Research on the Influence of Lifelong Sports Consciousness on College Students' Happiness Based on Computer Mathematical Model

Fan Zhang*, Yingyue Hu
Wuhan Business University, China, 430056

*E-mail: 1792310861@qq.com

Abstract. Objective: To explore the changes of college students' lifelong sports consciousness before and after community interaction by using computer technology.

Method: Research object and content. Five hundred students from three colleges and universities in Fujian Province were selected as the objects of investigation. 512 questionnaires were sent out and 500 were collected. T-check and Pearson check use computer technology to comprehensively analyze the collected data. Result: With the development of interactive sports activities between colleges and communities, the sports mode and consumption structure of college students have undergone profound changes. Conclusion: Community interaction is of positive significance to the cultivation of College Students' lifelong sports consciousness.

Keywords: Lifelong Sports Consciousness, College Students, Mathematical Model, Happiness, Computer Mathematical Model

The future society is a competitive society, but also a society in need of talents. In the face of fierce competition, the psychological health of college students should be paid attention to by all sectors of society, and the level of happiness of college students as a special group should also be paid enough attention. In the past, there have been a lot of researches on the relationship between physical exercise and happiness[1]. People improve their happiness level by participating in physical exercise. However, taking part in physical exercise can not only be a staged action, but also a temporary rise of people. It should be an indispensable part of people's life, and it should run through the whole life of people, so that people can benefit from it for life. Through taking part in physical exercise, people can enjoy their mood, enhance their positive emotions, and improve their happiness. How to make it persist for a long time? Consciousness decides action, and people's action is dominated by consciousness. Under the social background of advocating national fitness, it is necessary to establish lifelong sports consciousness, which is paid more and more attention. Therefore, on the basis of previous researches on physical
exercise and well-being, we should strengthen the research on the relationship between life-long physical consciousness and well-being, so as to make due contributions to solve the mental health problems of college students and improve their well-being level[2].

1. Introduction

The International Conference on adult education, held in Montreal, Canada in 1960, raised the issue of "lifelong education". In 1965, an expert in continuing education, made "lifelong education" an important topic of adult education at the International Conference for the promotion of Adult Education held in Paris. In the urgent requirements and changes of this kind of education, each subject of education has made corresponding plans, especially the role of physical education in education, which makes physical education not only an integral part of "life-long education", but also a main means for the healthy development of social life.

Therefore, "lifelong physical education" is accompanied by the concept of "lifelong education"[3]. "Lifelong sports" has its own specific research field and category. It is the process of creating life value and carrying out physical education from life to death. Lifelong sports consciousness is the subjective will of college students to participate in exercise, cultivate their sports ability and improve their sports level. In order to study the cultivation of lifelong sports consciousness of college students, this paper, combined with the results of questionnaire survey, makes an in-depth study of "the influence of Sports Interaction on College Students' lifelong sports consciousness".

2. Research object, content and method

2.1. Research object and content

Five hundred students from three colleges and universities in Fujian Province were selected as the objects of investigation. 512 questionnaires were sent out and 500 were collected, the recovery rate was 97.7%, and the effective rate was 100%[4]. This paper mainly investigates the changes in the length, frequency, intensity, consumption and items of physical exercise of college students before and after the "physical interaction" between colleges and communities. This paper compares the changes of College Students' physical exercise behavior before and after the implementation of "Sports Interaction", and analyzes the influence of Sports Interaction on the formation of College Students' lifelong sports consciousness.

2.2. Research methods

1) Questionnaire survey. A questionnaire was designed to investigate the influence of College Sports Interaction on the cultivation of students' life-long sports awareness.

2) Literature method. In order to provide a theoretical basis for the study, 57 papers on College Students' Sports Interaction and 339 papers on lifelong sports awareness cultivation were consulted in CNKI, Wanfang, VIP, Longyuan and other full-text databases of Chinese journals.

3) Mathematical statistics. With the help of spss19.0 software, the collected questionnaire data, data and information are statistically analyzed and processed[5].

