

Research on the Current Situation and Influencing Factors of College Students' Learning Interest in Physical Education

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Abstract:

With the deepening of the process of building a strong sports country, universities are increasingly emphasizing the important role of physical education learning interest in teaching. This article summarizes the current state and factors that affect college students' interest in physical education learning, both domestically and internationally. Through the Individual Interest Scale for Physical Education Learning, the Situational Interest Scale for Physical Education Learning, and the Physical Education Learning Environmental Factors Questionnaire, a total of 450 undergraduate students nationwide were surveyed to exam the features of university students' enthusiasm for physical training and propose suggestions on how to enhance college students' learning interest and promote comprehensive physical and mental health development.

Keywords: College Students, Physical Education Learning, Individual Interest, Situational Interest, Influencing Factors

1 Introduction

Recently, the Party and the governmental authorities have attached increasing importance to national sports activities and physical health. In the "Outline for Building a Sports Power" issued by the General Office of the State Council, it is clearly stated that by 2050, a socialist modern sports power will be fully built^[1]. To establish a powerful sporting nation, the integration of sports and education plays an important role, which is a comprehensive deployment and top-level design for the education and sports work of China in the new era.

As a significant group in the transformation of physical education teaching, college students should be

given appropriate attention. Moreover, many studies have shown that interest in physical education is an essential symbol of learners' vitality and prioritized engagement in bodily movement, which exerts a considerable influence on the effect of sports education^[2].

2 Review of Domestic and Foreign Research

2.1 Research on the Current Status of Interest in Physical Education Learning

In recent years, the physical health level of Chinese students has gradually declined, and research has

shown that the disinterest in physical education constitutes a significant factor in this phenomenon^[3]. The current state of students' enthusiasm for physical education in elementary and high schools is not optimistic, mainly manifested by an overall decline in their fascination with sports education, and the imbalance in the development of enthusiasm for physical education studies between male and female students and urban and rural students^[4].

This research will concentrate on the group of university students and measure their individual and situational interests respectively in sports learning through two scales. This will provide empirical evidence to guide college students to boost physical workout as well as promote physical and mental health.

2.2 Research on Factors Influencing Interest in Physical Education Learning

The common methods for determining factors that affect interest in sports learning are divided into two types: personal factors and environmental influences.

In terms of personal influences, scholars vary considerably in their formulation and coverage. For example, some scholars focus on the impact of "achievement goals"^[5], while others emphasize "individual expected values"^[6]. In addition, some demographic variables also have an impact on learners' enthusiasm for physical education. In terms of gender, boys have a significantly higher interest in physical education than girls^[7]; At the stage of elementary and high school students, the overall interest in sports education has shown a downward trend^[8]; In terms of physical health, students with better physical shape have a higher interest in physical education^[9].

In terms of environmental influences, scholars tend to select certain a sub-concept of physical education teaching for research, such as teaching content^[10], teaching evaluation^[11] and so on.

In summary, current research on interest in physical education learning has not divided individual interest and situational interest into more detailed dimensions, and fewer analyses have been conducted on college students. Therefore, this research aims to delve into the specific effects of demographic variables and environmental factors on the dimensions of individual interest and situational interest in physical education.

3. Research Design

3.1 Research Methodology

3.1.1 Questionnaire Method

Select the "The Physical Education Learning Individual Interest Scale" developed by Lingabin^[12], "The Physical Education Learning Environment Factors Questionnaire"^[13], and "The Physical Education Learning Situational Interest Scale" revised by Ge Wujun^[14], and make appropriate modifications and adjustments based on them. The questionnaire includes demographic data survey, individual interest in physical education, situational interest in physical education, and environmental factors in physical education.

"The Physical Education Learning Individual Interest Scale" consists of 12 questions in 4 dimensions: emotional experience, willingness to participate, value system, and overall individual interest. The Cronbach's coefficient of this questionnaire was 0.968, the KMO was 0.982, and the total variance explained by the scale was 74.28% ($X^2=5313.973, df=66, p<0.05$). "The Physical Education Learning Situational Interest Scale" consists of 20 questions in 6 dimensions of novelty, challenging, attention, exploration, enjoyment, and overall situational interest. The Cronbach's coefficient of the questionnaire was 0.982, KMO was 0.991, and the total variance explained rate of the scale was 75.175% ($X^2=10130.102, df=190, p<0.05$). The "The Physical Education Learning Environment Factors Questionnaire" consists of 16 questions in 3 dimensions: school physical education environment, family physical education environment, and social physical education environment. The Cronbach's coefficient of the questionnaire was 0.976, the KMO was 0.986, and the total variance explained by the scale was 73.972% ($X^2=7554.578, df=120, p<0.05$).

