

Research on the integration of campus running App into college public physical education curriculum

Chunfang WANG

Department of Physical Education, Zhejiang Yuexiu University, Shaoxing 312000, China

Abstract: This paper takes the current situation of the integration of campus running APP into public physical education courses in colleges and universities in Zhejiang Province as the research object, and understands the current situation of the integration of campus running APP into public physical education courses in colleges and universities through investigation and research, and points out the problems to be solved. At the same time, this paper puts forward a "two-in-one" campus running APP service model, which serves students' extracurricular physical exercise with high quality in schools and campuses, and provides effective countermeasures for further integrating campus running APP into public physical education courses in colleges and universities reasonably and efficiently.

Key words: college physical education; campus running APP; extracurricular physical exercise; public sports

1 Introduction

In recent ten years, the physical health of college students in China has formed a strong contrast with the rapid development of economy and society, and the physical problem of college students has become one of the major problems that plague China's education and social development. Sports APP is integrated into the daily life of college students in the form of extracurricular physical exercise, which plays a great role in improving college students' physical fitness [1][2]. In view of the current campus running APP use problems and research shortcomings [3][4], this paper studies the application of campus running APP in the public physical education curriculum of colleges and universities in Zhejiang province, and provides theoretical reference for the innovation and application of campus running APP.

2 Research objects and method

2.1 Research object

A survey was conducted on students from 10 universities in Zhejiang Province, focusing on the current situation of integrating campus running APP into public physical education courses in universities.

2.2 Research methods

2.2.1 Literature method

According to the research needs, from the official websites such as China National Knowledge Infrastructure (CNKI), Wanfang, Web of Science, China Sports Bureau, Zhejiang Sports Bureau platform, etc., with the keywords of "Campus Running APP" "Public Physical Education Curriculum", "Extracurricular Physical Education" and "High-quality

Development", a total of 114 related documents were consulted, including periodicals, dissertations and documents, and the collected documents were summarized.

2.2.2 Questionnaire survey method

Design an electronic questionnaire, distribute and collect relevant data for research by online survey. The questionnaire is closely related to three topics: the problems existing in the application of campus running APP, the actual situation of students using campus running APP and students' overall evaluation and suggestions on campus running APP. 100 students were selected from each school, and 1,000 questionnaires were distributed. 981 questionnaires were recovered, of which 953 were valid, and the effective recovery rate was 97.15%. In order to ensure the reliability of the data, the reliability of the questionnaire was re-tested. On the 15th day after the first survey, the reliability of the college students was tested using the second questionnaire survey method. The results showed that the prior relationship number of the questionnaire in this study was $r=0.89$, which indicated that the questionnaire was highly reliable and stable, and the reliability coefficient met the requirements of statistical research.

2.2.3 Mathematical statistics method

The data collected by the questionnaire survey are counted and processed by Excel tables to provide data support for the research.

3 Results and analysis

3.1 The investigation and analysis of students' recognition of the extracurricular physical exercise program of campus running APP

3.1.1 College students running APP extracurricular physical exercise implementation plan

The extracurricular physical exercise programs of the 10 universities mainly include campus running, AI sports and smart bracelets (see Table 1). In terms of running, students need to use the mobile APP to record and locate, and complete running or brisk walking exercise on campus. According to the requirements of the APP, students need to go through the set virtual attendance point and complete the requirements of a certain distance, a certain pace and a certain pace frequency. In terms of AI sports, students can independently choose several sports developed and designed by APP to exercise, such as skipping, opening and closing, squatting, leg lifting and one-legged jumping, and completing AI sports every day is counted as effective results. As for smart bracelet, students wear smart bracelets to complete the exercise of basketball, volleyball, badminton, tennis, yoga and other projects, and complete the data to count the energy consumed by effective exercise or the duration of exercise as effective results. Different colleges and universities have different sports programs. Students can choose running or AI sports or wearing bracelets to exercise. Each person only counts one effective score every day and completes the rated amount of exercise every semester.

