

2014

# BioTechnology

*An Indian Journal*

FULL PAPER

BTAIJ, 10(15), 2014 [8601-8606]

## Factors influencing development of chinese college and university physical education and the countermeasure analysis

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### ABSTRACT

Based on theory of planned behavior, factors that influence physical education in Chinese colleges and universities are analyzed from behavior attitude, subject norm and control on cognitive behavior. Simultaneously, countermeasure to promotion of teaching practice are proposed here in the following aspects: encouraging teacher to form positive attitude toward physical education; strengthening subjective norm; enhancing control to cognitive behavior. From PE teachers' and schools' angle, teachers' altitude and motivation, education background, experience summary and feedback, title appraisal system, management mechanism, self-development, professional identification, teachers' quality, psychological quality, and excitation system are considered and analyzed in this paper. In terms of countermeasure, it emphasizes on principally on two parts: what can colleges and universities do; and what should a physical education teacher do. Schools can strike up enhancement with giving more attention to teachers' self-development and set up more optional sports associations. And teachers' should level up their own professional skills, guide students into healthy exercise, arrange their PE classes scientifically and professionally, and strengthen their teaching quality. Ultimate object of physical education is to help students with the habit and concept of life-long exercise. All aspects discussed in the paper involve this ultimate object.

### KEYWORDS

Physical education in Chinese colleges and universities; Theory of planned behavior; Teaching practice.



## CURRENT SITUATION OF COLLEGE AND UNIVERSITY PHYSICAL EDUCATION

Almost college and university PE teachers agree that since students started to go to PE class they haven't been exposed to professional physical training. That's true! Throughout China schools, PE class totally are free. Without being taught skills, students always play around with some basketballs and footballs. There is no difference in starting part, core part and ending part. A whole PE class always contains running, long jumping and broadcast gymnastic, all in routine way. Therefore, students cannot learn how to plan their physical exercise healthily and scientifically<sup>[1]</sup>.

## FACTORS INFLUENCING COLLEGE AND UNIVERSITY PHYSICAL EDUCATION

### Theory of planned behavior in physical education

Theory of Planned Behavior was formed by Ajzen, Timko and White in the basis of Theory of Reasoned Action. Theory of Reasoned Action assumes: human behavior are reasoned, so before all kinds of behaviors take place, information is processed and analyzed. That's why a series of reasons determine people's action.

Pointing at human cognitive system, the theory explains the causal relationship among behavior belief, behavior attitude and individual behavior. It assumes that human beings that can systematically capitalize or process available information are reasoned organism totally restrained by individual sense and will, which means their behavior is decided by behavior will also named as Attitude Toward Behavior.

Trying to explain and predict all kinds of behaviors, on the foundation of Theory of Reasoned Action, Perceived Behavioral Control is mixed into Reasoned Theory of Planned Behavior. Namely, when an individual thinks he has the capability to do something and his perceived behavior control can live up to the level where actual behavioral control is accurately reflected, perceived behavior control and intention can together be used to predict his behavior. Theoretic framework graph as in Figure.1<sup>[2]</sup>

