

An Improved Decision-Making Model for Multimedia Teaching and College Students' Physical Health: an Empirical Analysis of Wushu Education

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Abstract

Multimedia teaching is a new kind of teaching mode, it makes multimedia computer as the core, and includes sound, images, text and animation. In multimedia teaching, teaching is always the main body, and multimedia is to cooperate with the teaching. In this paper, we make empirical analysis of performance evaluation of the multimedia teaching, the study subjects is martial arts courses in colleges. The result shows that after experiment, the students' psychological quality and body movement quality have very significant increase, Body function and body form has improved. At the same time, college students give a better evaluation of the multimedia class, so multimedia teaching is worth promoting.

Keywords: *Multimedia teaching, College students, Martial arts, Information technology, Influence factors*

1. Introduction

Multimedia teaching is refers to in the classroom teaching process, introduced by the computer system as the core, set map, text, sound, like a full range of information processing function of the intelligent tutoring system, according to the law of the dissemination of information theory and the teaching process and design, implementation, and evaluation. It means the use of phonetic media and software, controls the whole process of teaching, is a kind of with multimedia computer as the center of modern teaching tools and instruments of the new teaching mode [1]. In the implementation of teaching process, the various media in the system complement each other and cooperate with each other, which make the function of the whole system more powerful than the sum of each media function. It has impacted many traditional teaching modes, and formed a new subject teaching system [2-3]. Multimedia teaching has become generally accepted by teachers and students in Colleges and universities, but limited financial resources, China University of multimedia teaching resources there is insufficient. In this case, how to allocate the resources of multimedia teaching, and give full play to the advantages of multimedia teaching, has become a problem we need to solve at present. Through investigation and interview, we find that most of the teachers and students agree with the multimedia teaching, which can improve the teaching efficiency and effect. At the same time, the relationship between multimedia teaching and traditional teaching is not a simple alternative. In the present condition, the best teaching method should be combined with the traditional teaching method.

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University stage is the student's physical health is the rapid development and keeping time, physical and mental health of the body has great development potential and plasticity. College Students' physical condition and physical level are closely linked with the development of their physical health at the present stage. Chinese martial arts are rich in national traditional culture and health care function. It is an important content of university campus sports activities, and martial arts teaching can be very good to pass the excellent national culture tradition, to improve students' physical health and mental health has a unique influence. Martial arts is to attack and defense action means for practice and knowledge of martial arts, martial arts skills and national sports culture as the main content, to fitness, self-defense, cultivate one's morality is one of the sports curriculum practice [4]. But there are a series of problems in the teaching of martial arts; especially the lack of quality teachers, many teachers with the increase of age, the demonstration of the action is not in place, not coherent, a certain negative effect on teaching. The computer multimedia teaching is an important technique for education reform and innovation, with its obvious advantages, such as large amount of information, fast speed of transmission, rich expression ability and strong adaptability. The article on the Guangxi traditional Chinese Medicine University 2014 level of martial arts elective class of male students 33 height, weight, chest circumference, heart rate, blood pressure (systolic / diastolic blood pressure), vital capacity, 50 meters, 1000 meters, long jump, 4 x 10 m shuttle run, sit and reach test indicators, to evaluate the effect of psychological health the index of their energy, the normal development of the intelligence, no abnormal psychology, rich emotional life, healthy personality and multimedia courses, multimedia teaching, multimedia teaching on students' suitability degree of positive degree, multimedia teaching on students' understanding degree, multimedia teaching on students' interest degree, multimedia teaching on students' satisfaction of students, questionnaire survey, analysis of data and results, and to provide reference for universities to carry out the combination of multimedia teaching of martial arts.

2. Literature Review

2.1. Multimedia Teaching

As a kind of modern education technology, multimedia technology has the function to improve the teaching efficiency and effect, but in essence, the use of multimedia technology is only in order to achieve the goal of classroom teaching, is a teacher to teach and students to learn the tools. It is necessary to use this advanced teaching tool to achieve the successful teaching of multimedia technology. We must follow the guidance of the modern education theory [5]. In the teaching of multimedia technology, the problem of intelligent technology should be the core of teaching design. The improvement of teaching efficiency depends on the advanced multimedia teaching method. Multimedia technology is a kind of computer system, which is a new type of modern teaching media, which is a new type of modern teaching media. Due to the advantages of multimedia technology, multimedia technology is applied to teaching, and the multimedia technology is used to reform the traditional teaching methods, multimedia technology provides vivid pictures, animation, language and a large amount of information, which greatly improve the teaching efficiency.

