Feasibility analysis report on UP physical training APP for students' physical examination

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Abstract: This paper investigates the physical training of primary school students, middle school students and college students by questionnaire, and analyzes the feasibility of UP physical training APP according to the survey results. The "UP physical training" APP gives targeted suggestions and programs according to personal personality characteristics and existing physical quality, which can not only improve students' physical quality, but also help them to participate in the school's evaluation and award activities smoothly, and solve the problem of missing the evaluation opportunity due to sports substandard. It can make more people take fewer detours in the process of physical exercise, learn scientific fitness methods, and improve their physical quality quickly.

1. Introduction

Now people's health awareness is awakening, and mass sports is becoming the urgent need of digital sports users. According to the data of Qian Fan, in 2019, there were more than 120 million active users of digital sports in China, and in the field of fitness, the number of digital fitness users reached more than 20 million, which shows that the market demand of fitness industry is strong. At the same time, the standard of students' physical health jointly developed by the Ministry of Education and the State Sports General Administration clearly stated that the test of students' physical fitness is "an educational means to promote the healthy development of students' physical fitness and encourage students to take active physical exercise, an individual evaluation standard of students' physical health, and one of the basic conditions for students to graduate". However, in recent years, the results of Chinese students' physical fitness and physical fitness tests show that the obesity rate of Chinese students has increased and their physical fitness has gradually declined. Experts in the field of physical education are constantly seeking solutions. Students' health is an old-fashioned problem, but it can't be solved well all the time. Under the epidemic situation, students' physical quality is worrying. Therefore, through the analysis of students' physical level, this paper puts forward UP physical training APP, which can improve students' physical test level in order to improve students' physical quality.

2. Research and analysis

2.1 Exact sample size

To determine the sample size, it is obtained by the following calculation formula:

$$N = \frac{Z_{1-\alpha/2}^2 \times p \times (1-p)}{E^2}$$

α is a significant level, $1-\alpha$ is confidence, because the difference between students is not particularly large, so it does not require too many samples, we take it here α Is 0.1, which is obtained by table lookup $1-\alpha/2 = 1.64$, E is the allowable sampling error, with a confidence interval of 5%. p Often take 0.5, and bring it into the formula to get $N = 1926$.

2.2 Reliability analysis of questionnaire

Pre-survey was conducted before the implementation of the survey to ensure the stability and validity of the data, and SPSS software was used to analyze the reliability of the pre-survey results. From Table 1, it can be seen that the reliability of the questionnaire is strong, that is, the reliability of the questionnaire is good, and the questionnaire can be distributed continuously.

Table 1 Reliability Analysis of Questionnaire

Cronbach's Alpha	Cronbach's Alpha based on standardized terms
0.898	0.894

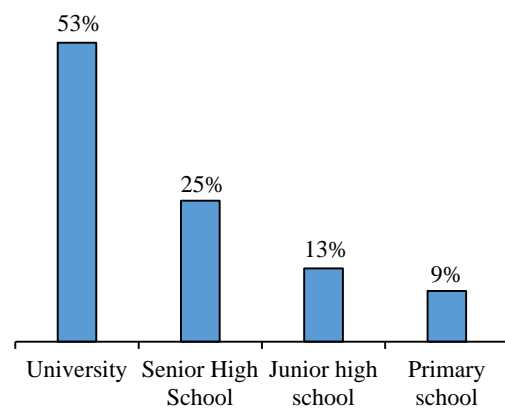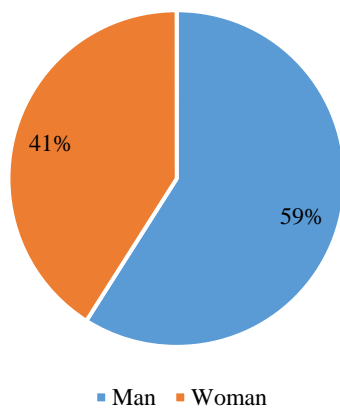### 2.3 Descriptive statistical analysis

