in universities.

Keywords: mobile network technology, physical education teaching, digital sports, smart sports, life sports

1. Introduction

In the era of knowledge economy, the Internet has achieved rapid development, and mobile internet based on the Internet seems to be the darling of the times. The Internet has changed the way information is obtained, and mobile internet is the carrier of efficient information services. With the continuous innovation and development of 5G, AI, and big data technology, mobile internet and digital applications have become important forces leading the transformation of life and sports concepts and methods. The continuous development of digital health concepts, wearable device applications, and virtual fitness communities has helped to revitalize mass sports in a digital and intelligent form. Various sports app applications based on mobile network technology have become popular auxiliary sports modes among young people[1]. In addition to the scientific, convenient, digital, and intelligent nature of mobile sports applications, the concepts and methods of youth sports exercise are constantly moving towards a new stage of virtual reality integration, human-machine integration, and digital integration. The traditional physical education classroom teaching mode in universities is difficult to meet the needs of college students for healthy sports, fashionable sports, scientific sports, and digital sports due to factors such as conceptual limitations, teaching mechanisms, resource utilization, and evaluation methods.

2. The situation of physical education classroom teaching in universities under the background of mobile network technology

2.1 Lack of conceptual support for "digital sports" in physical education classroom teaching in universities

Compared to the popularity of digital sports among the general public, physical education classroom teaching in universities has not been timely followed up and fully accepted, resulting in insufficient abilities in digital retention, precise training, and scientific sports in the teaching process.

The classroom teaching effect is not obvious, and the basic physical indicators, competitive indicators, and digital comparison indicators of student movement training have not been effectively preserved. Sports figures failed to effectively transform and help student movement improve their sports momentum, which led to the failure to effectively stimulate sports interest. The lack of scientific sports led to the loss of sports figures. The loss of sports figures made classroom teaching a recessive classroom with no process and result recording data at the beginning. No matter as warm-up training or relaxation training, there was a lack of useful data retention and support. In addition, with the application of various sports training App programs, the level of digitalization, intelligence and accuracy of sports has rapidly improved, and college students' consciousness of sports training and digital health awareness have increasingly improved. Sports App, as auxiliary sports facilities for college students' autonomous sports training, have significant fun, outstanding interactive effects, and convenient application value. In sports apps, the application of network technology and big data technology can provide reference data for various sports, such as calorie consumption during exercise, scientific guidance on exercise plans, and so on [2]. These can provide professional guidance for the development of physical education teaching activities in universities. Obviously, the concept of "digital sports" in university physical education classrooms lacks enthusiasm, classroom teaching still follows traditional teaching logic, coupled with the lack of effective means for evaluating and assessing "digital sports" in schools, the road to applying "digital sports" to college physical education classrooms is difficult. The lack of digital and intuitive presentation in college physical education classrooms also leads to a lack of fun and scientific teaching, and students' acceptance and love of the physical education classroom itself are greatly reduced.

2.2 Lack of effective means of "smart sports" in physical education classroom teaching in universities

Smart sports can break the traditional single way of physical education teaching and service in college physical education classes, reshape the fragmentation and assessment based on sports service functions, and enhance the precise education value of physical education classes [3]. It is a collective concept that relies on the "technical wisdom" in training, as well as the "dissemination wisdom" in evaluation and assessment. It also requires the creation of "scene wisdom" in teaching, in order to achieve the intelligent integration of classroom teaching from sports training to teaching evaluation. In terms of sports training, most university sports classrooms still focus on traditional ball games and track and field sports, while other types of sports vary depending on the school. Whether it is ball games or track and field events, the basic sports monitoring data and performance judgment data have only become the basis for course assessment, failing to fully utilize the effective data to guide sports training effectiveness. The data integrity and timeliness of "smart sports" have not been effectively utilized. On the one hand, due to limitations in training equipment and teaching resources, many beneficial data have not been saved in a timely manner. On the other hand, the lack of scientific and digital awareness among teachers has led to a focus on participation and a neglect of participation quality in physical education classroom teaching. In terms of classroom evaluation and assessment, physical education classroom assessment has failed to achieve a smart transformation from the assessment process to the feedback of results. Due to the limitations of incomplete retention of classroom teaching data, the assessment results can only present data results and fail to form the effectiveness of "comparative dissemination". It has not been able to grasp the key points of sports comparison and competitive comparison in physical education teaching. From the perspective of dissemination, unable to form a mechanism for intelligent evaluation and "intelligent dissemination" in physical education classrooms, various sports apps precisely utilize this contrastive communication and "cool sports" mentality, thereby stimulating enthusiasm for sports training and enhancing the effectiveness of sports training.

