DOI: 10.23977/jaip.2023.060108 ISSN 2371-8412 Vol. 6 Num. 1

# Development and Application of Campus Sports Competition System

Tianshan Yang<sup>1,a,\*</sup>, Ruiying Zhang<sup>1,b</sup>, Chun Wang<sup>1,c</sup>

<sup>1</sup>Liaoning Institute of Science and Technology, Xianghuai Road, Benxi, Liaoning, China <sup>a</sup>1911301438@qq.com@qq.com, <sup>b</sup>2622182912@qq.com, <sup>c</sup>442300960@qq.com \*Corresponding author

**Keywords:** Sports Competition, System Development, Campus Application

**Abstract:** According to the degree of sports competitions held in colleges and universities across the country, the complicated process of regular sports competitions in colleges and universities directly leads to the low density of undertaking sports competitions, resulting in the low participation of students in sports competitions, or the single participation group, which can not achieve the effect of full exercise and improving the overall level of college students. For this problem, with the help of the application of the school sports competition APP, they can pay more attention to sports competitions, so that they can actively participate in sports or sports competitions, and achieve the purpose of improving their physical fitness and physical function through continuous exercise. Secondly, this APP integrates the publishing, registration and watching of sports competitions, provides convenience for students to participate in sports competitions, and is beneficial for organizers to collect registration information. Then, the system automatically arranges and generates competition teams, which makes the competitions more orderly and achieves the purpose of facilitating the development of sports competitions.

# 1. Introduction

With the development of economy and technology, the rapid popularization of the Internet, people's information sources are more diverse [1], and the main ways for human beings to obtain information have undergone essential changes. By using mobile phone software, people can master news, establish social relations, entertain and relax, etc. However, college students generally rely on various information channels. According to the characteristics of college students, Convenience provided to save time at the most basic point, The application of college students is still very few, Taking our school as an example, All sports events in each sports festival will be organized by all departments, The submission of the application form, the arrangement of the competition, the announcement of the results and the statistics of credits all need to be submitted to the designated place, which greatly increases the tedious work of the organizer, wastes a lot of resources, manpower and time after a competition, and increases the tedious nature of the competition. In the face of unexpected situations, it is impossible to inform every player in time, which affects the development of the competition.

The physical health status of teenagers is a hot spot that the society pays close attention to continuously. In order to promote teenagers' exercise behavior and improve their health level, in 2002, the state promulgated the Standard for Students' Physical Health (Trial Scheme) (hereinafter referred to as the Standard). After 20 years of implementation of the Standard policy, the implementation of the policy has not achieved ideal results [2]. Therefore, through the development of sports competition APP in school, these problems are greatly reduced, and the computer can deal with them efficiently and improve the competition information scientifically and accurately. Through the school sports competition APP, the functions of school competition registration, competition watching, competition grouping, competition announcement, score statistics, result processing and result announcement can be completed. Thereby saving time and manpower. It not only provides technical support for various competitions of sports festivals, but also reduces the time and energy of each organizer.

# 2. Requirements Analysis

Requirement analysis should first communicate fully with users, accurately grasp the requirements of users, and determine the functional modules to be realized in the final system according to the actual situation [3]. The APP will cover the information and course videos of all physical education courses and sports clubs in the school, which is convenient for students to exchange and learn. At the same time, with the schedule and registration information of school sports events, you can also watch the videos of school sports events on the Internet, so as to arouse children's enthusiasm and strong interest in sports, so that they can participate in sports, change from being forced to taking the initiative, and form sports habits and sports consciousness in continuous sports. With the help of various aerobic exercise and anaerobic exercise, students can continue to exercise, so as to improve their physical fitness and stimulate their awareness of independent training.

