

A STUDY ON THE SATISFACTION OF PHYSICAL ACTIVITY CLASSES PERCEIVED BY STUDENTS AT SHANDONG C COLLEGE, CHINA

Xu Li ¹

Yanan Yang ^{2*}

¹Master of Educational Administration, Stamford International University, Thailand

² Lecturer, PG program in Educational Administration, Stamford International University, Thailand

*Corresponding Author, E-mail: yanan.yang@stamford.edu

Abstract: This study aimed to study the level and differences of satisfaction with physical activity classes perceived by students at Shandong C College, China. The quantitative study was conducted through questionnaire surveys. Descriptive statistics, independent samples t-test, and one-way analysis of variance were applied for analyzing the data from 375 valid questionnaires. The results showed that: 1) the level of students' satisfaction was at moderate level; 2) under different demographic background variables, there are significant differences in physical activity class learning motivation among students with different genders, grades, majors, and class identities; and 3) there was no significant difference in mathematics learning motivation among students from different places of origin. Finally, based on analysis and findings, the researcher discussed and recommended the college and related instructors to deepen the reform of physical activity courses, accurately allocate educational resources, optimize the participation experience of physical activity courses, activate students' autonomy, and promote innovation in physical activity courses.

Keywords: College students, Satisfaction with physical activity classes, Shandong C College

Introduction

At present, the world is in a multipolar development trend. Under the profound influence of economic globalization, countries have gradually attached importance to the cultivation of comprehensive quality of talents. As the main battlefield of higher education, universities are the cradle of cultivating high-quality talents. Schools should not only focus on the intellectual cultivation of students in management but also talk about the improvement of students' physical fitness (Hobson et al., 2024).

Physical health is the prerequisite for students to realize their personal value in the future. Guiding students to develop the habit of daily exercise in college will help their long-term development in the future. However, at this stage, the physical health of college students is declining, and students'

daily hobbies are increasingly inseparable from electronic devices, which makes many students like to stay in the dormitory for a long time and are unwilling to go out. The amount of daily exercise is small, and it is difficult to achieve the effect of strengthening the body. As a compulsory course, the physical education courses offered by universities have become an important way for students to achieve their daily exercise goals and cultivate good exercise habits (Lee et al., 2020).

In this context, how to improve the physical health of college students has become one of the hot issues that the government, universities and society generally pay attention to. The exploration of physical education reform to improve students' physical health has never stopped. China's "Healthy China 2030" points out that economic and social development cannot be separated from people with all-round development, especially healthy people.

Research Objectives

(1) To identify the demographic background factors of students at Shandong C College, including their gender, grade, place of origin, major, and class leaders' status.

(2) To determine the current level of satisfaction with physical activity classes as perceived by students at Shandong C College.

(3) To compare the differences in the perceived satisfaction with physical activity classes among students at Shandong C College with different demographic background factors.

Literature Review

Definition of Physical Activity Class

Physical activity classes are not only a tool for physical exercise, but also an important part of cultivating students' all-round quality. Physical activity classes aim to improve students' physical fitness, enhance teamwork spirit, cultivate competition awareness and rule awareness, and promote mental health and social interaction skills (Zhu et al., 2014).

Xu et al. (2021) pointed out in their research that the curriculum content of physical activity classes should cover a variety of sports, including ball games, track and field, dance, martial arts, etc. The curriculum should focus on improving students' interest and participation. Physical activity classes should adopt diversified teaching methods. Schools should encourage teachers to flexibly adjust teaching strategies according to students' characteristics and needs and focus on practicality and interactivity. For example, group cooperation, scenario simulation, competitive games and other forms can enhance students' sense of participation and experience. Students' emotional experience in physical activity classes is also crucial.

The Connotation of Satisfaction with Physical Activity Classes

Due to the different research focuses of researchers, scholars have not yet given a universally recognized and reasonable concept of satisfaction with physical activity classes. Scholars have different

research directions and give different definitions of the concept of satisfaction with physical activity classes.

