

Wechat Table Tennis Small Program Design and Application in College Table Tennis Courses

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Abstract. Objective: To design a WeChat table tennis small program, intensive combat, points ranking, social networking and other functions in one. In order to cope with the collective course teaching in the special course of table tennis in colleges and universities cannot meet the individual needs of students. Through the mini program, students can easily release the information and fight with other alumni. According to the results, the mini program will automatically calculate the points and update the ranking to understand their competitive level. Through social functions, students can pay attention to each other, give gifts and enhance the cohesion of the table tennis community. Methods: Based on the WeChat platform, the small program with the theme of table tennis competition is designed and developed, and applied in the actual public physical education class in colleges and universities. Teachers experience whether the small program as an auxiliary tool is effective and put forward suggestions for modification. Conclusion: The design of this WeChat table tennis applet is in line with the personalized needs of students, and improves their participation and interest. After the trial operation, the small program has won the unanimous praise of college students, and successfully improved the teaching mode in the special course of public physical education table tennis, providing a new way to strengthen and expand the campus table tennis culture.

Keywords: wechat small program, table tennis, competition, public physical education class

1 Introduction

In China, table tennis is a very popular sport, which also causes the serious imbalance of students' level in public sports classes in colleges and universities. This makes the simple basic technology teaching unable to adapt to the current classroom, and we need to introduce the competition mode to change the current situation. Based on the development of network technology, we can use the function of small programs, connect inside and outside the classroom, retain a certain proportion of basic technology teaching in the classroom, let students use small programs to fight, and get points [1]. And open the combat function after class, let the students also have table tennis competition exercise after class, further stimulate their competition level, and for lifelong physical exercise habits play a good foundation [2].

2 Small program introduction and display

2.1 Introduction

The engagement mode is one of the important functions of this small program. It not only allows students to form teams to play table tennis freely, but also provides a platform for them to learn from each other and exchange table tennis skills. Under this function, students can challenge and fight anytime and anywhere, convenient and exciting [3]. Points ranking is another striking feature, which provides students with the opportunity to show their skills, and the ranking results can be viewed at any time, further stimulating students to participate and contribute. Through continuous challenges and interactions, the students' skills and abilities have also been continuously improved. In addition, the social function is also an important part that cannot be ignored. This function provides a platform for students to exchange and share their experience, achievements and insights of table tennis, helps to promote the development of campus table tennis career, and promotes the exchange and integration of campus culture [4].

In addition to engagement function, ranking, and social functions, our WeChat table tennis applet also has the following functions: 1. Coach system; coach system can provide training and guidance for each participating member. Each student can choose one or more coaches. These coaches can provide technical support, fun activities and competition advice, and help students gradually improve their level and competition skills. 2. Venue venue; this function helps students easily book the school stadium and view other venues. This function can provide great convenience for students, but also can enhance the popularity of campus sports culture. 3. Activity planning; the activity planning function allows students to create and participate in table tennis activities, such as small competitions, training camps, playing parties, etc. Students can post their own activities in the small program, share with classmates and invite friends to join them. This feature can provide a platform for students to make friends with them and also enhance the influence of table tennis culture on campus. 4. Challenge system; Challenge system allows students to work hard for specific achievements and honors. Students can practice hard, challenge their skills, and compete with the other participating members. For example, students can arrange challenges to win certain specific honorary titles or special awards. This function can stimulate students' competitive spirit, but also can help students to better grow and improve their technical ability. 5. Video playback and analysis; this function allows students to replay the video and analyze their own results. Students can learn from their own mistakes and improve and improve their technical and tactical [5]. This feature can provide students with an opportunity to improve and improve themselves. These above functions not only make our small program become more comprehensive and multi-functional, but also more close to the needs and interests of students.

2.2 Small program function display

2.2.1 Home page display.

After entering the small program, the home page is shown in Figure 1. It includes the selection of singles and doubles competition mode, several wins, several minutes of each game, and entering the names of the two sides. Below the program includes the home page, forum, community, circle of friends and individuals.