2
2.3. The mathematical Model Used

1) T-test

Single population T-test is to test whether the difference between a sample average and a known population average is significant. When the population distribution is normal, if the population standard deviation is unknown and the sample size is less than 30, the dispersion statistics of the sample average and the population average are T-distribution.

The single population T-test statistics are:

\[ T = \frac{\bar{X} - \mu}{\frac{s}{\sqrt{n}}} \]  \hspace{1cm} (1)

Among:

\[ \bar{X} = \frac{\sum_{i=1}^{N} x_i}{n} \]  \hspace{1cm} (2)

\[ s = \sqrt{\frac{\sum_{i=1}^{n} (x_i - \bar{x})^2}{n-1}} \]  \hspace{1cm} (3)

Under the condition that \( \mu = \mu_0 \) is true, the statistic \( t \) obeys the T distribution with \( n \) degrees of freedom.

2) Pearson Test

Measure the linear correlation between variables. When the two variables are normal continuous variables, and there is a linear relationship between them, the product difference correlation coefficient is used to show the correlation degree between the two variables, mainly Pearson simple correlation coefficient.

Its formula is:

\[ r = \frac{N \sum x_i y_i - \sum x_i \sum y_i}{\sqrt{N \sum x_i^2 - (\sum x_i)^2} \sqrt{N \sum y_i^2 - (\sum y_i)^2}} \]  \hspace{1cm} (4)

Among:

\( N \) is the total number of samples, where \( i \) is the judgment pointer of \( n \) samples.

The samples mainly compare the similarity between \([x]\) and \([y]\).

3. Research objective

In the social background of advocating national fitness, it is necessary to establish the lifelong sports consciousness. For college students, to strengthen the cultivation of their lifelong sports consciousness.
in the teaching process can not only improve their physical quality level, but also improve their happiness level. Based on the analysis and summary of the concept, characteristics and research status of life-long sports consciousness, this paper discusses the relationship between life-long sports consciousness and well-being, at the same time, carries out the distribution of questionnaires, and analyzes the relevant data, and puts forward the idea that the cultivation and establishment of life-long sports consciousness of college students can improve their well-being level.

4. The significance of lifelong sports consciousness to college students

In recent years, there are problems in the physical health of mental workers in China. At the sub forum of "public health and the establishment of a harmonious society" of the Beijing forum, Yin Dakui, Vice Minister of health, made a speech. He said that the health status of Chinese intellectuals is worrying, and their average life span is shortened. Their average life span is 57 years old, which is 9 years less than the average life span of ordinary people. Yang Xiaoguang, researcher of China Center for Disease Control and prevention, said This is consistent with the result. In China, 79% of the adult population hardly take part in physical exercise. If that doesn't improve, he said, 300 million people will be overweight and 300 million will have high blood pressure in the near future. " The reason for this phenomenon is that intellectuals spend most of their time in front of computers and offices, lacking contact with nature and the outside world, seldom taking part in outdoor sports, living in a fast-paced life and efficient working environment, which makes them form bad habits and pursue the so-called "same success" When, but in serious overdraft of their own health. The basic reason of consciousness guiding behavior is that they have a weak sense of life-long physical education and are not aware of the important role of physical exercise. To improve this social phenomenon, they must be aware of the important role of life-long physical education, form life-long physical education consciousness, guide their behavior in daily life and work and study, and form a good life habit.

Colleges and universities are the last stop for students to finish their studies and end their careers and move towards the society. The college stage is also the stage of the initial formation of students' Outlook on life and values. As one stage of lifelong sports, college physical education plays an important role that cannot be ignored. Whether college students realize the importance of participating in physical exercises, and whether they establish lifelong physical consciousness will have an important impact on their students. Life-long physical education comes into being with the birth of life-long education. Under the background of advocating national fitness, it has become the concept of physical education advocated by today's society and the guiding ideology of school physical education. It enables students not only to actively participate in physical exercises in school, but also to really like sports, cultivate their sports interests and hobbies, and master the correct exercise methods, so that they can continue to participate in physical exercises after going to the society in the future, lay the foundation for the final physical education, so that school physical education and lifelong physical education can be well connected.