Chen (2022) believed that satisfaction with physical activity classes should be defined based on the characteristics of physical activity classes themselves, that is, satisfaction with physical activity classes is the students' satisfaction with the physical education teacher's teaching and teaching process, as well as the students' satisfaction with the learning content and learning environment. It is a kind of cognitive evaluation and emotional response of students to the physical education learning process and results. Satisfaction with physical activity classes is a comprehensive cognitive evaluation and emotional response of students to the entire physical education teaching process, including teaching, content, environment, and its results (Chen, 2022). Its theoretical support is rooted in the core particularity of physical education courses themselves. As a highly embodied and practical subject (Zheng, 2021), its satisfaction generation mechanism is significantly different from theoretical courses. It requires students to master sports skills and improve personal performance through personal participation and practice (Chen & He, 2018), and experience multi-dimensional interactions simultaneously in this dynamic process (Liu, 2020; Yao et al., 2019).

At the same time, satisfaction with physical education classes naturally integrates physical and mental dual feedback, not only focusing on physiological efficacy such as skill mastery and health improvement (Pang, 2017), but also emphasizing the psychological pleasure such as fun, enjoyment, and relaxation that students get in sports (Li, 2018) and can obtain entertainment experience based on course cognition. Therefore, their satisfaction is the students' overall perception and judgment of whether the course can effectively meet their learning, health, social and emotional needs in multiple dimensions such as physical practice, interactive collaboration, physical and mental experience, etc., which reflects the unique appeal of physical education courses to dynamically balance the achievement of structured goals and unstructured emotional experiences.

Measurement of Satisfaction with Physical Activity Classes

Satisfaction with physical education classes is a direct manifestation of the educational effect based on teacher-student interaction and is also a concentrated reflection of the quality of educational reform under the background of curriculum ideological and political education. Colleges and universities provide a good teaching environment, a benign teacher-student relationship, and high-quality teacher-student interaction, which can enhance students' perception of course gains to a certain extent, and course gains can positively affect students' satisfaction with the course. Efficient physical education teacher-student interaction can greatly promote the level of support for physical education learning and development, build a benign teacher-student relationship, and thus achieve the purpose of physical education.

In order to construct a structural equation model of the interaction between physical education teachers and students and course satisfaction in colleges and universities, Ye and Dai (2024) conducted

a survey on 980 undergraduates. The results showed that the teacher-student interaction in physical education classes accounted for a larger proportion than other forms of teacher-student interaction; in the teacher-student relationship, the relationship between students and physical education teachers was closer; sports venues and equipment played a greater role in the interaction between physical education teachers and students; in the learning process of physical education classes, students still stayed in the stage of sports participation; in the satisfaction of physical education class learning, the quality of physical education class had a greater impact on the satisfaction of course learning.

Nels (2015), when examining the satisfaction levels of graduate sport management programs in the United States, developed a graduate degree program satisfaction tool for 26 programs and electronically sampled current students and alumni from seven sport management master's degree programs, with a response rate of 54.31%. The respondents expressed high satisfaction with their decision to pursue a graduate degree in sport management overall, but significantly lower satisfaction with the specific school they attended. Respondents pointed out that the most beneficial courses included current affairs, sports and society, sports marketing, and sports ethics, while the least beneficial courses included statistics, international sports, and research methods. Compared with students in sport management, sports-related majors, or other majors, students with a bachelor's degree in business have consistently been less satisfied with the various sports management skills in their graduate programs.

Chen (2022) constructed a more systematic seven-dimensional influence model, establishing teaching support as the core element, and extending related dimensions such as teacher-student interaction, teacher recognition, assessment and evaluation, ideological awareness and enthusiasm. The model reveals a multi-level mechanism: teaching support as a basic variable directly affects teacher-student interaction and assessment evaluation; course satisfaction is affected by the synergistic effect of ideological awareness, learning enthusiasm, teacher-student interaction and teacher recognition; teacher-student interaction and teacher recognition indirectly affect satisfaction by improving learning enthusiasm; and assessment evaluation affects satisfaction through teacher recognition. It is worth noting that ideological awareness presents a multi-dimensional influence characteristic in this model, which not only has a direct effect on course satisfaction but also forms a complex indirect influence path through mediating variables such as teaching support and assessment evaluation.

Han (2014) investigated the relationship between students' participation satisfaction, school satisfaction, school attitude and school adaptation in general physical education classes. A convenient sampling method was used to select 300 students. Of the 300 samples collected, 13 samples that were not suitable for this study were eliminated, and a total of 287 samples were used as the final valid samples. PASW 18.0 and AMOS 18.0 were used to conduct frequency analysis, confirmatory factor analysis, reliability analysis and structural equation modeling on the data. The results showed that, first,

among the subordinate factors of participation satisfaction, educational satisfaction, social satisfaction and physical satisfaction had a significant impact on school satisfaction; second, school satisfaction had a significant impact on school attitude; third, school satisfaction had a significant impact on school adaptation; fourth, school attitude had a significant impact on school adaptation.