Fig. 1. I love table tennis applet home page

2.2.2 Competition scoring.

After the game starts, the outcome of each ball can be recorded through the small program. The small program interface includes the server, pause, current score, game score, voice score, exchange serve, exchange field, score view, setting and player name. The mini program has included the possible events in the process of table tennis competition, with corresponding buttons, as shown in Figure 2.

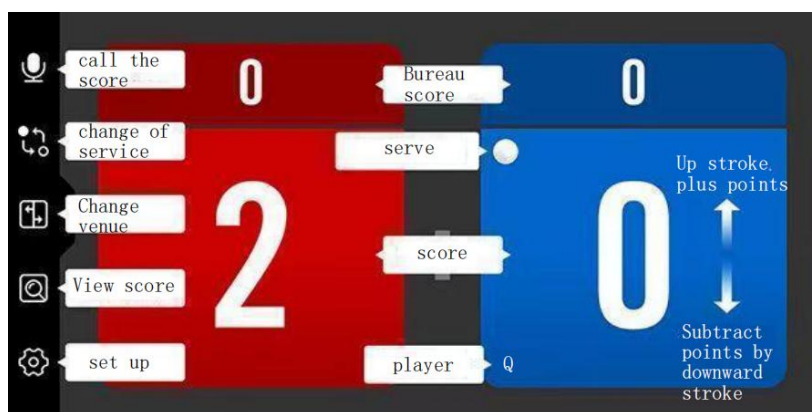


Fig. 2. I love table tennis small program game interface

At pause, the scoreboard enters the pause interface, as shown in Figure 3. The interface includes buttons for the player's name, current score, current score, end, replay, continue the game.



Fig. 3. Pause of the interface

2.2.3 Data statistics.

The number of each class is 50, with 16 classes per semester. With the table tennis club and other grades and class fans during the trial operation, the background data registration of this program is more than 2000. The personal home page mainly includes name, ID number, player level, experience value, mall points, my game record, my record, my record, my articles, my friends, my wallet, partner order, setting, total win rate, singles win rate and doubles win rate as shown in Figure 4. The data code diagram is shown in Figure 5.

