

Research on the Influence of College Students' Interest in Physical Education on their Consciousness for Persistent Exercise

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Abstract—With the students of Yanbian University as the research object, this paper discusses the influence of college students' interest in physical education on the consciousness of persistent exercise by way of exploratory factor analysis, reliability, multiple regression analysis and other methods through the questionnaire survey. the research results show that students' interest in college sports class will greatly enhance their consciousness of persistent exercise, especially the contents of sport class that students are interest in will have a significant influence on the effects physical. According to the research results, this paper puts forward the specific suggestions to improve the interest of college students in physical education, and to systemically combine the richer contents of physical education class and the effect on the bodies of college students.

Keywords—college students; interest in physical education; awareness of continuing movement

I. INTRODUCTION

As a compulsory course, the physical education in colleges is the only way to guarantee the exercise time of college students, and it is also one of the main ways to enhance physical fitness, regulate life and restore energy for students [1], [2]. The teaching quality of physical education in colleges and universities has a profound significance for improving the physical and mental health of college students and establishing the thoughts about lifelong sports [3], [4], [5]. In order to improve college students' awareness of persistent sports, it is necessary to improve the interest of college students in physical education, so to speak that the interest in physical education is a prerequisite for the consciousness of college students for persistent exercise, because, when they are full of interest, they will actively participate in physical exercise in the class or in their spare time, thus improving their consciousness for persistent exercise and helping them to form long-term and long-lasting exercise habits and interests. While in physical education activities, college students are very different, some of them are interested but some are not interested in sports. When college students are interested in physical education class, they will be able to study skills and techniques in a energetic state and they will continue to participate in sports in their spare time; on the contrary, when students feel insipid and boring in physical education, in lack

of interest, which will affect their consciousness for persistent exercise. Therefore, this paper is intended to study the influence of college students' interest in physical education on their consciousness for persistent exercise through technical statistics, exploratory factor analysis, reliability and multiple regression analysis, and it provides the actual data between the two, to promote the our cognition on the relationship between them and further emphasize the interest, and it also gives suggestions on setting up the teaching thought of "lifelong sports", which provide reference for the practical application of the relationship between college students' interest in physical education and their consciousness for persistent exercise.

II. RESEARCH OBJECTS

A total of 250 survey samples were taken from the students of Yanbian University, and except for the questionnaires that were not carefully answered or options were omitted, finally 247 samples were used. The proportion of the subjects for the research is as shown in the table (see "Table I").

TABLE I. PERSONAL CHARACTERISTICS OF THE SAMPLED SUBJECTS

	Gender	Frequency (%)
At least 3 times per week to participate in sports activities	Male	183(74.1)
	Female	64(25.9)
	Yes	113(45.7)
	No	134(54.3)

III. QUESTIONNAIRES

The questionnaire was conducted by an open way, and the contents of the surveyed subjects include personal characteristics, interest content of physical education, and consciousness of persistent exercise. The scoring method for the interest content of physical education is the Likert 5-point scale method: "1" stands for "very in non-conformity", "5" stands for "very in conformity", and other figures represent differences between "1" and "5".

A. Composition of the Questionnaire

The questionnaire for the interest of physical education was based on the questionnaires used for many times in the study

[6]. This questionnaire includes 4 dimensions, such as content, interpersonal relationships, physical effects, and competition. The questions items are distributed unevenly according to the features of each dimension, and total 35 question items are got, including content (10 items), interpersonal relationship (5 items), physical effects (15 items), and competition (5 Items). The questionnaire for consciousness of persistent exercise was based on the questionnaires used for many times in the study [7]. The qualified questionnaire data are carefully revised to ensure the content validity of the scale (see “Table II”).

TABLE II. COMPOSITION OF THE QUESTIONNAIRE

Measurement Variable	Questionnaire Content
Personal characteristics of the surveyed subjects	Gender, class items, number of participation in sports activities per week
Interest for physical education	Content, interpersonal relationship, physical effects, competition
Consciousness for persisted exercise	Want to persistently participate in sports, may persistently participate in sports
Total	43 question items

B. Validity and Reliability of the Questionnaire

The analysis of PC (Principal components) is adopted in this study, in which the questionnaire items inconsistent with theoretical composition, with insufficient discriminability among the factors, hindering the internal relevance, are deleted according to the results of exploratory factor analysis. Among the 35 items for interest content of physical education, 16 items of 4 dimensions were finally adopted, including content (4 items), interpersonal relationship (4 items), physical effect (5 items), and competition (3 items). The MSA value of Kaiser-Myer-Oklin is .827, which can meet the basic assumptions for factor analysis. Moreover, $Q(X^2/df)=19.69$ also shows that the theoretical structure of the four dimensions selected for college students’ interest in physical education also shows a generally consistent result in statistical analysis. In addition, this paper also adopts the Cronbach's coefficient α value for reliability test to ensure the consistency of each item in reliability. In the test results, the Cronbach's coefficient α of the four dimensions for college students’ interest in physical education is .728 - .883, which indicate a very high reliability (see “Table III”).