Subsequently, Sun (2016) studied the relationship between autonomy, satisfaction with physical education classes, and personality development. He collected samples of middle school students from ten different regions, with a sample size of 100 in each region. The final sample size used in convenience sampling was 962, excluding insincere materials. The validity of the questionnaire was tested through expert meetings, preliminary inspections, and factor analysis. The statistical method used in the analysis was frequency analysis to determine the internal consistency between questions. The results showed that, first, the autonomy of middle school students is the main mechanism affecting satisfaction with physical education classes. Second, the autonomy of middle school students is the main mechanism that has a positive impact on personality development. Third, the satisfaction of middle school students with physical education classes is the key mechanism that has a positive impact on personality development.

Differences in Satisfaction with Physical Activity Classes Under Different Demographic Background Variables

Physical education is an important part of university, and college students' satisfaction with physical education directly determines the effectiveness of physical education. Therefore, understanding the differences in satisfaction with physical activity classes under different demographic background variables is of great significance to improving the level of physical education. Liu (2023) used multi-stage sampling, proportional probability sampling and random equidistant sampling methods, and used the university physical education system for data entry, cleaning and calculation. He surveyed 1,752 students. The results showed that there were significant differences in satisfaction with physical activity classes in terms of grade, gender, cognition, credits, responsibility, and teaching content. In addition, students' cognition, grade, credits, and make-up exam rates also led to differences in college students' satisfaction evaluation of physical education courses.

Zhou (2022) conducted a questionnaire survey on 666 junior high school students in Jiangsu Province to understand the current status and differences of junior high school students' satisfaction with physical education. The self-compiled "Junior High School Students' Physical Education Learning Satisfaction and Influencing Factors Scale" was used as a measurement tool. The study found that the overall satisfaction of junior high school students with physical education was at a medium level, boys were more satisfied than girls, urban students were more satisfied than rural school students, and the third-year junior high school students were less satisfied than the first- and second-year junior high school students. The learning satisfaction of students in economically developed areas was higher than that in economically underdeveloped areas.

Bai (2022) conducted a test on the current status and differences of college students' satisfaction with physical education, exercise motivation and physical exercise behavior, and found that students' satisfaction with physical education, exercise motivation and physical exercise behavior were in a good state overall. There were significant differences in satisfaction with physical education, exercise motivation and physical exercise behavior in gender, grade, age and family location, but there were no significant differences in whether they were class leaders or student union members.

Jeon (2016) analyzed students' satisfaction with physical education classes based on the teaching style of physical education teachers. He surveyed fifth and sixth grade students in D Elementary School in Jinchuan District, Seoul. The data of 282 students were used as the final valid sample. SPSS 18.0 program was used to find out the differences between physical education classroom teaching style and physical education classroom satisfaction through individual characteristics, as well as the relationship between physical education classroom teaching methods and physical education classroom satisfaction. The results showed that there were differences in physical education teaching style and physical education class satisfaction according to the individual characteristics of primary school students. In order to clarify the correlation between the trust factors of middle school students in physical education teachers and their attitudes and classroom satisfaction with physical education classes.

Lee (2015) selected 4 middle schools as the target group based on the convenience sampling method, surveyed 300 students, and distributed 268 questionnaires. Except for 32 papers, all collected papers were used for actual analysis. SPSS was used for descriptive statistical analysis, exploratory factor analysis, reliability analysis, mean difference test, correlation analysis and multiple regression analysis. The results showed that, first, there was a significant correlation between middle school students' trust in physical education teachers and their course attitudes and classroom satisfaction. Second, the different levels of trust in physical education teachers by middle school students would also lead to different course attitudes and classroom satisfaction.

Investigation and Research on the Satisfaction of Physical Activity Class Perceived by Students at Shandong C College

At present, Shandong C College attaches great importance to improving students' satisfaction with physical activity classes, and has taken multiple measures to strengthen hardware support, optimize course settings and improve feedback mechanisms. The school actively builds and maintains complete sports facilities, including standard athletic fields, various stadiums and special training rooms to ensure teaching and activity needs.