Figure. 1 Investigating the Ratio of Male to Female   Figure. 2 Investigating the Grade Proportion of Students

As can be seen from Figure 1, boys account for 59%, while girls account for 41%. Generally speaking, the gap is not big. As can be seen from Figure 2, most of the respondents are college students, while primary school students and junior high school students account for a relatively small proportion, which is related to the environment in which our team is located.
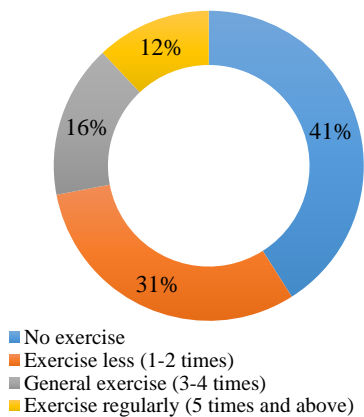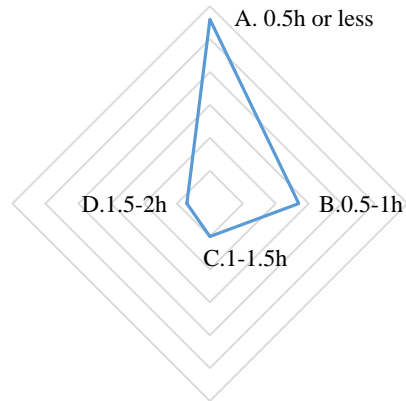
Figure. 3 Weekly Exercise Frequency   *Figure. 4 Average duration of each exercise*

From Figure 3 and Figure 4, it can be seen that only 12% of students exercise regularly, and most students do not exercise for more than half an hour at a time, which also reflects that most contemporary students lack exercise or even do not exercise, so it is extremely urgent to train students to improve their physical fitness.
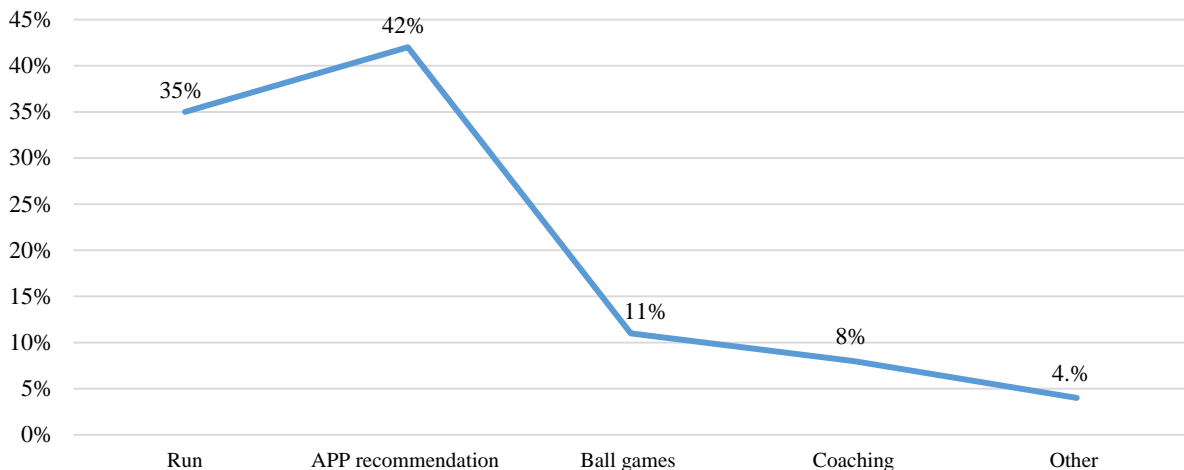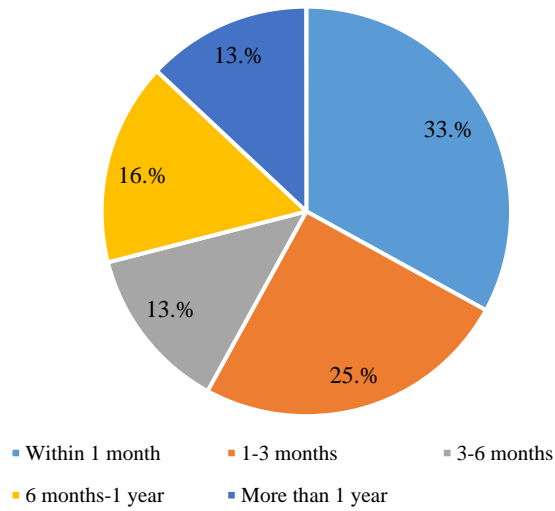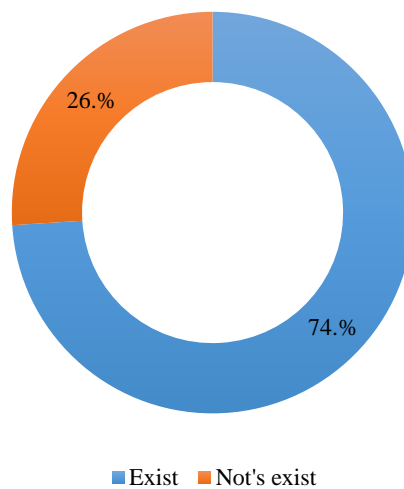

