

Changing Trend of University Students' Physical Fitness and the Reform of Teaching Methods

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ABSTRACT

The reform of teaching and physical quality of university students is the hope of the future, university life is the period for their body and mind to get the comprehensive development. Students only have the good physical quality, can be energetic to study. In order to better promote students' physical and mental development, physical education is set in higher schools to promote the health of students and improve the physical quality of students. At present, the reform of physical education in China is carried out for the development of students' physique. This paper analyzes the causes of decreased physical quality of contemporary university students, suggestion are proposed through changing the traditional concept of education, reforming university physical education, improving the school sports facilities and conditions to constantly improve the level of students' mental health, and provide the theoretical reference for optimizing the physical education quality and enhance the physical health of university students. Students' health consists of two aspects: physical and psychological aspects. In order to improve the students' self-confidence and willpower and adjust the mental state of students through sports, especially in the teaching of physical education, only paying attention to teaching sports skills and ignoring the health and education of university students should be prevented. During the process of physical exercise, university students should not only master the basic motor skills, but also develop the psychological quality. Teachers need to take some special measures to promote university students' mental health according to the psychological characteristics and physical characteristics of university students.

Keywords: students' physical quality, physical education class, teaching mode, teaching quality

INTRODUCTION

The aim of teaching in higher schools is to revolve around the relevant contents of morality, culture, psychology and physical quality, and the physical quality is the basis and premise of these comprehensive qualities. At present, a lot of higher schools set up physical education for freshman and sophomore, and the purpose of physical education is to train university students' physical quality and improve their physical quality. However, there is no physical education for junior and senior, which leads to weaker physical quality for some students who don't often exercise, after certain time, the health of university students will be inevitably affected (Junke, 2002; Cochrane and Davey, 2017). Although the freshman and sophomore are offered physical education, usually only one to two classes a week, it is difficult to improve the physical quality through the study and exercise in one class. At the same time, the lack of sports venues and equipment in many higher schools also affect the physical education. With the increasing enrollment of higher schools, the number of university students is growing, but sports venues and exercise equipment cannot keep up with the pace of enrollment expansion, in addition, less comprehensive sports venues are available (Feng Zhuchun, 2002; Chase and Klahr, 2017). Under the influence of exam oriented education, the enrollment rate and teaching quality evaluation are the only standard of primary and secondary school grading, and play a decisive role in the high school entrance examination and higher school entrance examination. Therefore,

Contribution of this paper to the literature

- Schools do not attach importance to the physical quality of students in teaching, usually just do things carelessly.
- The students' weak physique in the high school will directly affect the physical quality of the students in higher schools. Therefore, the examination oriented education system is the fundamental reason for the low physical quality of university students.
- Students' interest in learning is low, and the cultivation of students' practical ability is not enough. Students' physical quality cannot meet the needs of enterprises.

schools do not attach importance to the physical quality of students in teaching, usually just educate carelessly. Although the education policy advocates to reduce the burden, but have little effect, and students' homework is still overwhelming. Some parents find tutors for children, and sign children up for math, painting, music and other training courses (Rockwood, 2014; Häkkinen, 2011). The children has no time for exercising. The students' weak physique in the high school will directly affect the physical quality of the students in higher schools. Therefore, the examination oriented education system is the fundamental reason for the low physical quality of university students (Falloon, 2017; Sit and Brudzinski, 2017).

LITERATURE REVIEW

Domestic Situation Analysis

With the development of the times, students tend to love skateboarding, hip-hop and other more fashionable items, and the traditional high jump, long jump, running exercise, has been unable to meet the needs of contemporary students' physical exercise, therefore, physical education mode and contents also need to be improved. The sports and physical education practice for university students is the credit system, there are less league sports for university students, and there is no league system for middle schools (Ding et al., 2017). Most of the sports talents join in sports schools, and unable to motivate the development of university sports. And the sports coach system has not been popular in the university, there is no corresponding rules and regulations. In short, physical education in our country is relatively simple, if is not concerned by higher schools and society, and is not actively reformed, the continuous decline of university students' physique is inevitable (Du et al., 2012; McLean et al., 2017). At present, university physical education utilizes the credit system, in the four years of university study, enough credits is the completion of the task of learning sports. University students' spare time is arranged by themselves, without constraints of coaches and league system, there are no sports training specified to physical conditions of students, and students usually exercise on their own interests without guidance and time constraints. Some students hurt and have sports injury because of inappropriate exercise. Therefore, the school should organize sports with guiding, set up rules, system and entity for various types of league sports, thereby increasing the frequency and intensity of various games among higher schools (Yang, 2017; Mayer, 2017).