According to the study of educational psychology, the more senses involved in learning, neural connections between the brain outside the more, perception, understanding, memory effect will be better. Multimedia teaching is the application of multimedia technology in the teaching, which can make people's different senses receive the same information in the same time, and can improve the efficiency of teaching and learning [6]. Multimedia system is a multi - media system, which is

more in line with the cognitive law of human learning. Scientific experiments confirmed that: human access to information 83% from the vision, for the same teaching content to use different senses to participate in learning, students get knowledge to maintain the degree is different [7]. Good teaching effect cannot be separated from the modern multimedia teaching method. Multimedia aided teaching, teaching method is the combination of seeing and hearing, concurrently with shape, like with the sound to present teaching content, more easy to attract the students' attention, to enable students to achieve the best learning results, and traditional media present content methods, a single, teaching methods single. Modern teaching mode of multimedia technology assisted teaching has changed the traditional teaching mode, and the use of multimedia technology in the teaching of multi-dimensional, integrated, interactive, real-time and other characteristics, in the teaching of students to understand, memory, so as to obtain a good teaching results.

2.2. Modern Teaching Mode

Modern teaching mode advocates from the teaching ideas, teaching design, teaching methods and teaching management and other aspects of students as the center, in the whole teaching process, the teacher is the organizer, helper, guide. Multimedia and network technology because it can provide friendly interface, intuitive interactive learning environment, text, sound, and graph [8]. Like with the multi sensory stimulation, but also by hypertext, hypermedia management knowledge and a variety of teaching information, not only conducive to stimulate students' interest in learning and negotiating session, cooperation learning, help students active discovery, active exploration[9]. It is conducive to the creation of situation and get a lot of knowledge and maintain, develop Lenovo thinking and establish the connection between old and new knowledge, but also the form and development of cognitive structure of students, which promote students to construct the knowledge about the current significance is very favorable, but also the other teaching media or other learning environment cannot be compared. Under this kind of teaching mode, the teaching process is the process that the teacher and the students are formed by the mutual activity of the teacher and the students. Multimedia teaching method is a kind of multimedia technology as the main teaching tools, including the hardware and software of the two categories[10]. The multimedia technology has a recording, storage, control, transmission and playback functions, can also be used for editing information according to the different needs of different objects, can adapt to the individual differences of students, to facilitate the use of image and sound performance of teach students in accordance with their aptitude; teaching content, the teaching contents involved in things, phenomena, processes with all show in front of students than the traditional teaching methods, more vivid, lifelike, can stimulate students' interest in learning and learning motivation, also can help students deepen their comprehension of the teaching contents and consolidate knowledge; multimedia courseware can be replicated many times, repeated use, long-term preservation, which is advanced in large capacity, high speed, high quality *etc.*

2.3. Internet Resources

In the research of multimedia teaching in Colleges and universities, a prominent problem is that the quality of multimedia courseware made by teachers is not high. Teachers also believe that the production of courseware is too much energy. This aspect is related to the teacher's information technology ability; on the other hand, it is that the curriculum resources which can be shared by teachers are too little[11]. Although modern social information is well developed, especially on the Internet,

there are many differences in the aspects of regional, culture, teaching object and teaching content. The vast majority of teachers are their own, from the collection of material, organization to the production of courseware, are their own independent, less communication and communication with colleagues, but also not to mention in a wider range of resource sharing. This is bound to spend more time and energy, and the impact of the quality of multimedia courseware. Therefore, the lack of rich multimedia courseware material library, but also the quality of multimedia courseware is not one of the reasons.

The teacher's information technology ability is not high, the main performance in the teaching of the technical ability of the courseware. The vast majority of teachers use the production of PPT courseware, but there are a considerable part of the teacher is limited to the copy and paste the text, to scan the image, capture the image, file format conversion, insert a hyperlink, such as computer technology is not familiar with, multimedia courseware becomes a simple electric textbook [12]. Teachers will not be a web production, Flash animation, Photoshop and other software operation, but also the cause of a single multimedia courseware, quality is not high. The teacher's information technology ability is not high also displays in the teacher in the process of using the multimedia courseware, cannot skillfully, the scientific use of multimedia equipment.

3. Research Object and Main Method

3.1. Research Object

Object of study is 33 male students, that from Guangxi College of traditional Chinese medicine in 2014 Wushu elective course, study time is September 2014 to December 2014, totally 122 days.

