



## Mathematical Statistics-based University Students' Physical Health Conditions and Teaching Strategies Study

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Received 9 July 2017 • Revised 26 August 2017 • Accepted 1 October 2017

### ABSTRACT

**Objective:** China's relevant departments carried out investigation on physique and health conditions of all students in 2010. Result indicated that physical health conditions of China's University students were so bad that should attract people's attention as the students had important social roles. **Research methods:** in this paper, Anhui Agricultural University students' physique test data in 2016 was used as research evidence; literature consultation, questionnaire survey, logistic analysis, mathematical statistics etc. were applied to analyze the University students' physical health conditions and problems in students of Anhui Agricultural University. **Research results:** Physical health conditions of Anhui Agricultural University students were generally qualified, however the levels were lower, excellent rates were not high, and the development was imbalanced. We should improve school's physical education courses, increase class hour and set up health care course and physical education theoretic course to improve students' sports and cultural accomplishments; we should make a scientific and reasonable assessment on physical education and focus on students' individual development; we should improve organization and management of school's physical exercises and cultivate student's interest in physical exercises; we should constantly perfect sports sit facility's construction, utilize current sports sites facilities in a scientific and reasonable way and strengthen multi-function development of stadiums' facilities.

**Keywords:** physical health, teaching strategies, teaching methods, teaching evaluation

### INTRODUCTION

It is well-known that University students are the mainstay of motherland's prosperity and development in future. They shoulder heavy responsibilities as national construction and realization of China dream; they are impetus of national sustainable development and promoter to social progress. Their health is closely related to all aspects that promote social progress. It mainly lies in judgment on university students' psychological and physical health-an important reflection of the success or failure that Chinese higher education would be. It is related to sustainable development of China's public fitness and lifelong sports, and is also a manifest of university sports teaching level (Zhang & Peng, 2017). Physique is quality of body, it embodies body's contour structure, physiological function on the basis of hereditary and acquired character, and it is synthetic and rather stable in psychological quality. In 1948, there was a definition of health in the Charter of WHO, "health is a harmony in state, body, psychology and society, not just meaning no disease or not being feeble" Chuanzhi Shi defined health as a good state in physiology, psychology and social nature, not just meaning no disease or not being feeble. Physical education is a fundamental

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#### **Contribution of this paper to the literature**

- We explore University students' physical health influence factors from the level of physical education, put forward improvement strategies so as to provide some theoretical reference for working plan with an aim to enhance University students' physical health level and also offer theoretical evidence for Universities' physical education.
- Focusing on students' individual development is very important for making assessment on physical education in a scientific and reasonable manner.
- We should improve school's physical education courses, increase class hour and set up health care course and physical education theoretic course.

path to fulfill physical education objective and task (Li, 2017)). It is an activity that both sports teachers and students engage, in which proper essentials are adopted to guide students to master basic knowledge, technology and sports skills of sports and health, enhance students' physique and cultivate their lifelong sports ability and good moral character (Zhang, 2017). Students being physical and psychological health are not only the core of school physical education but also a reflection of university physical education level; we promote students' comprehensive ability of health level through attaching great importance to university physical education (Lin, 2012). Documentary has shown that in recent years, there was a continuously declining tendency in physical health level of China University students. It is really worrying (Zhou et al., 2012). University students' physical health conditions at school not only directly exerts an impact on their serve to the society in a healthy and happy state or not after graduation, but also can reflect level of school physical education and reform effect of sports management level. Actually, paying attention to University students' physical health is stressing on University physical education (Liu & Zhang, 2008). Thus, in this paper, Anhui Agricultural University was regarded as research object. Investigation was made on physical health status of students thereof, analysis and research were made on problems during investigation, relative solving ideas and improvement strategies were put forward correspondingly, for the purpose of providing theoretical references for improving physical health level of Anhui Agricultural University students and making some contributions to Anhui Agricultural University students' health and physical education.

### **Chinese University Students' Physical Health Status**

By investigation, Yang Zhang, Ling He found that there was overall continuous increasing tendencies in youth body shape while also a continuous rising tendency in obesity rate; improvement should be made on lung capacity and most of the physical quality indicators; there was a growing impaired vision status that showed a younger-age trend constantly. There was a continuous declining in university students' endurance, speed, explosive power, strength and other quality (Peng, 2010). Some indicators of university students were even inferior to those of middle school students. University students' physical quality has therefore become an important influence factor that impedes national physical quality's improvement.