Foreign Situation Analysis

School sports in the United States teach fitness and health care in addition to sports skill, the content of physical fitness and strength includes muscle strength and endurance, flexibility, circulatory function and body composition, and health care is about nutrition, health, personal safety and social responsibility, psychological and emotional health and other aspects (Ma and Yang, 2015; Hao et al., 2017). The direction of education has shifted from the traditional educational model based on sports skills to the process of students' participation in exercise. Ni Xiaoyan compared the sports teaching contents of schools in United States and China: "Emory University pay more attention to sports theory, including sports physiology, anatomy, psychology, nutrition, health care, preventive medicine, and the content of sports teaching is close to daily life, and focus on education of physical and mental health, family life and health emergency treatment, disease prevention and control knowledge". Wang Huixia found that: "the school physical education teaching syllabus in the United States is mainly written by the school itself, or by their teachers referring to the provisions of the state, and is not unified by the state (Rieber, 2017; Gunter and Reeves, 2017). Variety of its curriculum content is a major feature for schools in the United States, the teaching contents include three aspects: first, the development of a variety of fitness exercises; second, promotion the exercises of health and diseases prevention; last one is the development of personality". Wang Kun emphasized in the 'comparative study of physical education curriculum in the United States and China' that "the curriculum content in the United States is mainly focuses on the development of personality and hobby of individual students, also is paid attention to the content development of lifelong sports project; the theory course covers the basic knowledge of sports, and provides students with sports professional knowledge, guidance of physical fitness and

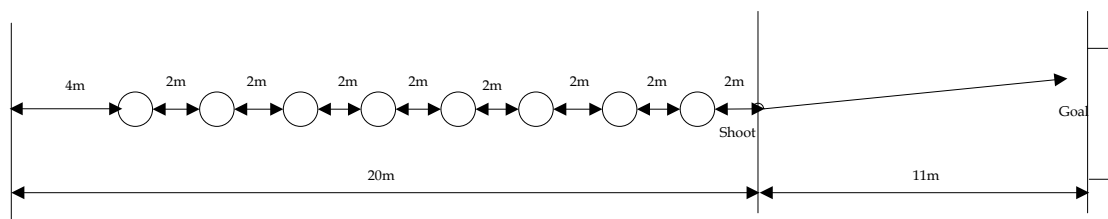


Figure 1. Schematic diagram of students' physical fitness testing method

Table 1. Content setting questionnaire

Teaching link	Content of courses	Time arrangement	Proportion
Warm-up	Supplementary Exercises	10	50
Teaching part	Teaching Review	40	
Physical fitness training	Popularization of sports knowledge	40	50
	Physical fitness test	10	

Table 2. Comparison of physical fitness test results between the experimental class and the control class before the experiment

Test item	Control class (N=35)	Experimental class (N=35)	T	P
body mass index	20.99±2.95	20.87±3.54	-0.149	0.882
vital capacity	2270.77±736.52	2236.43±814.91	-0.185	0.854
Sitting flexion	13.7±5.95	16.62±6.72	1.925	0.058
Standing long jump	1.82±0.30	1.91±0.44	0.907	0.368
Pull ups	9±3.79	10.74±5.84	1.058	0.298
Abdominal curl	37±4.52	35.69±7.87	-0.59	0.561

exercise prescription, through extracurricular physical education or regular lectures to teach methods of health and safety training “(Jing et al., 2015; Judd and Elliott, 2017).

METHODS

Two classes are chosen from football elective courses in the university, and divided into experimental class and control class. The experimental class has 35 students, and the control class has 35 students as well. Because the students of the two classes have no football experience, the football skill is not pre-test, only test the football technique at the final of the semester, the schematic diagram is as follows Figure 1 (Costa and Miranda, 2017).

Students need to kick the ball and let it fall in the range of 10 meters wide, and the first landing point is measured for scoring. Each student play 6 times, and must use the instep front or instep for kicking, run, leg swing, motor coordination, kicking smooth, coherent action. The ball falls within the prescribed area or boundary count, and the farthest result is recorded. The score calculation formula is as follows:

P is the test result of students' physical fitness, T is the detection time, X is the number of students, and n is the number of experiments:

$$P_k = \frac{1}{T} \int (x)_k(x)x \approx \frac{1}{n} \sum_{n=0}^n (n)_k(n) \tag{1}$$

According to the calculation formula, the students' physical quality can be judged (Honig et al., 2017).

RESULTS

The technical teaching based traditional teaching thought is changed. From the perspective of students, at the same time of mastering the basic knowledge and skills of sports, students' physical quality need to be improved, and the enthusiasm of learning (interest) and social adaptability (cooperation) should be cultivated, shown as Table 1 (Flaherty et al., 2017; Gregorius, 2017).