At the course level, a variety of sports programs are offered for students to choose from, and a graded teaching model is explored to meet the needs of students with different interests and abilities. At the same time, the school has established a multi-level evaluation system from instant classroom feedback to regular evaluation, paying close attention to students' feelings about course content,

teaching quality and facility use, and setting up a special mechanism to quickly respond to and continuously improve the opinions and problems collected, reflecting a clear orientation of improving the quality of physical education with student experience as the center.

Students' satisfaction with the physical activity classes in Shandong C College can be perceived from three aspects. From the perspective of the setting of physical activity courses, students are more concerned about the setting of teaching content and the degree of attention the school pays to physical activity courses; from the perspective of the environment and venue of physical activity courses, overall, it can basically meet the needs of students, but the hygiene of the environment and venue, the newness and safety of the equipment still have an impact on students' satisfaction with the course; from the perspective of the learning effect of physical activity courses, students pay more attention to the training effect and assessment method of physical activity courses.

Methodology

The questionnaire used in this study was in the form of an electronic questionnaire and was distributed to 23,000 students enrolled in Shandong C College. The total sample size was 23,000 people. According to the Morgan table standard of Krejcie and Morgan (1970), the sample size was determined to be 379 students, which was reasonable. During the formal testing phase of the survey, it was expected that 379 questionnaires would be distributed, and 375 questionnaires would be successfully collected, with an efficiency of 98.94%.

The questionnaire of this study mainly adopted the content of the Physical Activity Class Satisfaction Questionnaire (PACSQ) compiled by Cunningham & George (2007) and added questions about the students' demographic background information to form the research questionnaire of this paper, "Physical Activity Class Satisfaction Questionnaire for Students of Shandong C College."

This study adopted a stratified sampling method to select students from Shandong C College as the research sample, implemented data collection through a digital questionnaire platform, and relied on the college's administrative channels for targeted distribution and collection. The specific operation process is: entrusting full-time teachers from the student affairs department as the medium for questionnaire distribution. Under the principle of informed consent, the responsible teachers gave a survey explanation, and the research subjects completed the questionnaire independently.

Results

Overview of Students' Demographic Background Information

The demographic background information of Shandong C College students measured in this study includes five aspects: gender, grade, place of origin, subject, and whether they are class leaders, with a total of 5 items. According to research question 1: What is the demographic background information of Shandong C College students, including their gender, grade, place of origin, subject, and

whether they are class leaders? The study uses descriptive statistics such as frequency and percentage to analyze the demographic background information of students.

In terms of gender, there are 238 male students, accounting for 63.5% of the sample population, and 137 female students, accounting for 36.5% of the sample population. The number of male students is greater than that of female students. In terms of grade, the largest number of freshmen is 129, accounting for 34.4% of the sample population, followed by sophomores, with 101 students, accounting for 26.9% of the sample population, juniors with 92 students, accounting for 24.5% of the sample population, and seniors with 53 students, accounting for 14.1% of the sample population. In terms of origin, there are slightly more students from towns, with 197 students, accounting for 52.5%, and 178 students from rural areas, accounting for 47.5%. In terms of major, the majority of students majoring in science and engineering are 249, accounting for 66.4%. The second in liberal arts, with 105 students, accounting for 28.0% of the sample. The smallest group is students majoring in other majors, with 21 students, accounting for 5.6%. From the perspective of whether they are class leaders, there are 221 students who are not student leaders, accounting for 58.9% of the sample, and 154 students who are student leaders, accounting for 41.1%.

Current Status of Students' Satisfaction with Physical Activity Classes

Table 1: The Level of Students' Satisfaction with Physical Activity Classes

Dimensions	Mean	SD	Interpretation
Mastery	3.71	0.909	High
Course Awareness	3.71	0.915	High
Teaching Quality	3.75	0.894	High
Personal Performance	3.75	0.900	High
Interact with Others	3.75	0.936	High
Fun and Enjoyment	3.71	0.936	High
Improved Health and Fitness	3.70	1.007	High
Entertainment Experience	3.74	0.886	High
Relax	3.75	0.947	High
Overall	3.73	0.816	High

According to the second research question: What is the current level of satisfaction with physical activity classes as perceived by students at Shandong C College? The study uses descriptive statistics such as mean and standard deviation to analyze the current level of physical activity class of the survey subjects. According to the analysis results in Table 4.2, the overall mean of students' satisfaction with physical activity classes is 3.73, indicating that students' satisfaction with physical activity classes is at a high level. The mean values of each dimension are in the range of 3.7-3.8, all at a

high level. Among them, the mean of students' satisfaction with improved health and fitness is 3.70, the lowest score, and students' satisfaction with improved health and fitness is low. The mean of students' satisfaction with teaching quality is 3.75, the highest score, indicating that students' satisfaction with teaching quality is the highest.