During national students' physique investigation and study for six times from 1985 to 2008, Xiaojian Yin, Jianqiang Du etc. found that there was an increase in university male and female students' height, and a decrease in their lung capacity, 50 meters running and endurance performance, and a declining tendency in physical quality of university students in all era.

Ming Ye etc. made researches and analyses, they pointed out that imbalance development in physical quality of university students mainly embodied weaker upper and lower limbs' strength, as well as endurance quality.

By researching, Guangjun Fan found that there have been a continuous declining trend in China's University students' physical health level in recent 20 years, and physical health issue of university students has therefore become a common problem of China's universities. "2010 National Student Fitness and health survey" that jointly organized by Ministry of education, General Administration of Sport of China, Ministry of health and other ministries showed that there was a decline in Chinese male students' standing long jump, sit and reach, 1000

meters running and other indicators. And performance of female students in standing long jump, sit-up, 800 meters running was also far behind that in 2005.

Xin Chen, Lequn Quan obtained university students' physical health status by researching on body shape and lung capacity. In the view of body shape, main issue was shown as seriously polarization-to be specific, too fat or too thin, and there is an increasing trend in obesity university students. It can be said that obesity has become a major health problem in China's University students.

### **Domestic University's Physical Education Status**

Tao Zheng thought that China University's physical education reform has made some achievements in recent years. However, previous old teaching mode was still used in university's physical education, theory and practice weren't closely integrated. In some universities' physical education, their teaching means were single that couldn't arouse students' interests in sports class. Some students even hated or skipped sports class. These had serious impacts on sports course. In addition, he thought contents of university physical education were little that was only some daily sports events.

Xinliang Zhou thought that current status of China's university physical education was still not optimistic, there were many inevitable contradictions. For instance, deficiency in practical knowledge of university physical education, teaching contents unable to advance with times, lacking of scientificity and practicability; simple teaching methods and university sports course are unable to arouse students' interests, insufficient cultivation in students' sports consciousness, moral sentiments and values; unclear teaching objects affects formation and development of students' comprehensive quality.

Dawei Song's analysis of current status of university physical education reform showed that traditional sports teaching concept as "favor practice over theory" still took the lead, current teaching mode restricted in the cultivation of students' lifelong sports ability, the form of teaching organization and way of test and evaluation affected students' interests in sports.

Lu Huang, Shaohua Wei carried out investigation and thought that most of the university sports teachers were young teachers. It was difficult for them to form the backbone as they lacked of certain teaching experience. University sports teachers' scientific and research projects were less, while their engaged sports teaching project activities were even little, their emphasis on these aspects were also not so high, and university physical education's quality was therefore affected. University sports sites and facilities construction status were there were not enough playgrounds, sports indoor sites in some universities were reconstructed using unused classrooms, sports sits and facilities could not satisfy demands of modern universities physical education. There was corruption between physical education assessment and examination ways and teaching concepts, mainly reflecting as excessive single evaluation system.

### **Research Objectives and Significances**

Contemporary university students shoulder great responsibilities as building a socialist modernized country and are backbone to realize Chinese dream. They are also in the key period of physical and psychological development, physical and psychological health state have gradually been mature, while sometimes tended to unstable and imbalance. As university students' physical power has been declined gradually in recent years, shock always occurred to students in middle-distance race in school sports meeting; therefore university students' physical health issue has gradually attacked people's attention. School physical education is an indispensable part in school education, and also an important factor to students' sound growth both in physically and psychologically. However, for a long time, guiding thoughts of Chinese universities is mainly technological teaching and skill teaching, focusing on unity and standardization in teaching form, structure, content, method, mean, examination and evaluation etc., ignoring teaching demands -student-centered, which exerts a certain impact on university students' physical health. How to look on the effects of university physical education on students' physical health correctly, enable school physical education, health education and lifelong education to really go deeper, implement

specific education so as to improve university students' physical health condition is a focus of university physical education circle. Therefore, in this paper, Anhui Agricultural University students' physique test data in 2016 was collected, these students' physical ability (body shape, function, sport quality) development trend and problems were studied. University students' physical health influence factors were explored from the level of physical education, improvement strategies were put forward, which provided some theoretical references for improving university students' physical health level and offering theoretical evidence for universities physical education.