3.1.2 Mathematical Statistics

The study used SPSS27.0 statistical software to statistically analyze the research data. Statistical methods included reliability and validity test, descriptive statistics, independent sample t-test, one-way ANOVA, correlation analysis and regression analysis.

3.2 Research Object

In this study, a total of 450 undergraduate students from freshmen to seniors in several universities will be selected for the questionnaire survey using convenience sampling. After classification and screening, a total of 10 questionnaires were deemed invalid and excluded, resulting in 440 valid questionnaires, which amounts to a validity rate of 97.78%. The basic information of samples is shown in Ta-

ble 1 below.

Table 1 Basic Information of Samples

Variant	Classification	Frequency (person)	Percentage (%)
Gender	Male	208	47.3%
	Female	232	52.7%
Grade	Freshman	98	22.3%
	Sophomore	121	27.5%
	Junior	126	28.6%
	Senior	95	21.6%
School	Sports	234	53.2%
	Non-sports	206	46.8%
Annual household income	30000 yuan and below	38	8.6%
	30001-80000 yuan	121	27.5%
	80001-150000 yuan	225	51.1%
	150001-300000 yuan	50	11.4%
	More than 300000 yuan	6	1.4%
First-generation family college students	yes	271	61.6%
	no	169	38.4%

4 Research Results

4.1 Current Situation of College Students' Interest in Physical Education Learning

4.1.1 Overall Characterization of College Students' Interest in Physical Education Learning

Among the dimensions of individual interest for sports training, the highest average score for college students was emotional experience (3.81), followed by value manifestation and overall individual interests (3.72 and 3.68, respectively), and the lowest average score for willingness to participate was 3.53, with a standard deviation ranging from 0.96 to 1.10.

Among the dimensions of situational interest for physical training, the highest average score was exploratory (3.83), followed by challenging, enjoyment, attention, and overall situational interest (3.76, 3.74, 3.71, and 3.69, respectively), and the lowest average score was novelty (3.56), with a standard deviation range of 0.93-1.02.

4.1.2 Characterization of Demographic Variables of College Students' Interest in Physical Education Learning

There were no significant differences between males and females, athletic and non-athletic school college students,

and college students of different grades and different annual household incomes on any of the four dimensions of individual interest in sports instruction. In contrast, there were significant differences ($p < 0.05$) between first-generation family college students and non-first-generation family college students on all four dimensions, with non-first-generation family college students scoring higher than first-generation family college students.

There were no significant differences between males and females, athletic and non-athletic school college students, or college students with different annual household incomes on the six dimensions of situational interest in sports instruction. In contrast, there were significant differences between family first-generation college students and non-family first-generation college students in exploration, enjoyment, and overall situational interest ($p < 0.05$), with non-family first-generation college students scoring higher than family first-generation college students, while there were no significant differences between the two in novelty, challenging, and attention. Meanwhile, there was a notable distinction ($p < 0.05$) between freshmen and seniors in terms of novelty, attention, and enjoyment, with freshmen scoring higher than seniors, while there was no notable distinction between them in terms of challenging, exploration, and overall situational interest.