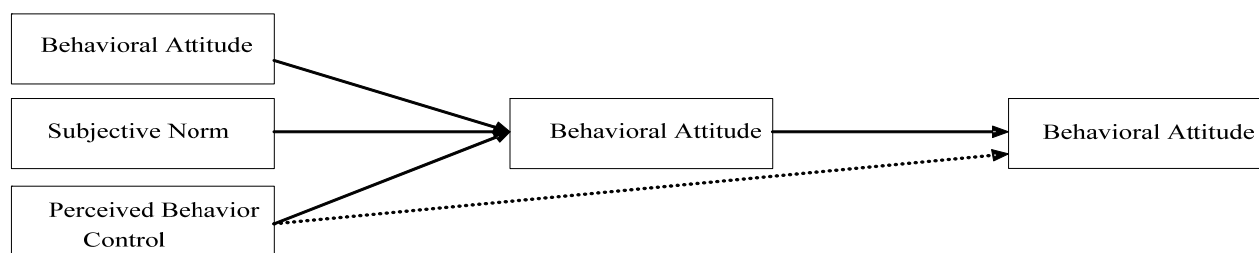


Figure 1 : Theoretic framework graph

### Physical education reform haven't focus on the relationship between theory and practice

Still focusing on theory of teaching skills and sport knowledge, conventional PE class always overlook to teaching students how to build their sport consciousness, sport capability, and exercise habit. Rather than be only taught to copy teachers' movement, students also have to learn how to make their exercise independently. Simultaneous, because students don't pay enough attention to PE class, it is difficult for them to get into the habit of lifelong exercise ability.

### Innovative idea is absent in college and university PE class

Though college and university PE class have been through numeral times reformation and enhancement, original confinement and influence are still existing in PE class. It is apparent that there is little changes in college and university PE class when compared with PE class of high schools, middle schools and primary schools.

Nowadays, exercise equipment are installed here and there in no matter cities and villages, however, people are lacking professional skill to make full use of these equipment. When students come into college and university they still not informed professional skills to make the best utilization of exercise equipment. It is important for professors to guide students to systematically take exercise to reach full benefit for their health as well as to keep up with times<sup>[3]</sup>.

### Multi-factors impact physical education

In Theory of Planned Behavior, subjective norm is whether an individual can sense social stress when he make decision. It reflects the influence on individual behavior by other people or group. During PE teaching in colleges and universities, assessment mechanism, school regulation and self-development have great effect on PE teaching.

Assessment mechanism on teaching quality, playing an important role in teaching quality enhancement and teaching result, is a kind of important measure established by colleges and universities to supervise teaching quality and guarantee system.

There are two aims of PE teaching assessment: one is to know more about students' study, which makes students recognize their progress and aspects needed to promoted; the other is to inspect teachers' teaching quality, which helps teachers advance teaching quality. Presently, students in plenty of colleges and universities can assess teaching quality online, and assessment is key to determine teachers' work. So the assessment put lots of additional pressure on teachers' work<sup>[4]</sup>.

School's regulation over teacher adopts planned employment, administrative appointment and deployed appointment. Actually, there is no real competitiveness and excitation mechanism formed in many aspects.

Status system and lifelong tenure of teachers are huge obstacle to teachers' active teaching and education reform. Nowadays, students can choose their fond classes taught by the teachers who specialize in their major when learned in their colleges and universities, or students come into the same class and learn the same thing. In the condition of this regulation, teacher like pay more attention on annual professional title appraisal.

Starting from assistant teacher to professor, their title can only level up rather than slip down. So title appraisal becomes the core work drawing teachers' attention. Physical education reform is the design and reflection toward future physical education, signifying breaking routine and set up new system. Just because reform features great foresight, teachers who get used to their routine job are subjected to psychological shock<sup>[5]</sup>.

Study from self-development stress psychology shows that endless improvement is human's inner demand. As social development and knowledge economy era coming, new knowledge, idea and technology erupt out ceaselessly, and education reform continuously goes on. Teachers must overcome difficulties in time, economy and energy, and they should try their best to make their teaching method rich and develop themselves.

But, confined by various limitations, PE teachers, compared with other teachers, face low social status, invisible work, scant promotion opportunities and confusion on marginalization. More and more PE teachers begin to feel stress of self-development. Owing to most teachers are not contented in their career development, they suffer large psychological pressure. Additionally, since appointment, title appraisal and training opportunities bring out competitiveness and arouse intensive relationship among teachers, which add stress on teachers<sup>[6]</sup>.

In Theory of Planned Behavior, perceived behavior control indicates whether an individual feels easy and difficult when he behaves in a certain condition. It reflects the perception to the factors propelling or thwarting behave. In the process of PE teaching, sense of identity, teaching quality, psychological condition and schools' excitation place a large influence on teaching action.

