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Research Article

The Influence of the Internet Sports Information on College Physical Education*

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Abstract

The Internet, as a kind of media, has become an important source for people to obtain a large amount of information due to its large information quantity and strong interaction, which has a profound impact on the lives of college students. How to guide students to use the Internet sports information for independent learning has become an important subject in college physical education. Taking Shenzhen University and Hunan University of Science and Technology as examples, this paper studies the influence of the Internet sports information on college physical education by the field investigation, questionnaire, comparative analysis and other research methods. The results show that the Internet sports information has a positive impact on college students' participation attitude, motivation and interest in sports. The time and frequency of access to the Internet sports information for college students are relevant to their sports self-organization and self-management behaviors, which affect college students' physical exercise time, frequency and intensity to varying degrees. This research provides practical basis for the role of the Internet sports information in college students' sports education.

Keywords

The Internet Sports Information • Physical Education • Sports Organization Behavior • Sports Management Behavior

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Current development and application of modern science and technology with computer and network technology as the core has penetrated into every field of the society, especially has a major impact in education field. With the continuous improvement of network technology application level, the concept of “education informatization” has been gradually proposed by people with the advent of information technology highway in the 1990s (Anderson, Cresi and Sayre, 2014). How physical education meets the challenge of the modern science and technology, especially information technology, how to timely apply computer network technology, improve teaching quality and cultivate high-quality workers, has aroused the attention of the educational circles. The modernization of physical education is the inevitable trend in the development of social informatization (Rhoades and Woods, 2016). The application of network education technology in the physical education teaching is an important symbol of modern physical education teaching, and the sports network or “network sports” will be bright symbol of sports modernization (Guan, 2012).

Research Object and Research Method

Research method

During April to July, 2004, the author respectively conducted the field investigation on the teaching mode in Shenzhen university and other colleges and universities, with in-depth understanding (Koponen and Pehkonen, 2010). The method includes: (1) observation and experience. Through participating in teaching activities, the author got more real, intuitive observation. (2) Interview. Through the communication with different groups including teachers and students, the author understood the problems existing in the process of network teaching. (3) Data collection (Vlachopoulos, Katartzi and Kontou, 2013). The author collected the relevant statistical data and the situation introduced.

Literature

In the process of thesis writing, the author read the books about network education, including the "network education foundation", “network transmission and contemporary education”, “education information technology theory”, etc., consulted the research achievements about physical education in college and university and the application of network technology from 1995 to 2004, mastered the domestic several relevant information of several schools carrying out physical network teaching’s experiment class, and consulted relevant teaching evaluation, teaching theory, and so on, to grasp the general situation of the development of the current information technology education (You, Lee, Craig and Kim, 2018).

Questionnaire survey

During May to June, 2004, the students enrolled in 2002 from the 6 universities participated in the questionnaire survey. 476 copies were sent out, and 421 were the valid questionnaires. The recovery rate was 98.7%, and the effective rate was 89.6%, conforming to the requirements of the statistics. Subjects were

involved in ten kinds of sports teaching classes including football, basketball, volleyball, martial arts, tennis, taekwondo, gymnastics, badminton, table tennis, gymnastics (Voelker, 2016). For the survey results, SPSS statistical software and Excel statistical software were used for data analysis.

Comparative analysis

Students from Shenzhen University and Hunan University of Science and Technology were taken as the experimental group, and other university students were as control group, with the relevant survey data analysis, systematical evaluation of the advantages of the application of network education technology in sports teaching, as well as the shortcomings in teaching (Franks and Krause, 2017).