4.2 Influencing Factors of College Students' Interest in Physical Education Learning

There is a significant correlation ($p < 0.01$) and a positive correlation between the dimensions of sports education setting factors and individual fondness for studying physical education, and the results are shown in Table 2. This

suggests that the more suitable the environment provided by school, family, and society for fitness instruction and learning, the higher the level of individual enthusiasm in physical training of college learners.

$$Y_{\text{Individual Interest in Physical Education Learning}} = 0.02 + 0.381X_{\text{School Physical Education Environment}} + 0.42X_{\text{Family Physical Education Environment}} + 0.19X_{\text{Social Physical Education Environment}}$$

Table 2 The Role of Physical Education Learning Environment Factors in Predicting College Students' Individual Interest in Physical Education Learning

Variant	F	Adjusted R ²	β	t
Individual Interest in Physical Education Learning				
School Physical Education Environment	2341.098	0.741	0.381	10.693
Family Physical Education Environment			0.420	10.966
Social Physical Education Environment			0.190	5.586

There is a significant correlation ($p < 0.01$) and a positive correlation between the dimensions of sports education setting factors and situational fondness for studying physical education, and the results are shown in Table 3. This suggests that the more suitable the environment provided by school, family, and society for fitness instruction and

learning, the higher the level of situational enthusiasm in physical training of college learners.

$$Y_{\text{Situational Interest in Physical Education Learning}} = 0.013 + 0.298X_{\text{School Physical Education Environment}} + 0.414X_{\text{Family Physical Education Environment}} + 0.285X_{\text{Social Physical Education Environment}}$$

Table 3 The Role of Physical Education Learning Environment Factors in Predicting College Students' Situational Interest in Physical Education Learning

Variant	F	Adjusted R ²	β	t
Situational Interest in Physical Education Learning				
School Physical Education Environment	3220.252	0.757	0.298	9.684
Family Physical Education Environment			0.414	12.481
Social Physical Education Environment			0.285	9.710

5 Research Conclusions and Outlook

5.1 Analysis and Discussion

5.1.1 Current Situation of College Students' Interest in Physical Education Learning

The findings of this research indicate that among the dimensions of college students' individual fondness in sports education, the scores of the emotional experience are significant, which suggests that college students can experience strong positive emotions and feelings, such as happiness and contentment, during physical education activities, which is a vital intrinsic motivation to stimulate and sustain their enthusiasm for physical education. Value system and overall individual interest follow closely, reflecting that college students generally recognize the value of physical education learning for personal health and oth-

er aspects, and hold a positive attitude towards physical education learning in general. Willingness to participate, on the other hand, is relatively low, suggesting that college students have certain perceived benefits of physical education and sport, but may be constrained by multiple factors, such as time management and personal habits, when it comes to actual action.

Among the dimensions of college students' situational interest in sport learning, exploration interest is the strongest, which indicates that college students are curious about new knowledge and skills in sport activities, and are eager to improve their abilities through exploration. Meanwhile, challenging, enjoyment and attention are also important, indicating that college students seek to challenge themselves and enjoy the pleasure brought by exercise in physical education learning, and can also sustain a high degree of concentration in the activity to improve the

overall level of situational interest. However, the novelty still needs to be improved, which reflects the problem of possible lack of innovation in the curriculum and techniques of physical education teaching.

5.1.2 Influencing Factors of College Students' Interest in Physical Education Learning

The findings of this research indicate that among the environmental factors affecting college students' fascination in sports learning, family physical education environment has the strongest positive predictive power. This suggests that the family, as the first environment for individual growth, has a crucial impact on the formation and development of college learners' interest in sports learning through its sports atmosphere, parental support and participation, and other factors. The school and social environment, although relatively weaker in its influence on sports learning interest, is still an important factor that cannot be ignored. As the main place for college students to learn sports, the school sports environment also plays an auxiliary role in generating students' interest in learning.

5.2 Suggestions

5.2.1 Promoting Interdisciplinary Integration

Based on retaining traditional sports programs, technological elements are incorporated, such as intelligent wearable devices to monitor the training effect, or the use of VR/AR technology to simulate the competition scene to enhance the learning experience. At the same time, dance and music are integrated into sports programs to enhance the aesthetic value of sports through artistic expression, enhance students' artistic cultivation, stimulate college learners' fascination in sports training, and upgrade the excellence and outcome of sports coaching.

5.2.2 Optimizing the Integrated Home-School-Society Environment

Elevated engagement with physical education studies cannot be achieved by a single environmental factor, but requires the collaboration and optimization of the school, family and social environments. Therefore, building an all-round and multi-level physical education learning environment system and realizing the positive interaction and complementarity of environmental factors are the keys to enhancing college students' interest in exercise instruction and promoting the formation of lifelong physical training habits.

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