5. Findings

5.1. The influence of sports interaction on exercise time and intensity

Before and after the implementation of the interaction between school and community sports, the intensity of College Students' physical exercise has changed greatly. Before the interaction, the
frequency of "little change of breath and heart rate during each exercise" was 66%; after the interaction, the frequency of "little change of breath and heart rate during each exercise" was reduced to 25%. It can be seen from Table 1 that sports interaction between colleges and communities not only improves the exercise frequency and time of college students, but also plays a greater role in improving the intensity of College Students' physical exercise.

It can be seen from Table 1 that before interaction, table tennis, badminton, basketball, volleyball, football and other ball games are the main sports for college students. After interaction, college students' sports show the trend of "diversification", and mass sports such as sports dance have also become an important choice for students. Interaction not only provides exercise space for college students, but also cultivates their awareness of "lifelong sports" and good exercise habits. The above data t > 10.000, P < 0.05, with statistical difference.

Table 1. Changes of physical exercise form of college students before and after interaction

| Sorts                  | Item               | Before | After |
|------------------------|--------------------|--------|-------|
|                        | N      | %     | N      | %     |
| Exercise Form          | Alone             | 262    | 52    | 110   | 22    |
|                        | With Classmate    | 95     | 19    | 289   | 58    |
|                        | With Friend       | 123    | 25    | 95    | 19    |
|                        | Others            | 20     | 4     | 6     | 1     |
|                        | Sport Dance       | 140    | 28    | 160   | 32    |
|                        | Walking & Running | 330    | 66    | 340   | 68    |
|                        | Shadowboxing      | 150    | 30    | 170   | 34    |
|                        | Table Tennis      | 120    | 24    | 55    | 11    |
|                        | Badminton         | 115    | 23    | 110   | 22    |
| Exercise Program       | Football & Basketball & Volleyball | 205 | 41 | 135 | 27 |
|                        | Swimming          | 55     | 11    | 60    | 12    |
|                        | Mountaineering    | 65     | 13    | 60    | 12    |
|                        | Fitness Equipment | 70     | 14    | 35    | 7     |
|                        | Others            | 30     | 6     | 25    | 5     |

5.2. Comparison of sports consumption of college students before and after interaction

The level of sports consumption is an important index to measure the cultivation of College Students'
consciousness of lifelong physical exercise. It can be seen from table 2 that the average monthly expenditure of college students before interaction is 36% and after interaction is 12%; the average monthly expenditure before interaction is 47% and after interaction is 32%; the average monthly expenditure before interaction is 10% and after interaction is 34%. Before interaction, the proportion of "sportswear" in the sports consumption structure of college students is 64%, after interaction is 39%; before interaction, the proportion of "sports equipment" in the sports consumption structure is 25%, after interaction is 31%, especially in the consumption level of "stadium consumption", "sports journals, etc." and "watching live games", etc. The above data $t > 10.000$, $P < 0.05$, with statistical difference.

| Table 2. Comparison of sports consumption of college students before and after interaction |
|-----------------------------------------------|
| Sorts                                         |
| Item                                         |
| N    | %   | N   | %   |
| <50  | 181 | 36  | 59  | 12  |
| 51-100 | 235 | 47  | 161 | 32  |
| 101-200 | 52  | 10  | 172 | 34  |
| 201-500 | 24  | 5   | 78  | 16  |
| >500  | 8   | 2   | 30  | 6   |
| Sportswear | 318 | 64  | 193 | 39  |
| Apparatus | 123 | 25  | 156 | 31  |
| Place Consumption | 32  | 6   | 101 | 20  |
| Sports Periodicals | 17  | 3   | 30  | 6   |
| Admission Ticket | 10  | 2   | 20  | 4   |

6. proposal

Based on the investigation and analysis of the present situation of College Students' life-long physical consciousness, this paper puts forward the following suggestions for further establishing college students' life-long physical consciousness, promoting physical exercise behavior, improving mental health and improving the level of happiness of college students:

(1) In the process of teaching, physical education teachers should put the teaching of theory on the same important position as practice, strengthen the teaching of physical education theory, improve students' cognition of life-long physical education consciousness, make students really realize the importance of participating in physical exercises, and make clear the significance of life-long physical education consciousness to people. The important role of life, so as to use life-long physical
consciousness to guide their own life-long physical exercise.