Research Result and Analysis

Main problems of traditional physical education mode

Less teaching classes: “Physical Education Curriculum Guiding Outline for Common Institutes of Higher Learning in China” in 2002 regulates public physical education in colleges and universities is two years’ compulsory subject, with 144 hours, and the total hours have no change, basically once a week (2 hours). Questionnaire survey shows that 14.69% of the students think the current physical education "hours are too less", 55.21% of the students think it is "a little less"; only 29.62% and 0.48% of the students think that it is "proper" and "more" (e.g., table 1). 37.44% of the students think only relying on traditional classroom teaching cannot meet the demand of their own physical education learning. (e.g. table 2)

Table 1
The Students of Class Attitude Questionnaire

Content options	The number	The percentage
Class Too little	65	15.2%
Class fewer	231	52.6%
Class Just right	127	26.8%
Class too much	1	0.9%

Table 2
Students of Physical Education Identity

Content options	The number	The percentage
Can't agree with	154	37.4%
Basic agree	248	56.8%
Totally agree with	15	4.5%

Current situation of sports network BBS construction in the domestic universities

BBS is mainly for people to comment on a particular issue, and the electronic bulletin board for discussion. Physical nature is also a very attractive topic. According to the survey, a lot of discussions on BBS focus on the

forward and comment of competitive sports news, and also a part is about the students' personal feeling and experience of sports activities, as well as searching help for the encountered problems from other classmates.

The biggest characteristic of BBS is strongly interactive; for questions or comments that a student asks, there often will be many students providing help or participating in the discussion. For the BBS of four universities such as "Peking University Anonymous", the number of all kinds of articles published is shown in table 4-4, which shows that sports topic has become a major topic of discussion for the college campus BBS.

South China normal university is taken as an example, and the campus sports BBS is divided into four discussion areas (As is Table 3 shown), containing a large number of sports articles, (Eloísa and Kirk, 2014) respectively 3196 articles of sports world; 6025 of green dream; 5134 of basketball park; 845 of sports and health. Visibly, at present, this BBS communication way has also gradually become the most primary interaction way among the various university sports webs.

Table 3
BBS Content Statistics

Content classification	The article number	The percentage
The perceptual knowledge class	161681	27%
Leisure class	142598	20%
Category of the culture	117854	15%
Social information class	10485	14%
Academic science class	76589	18%
Sports class	65842	12%

Situation of college students surfing online

The survey was conducted for the students of the 6 universities in China, and the situation of Chinese students surfing online is as follows:

Table 4
Students Surf the Internet Time Frequency Analysis Table

	Frequency	Percent	Valid Percent	Cumulative Percent
More than 12 hours	103	23	21	24
9 to 11 hours	51	12.2	12.6	36
6 to 8 hours	26	6.2	5.2	42
3 to 5 hours	142	32.5	32.6	87
Below2 hours	95	21.2	21.8	100
Total	420	99	100	

Table 4 shows: among the 421-people surveyed, the number of people who spend 3 - 5 hours a week surfing online and spend more than 12 hours is 146 and 101 respectively; the two groups of students account for 58.6% of the total students. Students' online surfing time show great differences, with the distribution of the two extremes, as shown in figure 1.

Research shows that the domestic college students basically have a certain condition for surging online, and a relatively stable time for surfing online, and also have higher interest in and higher acceptance for the network information of the sports resources. Development of education function of network sports resources should be feasible.

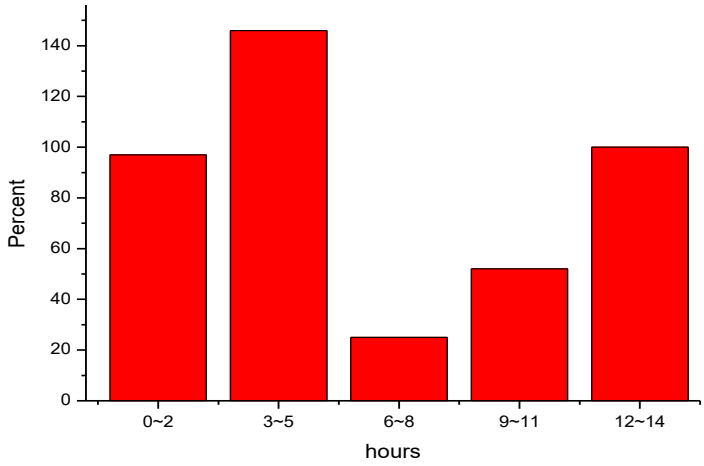

Figure 1. College students' Internet time statistics

Application form of network education technique in physical education

Hunan University of science and technology - "swiping card" fitness gym class. Hunan University of science and technology takes the campus network as technical support to explore a new teaching mode - "network learning and teaching pattern of big physical fitness activities", and to develop the related teaching experiments. They suggest to cancel the traditional public physical education teaching mode, but use a computer network management system of "swiping card" fitness gym class. Process is as shown in figure 2.