Professional identification means that one, in his inner world, thinks his career value and meaningful, and he can find pleasure during their teaching. Teachers can be seen as a special occupation which closely relates with future growth of teachers and further influence on students, so professional identification is specially needed to built. In recent years, though there is a great increase in social status and salary of teachers, professional identification doesn't escalate correspondingly.

It is important to figure out whether they regard PE teaching as a professional of high social class, social value and individual meaning; whether they just see PE teaching as a stable occupation and means of subsistence; whether they realize to help students form lifelong health idea; whether they think PE teaching as a glory career. With higher professional identification, teachers will more actively devote themselves into PE teaching and have more confidence in PE education inform.

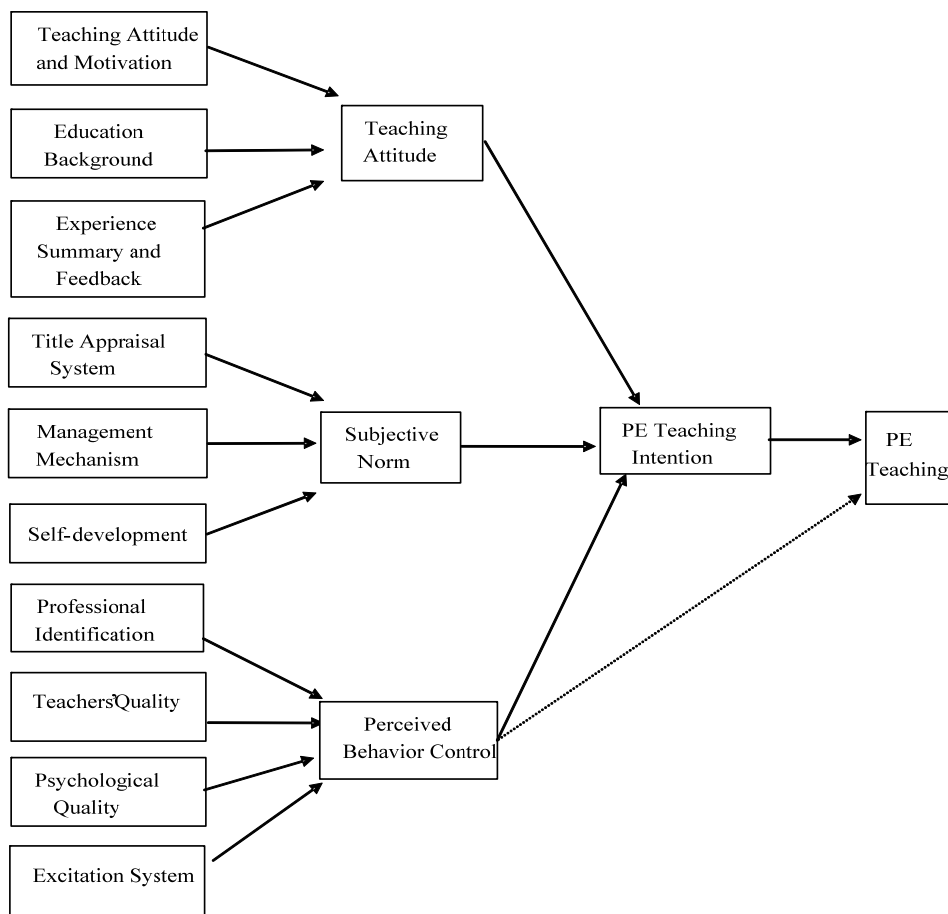


Figure 2 : Theory model of teaching based on theory of planned behavior

Professional structure, teaching capability and professional ethics are three factors of PE teachers in colleges and universities. Not only a labor work, a PE teacher's work still is in need of intelligence. Once intelligence goes up to a certain level, it works less significant. Additionally, expression ability and organization ability determine teachers' ability to diagnose the difficulties when students learn, which can cultivate logic, systematicness and rationality.