Differences in Students' Satisfaction of Physical Activity Classes with Different Grades

Table 2: Differences in Students' Satisfaction of Physical Activity Classes with Different Grades

Dimensions	Grade	M	SD	F	P
Mastery	Freshman	3.77	0.872	1.881	.132
	Sophomore	3.79	0.820		
	Junior	3.66	1.004		
	Senior	3.46	0.962		
Course Awareness	Freshman	3.75	0.863	1.253	.290
	Sophomore	3.78	0.922		
	Junior	3.70	0.940		
	Senior	3.50	0.974		
Teaching Quality	Freshman	3.87	0.949	3.017	.030*
	Sophomore	3.84	0.815		
	Junior	3.65	0.828		
	Senior	3.49	0.956		
Personal performance	Freshman	3.80	0.859	1.338	.262
	Sophomore	3.85	0.863		
	Junior	3.66	0.952		
	Senior	3.61	0.967		
Interact with others	Freshman	3.78	0.868	1.816	.144
	Sophomore	3.89	0.870		
	Junior	3.68	1.018		
	Senior	3.55	1.041		
Fun and enjoyment	Freshman	3.71	0.923	.988	.399
	Sophomore	3.83	0.909		
	Junior	3.67	0.915		
	Senior	3.57	1.047		
Improved health and fitness	Freshman	3.75	0.948	1.409	.240
	Sophomore	3.80	0.953		
	Junior	3.65	1.080		
	Senior	3.47	1.098		
Entertainment Experience	Freshman	3.85	0.829	2.806	.040*
	Sophomore	3.78	0.826		
	Junior	3.69	0.927		
	Senior	3.45	1.008		
Relax	Freshman	3.84	0.920	1.184	.316
	Sophomore	3.79	0.915		
	Junior	3.67	0.976		
	Senior	3.58	1.015		
Overall	Freshman	3.79	0.776	2.642	.044*
	Sophomore	3.82	0.748		
	Junior	3.67	0.867		
	Senior	3.52	0.912		

According to the analysis results in Table 2, the p value of students' perceived satisfaction with physical activity classes is 0.044, which is lower than 0.05, indicating that there are significant differences in the perceived satisfaction with physical activity classes among students of different grades, and hypothesis H1-2 is established. Comparing the means, it is found that the overall mean of satisfaction with physical activity classes perceived by sophomores is the highest, which is 3.82, followed by freshmen, and the overall mean of satisfaction with physical activity classes perceived by seniors is the lowest, which is 3.52, indicating that sophomores' perceived satisfaction with physical activity classes is higher than that of students of other grades, and compared with other grades, seniors' perceived satisfaction with physical activity classes is the lowest.

Differences in Students' Satisfaction of Physical Activity Classes with Different Places of Origin

According to the analysis results in Table 3, the p value of students' perceived satisfaction with physical activity classes is 0.045, which is less than 0.05, indicating that there are significant differences in the perceived satisfaction with physical activity classes among students from different places of origin, and hypothesis H1-3 is established. Comparing the means, it is found that the overall mean of rural students' perceived satisfaction with physical activity classes is higher, at 3.74, while the overall mean of urban students' perceived satisfaction with physical activity classes is lower, at 3.72, indicating that rural students are more satisfied with physical activity classes than urban students.

Table 3: Differences in Students' Satisfaction of Physical Activity Classes with Different Places of Origin

Dimensions	Place of origin	M	SD	t	P
Mastery	Urban	3.72	0.899	2.264	.042*
	Rural	3.70	0.923		
Course Awareness	Urban	3.72	0.950	2.328	.040*
	Rural	3.69	0.877		
Teaching Quality	Urban	3.74	0.911	1.405	.085
	Rural	3.77	0.876		
Personal performance	Urban	3.76	0.908	.045	.964
	Rural	3.75	0.894		
Interact with others	Urban	3.74	0.962	1.372	.090
	Rural	3.77	0.909		
Fun and enjoyment	Urban	3.69	0.921	2.435	.034*
	Rural	3.74	0.954		
Improved health and fitness	Urban	3.70	0.983	.910	.142
	Rural	3.70	1.035		
Entertainment Experience	Urban	3.71	0.882	1.597	.081
	Rural	3.76	0.893		
Relax	Urban	3.72	0.953	1.520	.083
	Rural	3.77	0.943		
Overall	Urban	3.72	0.822	2.213	.045*
	Rural	3.74	0.811		