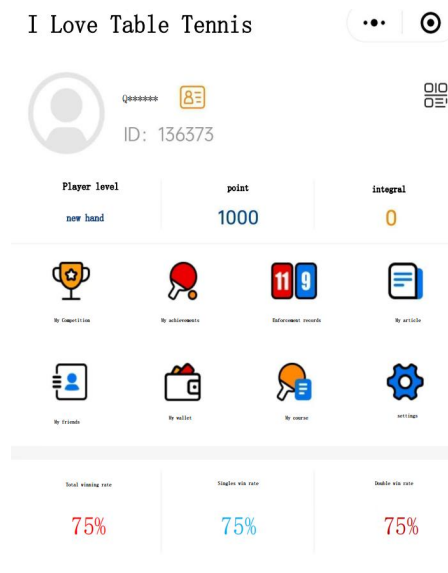


Fig. 4. Personal homepage

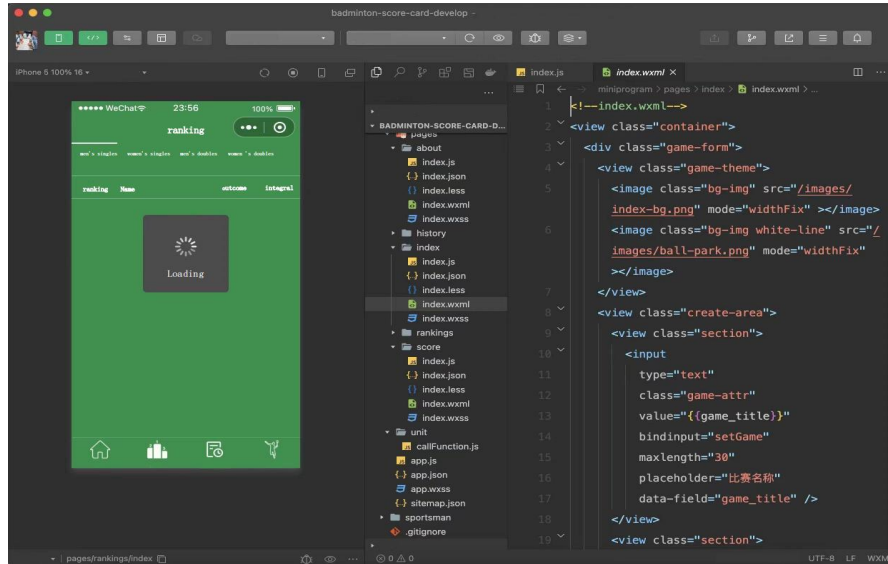


Fig. 5. Data code

3 Conclusions

This table tennis WeChat small program for public physical education courses in colleges and universities is actually a high-level interactive teaching platform, which can help students learn table tennis knowledge and skills more comprehensively and efficiently. It can not only be used as an auxiliary tool for students to improve the level of table tennis, through the engagement, layoff scoring and other functions, but also can let students communicate with each other, and quickly improve the technical level. In addition, the introduction of points ranking and hierarchy system can stimulate students' desire to win and promote their enthusiasm for self-improvement. At the same time, the small program can also become a teaching auxiliary tool for teachers. Teachers can combine small programs as one of the teaching resources of physical education classes, guide students to participate in competitions and communicate with classmates through small programs, and learn and master the skills and techniques related to table tennis in a practical way, so as to achieve a win-win situation in teaching and learning. In addition, the small program also provides scoring and data reporting functions, which can help teachers to conduct a more comprehensive and accurate evaluation of students' performance, [6].

While learning the knowledge and skills of table tennis, the small program can also help students develop good physical exercise habits. Through diversified and personalized competition modes and interactive methods, students are guided to establish healthy sports beliefs, stimulate their sports potential, so as to improve their physical quality. For this table tennis WeChat small program, we can conduct in-class activities and extracurricular expansion in the public physical education course, combined with the interactive and personalized characteristics of small program, guide students to better master knowledge and

skills and improve physical quality; at the same time, small program can also help teachers better carry out teaching and assessment work.

To carry out this small program in the public physical education course in colleges and universities is more conducive to the comprehensive physical education for students. In addition to strengthening students' technical and tactical ability, it can also help students establish healthy sports belief, exercise self-confidence and strength in the competition, and improve the level of sports competition and competitive consciousness. Layoffs is also an indispensable role in small programs. They can not only ensure the fairness and objectivity of the competition, but also educate students to help improve their sports skills and enhance their sense of responsibility. The multifunctional functions and social functions of small programs can also help students to establish more common topics and friendship ties, and encourage them to form a healthy lifestyle and a dynamic learning environment. In short, this small program is a very beneficial physical education tool, which injects new vitality and creativity into the public physical education courses in colleges and universities, promotes students to develop in an all-round way, and shows a dynamic and healthy campus style.

Acknowledgment: This study is supported by a university-level project of Tianjin University of Technology (YR22-09)

References

- [1] Shi, D.(2023).Analysis of the diversified integration teaching mode of university public physical education courses under the background of "Internet +".*Sports Technology*, 44(01), 117-119. DOI: 10.14038/j.cnki.tykj.2023.01.024.
- [2] Lin, X.(2022).Problems and solutions of applying "Internet + education" mode in university physical education.*Journal of Liaoning Teachers College (Natural Science Edition)*, 24(04), 96-99.
- [3] Zheng, X.(2021).Design and application of sports teaching WeChat mini-program based on the three-factor efficacy theory (Doctoral dissertation, Hubei University).DOI: 10.27130/d.cnki.ghubu.2021.000257.
- [4] Shi, C.(2021).Research on the influence of WeChat mini-programs on the formation of physical exercise habits among college students: Taking the "iGuangke" WeChat running mini-program of Guangdong University of Technology as an example.*Youth Sports*, 2021(02), 42-43.
- [5] Zou, J., Zheng, X., & Huang, J.(2020).Design and implementation of university physical education platform based on WeChat mini-program.*China Educational Technology Equipment*, 2020(24), 40-42.
- [6] Liu, Y., Li, Q., Qiu, L., Shao, W., Shen, J., & Yu, Q.(2019).Application research of WeChat mini-program in smart sports.*Electronic World*, 2019(22), 103. DOI: 10.19353/j.cnki.dzsj.2019.22.053.