Figure. 5 Favorite Exercise Mode

From Figure 5, it can be seen that the students' ability to accept new things is generally high, and they are willing and willing to improve their original exercise methods through new ways, which shows that there is a great potential market for students to customize physical training services through APP.

*Figure. 6 How long the sports fitness APP is used*

Legend: Within 1 month · 1-3 months · 3-6 months · 6 months-1 year · More than 1 year

Values: 13.%, 33.%, 25.%, 13.%, 16.%

Figure. 7 Does it have any obvious influence on your habits after using the APP

Legend: Exist · Not's exist

Values: 26.%, 74.%

It can be seen from Figure 6 that most people don't use fitness APPs for a long time, and they don't have much perseverance to keep exercising. If richer and more interesting content is added to the app, the use cycle of these users may be stabilized. Figure 7 shows that the use of fitness APP has a good effect on users, so it is feasible to create an APP for students, so that students can fall in love with sports, strengthen physical training, improve physical test scores and enrich campus life.
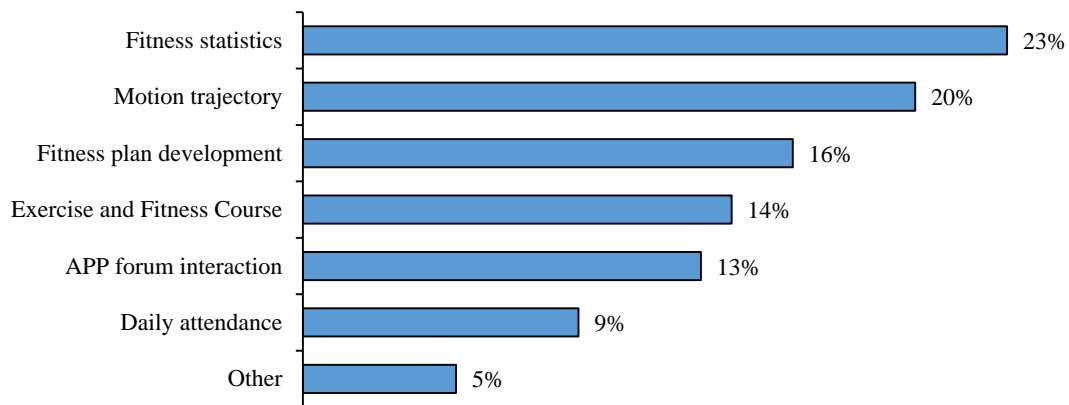
*Figure. 8 APP Features Popular with Students*
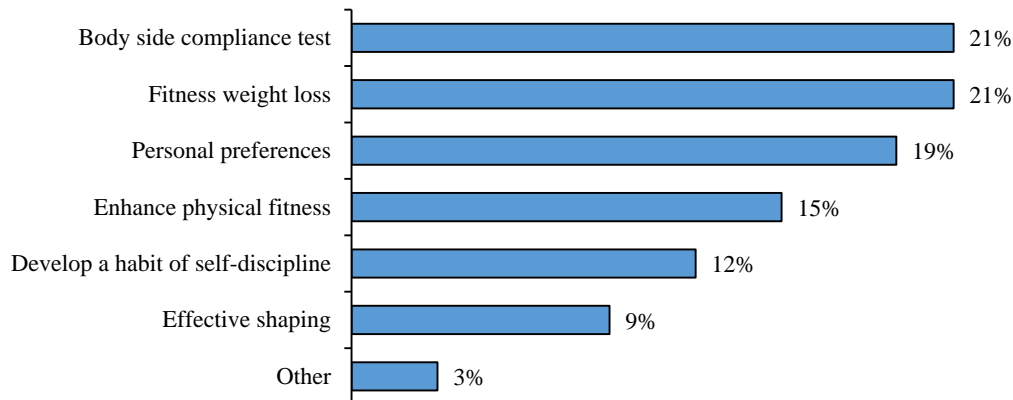
Figure. 9 Requirements for App Use