3.2. Research Method

The main research method including:

- 1) **Literature Review:** the article is to get the research literature review and comb, absorb and digest the relevant literature of martial arts and health, to understand the theory and method of martial arts and health theory, the theory and methods used by foreign scholars.
- 2) **Test Method:** before and after the experiment of 33 male college students height, weight, chest circumference, heart rate, blood pressure (systolic / diastolic blood pressure), vital capacity, 50 meters, long jump, 1000 meters, 4 x 10 meters running to and fro, body ante flexion in sitting position were tested, and record the results.
- 3) **Questionnaire Survey Method:** questionnaire survey is one of the important research methods, through the study of the structure of this paper empirically studies the measurement scale of the variables, and in the formal empirical study through the larger scale of the questionnaire survey to verify the research hypothesis and research hypothesis. The questionnaires were distributed in 35 copies, 35 copies, 33 valid questionnaires, the recovery rate was 100%, and the effective rate was 94.29%. The validity of the questionnaire: the study used the Cronbach coefficient to observe the internal consistency, in this questionnaire, $\alpha=0.92$ coefficient >0.76 , P value was less than 0.01. There was a high correlation between the two questionnaires, which was consistent with the validity of the questionnaire. Questionnaire with five level evaluation, psychological sense of self and computer teaching effect degree very good 5 points, good 4 points, 3 points, is not good 2 points, very bad 1 points, "retest"

is adopted by the questionnaire reliability, correlation coefficient R respectively: 0.96, $P < 0.01$, the reliability.

- 4) **Comparative Analysis:** the comparison is the human understanding, the difference and the determination of the difference and the relationship, and then reveals the essence of the most common way of thinking.
- 5) **Statistical Methods:** the value of the data collected is mainly used to judge the theoretical hypothesis. According to the needs of research purposes, this study uses several statistical analysis methods to process the data collected from the questionnaire survey, test the measurement scale and the research hypothesis proposed in the research model. Statistical analysis of this study mainly uses social science statistical software package SPSS16.0 and EXCELL two kinds of software.
- 6) **Logical Reasoning:** by using the method of comparison, deduction, induction, analysis and reasoning, the logical reasoning of the data statistics is made from the relevant theory.

4. Empirical Analysis

4.1. Change of Body Shape after the Experiment

Before and after the experiment on male college students' body shape (height, weight and chest circumference) were measured, the SPSS16.0 statistical software to analyze to compare means to means of processing and computer processing. From Table 1 can be obtained in the comparison of the body shape: "height" index, after the experiment of median and standard deviation (168.21 + 4.76) before the experiment, median and standard deviation (167.72 + 4.26), taller than before test and $F=0.193$, $P=0.662 > 0.05$; 0.49cm, in the "weight" index comparison, experiment the mean and standard deviation (65.45 + 6.85) before the experiment, median and standard deviation (68.53 + 6.28) after the experiment, the experiment reduced 3.08 kg, and $F=3.551$, $P=0.064 > 0.05$; in the "bust" index, after the experiment of the median and standard deviation (94.91 + 5.62) before the experiment, the median and the standard deviation (93.68 + 3.99) after the experiment, the experiment increased 1.23cm, and $F=1.013$, $P=0.318 > 0.05$. The changes of body shape analysis of male college students from high to low ranking weight, height, chest circumference.

Body shape refers to the external shape and characteristics of the body, mainly reflects the height, weight and chest circumference index of human growth and development level, a measure of the important and simple operation. In combination of martial arts multimedia teaching, the first is college students aerobic exercise, general university martial arts class A has nearly 60 minutes of exercise time, equivalent to medium load 5000 meter run, the load will larger energy consumption, more fat decomposition and end weight loss, also accelerated breathing, cause thickening of the muscles around the chest, lung volume increase and lead to more improve bust, height is controlled by many factors, in Wushu pulled exercises to improve, but arc very small. Visible, through the martial arts teaching and practice, the male college students' body shape changing arc from high to low in order for weight, height and chest circumference and do not have the significant difference.