Psychological quality of PE teachers should be equipped with the following quality: emotional quality, volitional quality and characteristic quality. These qualities appear as enthusiasm, love, imagination and passion. During PE teaching, enthusiasm and love help teachers share delight and emotion with their students, and at the same time passion and imagination make teachers love and enjoy their work.

Factually, excitation system and school regulation ceaselessly meet teachers' demand and inspire them to attain their target. In school regulation, proper excitation system can evoke inspiration of teachers. So excitation system is also a factor that influences perceived behavior control of physical education. Theory model of teaching based on Theory of Planned Behavior as in Figure.2<sup>[7]</sup>

## **COUNTERMEASURE ANALYSIS TO IMPROVEMENT COLLEGE AND UNIVERSITY PE TEACHING PRACTICE**

### **Establish enough optional classes for student to follow their interest**

With knowledge updating more and more rapidly, PE teaching should catch up with its speed. Optional courses, a key link to cultivate educational comprehensive talented students, are further improvement for students to better their knowledge structure and enrich themselves. So it is time to put forward optional classes module. But before that optional module should be designed scientifically in order to guarantee student to experience independent growth.

And at the same time, teaching content also should adopt rational variance. For instance, some emerging sports, such as Taiji, directional movement, excursion and camping can be put into PE class for students to generally learn. However, traditional sports, such as basketball, volleyball, Kongfu, Ping Pong for students to thoroughly learn<sup>[8]</sup>.

### **Pay more attention to teachers' self-development**

Responsibility to push forward physical education reform falls onto teachers' shoulder. Only when teachers correctly treat PE teaching. They should promote their ability, impel PE teaching quality and enhance teaching quality so that the reform can be really implemented. Therefore, systematic and effective training should be opened to PE teachers. Only in that way, teachers' demand to development can be met.

Certainly, it is important for colleges and universities to emphasize on self-development of PE teachers. However, it cannot be neglected that teachers themselves also should lay importance on their self-growth. In some PE teachers' opinion, they think that only these teachers such as Chinese teachers, math teachers, English teachers, Chemical teachers, Physical teacher and so on need to improve themselves to assistant learners to enhance their skills that can earn money when they go into society. It is totally wrong. Physical education also is in need of creativity and studying spirit of teachers. Because when a teacher don't spend enough time on the preparation of their classes, students can apparently feel it, and they won't pay enough attention to the classes. Consequently, in students' mind, they view PE class as an insignificant one. What was worse, lifelong exercise consciousness will never take place in their mind.

Here, there is a measure for a PE teacher's reference. It is to make a self-development plan. Before a teacher start his first class in colleges and universities, he can set an anticipated result and corresponding teaching plan. A year later, they should retrospect on their teaching path to examine which aspect should be bettered. Then make another teaching plan for the next years with the same method. Furthermore, in the process of the year's teaching, they should often communicate with students about their feelings, and ask them what they want to learn or know in PE class.

An excellent PE class is always follow students' rational demand and strive to meet it.

### **Enhance students' consciousness and ability to involve physical education**

PE class limitation is broken by sports associations that can make students know more about sports system and independent exercise. Interest of students to sports is aroused by what they have learned in PE classes. And through this, they build their correct physical exercise value. And various sports associations help students acquaint with sports and theory more deeply.

Additionally, it can propel students to enhance the exercise capacity and sports skills, exploring the exercise potential. Afterwards, physical education can equip students with lifelong meaning. Different from Chinese class, math class, English class, biology class and chemical class and so on, PE class, as the same, can facilitate students to develop social ability. When participants discuss activity content and target, distribution of part, tools preparation and outcome appraisal, they gradually evolve their social capability.

### **Strengthen teachers' quality**

More and more PE teachers and students realize that it is significant for PE teaching reform and development to improve the training of PE teachers group. As an important aspect, high-qualified PE teachers definitely will foster students

to comprehensive talented people. At least, as we all know, a teacher scant of professional teaching skill will never cultivate students with long-term physical exercise consciousness. However, colleges and universities should audaciously appoint young PE teachers who, compared with the senior ones, are more familiar with innovative teaching action and training method.