## RESEARCH OBJECTS AND METHODS

### Research Objects

Take Anhui Agricultural University test data in 2016 according to "Physical test standard" as data, select test data of 1800 people in total at random from partial university students in 18 departments, from which there are 900 schoolboys, and 900 schoolgirls. They are research objects of physical health condition.

### Research Methods

#### *Literature consultation*

Consult and collect relative document literature via school's library and CNKI, read it and then make analysis and sorting to provide firm theoretical foundation for the paper.

#### *Questionnaire survey*

Collect relevant contents through questionnaire survey of partial students at school. The survey randomly distributed 200 questionnaires, 197 were recovered, and 190 are effective questionnaires. The effective rate was 96.4%.

#### *Mathematical statistics*

Make statistics, sort out, and analyze collected data using Excel.

#### *Logistic analysis*

Carry out thorough analysis of statistical results using logic analysis.

## RESULTS AND ANALYSES

### Investigation on University Students' Physical Health Conditions

#### *Survey of University students' physical health status*

We aim to understand University students' physical conditions and change rule, improve University students' physique and health level, cultivate students' lifelong sports consciousness, and promote physical education level. With regard to this, we take Anhui Agricultural University students as an example; carry out random check on physical test data of 1800 students in total in 2016. The University students' physical health investigation is in accordance with randomized cluster sampling method. 50 schoolboys and 50 schoolgirls in every department were sampled from university's overall 18 departments and composed of investigation samples. According to statistics, the number of people in investigation is 1800, from which 900 are schoolboys and 900 are schoolgirls (can refer to [Table 1](#)). Investigation test items are nine physical quality indicators, including height, weight, lung capacity, 50 meters, 800/1000 meters, sit and reach, pull-up, standing long jump and sit-up.

**Table 1.** Male and female university students Standard test overall score

Gender	Number of people	Excellent (%)	Good (%)	Qualified (%)	Fail (%)
Male	900	20 (2.2%)	212 (23.6%)	652 (72.4%)	16 (1.8%)
Female	900	6 (0.6%)	360 (40%)	531 (59%)	3 (0.3%)
Total	1800	26 (1.4%)	572 (31.8%)	1183 (65.7%)	19 (1.1%)

**Table 2.** Statistics of University students' body mass index

Gender	Number of people	Slightly thin (%)	Normal (%)	Slightly fat (%)	Obesity (%)
Schoolboy	900	139 (15.5%)	639 (71%)	103 (11.4%)	19 (2.7%)
Schoolgirl	900	193 (21.4%)	646 (71.8%)	52 (5.8%)	9 (1%)
Total	1800	332 (18.4%)	1285 (71.4%)	155 (8.6%)	28 (1.6%)

**Table 3.** University students' lung capacity index statistics

Gender	Number of people	Excellent (%)	Good (%)	Qualified (%)	Fail (%)
Schoolgirls	900	66 (7.3%)	118 (13.1%)	543 (60.3%)	173 (19.2%)
Schoolboys	900	105 (11.7%)	88 (9.7%)	573 (63.7%)	134 (14.9%)
Total	1800	171 (9.5%)	206 (22.9%)	1116 (62%)	307 (17.1%)

### *Test score analysis*

**Table 1** shows the physical condition of University students is generally qualified, with a qualified rate of 98.9%. Among them, fail accounts for 1.1%, qualified accounts for 65.7%, good accounts for 31.8%, and excellent accounts for 1.4%. The test results conform to normal distribution. The test data show that schoolboys' fail rate is 6 times the schoolgirls, which may be related to their test options and evaluation standard, such as most schoolgirls get full score in sit-up while schoolboys feel it difficult to get such score in pull-up. Anhui Agricultural University students are overall qualified in physical test, however the ratio as 31.8% good, 1.4% excellent indicates that improvement should be made on the students' physical level, the excellence rate should be further promoted so that overall students' physical condition can be excellent.