2.3 Lack of connection ability of "life sports" in physical education classroom teaching in universities

Physical education classroom teaching in universities is an important component of higher education and a compulsory course in university classrooms; for students who lack awareness of self-directed exercise, classroom teaching can serve the purpose of cultivating awareness of physical exercise, mastering sports skills, and strengthening physical exercise. The enthusiasm and atmosphere for college students to pay increasing attention to their own exercise are increasing. Daily exercise based on personal interests and hobbies is becoming increasingly common among college students, and the items, methods, and scenes of sports are no longer limited to classroom sports. The autonomy and

selectivity of college students' physical exercise are expanding. In view of this, college physical education classrooms must take the initiative to expand the boundaries of college physical education classrooms based on artificial intelligence, big data, mobile network applications, etc., so that college physical education classrooms can actively integrate into the daily lives of college students and their daily exercises. The ability to connect with "life sports" should be constructed from multiple aspects such as course project selection, venue supporting facilities, and sports data monitoring, transform classroom sports into urban sports and daily sports [4]. Fully utilize urban sports space and commercial fitness resources, take urban marathons, commercial leagues, and other opportunities and footholds to enhance the integration ability of classroom sports, and establish an evaluation system and teaching system based on urban life sports and daily sports, providing students with more diverse and open sports evaluation. From the perspective of mutual benefit between teaching and learning, college physical education classes can no longer stick to the traditional monotonous teaching mode within the campus, above the classroom, and only when facing the actual development of sports, life, and the city, and catering to the changes of college students' sports background, can we effectively lead physical education teaching to adapt to the times and the actual needs of change.

3. The practical application of mobile network technology in physical education classroom teaching in universities

3.1 Building the big data teaching evaluation and feedback system

From the perspective of evaluation subjects, there are mainly two subjects in the evaluation of physical education classroom teaching, one is aimed at the teacher subject, and the other is aimed at the student subject. The former mainly evaluates teachers' teaching ability, while the latter mainly evaluates students' feedback on the classroom. The organizers and implementers of this evaluation come from "external entities", such as the school's academic affairs office and teaching quality evaluation center. Evaluation is not a "self evaluation" of teachers and students. In addition to the "external subject", the assessment and evaluation of students by teachers as the teaching subject is also an internal component of classroom evaluation, that is, the evaluation mechanism of teachers on students [5]. This evaluation mechanism is a requirement of both students themselves and the teaching process. In addition, students' evaluation of teachers is also a component of the physical education classroom evaluation system, which is necessary to improve the quality of classroom teaching, enhance teachers' professional abilities, and improve teaching methods. Therefore, constructing a big data teaching evaluation and feedback system should not only focus on the evaluation of the "dual subject", but also pay attention to the two-way evaluation of teachers to students and students to teachers. Based on big data network technology, this article constructs a main content diagram of the basic system for evaluating physical education classroom teaching in universities.

