

Problems and Countermeasures of College Sports Activities under the Thought of Lifelong Physical Education

Zhao Cai

*School of Physical Education, Southwest Petroleum University, Chengdu 610041, China
512705384@qq.com*

Abstract: *Abstract: with the improvement of people's living standards and cultural quality, the concept of lifelong physical education has become the focus of attention. The main purpose of this paper is how to better combine lifelong physical education ideas with practical activities and improve the enthusiasm of college students. In this paper, questionnaire survey and data mining technology are used to investigate the students of a university in Jiangxi Province, and 924 valid questionnaires are collected. The results show that 41.02% of the students exercise two or three times a week; 41.77% of the students think that sports activities are average; 51.62% of the students' motivation to participate in sports activities is to lose weight. This shows that the college students' participation in sports activities is not high, their attitude is general, and their motivation is not strong enough. 343 and 317 students think that the main factors affecting their participation in sports activities are activity type, location and facilities. Therefore, colleges and universities should improve students' enthusiasm, carry out various forms of sports activities, and create a good sports atmosphere.*

Keywords: *Lifelong Physical Education, College Sports, Questionnaire Survey, Sports Atmosphere*

1. Introduction

1.1. Background Significance

At present, sports can be seen everywhere in people's daily life. The new concept of lifelong physical education is a part of lifelong education and an extension of school physical education. The development of college sports activities is to expand students' basic sports knowledge and improve their sports ability [2]. Therefore, it plays an important role in the implementation of lifelong physical education to study the problems in the process of college physical education and put forward the corresponding countermeasures.

1.2. Related Work

Sports activities play an important role in the all-round development of students, which is the focus of education research. In order to analyze the motor skill level of preschool children under the stimulation of school sports activities and family background. Ludmila Miklánková took 62 preschool children (28 males and 37 females) as the research objects, assessed the quality of motor skills by tgmd-2 test, and evaluated the stimulation degree of children's physical activities by Espa questionnaire [3]. There may be some problems in the implementation of SSPESCLS in the UK, such as the problems in the implementation of SSPESCLS. Kirk D studied the importance of lifelong participation in sports through reviewing early learning experience, and discussed the influence of ability perception on young people's motivation to participate in sports [4]. The research was conducted by using the survey model, and the data were collected by using the lifelong learning Disposition Scale. Liu J's research aims to explore the influence of CPE course on the health-related health (HRF) level of freshmen, using the experimental method of pre-test and post test [5]. Zhou B analyzed the application of cloud computing in College Physical Education [6]. Their research results provide a theoretical basis for this paper, but the research methods are relatively backward.

1.3. Innovative Points in This Paper

In order to improve the enthusiasm of college students to participate in sports activities and cultivate them to establish lifelong sports education ideas, this paper studies the problems existing in college students' participation in sports activities, and puts forward relevant countermeasures. The innovation of this paper is as follows: (1) the survey found that the main problems of college students' sports activities are low participation, general attitude and low enthusiasm. (2) The main factors affecting college students' participation in sports activities are the type of sports activities, the location and facilities of sports activities, and the sports atmosphere created by the people around them. (3) In view of the above problems, this paper puts forward some countermeasures, such as carrying out various forms of sports activities, improving sports venues and facilities, publicizing sports ideas, and creating a good sports atmosphere for students.

2. Thought of Lifelong Physical Education

2.1. Relationship Between Lifelong Physical Education, Lifelong Education and School Physical Education

Lifelong education enlightens the formation and development of lifelong sports thought, and promotes the final formation of the concept of lifelong sports [7-8]. Human development is embodied in both physical and psychological aspects. It is very important to promote the all-round development of people only by learning physical education culture. Lifelong sports can be said to provide the basis for the development of lifelong education, but also the expansion and supplement of lifelong education [9].

Lifelong physical education and school physical education are educational activities in the form of physical exercise, but there are some differences. First of all, life-long sports are not limited by time and venue, and participants can choose sports items and content independently. School sports are generally carried out in the school sports venues, and the content is set according to the syllabus [10-11]. Secondly, the education objects of the two are different, life-long physical education for the whole society, school physical education for students.