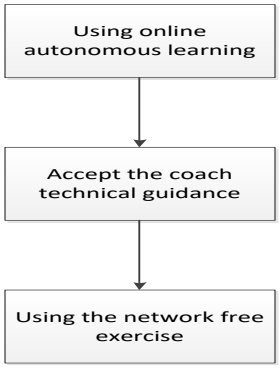

Figure 2. The teaching process diagram

Basic function: network curriculum will make the main knowledge carried out in the unit of chapters according to the item, with a full-text searching function: teachers use interactive system to answer questions proposed by students; teachers make teaching content’s technical actions as static image and produce a certain animation, and use an animated demo to deepen students' understanding of basic actions and habitual actions, with the acquisition of game clips. Process is as shown in figure 3.

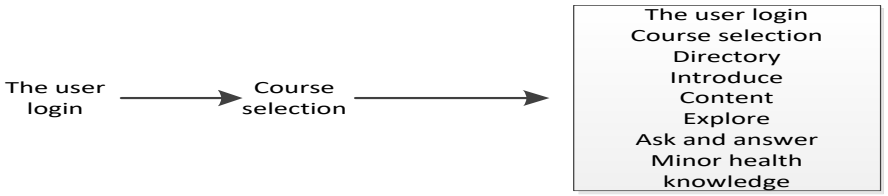

Figure 3. System structure diagram

Application of network technique in the teaching affair administration of physical education

The network management system of physical education in Shenzhen University is taken as an example, as shown in table 4. The system software includes:

System management: System management is carried out based on the software design, and it sets different permissions for different visitors and operators, fully considering the security of network information.

Curriculum management: it is to establish a course database, including name, code, class hours, content, teaching management, management of physical education curriculum.

Student management: it is the implementation of the great management scheme of the students from all majors in the university. Database can read the student information directly from the student management system through campus network. As long as they carry out online registration, students can click on the course; otherwise, they can't register the class.

Course selection management: it includes course selection, and class withdrawal. Students know the course selection information through going online; if it is found that the selected course quota is full, students can take the withdrawal and the second re-election. Teachers can query the situation of course selection, for final arrangement.

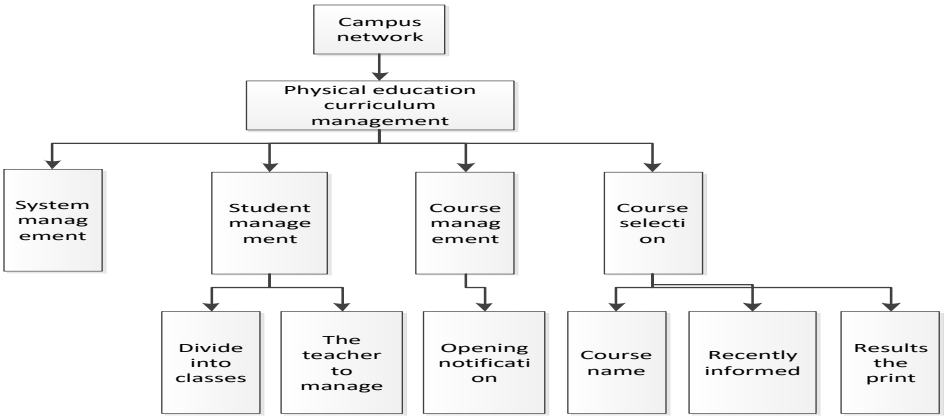

Figure 4. Campus sports management system software structure

Function and influence of network education technique application on students

The physical education teaching under the network environment is compared with traditional physical education teaching; in the system, it adds the students' autonomous network learning. Use of network resources for independent learning can widen the function of traditional physical education, with the corresponding function and influence on students.