The indoor and outdoor physical health test of the students in the experimental class and the control class were carried out, and the test results were compared, shown in Table 2 (Blonder and Sakhnini, 2017).

Through the above data, it can be seen that before the experiment, the physical fitness of students have no significant differences, and indexes of students in the experimental class and the control class before the experiment show that: before the experiment, there was no significant difference for the experimental class and the control class

Table 3. Statistics of teaching methods commonly used by teachers

Test item	Always	Often	Sometimes	Never
Explanation method and demonstration method	112	102	45	24
Correction of errors and methods of help	58	86	86	56
Decomposition method and integrity method	15	45	56	86
Competition method, game method	96	15	56	64
Autonomous Law and cooperative law	76	45	57	64
Boring inquiry method	52	87	-59	061

students in adaptation ability and cooperation ability, physical, psychological and social movement. All the indexes of students in the two classes were in the same level, which met the requirements of the experiment (Matthews et al., 2002). Through the statistics of the above indicators, it is found that the students' physical quality, physical learning interest and social adaptation ability are low on the basis of no difference between the grades. Investigation and research on the teaching methods of physical education at present stage are listed in Table 3 (Si and Qiao, 2017; Tian et al., 2017).

The statistical data in the table shows that it can truly reflect the situation of physical education methods used by physical education teachers. But, the above of the list is basically some of the conventional teaching methods, these methods were utilized in every class repeatedly; and teaching methods listed below were less utilized, or some teachers used virtually, but do not know how to sum up, or some links and content were utilized (Hakkinen et al., 2001). Such as inquiry method, although physical education teachers will not operate as strict as described in the book, but asking questions and guiding students to inspire thinking and other individual links were often used (Cobbinah and Bayaga, 2017).

In total, it reflects a law, from top to bottom, is the conventional teaching method to the new teaching method, which is the utilized order of teachers. And the ratio is gradually decreased for often utilization, and the ratio of occasionally and uncommonly utilization are gradually increased. This fully shows that the physical education teachers are weak at drawing lessons from the advanced teaching methods and implementing the new teaching methods, which is exactly what needs to be strengthened. From the listed content, we can see that these are helpful to cultivate students' innovative consciousness and exercise innovation ability. The statistics data also indicates that physical education teachers know that "not too much unified requirements, give students thinking opportunity, guide the question" are very necessary to cultivate students' innovative ability, and attitude and evaluation towards these problems more consistent, but the specific implementation may be biased (Powell et al., 2006).

DISCUSSION

Through the above data analysis, it can be seen through a semester of teaching experiment, the experimental class with increasing body quality exercises has significant difference from the control class (Rafferty et al., 2002). The reasons are as follows, the experimental class has added the test content in the national student physical health standard in the teaching for practicing. Physical exercise is a painful exercise for most students, even though most of the students have consciousness in the bodybuilding of physical form, but only tend to control the diet. There are less students through physical exercise to keep fit, and girls tend to stretch in terms of practice in physical fitness exercises. And exercises related to speed quality focus on the competition with interesting obstacles. Endurance exercises is always less favorable for students. During the flexibility and strength exercises, extracurricular sports theory knowledge related to fitness and workout should be transmitted to the students as well, and students also need physical fitness exercise after class (Kruger et al., 2007).

CONCLUSION

With the deepening of China's educational reform and development, the conversion from examination oriented education to quality education need to be done, the physical quality, moral quality, psychological quality and knowledge quality education should be combined together as the basic goal of high comprehensive education, and achieve the goal of cultivating high-quality talents with overall development,

Methods and means are two important factors in the process of achieving the goal, and the goal is the basis and premise of the existence of means and methods, once the goal is reached or canceled, then the methods and means will return to its objective existence. Because of the different emphasis of importance, the importance of methods and means of achieving the goal also reflects differences (Brach et al., 2002). According to the "dichotomy" principle, teaching methods can be divided into the teacher centered teaching and student centered learning. Sports teaching methods can be divided into internal human body sensory perspective means and external human perspective means (Lundby et al., 2006). "Demonstration and explanation" teaching method belongs to the teacher centered teaching method; "students do modeled exercises" and "vacated step exercise after run " belong to the

learning and training method in sports teaching methods; and “springboard “,” horse “and” balloon “etc. involved in in the student practice step belongs to the sports teaching means. Through the above analysis, the physical quality of university students is closely related to the reform of physical education. According to the present situation of university students’ physical quality, to establish a “fitness” and “health first” guiding ideology, with “lifelong sports” as the goal, to mobilize university students actively participate in physical exercise, to cultivate students’ self-exercise ability, to lay foundation of their physique for constructing the motherland and improving their quality personal life.

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