### *Body shape analysis*

As an important indicator to evaluate body shape growth level and body symmetry degree, body mass index can indirectly reflect body composition, evaluate fat or thin conditions correctly and manifest body's width, thickness, dimension and density. **Table 2** shows that schoolboys and schoolgirls show no big differences in body shape, nearly 71% of their body mass index are in normal scope. However, the rest 30% students are in the abnormal scope, they are either too fat or too thin, the number of obesity in schoolboys is more than that of schoolgirls. This may be resulted from easy and comfortable university life and insufficient exercises. Less obesity amount in schoolgirls perhaps, due to their relative care for figure and stronger willpower to control personal weight.

Body function refers to body metabolic function and working efficiency of all organs and systems, which mainly reflects running state of human body's organs and systems' physiological functions. **Table 3** shows overall lung capacity index score is qualified, schoolboys account for 60.3% and schoolgirls account for 63.7%, schoolboys and schoolgirls are equal in breathing function and cardiovascular system function. On a whole, schoolgirls' body function is better than that of schoolboys.

### *Physical quality analysis*

Physical quality is body's functional ability, such as speed, strength, endurance, sensitivity, flexibility, balance, coordination that represented in sports process. **Table 4** indicates situation of poor strength quality, in the regard of pull-up, a reflection of upper limb strength, fail rate of schoolboys reach as high as 45.6%, while fail rate of schoolgirls reach 20.8% whose waist and abdomen strength is poor. In the regard of standing long jump, a reflection of lower limbs' explosive power, schoolgirls are better than schoolboys, the former's pass rate is 91.7% while the latter is 86.6%. Both of them need to improve their strength quality.

**Table 4.** University students' physical quality index statistics

Gender	Item	Number of people	Excellent (%)	Good (%)	Qualified (%)	Fail (%)
Man	Pull-up	900	99 (11%)	75 (8.3%)	316 (35.1%)	410 (45.6%)
Man	Standing long jump	900	46 (5.1%)	136 (15.1%)	598 (66.4%)	120 (13.3%)
Woman	1min sit-up	900	7 (0.8%)	32 (3.6%)	674 (74.9%)	187 (20.8%)
Woman	Standing long jump	900	152 (16.9%)	140 (15.6%)	533 (59.2%)	75 (8.3%)

**Table 5.** Statistics of University students' other quality index statistics

Gender	Item	Number of people	Excellent (%)	Good (%)	Qualified (%)	Fail (%)
Man	50 meters	900	241 (26.8%)	124 (13.8%)	519 (57.7%)	16 (1.8%)
Man	Sit and reach	900	100 (11.1%)	129 (14.3%)	605 (67.2%)	66 (7.3%)
Man	1000 meters	900	72 (8%)	78 (8.7%)	584 (64.9%)	166 (18.4%)
Woman	50 meters	900	49 (5.4%)	133 (14.8%)	664 (73.8%)	54 (6%)
Woman	Sit and reach	900	155 (17.2%)	134 (14.9%)	565 (62.8%)	46 (5.1%)
Woman	800 meters	900	85 (9.4%)	160 (17.8%)	616 (68.4%)	39 (4.3%)

**Table 5** indicates that schoolboys' speed quality is good, their pass rate is 98.2% and excellent rate reaches as high as 50.6%. However, their endurance and flexibility quality are weak; schoolgirls have shown better physical quality than schoolboys, their flexibility and endurance are superior to that of schoolboys. Schoolboys' endurance is rather poor with fail rate 18.4%. We should pay attention to promote level of schoolboys' endurance quality.

To sum up, there are imbalanced development in all physical quality items of schoolboys and schoolgirls. They have their own strength and weakness. Schoolboys' speed quality is relative good, while their upper limbs' strength quality and endurance quality are relative weak. The overall situation of schoolgirls is basically superior to schoolboys, especially in flexibility and endurance, while their waist and abdomen strength are rather poor. Body shape of Schoolboys and schoolgirls are basically in the normal scope, however approximately 30% of them are abnormal. Obesity is more shown in schoolboys. On a whole, university students' physical health is overall qualified but in lower level with low excellent rate. University students' physical health level is not optimistic, which may be related to students' week sports consciousness, little exercises at ordinary times, insufficient amount of exercises in sports class as well as other physical education factors. Therefore, relative departments of school should take positive and effective measures to promote students' health level.