It can be seen from figs. 8 and 9 that the student user groUP does not have much demand for the functions of APP, but has a strong demand for fitness shaping and physical fitness testing, which has become the main direction of up physical fitness training APP. developing a product that focuses on physical fitness testing of student groups, supplemented by mass fitness shaping, occupies the market of student groups, and puts the needs of student groups first.

3. Feasibility analysis

With the change of people's health concept, people's habits have undergone tremendous changes, whether from diet or sports. The wave of "national fitness" is sweeping across the country. According to the statistics of the State Sports General Administration, the total output of China's sports industry has increased from 2.2 trillion yuan in 2017 to 2,657.9 billion yuan in 2018. The added value of sports industry accounts for 1.1% of GDP. It is estimated that the total scale of China's sports industry will exceed 3 trillion yuan by 2020. In 2019, the total output of sports, fitness and leisure activities in China exceeded 100 billion yuan, accounting for 3.5% of the total output of the national sports industry, and the per capita annual expenditure on fitness also increased year by year. According to the statistics of Jost Sullivan, in terms of sports participation, the participation rate of residents over

19 years old in China in 2018 was 18.7%, while that in the United States reached 35.9% (the participation rate of regular sports refers to the proportion of people who participated in sports at least three times a week in all ages), which shows that the fitness market has great potential. It is estimated that by 2020, China's sports population is expected to reach 435 million. All kinds of signs show that the future prospects of the fitness industry are considerable.
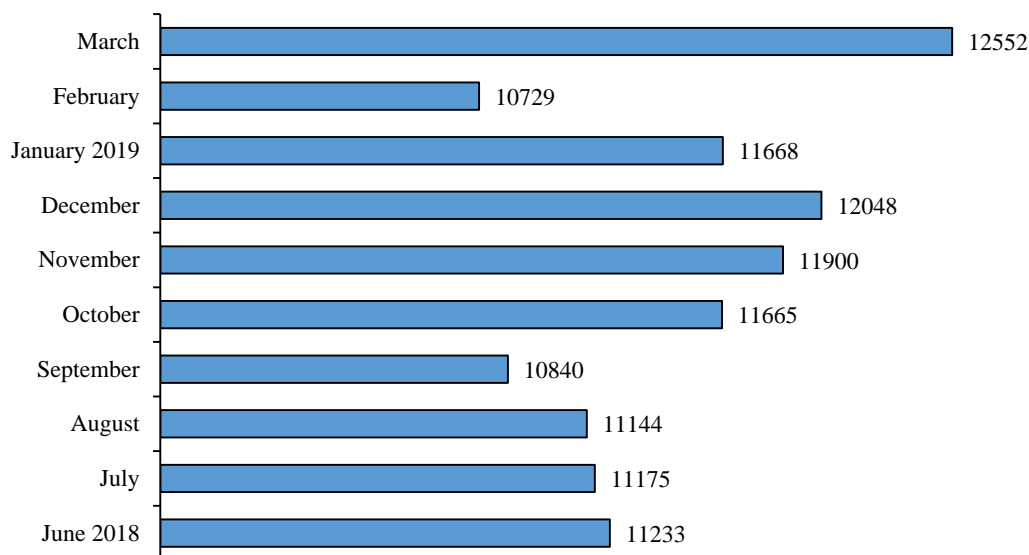
Figure. 10 Monthly active users of digital sports in China (10,000 people)