Differences in Students' Satisfaction of Physical Activity Classes with Different Class Leaders

According to the analysis results in Table 4 the p value of students' perceived satisfaction with physical activity classes is 0.030, which is less than 0.05, indicating that there are significant differences in the perceived satisfaction with physical activity classes between students who are class leaders and those who are not, and hypothesis H1-5 is established. Comparing the means, it is found that the overall mean of satisfaction with physical activity classes perceived by students who are class leaders is higher, at 3.74, and the overall mean of satisfaction with physical activity classes perceived by students who are not class leaders is lower, at 3.72, indicating that students who are class leaders perceive higher satisfaction with physical activity classes.

Table 4: Differences in Students' Satisfaction of Physical Activity Classes with Different Class Leaders

Dimensions	Class Leader	M	SD	t	P
Mastery	Yes	3.74	0.902	2.789	.029*
	No	3.67	0.921		
Course Awareness	Yes	3.74	0.907	2.492	.035*
	No	3.66	0.927		
Teaching Quality	Yes	3.74	0.905	2.135	.039*
	No	3.78	0.879		
Personal performance	Yes	3.76	0.887	2.256	.038*
	No	3.74	0.922		
Interact with others	Yes	3.75	0.934	1.639	.075
	No	3.76	0.941		
Fun and enjoyment	Yes	3.72	0.927	2.018	.041*
	No	3.70	0.952		
Improved health and fitness	Yes	3.72	0.997	1.799	.067
	No	3.67	1.023		
Entertainment Experience	Yes	3.74	0.863	1.304	.114
	No	3.73	0.921		
Relax	Yes	3.72	0.930	1.837	.068
	No	3.79	0.973		
Overall	Yes	3.74	0.801	2.642	.030*
	No	3.72	0.839		

The conceptual framework of this study is shown in Figure 1.

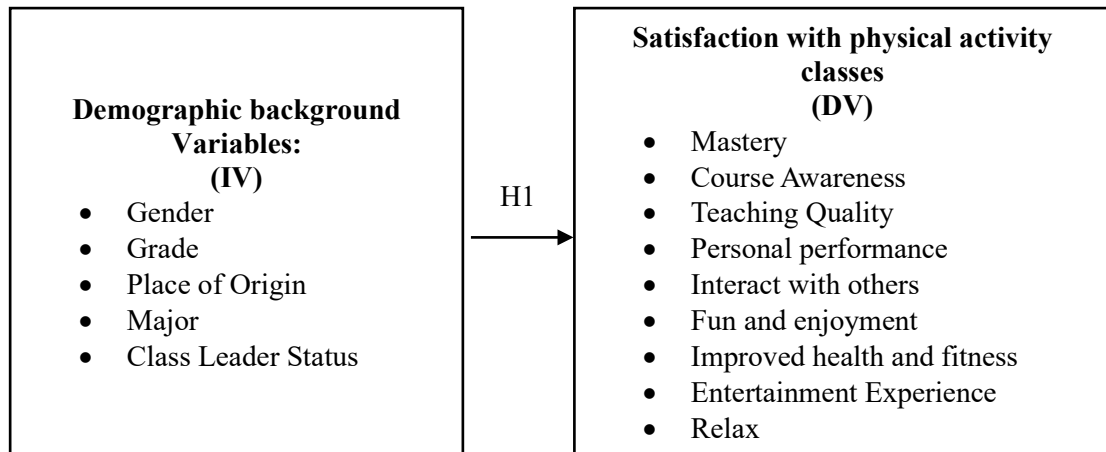


Figure 1: Research Concept Framework

Discussion

Analysis of the Current Level of Satisfaction with Physical Activity Classes Perceived by Students at Shandong C College

According to the survey results of this study, the satisfaction of students in Shandong C College with physical activity classes is at a high level, which is consistent with the research results of Yang & Liang (2025). This study found that students' satisfaction with teaching quality was the highest, reflecting that the college has been widely recognized by students in terms of teaching arrangements, teacher teaching level, and rich course content in physical activity classes. However, students' satisfaction with improved health and fitness is low, which may be related to the gap between the actual effect of physical activity classes in promoting students' physical health and physical fitness and students' expectations.