### University Students' Physical Health Influential Education Factors

The ultimate purpose of school physical education is to enhance students' physique through school physical education, and develop students' lifelong physical exercises habits so that facilitate their sound development physically and psychologically. In the paper, it makes analysis of students' physical health influence factors mainly through investigation on Anhui Agricultural University's physical education course and extracurricular sports activities. Analysis finds that students' physical health is related to school sports' sites and facilities, curriculum setting, students' sports consciousness, education evaluation, teaching contents and extracurricular activities.

#### *Effects of sites and facilities on university students' physical health*

**Table 6** results suggest that 32.1% students think school's sites and facilities can basically satisfy their sports demands, while only 5.7% students think them could completely satisfy their sports demands. This shows school's sports sites and facilities is not perfect enough that cannot fully satisfy students' sports demands, which may affect their physical exercises to a certain degree. It should be noted that there are 32.6% students suppose that their sports demands on school sites and facilities could not be satisfied. In their opinions, problems in school's sites and facilities are mainly little events can organize, the equipment is not enough, the site is too small and too little. These may reduce their interests in participating in physical exercises. In the long run, it will affect the efficiency of their physical exercises and further affect their physical health conditions.

**Table 6.** University students' demands on school sports sites and facilities (N=190)

Degree of demands	Number of people/Percentage
Completely satisfy	11 (5.7%)
Relative well satisfy	56 (29.5%)
Basically satisfy	61 (32.1%)
Cannot satisfy	62 (32.6%)

**Table 7.** Influence factors of University students' engagement in physical exercises (N=62)

Reason	Number of people
The site is too small, too little	36
The site quality is so poor	21
The equipment is not enough	37
Equipment quality is too bad	19
Little events can organize	48
Too expensive	9

**Table 8.** University physical education curriculum setting

Course arrangement	Teaching arrangement
Elementary course	Two classes every week in the first term of freshman year
Elective course	Two classes every week in the second term of freshman year and the whole terms of sophomore year

*Effects of curriculum setting on university students' physical health*

**Table 8** indicates that University has arranged sports course in freshman and sophomore year as two classes every week and roughly 36 class hours every term, the main items are elementary course and elective course. This shows irrationality in university sports course setting – only elementary and elective courses are set, sports theory course including health care course isn't set independently. Students' understanding on sports knowledge as well as basic knowledge of sports health care could only rely on teachers' explanation in the first lesson when school starts or at ordinary class hour. The theory learning time is so short that is not enough for students. Moreover, it is classroom teacher rather than professional sports health care teachers to instruct sports health care and other knowledge, which may lead to students unable to master all-around knowledge. As most of the universities, Anhui Agricultural University only set sports course in freshman year and sophomore year rather than junior year. There are 36 class hours every term, while most of students may be able to take the course for at least two due to causes, such as weather, illness or else. In such little time, students couldn't master one or several sports skills at all, let alone their physical exercises demands are well satisfied. This may not play the role in students' body-building, and be hard to bring students into sports habits.

*Effects of students' sports consciousness on university students' physical health*

**Table 9** indicates that 41.5% of the students like sports course, 37.4% ones have no feeling in sports course, and 21% ones dislike sports course. This suggests that most of the students don't have strong sports consciousness, and even a part of students don't form correct sports consciousness; they don't realize the promotion of sports on physical health, let alone take initiative in exercises to improve physical health level. It also finds that causes affect students' attitude toward sports course are mainly students get bored in sports course, they don't have any desired sports events; sometimes they can't be satisfied by sites and facilities so that don't want to take sports class and even dislike it. Actually, all of these are caused by their low sports cultural accomplishments and shortage in correct sports consciousness. This is quite harmful for students' physical and psychological health and has a great impact on their physical health.