2.2. Reasons for the Formation of Lifelong Sports

The generation and development of lifelong physical education thought is the derivative of lifelong education thought, and its formation is inseparable from the promotion of social development. With the continuous development of economic and social productivity, the mode of production has changed, mental labor has gradually replaced physical labor, and people's amount of exercise has also been greatly reduced [12]. The lack of daily sports and the increase of pressure make the concept of lifelong physical education quickly become the focus of attention.

Sports plays an important role in the existence and development of human beings. It can not only enhance the physique and health, but also reflect the national quality level of a country [13]. Lifelong physical education is related to the vital interests of the people. It is a beneficial project to promote the concept of lifelong physical education.

Exercise and fitness can effectively reduce the deviation between physical and mental consumption, relieve the excessive tension and use of the brain. Therefore, lifelong physical exercise is the key to the realization of human health. Physical exercise can not only exercise muscles, but also enhance mental strength, effectively prevent and treat modern civilization diseases [14-15].

2.3. Sociological Characteristics of Lifelong Sports

Lifelong physical education emphasizes that physical education and activities are no longer limited to a certain stage of life, but should run through people's life. Therefore, lifelong sports has the basic characteristics of sociology, including individuality, sociality, intermediary and development [16-17].

Lifelong physical education is an individual behavior and a basic right for people to enjoy education. Individual sports behavior is not separated from the social existence, will be promoted by the state and society. Therefore, the personality of lifelong sports exists in the society, and sociality is the concentrated embodiment of personality. The existence of lifelong sports is to seek the development of

people, optimize people's body and mind, and promote people's all-round development.

3. Experimental Objects and Methods

3.1. Subjects

The research object of this paper is the sports activities organized by a university in Jiangxi Province. In addition to physical education, 250 questionnaires were distributed in each grade, with a total of 1000. 957 questionnaires were collected, including 924 valid ones.

3.2. Experimental Methods

(1) Questionnaire survey method

Through the questionnaire to understand the college students' views on the school sports activities. The content of the questionnaire includes grade, gender, frequency of physical exercise, attitude towards physical education, motivation of participating in physical activities, factors influencing physical exercise, etc.

(2) Data mining

Using data mining technology to mine the attitude of college students towards the implementation of lifelong physical education thought [18]. At present, the methods commonly used in data mining include decision tree, neural network algorithm and K-nearest neighbor algorithm [19-20].

The decision tree algorithm adopts the statistical method of probability theory, and the calculation of information gain is shown in Formula 1

$$Z(Q) = N(a_1, a_2, \dots, a_m) - R(Q) \quad (1)$$

Where $N(a_1, a_2, \dots, a_m)$, $R(Q)$ are expected value and information entropy respectively, and their calculation is shown in Formula 2 and Formula 3 respectively:

$$N(a_1, a_2, \dots, a_m) = - \sum_{i=1}^m K_i \log_2(K_i) \quad (2)$$

$$R(Q) = \sum_{i=1, j=1}^{m, n} a_{ij} N(a_{ij}) / a \quad (3)$$

Neural network algorithm needs to construct threshold object. If the sum of a group of logic unit variables is not less than a given threshold, a value will be output. Suppose the input value is x_1, x_2, \dots, x_n and the weighting coefficient of the input value is b_1, b_2, \dots, b_n . the summation of variables is shown in Formula 4:

$$M = \sum_{i=1}^n (x_i * b_i) \quad (4)$$

The decision rule of K-nearest neighbor algorithm is shown in Formula 5:

$$P(\bar{c}_i, l_b) = \sum_{u_b \in KNN} sim(\bar{c}_i, \bar{u}_b) y(\bar{u}_b, l_b) - a \quad (5)$$

The similarity between the test text vector and the training text vector is as follows:

$$sim(\bar{c}_i, \bar{u}_b) = \frac{\sum_{k=1}^v w_{ik} \times w_{bk}}{\sqrt{\sum_{k=1}^v (w_{ik})^2} \sqrt{\sum_{k=1}^v (w_{bk})^2}} \quad (6)$$

4. Discussion on Problems and Countermeasures of College Sports Activities

4.1. Problems in College Sports Activities

Before analyzing the problems existing in college sports activities, this paper makes statistics on the grade and gender of 924 students who participated in the questionnaire survey to master the basic information of the participants.