(2) Each student has its own characteristics, using the teaching method of teaching students in accordance with their aptitude, focusing on training students' self exercise ability, so that they can independently carry out scientific and reasonable physical exercise. At the same time, encourage and guide them to take part in more physical fitness training and physical skill training, learn from each other and improve together, and gradually develop a good habit of actively participating in physical exercise, so as to provide conditions for the cultivation of lifelong physical awareness.

(3) In order to enable students to achieve lifelong physical exercise, first of all, they should be interested in sports, and love physical exercise from the bottom of their hearts, so as a physical education teacher in Colleges and universities, they have a heavy responsibility. As a physical education teacher, we should constantly strengthen the improvement of self-ability, constantly learn new knowledge to improve our professional level and teaching ability, pay attention to individual differences in the teaching process, select appropriate teaching methods according to the characteristics of different students, focus on cultivating students' self-training ability, and lay the foundation for them to establish a lifelong sports awareness.

(4) In today's advocate of national fitness, a lot of sports equipment and facilities have gone to the streets, providing convenience for people to exercise. As colleges and universities should also increase the investment in physical education, build stadiums, increase sports facilities, strengthen the construction of sports hardware environment to meet the sports needs of students, and provide convenient exercise conditions for college students.

(5) The body is the capital of revolution, a healthy body is an important prerequisite for success. School sports work should strengthen the publicity of fitness awareness, and create a good sports atmosphere. Campus associations can also organize some activities to strengthen the publicity of lifelong sports ideas, so that students can have a more in-depth understanding of lifelong sports, realize the importance of lifelong sports, more urge their own physical exercise in learning and life, and gradually establish their own lifelong sports awareness.

(6) In the spare time of the students, the school can organize some interesting sports competitions. In the process of competition, the students not only enhance the team cohesion, but also exercise the body, increase the successful experience of physical exercise, improve the level of happiness of the students as well as the physical and mental pleasure, so that they can experience the joy of participating in physical exercise.

7. Summary

Interaction provides a broad platform for students to form lifelong sports consciousness. From the aspect of sports consumption, with the development of the interactive activities between colleges and communities, the consumption structure of college students has undergone profound changes. Before the interaction, the sports consumption of college students is mostly sportswear, and after the interaction, it gradually changes to the direction of sports equipment, stadium consumption, sports journals, watching the current competition, which shows that the consumption concept of college students has changed, and the interest in sports is more intense. From the form of physical exercise, before the
interaction, students mainly exercise with their friends, and after the interaction, they participate in sports together with more other students. Sports make students expand the communication space, and mass sports in Colleges and universities have achieved good results. Sports interaction makes college students actively participate in physical fitness, and provides a way and platform for students to form lifelong sports consciousness. The author believes that colleges and universities should pay full attention to sports interaction activities, ensure the construction of stadiums and facilities needed for interaction, apply the results of sports interaction to the daily teaching field, and cultivate students' awareness of lifelong sports.

Acknowledgements

Research on the present situation and Countermeasures of the Development of Minority Sports Culture in Hubei Province from the Perspective of Cultural Ecology from the Perspective of Science Research Project at the School level of Wuhan Business School in 2018, No. 2018KY001.

References

[1] Yuanchao Zhou. The Study of College Physical Education Reform under the Field of Lifelong Sports in Hunan Province[P], 2015.

[2] Zhang Ronghua. Research on the Integration of College Sports and Social Sports from the Perspective of Lifelong Sports[P], 2018.

[3] Chen Shan. Research of Development Trend of College Physical Education under the concept of lifelong sports[P], 2014.

[4] WENLONG CHENG. A Study on the Way of Integrating the Idea of Lifelong Sports into College Physical Education[P], 2017.

[5] Zhou yuexiong;Some measures to cultivate students' lifelong sports awareness [J];Literature education (middle);11, 2011.

[6] Zeng Jia;;Review of studies on subjective well-being [J];Journal of xi 'an university of political science;01, 2008.