**Table 9.** Students' attitude toward sports course (N=190)

Attitude	Number of people / Percentage
Love	25 (13.1%)
Like	54 (28.4%)
Normal	71 (37.4%)
Not so much	23 (12.1%)
Dislike	17 (8.9%)

**Table 10.** Causes affect students' attending sports course (N=190)

Causes	Number of people / Percentage
Dissatisfied with sports teacher	19 (1%)
No sports event to their fondness	44 (23.1%)
Dissatisfied with sites and facilities	34 (17.9%)
No fun in sports course	80 (42.1%)
Too tired in sports course	13 (6.8%)

**Table 11.** Students' attitude toward teaching evaluation (N=190)

Attitude	Number of people / Percentage
Very satisfied	13 (6.8%)
Relative satisfied	90 (47.3%)
Normal	42 (22.1%)
Dissatisfied	45 (23.7%)

**Table 12.** Causes for students' dissatisfaction with teaching evaluation (N=190)

Cause	Number of people
Without consideration of students' individual differences	26
Focus on physical health test score	8
Focus on skill examination	22
Disconnection between examination contents and course objectives	15
Single evaluation method	33
Less rigorous examination	10

### *Effects of teaching evaluation on university students' physical health*

Above **Table 11** and **12** shows half the students are relative satisfied with teachers' examination and evaluation method, but some students think teacher's evaluation is general, while others are dissatisfied with teacher's evaluation. This suggests that there are problems in Anhui Agricultural University teacher's evaluation. Students' dissatisfaction with teacher's evaluation mainly because teachers take no consideration of their individual differences when evaluating, the teacher's evaluation method is single, evaluation focus on skill examination and so on. Improper evaluation is bad for cultivation of university students' sports interests, ability, habit and lifelong sports values and it may exert negative effects on students.

### *Effects of teaching contents on university students' physical health*

**Table 13** and **14** has shown that students are mildly interested in the contents of sports course, and there are 17.9% students show no interest in them. Investigation finds that students prefer to new type of sports events set in sports course, such as sports games, balls, swimming and so on. By far, Anhui Agricultural University has set some events in sports course, such as basketball, football, volleyball, badminton, table tennis, cuqiu, sports dance, aerobics, cheerleading, line dance, martial arts, free combat, self-defense, yoga, dragon dance, from which are mostly excessive traditional, not novel enough and not easier to attract students' interests. Emerging sports events such as yoga, Pilates, tennis that are closely integrated with the times haven't yet widely spread. Students tend to prefer to access to emerging sports events and strong challenging ones, while sports teaching contents lack of a certain innovation, which seriously affect students' sports attitude and also have a certain impact on students' physical health.



**Table 13.** Students' attitude towards sports course teaching contents (N=190)

Attitude	Number of people / Percentage
Have no interest	34 (17.9%)
Mildly interest	87 (45.8%)
Rather interest	40 (21.1%)
Specially interest	9 (4.7%)

**Table 14.** Students' favorite course projects in sports course's setting (N=190)

Project	Number of people
Balls (basketball, football, volleyball, badminton, table tennis, cuqiu)	89
Sports dance, aerobics, cheerleading, line dance	48
Martial arts, free combat, self-defense	55
Yoga	45
Dragon dance	23
Swimming	78
Sports games	88
Emerging sports events(orientation movement, rock climbing, outward bound sports)	98

**Table 15.** Status of students' weekly extracurricular sports activities (N=190)

Activity status	Number of people / Percentage
Hasn't participated in	75 (39.5%)
Once	46 (24.2%)
Twice	34 (17.9%)
Three times	23 (12.1%)
Over three times	12 (6.3%)

**Table 16.** Causes for students' engaging in extracurricular sports activities (N=190)

Cause	Number of people
No organizer and instructor	45
No sports specialty	41
Heavy academic burden	34
Tight sites and equipment	56
No interest and habit	87
No proper accompany	67
No requirement from school	156

### *Effects of extracurricular activities on university students' physical health*

**Table 15, 16** and **17** indicates that students rarely engage in extracurricular sports activities, from which the participants account for 39.5%, and the participants with three times and more experience only account for 18.4%. It can be seen that Anhui Agricultural University's extracurricular sports activities are in poor organization. The extracurricular sports activity is the extension and supplement of sports course and practical training of sports course, which has great impact on fostering students' sports interests and physical exercises habits. Poor organization of extracurricular sports activities couldn't promote students' physical health level. Research finds that causes for its poor organization are mainly because school hasn't organized enough extracurricular sports competition, the school has no strict requirement on extracurricular sports activity, students have no interest in participating in extracurricular sports activities, and they lack of accompany when are willing to take exercises and so on.