Table 1: Basic information of students participating in the survey

Grade	Male	Female	Total
Freshman year	137	105	242
Sophomore year	115	123	238
Junior year	114	115	229
Senior year	107	108	215

As shown in Table 1, there are 242 freshmen, 238 sophomores, 229 juniors and 215 seniors in the survey. Although 250 questionnaires were put in each grade, the higher the grade, the fewer people participated in the survey.

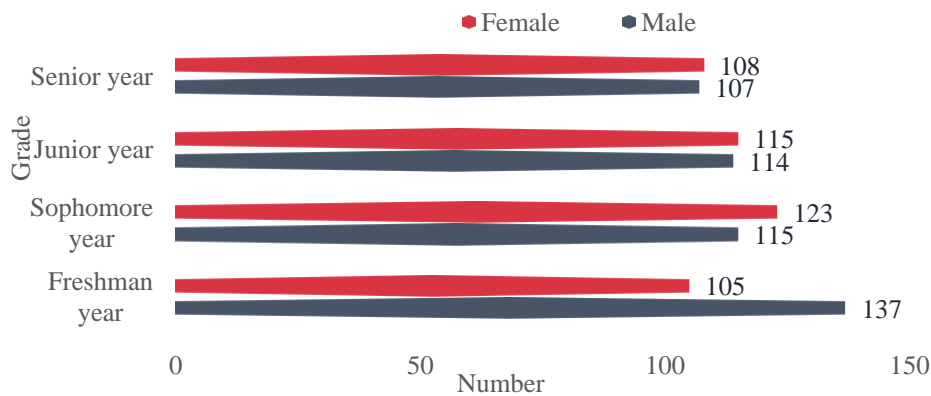


Figure 1: Gender and grade of participants

As shown in Figure 1, the male female ratio of freshmen is 1:0.77, that of sophomores is 1:1.07, and that of juniors and seniors is close to 1:1. There is no obvious linear relationship between gender and grade, which has little effect on the survey results.

(1) Internal problems

According to the statistics of the frequency of sports activities of students in different grades, the frequency can be divided into four levels: once a day, two or three times a week, once a week, almost no exercise.

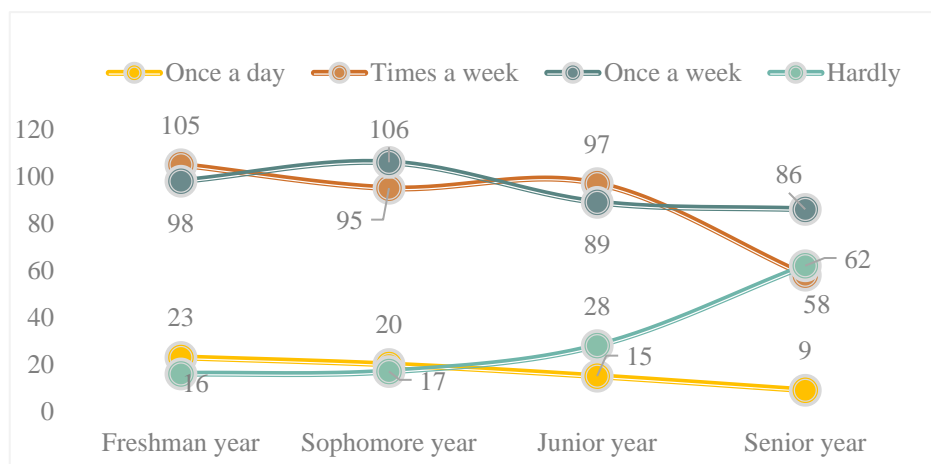


Figure 2: Exercise frequency of students in different grades

As shown in Figure 2, 67 students exercise every day, accounting for 7.25% of all participants; 355 students exercise once a week, accounting for 38.42%; 379 students exercise two or three times a week, accounting for 41.02%; 123 students hardly exercise, accounting for 12.31%. This shows that the frequency of the students participating in the survey is mainly concentrated in once a week and two or three times a week.