Ye and Dai (2024) found that students still remain at the stage of sports participation in the process of learning physical activity classes, and students lack sufficient self-management and continuous exercise awareness in the process of participating in physical activity classes.

Analysis of Differences in Satisfaction with Physical Activity Classes Among Students at Shandong C College with Different Demographic Background Information

According to the survey results of this study, there are certain differences in the satisfaction of students in physical activity classes at Shandong C College with different demographic background information, which are described as follows:

From the perspective of gender, there is no significant difference in the satisfaction of physical activity classes perceived by students of different genders. This result is different from the research conclusion of Banos (2020), which pointed out that gender factors have an impact on the intention of physical exercise. However, no such difference was found in this study. The impact of gender

satisfaction with physical education courses may gradually weaken due to the enhanced awareness of gender equality in the modern education environment. Boys are more concerned about improving sports skills, while girls pay more attention to the fun of the course. The design of modern physical education courses takes into account the diverse needs of students of different genders.

From the perspective of grade, there are significant differences in the perceived satisfaction of physical activity classes among students of different grades. The perceived satisfaction of sophomores with physical activity classes is higher than that of students of other grades. This may be related to the fact that sophomores are in the period of adapting to college and have a high sense of freshness and enthusiasm for physical activity classes.

As Ma (2024) also found in his study that there was no significant difference in students' evaluation of classroom atmosphere among grades, which is similar to the conclusion of this study. Specifically, compared with other grades, seniors have the lowest perceived satisfaction with physical activity classes. Seniors face pressures such as graduation and employment, which is related to the reduced investment and attention in physical activity classes. Existing studies have also found that grade growth may affect students' satisfaction with physical activity classes, which is related to changes in students' learning pressure, time allocation, and personal interests (Kim, 2013).

From the perspective of students' origin, there are significant differences in the satisfaction of physical activity classes perceived by students from different origins. Compared with urban students, rural students are more satisfied with physical activity classes, which were related to the living environment and growth experience of rural students. Rural students may be more accustomed to relieving life pressure through sports activities and have a higher evaluation of the practicality of the course, while urban students are influenced by multiple entertainment methods and have higher requirements for course innovation.

From the perspective of disciplines, there is no significant difference in the perceived satisfaction of physical activity classes among students of different disciplines. This result shows that the subject background is not the main factor affecting the satisfaction of physical activity classes. The interdisciplinary universality of physical activity classes is strong, that is, the influence of subject background on the satisfaction of physical education courses is small, and it depends more on the matching degree between course design and personal interests.

From the perspective of class identity, there are significant differences in the perceived satisfaction of physical activity classes between students who are class leaders and those who are not. Bai (2022) also reached a similar conclusion in his study that students who serve as class leaders perceive higher satisfaction with physical activity classes, which may be related to the active role played by class leaders in the organization and participation of physical activity classes. Class leaders usually pay more attention to the overall atmosphere of the class and the participation of classmates. They may participate in physical activity classes more actively and gain more satisfaction and a sense of

accomplishment from them. In addition, in the process of serving the class, class leaders may also establish closer relationships with teachers and classmates, thereby increasing their satisfaction with physical activity classes.

Conclusions

This study reached the following conclusions:

(1) Judging from the current status of Shandong C College students' satisfaction with physical activity classes, Shandong C College students' satisfaction with physical activity classes is at a high level. Among them, students' satisfaction with teaching quality is the highest, while students' satisfaction with improvement in health and fitness is relatively low.

(2) From the perspective of the differences in satisfaction with physical activity classes perceived by students at Shandong C College with different demographic background information:

There is no significant difference in satisfaction with physical activity classes among students of different genders.

There are significant differences in the satisfaction with physical activity classes perceived by students of different grades. Sophomores are more satisfied with physical activity classes than students of other grades. Compared with students of other grades, seniors are the least satisfied with physical activity classes.

There are significant differences in the satisfaction with physical activity classes perceived by students from different places of origin. Compared with urban students, rural students are more satisfied with physical activity classes.

There is no significant difference in satisfaction with physical activity classes among students of different subjects.

There is a significant difference in the perceived satisfaction with physical activity classes between students who are class leaders and those who are not, and students who are class leaders perceive a higher level of satisfaction with physical activity classes.

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