**Table 17.** Frequency of school organizing extracurricular sports competitions (N=190)

Frequency	Number of people / Percentage
Very frequently	5 (2.6%)
Rather frequently	12 (6.3%)
General	84 (44.2%)
Basically don't organize	68 (35.8%)
Never organize	21 (11.1%)

### Improvement Counter Measures for Physical Education

- i) Sports sites and facilities are basic material conditions for implementing sports activities, school physical education relies on sports sites and facilities, school should strengthen management and utilization of sites and facilities, increase sites and facilities of diversified sports events, carry out scientific management on current sites and facilities, utilize them properly so that maximize utilization of limited resources.
- ii) It is available for school to increase sports course class hour, set up sports theoretical course independently; as for junior, it is available to arrange one sports course every week or alternatively, increase exercises between course for them. Increase students' physical exercise duration, cycle and theoretical knowledge may offer students enough time to better master sports skills.
- iii) School should strengthen transmission of sports and health knowledge, upgrade students' sports and cultural accomplishments through various ways. Teachers should define the concept as "Health comes first", "Lifelong physical education" in teaching.
- iv) Adopt multiple evaluation method, students' sports performance evaluation should be done in accordance with students' sports classroom performance at ordinary time, attendance, engagement in extracurricular sports competitions, sports learning process and else. In class, we should arrange course contents and make teaching evaluation according to students' different personalities, physical conditions and others.
- v) Teaching contents should be flexible, adapt to the demands of lifelong physical education. We should update teaching contents timely, advance with times. We could arrange innovative sports games, oriental sports, and various competitions as teaching contents.
- vi) The school should include extracurricular sports activities into school physical education working planning; strengthen propaganda on sports health knowledge. School should be proactive in organizing diversity extracurricular sports training and sports competitions, positively mobilizing all school's strength, such as instructors that take charge of students work in all departments, teacher in charge, class leader. Let them to participate positively to strengthen and impel organizational management and guidance on school's extracurricular sports activities.

## CONCLUSIONS AND SUGGESTIONS

### Conclusions

- i) Analysis report of physical test's overall performance of Anhui Agricultural University students in 2016 suggests the physical health level of the students is not optimistic, most of them are just qualified; most of the schoolboys pass the test, in particular; while overall schoolgirls' physical conditions are better than that of schoolboys.
- ii) In the view of body shape, as schoolgirls relatively care for their figure, most of them are thin. Whereas schoolboys have shown higher fraction defective in weight, most of them are obesity.

- iii) One's entire physiological function condition can be referenced by lung capacity index. Research finds that Anhui Agricultural University students show general physiological function level, however, schoolgirls' function level is better than that of schoolboys.
- iv) In the view of all indicators related to physical quality, on a whole, students' strength quality is poor; in terms of speed quality, schoolboys are better than schoolgirls in 50meters running, while schoolgirls in turn have an advantage in flexibility over schoolboys, schoolboys should work hard to improve their endurance quality.
- v) Analysis from the perspective of physical education, university students' physical health conditions' influence factors are fewer sports events available in sites and facilities, less class hours in sports course, teaching contents lacking of innovation, unreasonable teaching evaluation, low sports and cultural accomplishments of students, less students engage in extracurricular sports activities and so on.

### Suggestions

- i) The school should pay close attention to the students' health, lay emphasis on school physical education, increase supports on sports teaching, and create a good environment for physical exercises.
- ii) The school should improve its sports curriculum, increase class, set health care and sports theory courses, to improve students' sports cultural accomplishments, getting students overall exercises in both body and mind.
- iii) The school should make a scientific and rational sport evaluation, pay attention to students' individual development, use diversified evaluation methods, and lay emphasis on process evaluation.
- iv) The school should hold sport competitions actively, improve organization and management of school physical exercises, cultivate students' interests in physical exercises, stimulate students' enthusiasm and initiative in participating in physical exercise, and promote students to develop good habits of participating in physical exercises consciously.
- v) The school should constantly improve the construction of sports sites and facilities, make rational use of current ones, strengthen multi-functional development of stadiums and facilities, and improve utilization rate thereof.

### ACKNOWLEDGEMENTS

The teaching research project of Anhui provincial education department in 2014: "top-level design" theory, the path of improving physical fitness level of college students under the theory of "top-level design" (project number: 2014jyxm094).

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