3.1.2 Students' identification with the extracurricular physical exercise program of the campus running APP

According to the investigation of the extracurricular physical exercise program of the campus running APP (see Table 1), the exercise requirements and exercise programs of each university are different, and the requirements for boys and girls are different. Statistics show that most students agree with their school's plan. Among them, a small number of students found it unreasonable because the time limit for completion is relatively large, too many times or kilometers are required to be completed, and too few kilometers can be completed at a time.

Table 1. Campus running APP extracurricular physical exercise questionnaire

School	APP software	Exercise program	Full marks/semester (freshman and sophomore)		Reasonable	Unreasonable
			Male	Female		
Zhejiang University of Finance & Economics	sports world	Running +AI sports	Male 24 times	Female 24 times	95	5
Zhejiang Sci-Tech University	Chuanggao sports	run	Male 120km	Female 100km	94	6
Hangzhou Normal University	sports world	Running +AI sports	Male 45 times	Female 40 times	96	4
Ningbo University	Flash campus	Running +AI sports	40 times	40 times	99	1
Huzhou Normal University	sports world	run	Male 165km	Female 135km	85	15
Shaoxing University	sports world	run	Male 90km	Female 90km	96	4
Zhejiang Yuexiu University	Xiaobudian	run	Male 100km	Female 100km	90	10
Wenzhou University	sports world	run	Male 90km	Female 90km	93	7
Quzhou University	Flash campus	Running+Smart Bracelet	45 times	45 times	96	4
Shaoxing Vocational and Technical College	sports world	run	Male 90km	Female 90km	99	1

3.1.3 Students' motivation for extracurricular physical exercise is clear

According to the investigation and analysis of students' purpose of using APP on campus (see Table 1), 42% students think that fitness exercise is the main purpose of participating in extracurricular physical exercise, and they can realize the importance of strengthening their physique, improving their health and improving their physical fitness. 41.8% students regard academic requirements as an important purpose of participating in extracurricular physical exercise. Schools usually take extracurricular physical exercise as a part of the comprehensive evaluation of students' physical health test or the comprehensive evaluation of sports achievements, and require students to participate for a certain number of times or kilometers. In order to meet academic requirements, participating students are divided into active participation and passive participation. In addition, some students make friends (4.8%), have fun (2.2%) and relieve stress (9.2%) through extracurricular physical exercise. Students can share their feelings, exchange sports experience and make new friends through the running APP platform.

Table 2. Purpose of using campus APP

Purpose	Number of people	Proportion
Fitness exercise	420	42%
Make friends	48	4.8%
Relieve pressure	92	9.2%
Academic requirements	418	41.8%
Leisure and entertainment	22	2.2%

3.2 Practical problems in the integration of campus running APP into college physical education curriculum

3.2.1 Students have a weak sense of physical exercise

Physical awareness plays an important guiding role in extracurricular physical exercise programs. In this study, the statistics of cheating in a natural week in some of the 10 universities were randomly obtained through the statistical query of the background data of the campus running APP by technicians: the cheating rate in normal universities was 9.4%-11.2%, which was lower than that in other universities; The cheating rate of individual colleges and universities is as high as 55.6%, and the lowest is 3.2%. These results show that quite a few students are not fully aware of the importance of physical exercise, and extracurricular physical exercise is more often a passive behavior.