TABLE III. ANALYSIS OF THE VALIDITY AND RELIABILITY OF INTEREST IN PHYSICAL EDUCATION IN COLLEGES AND UNIVERSITIES

Questionnaire Item	Physical Effect	Interpersonal Relationship	Content	Competition
Interest 28	.789			
Interest 29	.738			
Interest 30	.722			
Interest 26	.721			
Interest 27	.710			
Interest 14		.821		
Interest 15		.791		
Interest 13		.779		
Interest 11		.774		
Interest 1			.874	
Interest 2			.807	

Questionnaire Item	Physical Effect	Interpersonal Relationship	Content	Competition
Interest 5			.683	
Interest 3			.648	
Interest 34				.833
Interest 32				.810
Interest 31				.516
Characteristic value	7.17	1.747	1.399	1.022
Coefficient of X^2 Bartlet (=1792.326, df=91, p=.001), MSA=.827 of Kaiser-Myer-Oklin				
Cronbach's α	.825	.883	.881	.728

IV. RESULTS ANALYSIS AND DISCUSSION

In order to discover the influence of college students’ interest in physical education on their consciousness for persistent exercise, the questionnaires were distributed to the research subjects and completed by them with the Self-administrated method. The questionnaires not answered carefully or with options omitted, were excluded from the completed questionnaire. The useful data is entered in order and analyzed according to the following methods. After the questionnaire data was entered into the SPSS20.0 statistical software, the multiple regression analysis consistent with the research purpose was used to analyze the influence of college students’ interest in physical education on their consciousness for persistent exercise.

The results of multiple regression analysis is as shown in the table (see “Table IV”) to verify the impact of college students’ interest in physical education on their consciousness for persistent exercise persistence. $P>.005$ in the interpersonal relationship, indicates that interpersonal relationship has no effect on the consciousness for persistent exercise; for competition ($\beta=-.075$), $P>.005$ also shows that this dimension of competition has no effect on the consciousness for persistent exercise. For the interest in physical education, only the two dimensions of content and physical effects have a significant influence on the consciousness for persistent exercise ($p<.001$); the physical effect ($\beta=.440$), the content ($\beta=.307$) affects the college students’ consciousness for persistent exercise in different degrees. The influence of students’ interest in physical education on their consciousness for persistent exercise is about 43.2%.

TABLE IV. THE INFLUENCE OF STUDENTS’ INTEREST IN PHYSICAL EDUCATION ON THEIR CONSCIOUSNESS FOR PERSISTENT EXERCISE

Variable	B	SE	β	t	P
Content	.325	.063	.307	5.150	.000
Interpersonal relationship	.034	.069	.033	.489	.625
Physical effect	.465	.075	.440	6.210	.000
Competition	-.073	.055	-.075	-1.324	.187
R			.657		
R2			.432		
F			446.054		

From “Table IV”, we can see that students’ interest in physical education has greatly improved their consciousness for persistent exercise. Among the interest in physical

education of colleges, the two dimensions of physical effects and content have a positive impact on college students' consciousness for persistent exercise, which indicates that teachers can not only complete their teaching objectives for the physical education in colleges, but also increase the exercise load in the physical education class according to the teaching tasks, e.g. enhancing students' physical strength, improving students' health, satisfying students' pursuit of physical form, and improving students' mental strength, so as to make them meet the physical effect through muscle stimulation of a certain load; at the same time, the content of the lectures should not be too simplistic, and the teaching content should be enriched to meet the needs of students with different physiques for sports. It also require the sports workers should have a full consideration and a long-term sight, change their ideological concepts, start with the interest cultivation of students in physical education, to constantly discover problems and solve problems in the course of practice, to make each physical education class reflect their value characteristics, and to shoulder the important task of cultivating students' thinking of "lifelong sports"; and they should attach importance to the cultivation of college students in physical ability, making them experience the success and accomplishment in sports, and further making them love sports.

V. CONCLUSION

From the above research and verification, it is concluded that the college students' interest in college physical education will greatly improve their consciousness for persistent exercise, especially the interest content and physical effects in physical education have obvious significance. The enhancement of student's consciousness for persistent exercise is the foundation for college students to carry out a long-term physical exercise and lifelong sports. Therefore, in the interest cultivation in physical education, the paper gives the following two suggestions: (1) to enhance students' physical strength, enhance students' health, meet students' pursuit of physical shape, and improve students' mental strength. Teachers should reasonably arrange the exercise load according to the different physiological characteristics of female and male students, e.g. girls should mainly engage in the sports of aerobic metabolism, and boys should making engage in the multi-sports project, based on aerobic metabolism and supported by anaerobic metabolism; and reasonably arrange the teaching method to inspire students' interest in physical education by the muscles stimulation and the accumulation of physiological load. (2) to enrich the teaching content of physical education, change the teaching of competitive technology in the past, and carry out some sports projects that can stimulate students' interest and inspire most students participate in, e.g. strengthening students' learning of sports theory knowledge, so as to make them realize the value of physical exercise; organizing small competitions, sports games, etc. in the class, to make them develop their habit of lifelong physical exercise.

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