The evaluation of physical education classroom teaching in universities is a multidimensional and multifaceted evaluation system. Although the current evaluation system already has basic evaluation functions, the evaluation methods, concepts, and methods are relatively backward. Without the support of big data and mobile internet technology, it is difficult to achieve scientific, systematic, digital, and precise classroom evaluation, and cannot demonstrate the effective purpose of "promoting teaching through evaluation". Therefore, based on the widespread application of mobile network technology, big data technology, and sports apps, it is necessary and increasingly urgent to construct a smart sports evaluation system for universities themselves. The evaluation of physical education classroom teaching in universities achieves the smooth implementation of teaching standards and the timely completion of teaching objectives through "external evaluation". It aims to enhance the mutual subjectivity of teachers and students through "internal evaluation", with the goal of "promoting teaching through evaluation" and "promoting learning through evaluation"; It establishes university "big sports" classrooms, integrated classrooms, and scientific fashion classrooms through digital systems, multiple evaluation systems, and intelligent evaluation systems. It establishes campus sports classrooms, life sports classrooms, and mass sports classrooms through digital learning systems, behavioral literacy systems, and life sports systems. Therefore, it can achieve classroom integration and mutual learning.

3.2 Building the "city and life" sports import system

Mass sports and urban sports are the wind vane and pioneer of social sports, as well as the traction rope and foothold of fashion sports and interest sports. The reform of physical education classroom teaching in universities needs to timely introduce the concept of "city and life" sports, actively build the

"city and life" sports system, and build its own classroom teaching foundation based on the concept of urban sports events and life sports. By introducing the participation experience and performance data of college students in urban sports events, multiple evaluations of their sports performance are conducted, and a life sports data system is formed through a sports app application, scientifically guiding the transformation of physical education classroom concepts, methods, and evaluations in universities. By using methods such as "club based" sports and campus community sports, a sports classroom evaluation and assessment mechanism with internal and external linkage and two-way communication is formed, creating a good sports atmosphere and enhancing the attractiveness and infectivity of big data precision sports [6]. With the advent of the intelligent era and the continuous deepening of the concept of digital health, universities with conditions can actively strengthen the purchase of intelligent sports equipment and wearable devices, improve the technological content of sports classrooms, and establish a basic database of smart sports classrooms in universities, to establish basic system support for the precise implementation of phased, hierarchical, and project-based sports teaching and classroom reform evaluation. In addition, through mobile data tracking and evaluation, establish a daily evaluation mechanism for campus sports, implement daily sports competition rankings through project classification, and reward students with daily sports on campus. Establish a good situation where the physical education classroom and behavior classroom mutually enhance and promote each other.

4. Conclusion

In the era of mobile network technology, physical education teaching should also be guided by mobile knowledge services and teaching assistance, increase services for students' physical education learning and exercise, guide students to form healthy physical education learning and exercise habits, and provide an efficient and comprehensive knowledge service platform for students' physical education learning and scientific physical exercise. The construction of mobile internet platforms requires the learning and training of teachers' mobile internet knowledge, as well as active guidance for students. Continuously optimize more perfect new teaching relationships, provide and create a vivid and flexible classroom teaching atmosphere, and create a new teaching model based on mobile internet.

Acknowledement

Funding Statement: This work was supported by the 2021 National Social Science General Project "Research on the National Identity Revelation of American Sports and Casting Chinese National Community Consciousness" (21BTY119).

References

- [1] Li S B, Wang D C, Liu Y S, Zhao P Y. *Physical education teaching platform design based on the Internet of Things [J]. Journal of Physical Education, 2015, 22(1):90-94.*
- [2] Li J F, Jin C Z. *Research on integration of "Internet +" mobile terminal learning platform and college physical education curriculum [J]. Journal of Jilin Institute of Chemical Technology, 2017, 34(12):71-74.*
- [3] Lan K. *Analysis of smart physical education teaching scheme based on 5G+VR technology [J]. Digital Communication World, 2021, (9):178-179.*
- [4] Li Y H, Wang C L. *The Application Study of the Mixed Teaching Model of College Physical Education under the Background of Mobile Internet Technology [J]. Contemporary Sports Technology, 2021, 11(16):158-160.*
- [5] Sun Y S. *A Research on College PE Classroom Teaching Reform Based on Mobile Network Technology [J]. Journal of Ezhou University, 2022, 29 (4):85-87.*
- [6] Wang Y L, Liu S Y. *Analysis on the Application of Network Education Technology in Physical Education Teaching in Universities [J]. Scientific Consultation, 2022, (10):249-251.*