At present, the fitness industry is divided into online and offline forms. Offline means that customers go to the gym to train, which emphasizes an experiential fitness. The advantage of offline fitness is that the gym is spacious and equipped with a large number of professional fitness equipment and fitness coaches. In addition, fitness coaches and customers communicate in two directions, and coaches can optimize their teaching methods at any time according to the changes of students' state; Of course, the shortcomings of offline fitness can not be ignored. The revenue of the gym mainly depends on private education. One private education class is three or four hundred. For the students with limited budget, the price is indeed a bit high. In addition, the qualifications of coaches are mixed and difficult to obtain. Consumer trust; Online fitness refers to the use of various fitness apps for fitness anytime and anywhere, which is the most popular digital sports nowadays, as shown in Figure 10. It not only does not have the limitation of venue time, but also needs very few props. In addition, there are many free courses on the outside line, which is a relatively cost-effective form of fitness for the student party. Its disadvantage is that the training intensity is not easy to grasp, and it is easy to cause sports injuries without the guidance of professionals. In addition, the online fitness industry chain mainly pays for the content and sells the surroundings, and the threshold is low, so it is difficult to guarantee the professionalism of the output content. The strong attack of new pneumonia has caused a huge impact on offline fitness in China, and they are facing the risk of closing the gym+empty space. For small and medium-sized gymnasiums, long-term closure will not only face the double financial pressure of high rent and labor cost, but also face the problems of customer stickiness and professional brain drain, but it also promotes the development of online platform to a certain extent. Due to the impact of the epidemic, people will pay more attention to personal exercise and health and the use of online APP.

4. Innovation analysis of 4 APP

The videos of the training content of the APP are aimed at improving students' physical fitness and completing school physical examination, which is more targeted. On the one hand, a registration mechanism is established in the APP to store the basic information of users. After inputting the corresponding information, the user can choose the training plan provided in the APP for training, or train according to the personalized customized plan formulated by the teacher. On the other hand, APP provides sales of nutritious meals and sports goods, and users can purchase according to their own needs. At the same time, a communication platform has been established in the APP, which is convenient for users to communicate and learn, and exercise together to improve their physical fitness. Finally, users in the APP can develop the feedback information of the team in time, adjust according to the needs of users, improve the shortcomings of the products, and make the products more applicable and meet the needs of users. Generally speaking, compared with keep, Daily Yoga and NIKE, which are popular in the market, UP's market positioning and target users are more precise and accurate. It is aimed at the physical fitness test of students, and focuses more on the field through market segmentation.

5. Conclusion

To sum UP, the up physical training APP for students has certain feasibility. Especially in the current epidemic situation, it is particularly important to improve students' awareness of physical exercise. At the same time, it also adapts to the current development of the Internet, so that students can carry out physical activities anytime and anywhere.

Acknowledgments

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