It is easy for us to think of professional quality of physical education teaching when it comes to talking about PE teachers' quality. To the contrary, aside from physical education knowledge, PE teacher also should consider to learn some knowledge in other majors. For instance, when a PE teacher masters psychological information, it is likely for him to melt this knowledge into his PE class so as to successfully teaching their students with special psychological knowledge in terms of the distinction in each student.

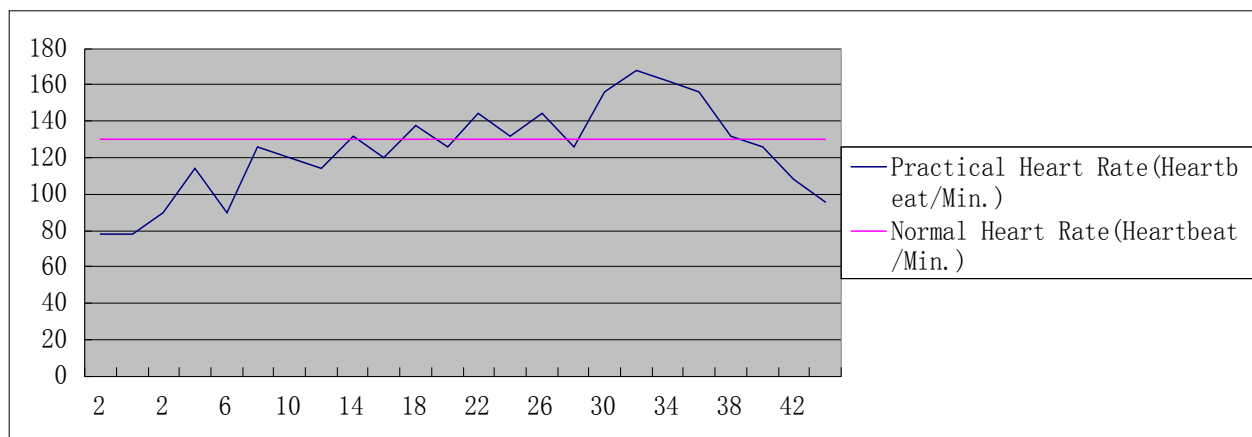
**Correct guidance can strengthen teaching performance**

As we know perceived behavior control is significant factor impact PE teaching. Professional identification, quality and non-intelligence condition all affect perceived behavior control, that's why teachers should be appropriately guided. In the first place, professional ethics of teachers will be strengthened.

In respect to education, teachers should be furnished with two educational functions: one is to use rich knowledge to enrich students; the other one is to forge students' mind as they make themselves an example. There is an obvious effect when teachers make themselves as an example to students, and it is determined by particularity of this occupation. PE teachers should constantly keep absorbing new knowledge to enhance their professional ethics<sup>[10]</sup>.

**Professional and scientific arrangement of PE class benefits students**

For instance: we can scientifically monitor students' heart rate after their exercise. Here is an example as following as Figure 3.



**Figure 3 : The pulse of the maximum minimum value table**

Calculation method of heart rate:

Firstly, figure out the area of from practical heart rate curve to time axis.

Secondly, area is divided by time.

Unit heart rate :

$$\sum x_1 = \frac{(a+b)x_t}{2} \tag{1}$$

Total heart rate:

$$\sum x_1 + \sum x_2 + \sum x_3 + \dots + \sum x_n \tag{2}$$

Hear rate: total heart rate/t

Factually, PE class always contains too much exercise which makes students exhausted, or too little exercise, which is not enough for students to get a good health. So professional knowledge is so important for a PE teacher to help students develop the idea that how to plan their physical exercise, healthily and scientifically. Only in this way, students can have a lifelong benefit from PE class when in their colleges and universities. It is the exact true and ultimate aim of Physical Education.

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