According to the statistics of students' attitudes towards sports activities, there are four kinds of attitudes: very like, a little like, general and don't like.

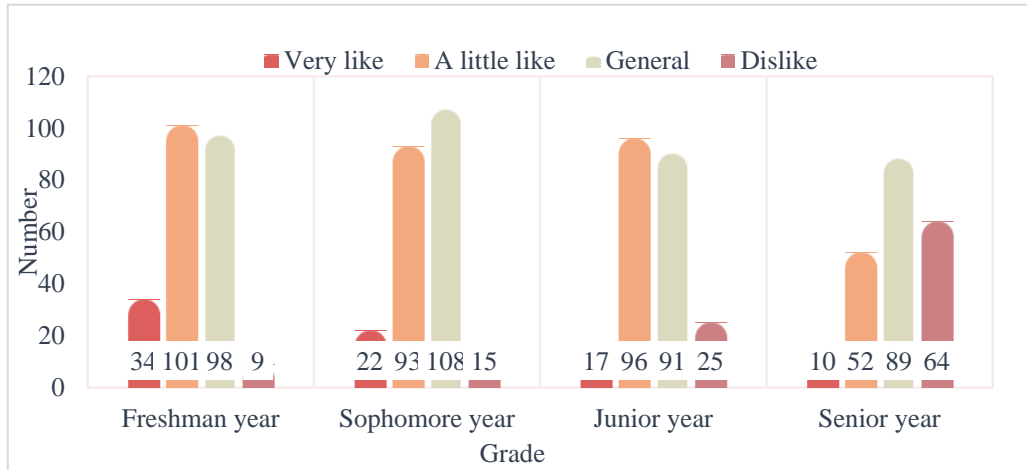


Figure 3: Students' attitude towards sports activities

As shown in Figure 3, 83 students like sports activities very much, accounting for 8.98% of all participants; 342 students like sports activities a little, accounting for 37.02%; 386 students think sports activities are average, accounting for 41.77%; 113 students hardly exercise, accounting for 12.23%. This shows that the attitude of the students participating in the survey is mainly a little like and general.

According to the statistics of the students' motivation of participating in sports activities, the motivation includes: strengthening physique, relaxing, losing weight, coping with exams and interpersonal communication. The statistical results are as follows:

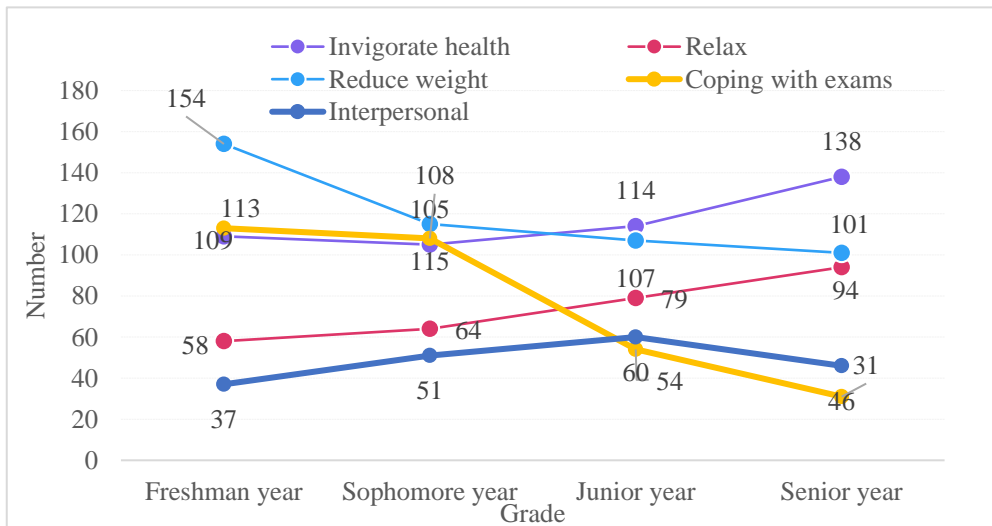


Figure 4. Motivation of students in different grades to participate in sports activities

As shown in Figure 4, 51.62% of the students think that their motivation to participate in sports activities is to lose weight, and 50.43% of the students think that they are to strengthen their physique. To sum up, the internal problems of college sports activities include students' low participation, general attitude towards sports activities and weak motivation for sports.