Taking the dance competition held by the aerobics club of our school as an example, both the preparation stage before the competition and the finishing stage after the competition need to carry out detailed and accurate in-depth analysis of each link to clarify the technical requirements of each link. As the dance competition held by the Aerobics Club of our school is divided into preliminary competition and final competition, It is necessary to prepare for the competition schedule in two time periods, and everyone can watch it online, so as to stimulate students' interest. However, there are many teams participating in the competition, and the order of appearance also needs a series of problems such as rotation and different competition events. Therefore, we should pay attention to how to solve these problems when designing APP. After the competition, the results of each team are counted and sorted, which greatly improves the work efficiency and reduces the problems of manpower and miscalculation and omission due to time problems, improves the quality of the competition and promotes students' understanding of the sports competition.

### 3. Content Research

### 3.1. Improve the Physical Fitness of Students

Since 1980s, the physique of college students in China has been declining continuously, and the poor physical quality of higher vocational college students has become a common problem faced by higher vocational colleges [4]. The school sports competition APP can solve this problem well. Use courses and after-school training to improve students' sports time, and teachers assign homework to provide students with skills to learn and further master the content of physical education courses. And set up a section for independent exercise, so that students in need can learn and practice, which

improves the overall exercise time and enthusiasm of college students. At the same time, the school competition also actively participates, which is more conducive to further improving the physical fitness of college students.

# 3.2. Facilitating On-campus Sporting Events

There are tedious problems in school sports competitions. This problem can be solved by designing the campus sports competition APP.

First, it provides convenience for college students to sign up for various activities, saves college students' time, no longer takes effort to sign up for activities, and no longer forgets to fill in various information, so as to register anytime and anywhere to prevent wrong information filling. After the competition, provide the competition results to avoid the contestants missing the promotion news, and remind the students of the place and time of the next competition.

Second, it provides various conveniences for the person in charge of the event, and does not have to count all kinds of information. The registration form is generated into your hand. After the competition, get the promotion list, and the person in charge will automatically generate the ranking on the results, saving the time of the person in charge. During the competition, provide the competition schedule, so that spectators and participants can know the current situation of the competition at the same time.

Thirdly, it provides convenience for students watching the competition. Live broadcast and save live broadcast playback at any time during the competition, so as to leave the sports process for the participating students, avoid missing the highlight moment and provide a good platform for other students watching the competition. Watch it anytime, anywhere. At the same time, it can provide parents with the opportunity to watch their children's schedule.

# 3.3. Solve the Shortage of Students' Exercise Time

Physical education has educational function and is an important part of education, and sports competition, which embodies the important characteristics of physical education, also has educational value. Sports competition is a purposeful, planned and organized activity, which has the same educational nature as other forms of educational means and plays a leading role in students' development [5].

Although college physical education courses are rich and varied, at the same time, the class hours are only two per week, and only these exercises can not achieve the purpose of improving the overall physical fitness of college students. Therefore, according to this problem, APP includes after-school training and self-training. Teachers assign homework to remind students to do after-school sports, increase college students' sports time, strengthen their physique, and thus improve their overall physical fitness. Sports interest is an important point for college students to be willing to carry out sports activities. Only by making college students love sports and enhancing their enthusiasm can they be more willing to exercise and exercise independently.

# 3.4. Enrich School Sports Competitions

Generally speaking, the procedure of filling out the application form in schools is too cumbersome, As a result, students often forget to submit the registration form and miss the registration activities. In order to avoid students missing the competition by filling in wrong personal information, it also provides convenience for project leaders. It can avoid the tedious summary of the registration form, avoid missing participants, and automatically generate the promotion list of the competition. Leave highlights and handsome and beautiful photos for students.

Provide materials for friends circle. You can watch the live broadcast playback anytime and anywhere, make a "memo" for the students, and record the place and time of the competition for the students. Let the students know the competition situation and avoid "bumping into classes". In general, more time is provided for college students.