3.2.2 School supervision and evaluation system is not perfect

According to the investigation on the reasons why students cheat in extracurricular physical exercise, it is found that most students run by car, multi-person cooperation and classmates. Different schools deal with students' cheating in different ways. For example, in Ningbo University, for those who cheat in running and punching cards, 5 punching records will be deducted for the first time (less than 5 times have been deducted), and the punching records for the second time are cleared (including all punching records on and before the day of violation). Freshmen and sophomores who violate the rules for the third time are treated as cheating in the exam, and juniors are disqualified from the physical fitness test in their senior year. At the same time, the list of violations will be sent to relevant colleges or intranet for publicity every month. The AI punching platform will take sports snapshots, and once cheating is found, it will be cleared at one time. Zhejiang Sci-Tech University, a warning is given for the first cheating, the second running data was cleared, and the third extracurricular sports score was 0. In Shaoxing Vocational and Technical School, the data of three or more runs are cleared, and those who fail to run in the semester are given extra-curricular exercise credits. Wait a minute. However, there are still many schools that have no actual punishment measures, and the school does not directly deal with and criticize cheating, but indirectly encourages students' opportunistic cheating. In addition, the severity of cheating is difficult to quantify. These problems pose a severe challenge to the effective implementation of extracurricular physical exercise programs in schools.

3.2.3 Campus running APP itself has technical defects

According to the investigation on the problems existing in the campus running APP itself, students are dissatisfied with the APP in many aspects. First of all, 78.45% students think that the APP has the problem of low GPS positioning accuracy, that is, the user's location information cannot be accurately obtained during use. Secondly, 66.65% of the students think that the APP has the problem of network jam, that is, the page will load slowly or get stuck during use. In addition, 58.82% of the students think that the APP has the problem of inaccurate running data recording, that is, users' running data cannot be accurately recorded and counted. Finally, 52.94% of the students think that the background service quality of campus running APP is poor, that is, there will be problems such as delay or collapse when running in the background.

4 Campus running APP into the development of public physical education courses in colleges and universities

In order to improve the function of campus running APP in public physical education courses in colleges and universities, that is, to improve students' physical fitness and cultivate lifelong physical education consciousness, this study proposes to establish a "two-in-one" model in which schools and campus running apps work together to serve students with high quality and achieve high-quality development of extracurricular physical education.

On the school side, a campus running teaching and research section is set up under the sports department, which is

composed of teachers and students to jointly complete publicity, management, supervision and docking. First of all, emphasize publicity to improve students' recognition and awareness of physical exercise, such as fitness lectures, campus running competitions, and publicity of athletes. Secondly, the school should be diligent in supervision and establish a sound supervision and management system, so that there is duty every day, duty at every point, feedback on problems, strict system, and the principle of fairness and equality in punishment. Thirdly, make urgent docking, respond to problems in a timely manner, deal with problems as soon as they are received, have a service attitude and sense of "responding to everything and implementing everything", and efficiently and qualitatively interface with students, teachers, APP technical customer service and others to deal with various affairs in the first time. Finally, rewards and punishments are clear, and the school should have a clear and definite campus running performance evaluation system and violation punishment system, which should have strong enforcement and be fair and equitable.

To run the APP on campus, first of all, it is necessary to enhance students' user experience. The company can solve it from the aspects of technical reform and software improvement, such as inviting professional technical teams and personnel to upgrade and optimize the software to solve the problems of unstable operation, lagging response speed, inaccurate positioning and system collapse, so as to improve students' experience and satisfaction with the use of the APP on campus. Secondly, to improve the service quality and professional level of customer service, the campus running APP company should conduct professional knowledge training and assessment for online customer service. Thirdly, do diligent statistics and diligent feedback. Technicians need to provide students' illegal running data on time and provide timely feedback to the school docking personnel in time, so as to correct students' attitude and urge them to complete the exercise effectively. Finally, continuously study the cheating simulation system and enhance the anti-cheating technology.

5 Conclusion

In a word, to do extra-curricular exercise well and improve students' physical health requires the active cooperation of many forces. The APP technology and the school supervision mechanism should be improved. And students' awareness of self-exercise should be strengthened. That is, the joint efforts of schools, campus running apps, teachers and students can improve the quality and effect of extracurricular physical exercise and make positive contributions to the healthy development of students' body and mind.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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About the author

Wang Chunfang (1981-), female, master, associate professor, research direction is physical education.