(2) External problems

This paper analyzes the main external factors that affect the students' participation in sports

activities.

Table 2: Factors influencing participation in sports activities

Grade	Activity type	Location and facilities	People around
Freshman year	89	72	81
Sophomore year	92	78	68
Junior year	75	84	70
Senior year	87	83	45
Total	343	317	264

As shown in Table 2, 343 thought that the type of activities was the main factor affecting their participation in sports activities; 317 thought that the location and facilities of activities were the main factors; and 264 thought that the sports attitude of people around them affected their enthusiasm.

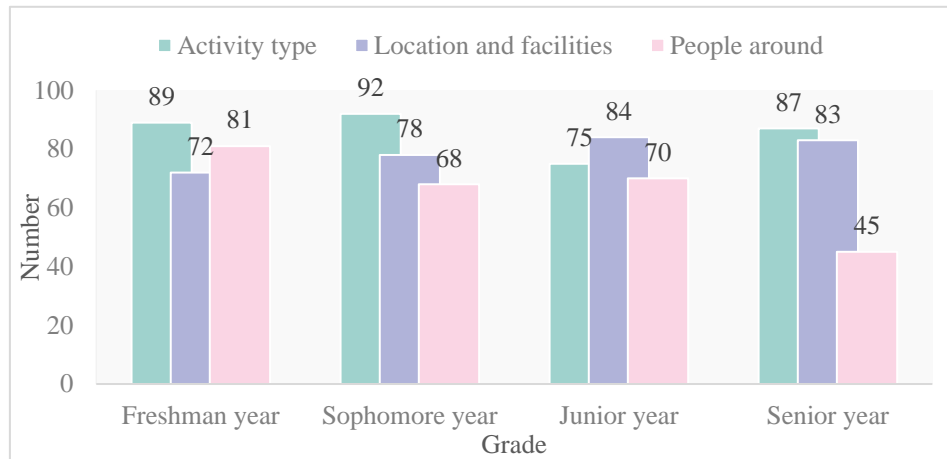


Figure 5: Factors influencing students' enthusiasm

As shown in Figure 5, the participation enthusiasm of 36.78% of freshmen, 38.66% of sophomores and 40.47% of seniors was mainly affected by the activity type, and 36.68% of juniors was mainly affected by the activity location and facilities. This shows that the main factors affecting the enthusiasm of students to participate in sports activities are the type, location and facilities of the activities. The attitude of the people around also has an important impact on the enthusiasm of freshmen, which needs to be paid attention to.

4.2. Countermeasures of College Sports Activities

In view of the above problems, college sports activities should pay attention to improve the enthusiasm of students' active participation, create a good sports atmosphere, let students fall in love with sports, rather than sports as a tool to cope with the exam.

Colleges and universities can carry out various forms of sports activities to provide students with more choices to meet the needs of students with different hobbies. In addition, we need to constantly improve the sports venues, such as the construction of gymnasiums, track and field fields, swimming pools, etc., and regularly check the sports facilities and equipment, timely repair and replace the damaged sports equipment. To provide a good sports environment for students who want to exercise, so as to drive more students to participate in sports activities.

5. Conclusions

Lifelong physical education emphasizes that physical education and activities are no longer limited to a certain stage of life, but should run through people's life. The generation and development of lifelong physical education thought is the derivative of lifelong education thought, and its formation is inseparable from the promotion of social development. To promote the concept of lifelong physical education is a beneficial project for the people, which can effectively promote human health, prevent and treat diseases of modern civilization. At present, the internal problems of college sports activities include the low participation of students, the general attitude towards sports activities, and the lack of strong motivation for sports. The main factors that affect students' enthusiasm for participating in sports

activities are the type, location and facilities of the activities. The attitude of the people around also has an important impact on the enthusiasm of freshmen, which needs to be paid attention to. Therefore, college sports activities should be carried out to improve the enthusiasm of students to actively participate in sports activities, mainly rely on the development of various forms of sports activities, improve sports venues and facilities, to create a good sports environment and atmosphere for all students.

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