#### 3.5. Innovative and Practical Software

In today's society, parental support is one of the main contents of strengthening factors in the ecological model of health promotion. Relevant research shows that parental support is inseparable from students' active participation in physical exercise [6]. This APP is suitable for college students who participate in various sports or other events, and can also be used for college students who want to watch or support their classmates. Give users a good user experience and ensure that APP achieves better use effect. Provide more convenient registration methods for college students. Provide parents with a good platform to understand their children's events and strengthen contact with their families. At the same time, it integrates education, learning, sports, competition and other functions, and explores the production capacity of APP with brand-new ideas.

#### 4. Beneficial Effects

# 4.1. Promote the Efficiency of Finishing the Race

The sports competition APP realized by computer has the advantages of convenience, quickness and high efficiency, With the popularity of the network, it can be better accepted by students, and improve the lack of sports competition statistics in colleges and universities, simplify the cumbersome procedures at various stages, improve work efficiency, and achieve the expected goals efficiently, quickly, accurately and with low consumption.

# 4.2. Stimulate Students' Interest in Sports

School sports competition APP allows students to find their own sports more accurately according to various modes of related sports competitions and sports activities, fully stimulate students' interest in sports, and better adapt to students' psychological activities, so as to achieve twice the result with half the effort.

# 4.3. Improve Students' Attention to Sports

Through the live competition function, students can also be attracted to discuss and pay attention to sports competitions, so as to enhance the attention of competitions and stimulate students' enthusiasm for sports. Secondly, after the program is perfected, more sports competitions can be carried out, not limited to Frisbee and so on. To a great extent, it can enhance the interest of sports and increase its attraction to college students. Make college students pay more attention to sports competitions.

# 4.4. Guide the Correct Way of Physical Exercise

The APP is specially equipped with teaching videos of physical education courses, which arrange advanced learning of courses according to difficulty and proficiency, and indicate matters needing attention in physical exercise, which greatly improves students' physical education knowledge, and students can choose video courses to learn and train according to their own conditions. At the same time, teachers also use the method of assigning homework to shorten the

distance with students and guide students to complete training, so that students can achieve continuous sports, improve the sports skills of the course and further enhance their physical fitness.

# 4.5. Add Parent-child Topics

Provide parents with a good platform to understand their children's events and strengthen contact with their families. At the same time, it integrates education, learning, sports, competition and other functions, and explores the production capacity of APP with brand-new ideas.

### 5. Conclusions

By creating the campus sports competition APP, we can further standardize the schedule and rules of campus sports competition, and watch the whole process of the competition in real time to ensure the fairness of the competition. Physical exercise can also be realized through this APP, so that students can exercise according to the curriculum standards, and remind students of the problems that need attention during exercise to avoid strain. The interaction between teachers and students can also be carried out through APP. Teachers arrange theoretical topics for students to discuss in the comment area, and ask questions to be answered by teachers during the discussion, which narrows the distance between teachers and students, and students also learn relevant knowledge.

# Acknowledgements

Thanks to Liaoning Institute of Science and Technology for its financial and policy support. College students' innovation and entrepreneurship training program project:Development of Sports Competition System in Schools (Project No.: 202311430133) and First-class Course in Liaoning Province: Aerobics.

#### References

- [1] Zhang Xiaoying. (2022)Thoughts on news propaganda work in the Internet age. China Newspaper Industry, 18,34-35
- [2] Zhang Hui, Chen Shanping. (2022) Problem analysis and optimization strategy of college students' physical health standard test. Stationery and Science and Technology August ,497
- [3] Xu Jiangfei, Nie Wei. (2016) Design and Development of College Sports Competition Management and Arrangement System. Software Engineering January, 19, 61-62
- [4] Yang Gengyin, Wei Xianhui. (2021) Physical fitness level of higher vocational college students and school physical education reform. Contemporary Sports Science and Technology, 11,239-242
- [5] Liu Guanglu, Zhang Meiying. (2003) the value embodiment of college students' sports competition. Journal of Hengshui Teachers College, 3,49-51
- [6] Kong Zhe, Hu Jianhong, Chen Zhenyin, etc. (2022) Research on the Influence of Parental Support on College Students' Physical Exercise Behavior. Sports Vision 2022, 12, 27-29