Table 5.1
Student Evaluation of Teaching Effect

Group	N	Physical education learning ability	Technical ability cultivation	Enhanced physique
The network environment	210	M=0.53	M=0.80	M=0.71
Traditional teaching	211	M=0.15	M=0.84	M=0.89
MSE		0.041	0.36	0.31
T		8.9	-1.3	-4.5
P		P＜0.01	P＞0.05	P＜0.01

Table 5.2
Student Evaluation of Teaching Effect

group	Understand the technology	Fitness consciousness	Interest in sports
The network environment	M=0.60	M=0.53	M=0.53
Traditional teaching	M=0.11	M=0.53	M=0.53
MSE	0.024	0.031	0.48
T	12.5	4.25	0.63
P	P＜0.01	P＜0.01	P＜0.01

The author used physical education teaching under these two kinds of teaching environment to survey the students' attitude. Research shows: under the network environment, the students' evaluation on curriculum "cultivating students' physical education learning ability", "cultivating lifelong physical education consciousness", "understanding more techniques" is superior to the traditional teaching effect; for the function of "Meet their sports interest" and "learning one or two techniques", it has no significant difference from the traditional teaching; the effectiveness evaluation on "physical exercise, enhancing physique" is lower than the traditional sports teaching. As shown in figure 5, table 5.1 and table 5.2.

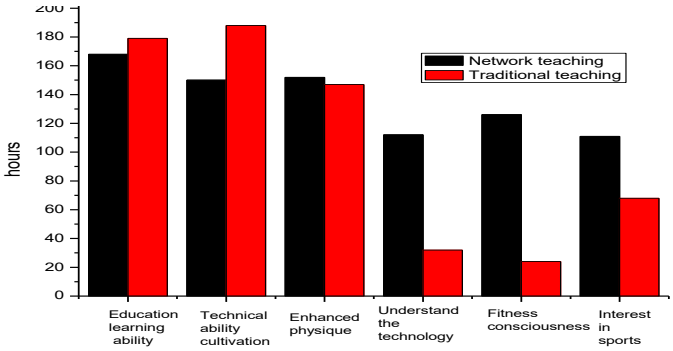

Figure 5. Teaching effect comparison chart

Relevant factors influencing students' network learning

Online learning quality directly affects the physical network teaching development prospect, and reveals the factors that influence the students to carry on the network learning of physical education with the targeted improvements; the further application of the network education technique in physical education teaching has the decisive significance (Chen and Xia, 2012).

Research shows (e.g., table 6), the main factors affecting college students' autonomous learning by using network are, in turn, the level of network material production, lack of network sports material and online condition, the network learning being different from physical education learning and self-learning ability being limited, etc. It contains both objective factors, and a lot of subjective factors. There is the limitation of objective material, and the restriction of subjective understanding and ability. These are the revealed factors influencing the students to carry on the network learning.

Table 6
Factors Influencing the Student to Carry on the Network Study Statistics

Option content	Select The number	digits	The percentage
Low level of production	82	1	63.5%
Lack of access	49	2	30.5%
Different from traditional sports	41	3	31.2%
Lack of freedom to learn	38	4	26.8%
The lack of common sense	33	5	23.8%
Learning result is bad	31	6	15.6%

Conclusion

1. Compared with traditional physical education, the network teaching of physical education has certain advantages.

In teaching experiment, the results show that the application of the network education technique in physical education teaching greatly changes the students' sports knowledge source structure and learning approach, and has a obvious role in promoting to cultivate students' physical education learning ability and lifelong learning habit; it is conducive to the deepening of teaching reform.

2. There is a great development space for the application of network education technique in physical education.

Practice has proved that network teaching as an extension of the school sports class has a certain role to assist students' physical education learning. The successful application of the school sports management software promotes some schools to explore its use in school extracurricular sports management and guidance.

The asynchronous teaching function of network teaching has the very big development space for the management and guidance of school extracurricular sports.

3. The college students have low recognition on the network teaching class of physical education, and the research based on teaching quality is the essence for the development of network teaching of physical education.

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