Table 1. Analysis of the Change of Body Shape after the Experiment (n=33)

| Index | After exp.($X \pm S$) | Pre exp.($X \pm S$) | difference | F value | P value | Ranking |
|------------|-------------------------|-----------------------|------------|---------|---------|---------|
| Height(cm) | 168.21±4.76 | 167.72±4.26 | 0.49 | 0.193 | 0.662 | 3 |
| Weight(kg) | 65.45±6.85 | 68.53±6.28 | -3.08 | 3.551 | 0.064 | 1 |
| Bust(cm) | 94.91±5.62 | 93.68±3.99 | 1.23 | 1.013 | 0.318 | 2 |

4.2. Change of Physical Function after the Experiment

Male college students before and after the experiment to bodily functions (heart rate, blood pressure, lung capacity) were measured, enter SPSS16.0 statistical software to Analyze Compare Means of processing and calculators to handle. Can be obtained from Table 2: Comparison of bodily functions in "heart" indicators, median and standard deviation after the experiment (73.85 ± 5.56), the values and standards of the poor before the experiment (74.50 ± 5.75), less than that before the experiment after experiment 0.65 times, and $F = 0.215$, $P = 0.644 > 0.05$; in the "systolic" comparative indicators, median and standard deviation after the experiment (120.91 ± 13.33), median, and standard laboratory before the difference (129.22 ± 6.08) experiment after experiment lower than the previous 8.31 mmHg, and $F = 10.335$, $P = 0.002 < 0.05$; in the "diastolic" comparative indicators, median and standard deviation after the experiment (77.61 ± 8.14), the value before the experiment and standard deviation (82.84 ± 4.91), after the experiment than before the experiment to reduce 5.23 mmHg, and $F = 9.790$, $P = 0.003 < 0.05$; in the "vital capacity" comparative indicators, median and standard deviation after the experiment (3815.2 ± 364.11), before the experiment median and standard deviation (3584.4 ± 368.17), an increase 230.8 ml after the experiment than before the experiment, and $F = 6.455$, $P = 0.014 < 0.05$. Changes in body function analysis of male college students experiment in descending rank order of systolic and diastolic blood pressure, lung capacity, and heart rate.

Body function is to point to the body in the metabolism, the ability of the system work, measure the important and simple operation of the index for the pulse, blood pressure (systolic blood pressure/diastolic blood pressure), vital capacity, *etc.* In the martial arts teaching, if the action is finished to a certain effect, the first is that the movement load and the movement time is longer, must cause the heart pump blood to strengthen, strengthens the heart's normal function, causes the heart to get some exercise and leads to the quiet time blood pressure has the very significant reduction. Accelerated due to the increasing of the exercise load of practicing martial arts, will inevitably lead to breathing. At the same time, to achieve good action effect, breath is in practice often used, come down for a long time, lung capacity has increased significantly and decreased blood pressure driven heart rate had been reduced to small radian. Can be seen, through the martial arts teaching and practice, after the experimental male college students' physical function changes in the blood pressure, vital capacity, heart rate, and blood pressure, vital capacity, there is no significant difference in heart rate.

Table 2. Analysis of Changes of Physical Function after the Experiment (n=33)

| Index | After exp.($X \pm S$) | Pre exp.($X \pm S$) | differen ce | F value | P value | Ranking |
|--------------------------------|-------------------------|-----------------------|----------------|------------|------------|---------|
| Heart rate(CI) | 73.85 ± 5.56 | 74.50 ± 5.75 | -0.65 | 0.215 | 0.644 | 4 |
| Systolic blood pressure(mmHg) | 120.91 ± 13.33 | 129.22 ± 6.08 | -8.31 | 10.335 | 0.002 | 1 |
| Diastolic blood pressure(mmHg) | 77.61 ± 8.14 | 82.84 ± 4.91 | -5.23 | 9.790 | 0.003 | 2 |
| Vital capacity(ML) | 3815.2 ± 364.11 | 3584.4 ± 368.17 | 230.8 | 6.455 | 0.014 | 3 |

4.3. Change of Physical Exercise Quality after the Experiment

Physical function of male college students (50 meters, long jump, 1000 meters, shuttle run, sit and reach) test input SPSS16.0 statistical software to Analyze Compare Means to Means test before and after treatment and calculator deal with. Can be obtained from Table 3: Comparison of the Fitness Index "50 meters" in the median after the experiment

and the standard deviation (7.79 ± 0.67), median, and standard laboratory before the difference (8.18 ± 0.62), compared to the previous experiment after experiment reduce 0.39 s, and $F = 5.863$, $P = 0.018 < 0.05$; in the "Long" comparative indicators, median and standard deviation after the experiment (234.03 ± 15.76), median, and standard laboratory before the difference (225.22 ± 15.55) experiment after experiment increase over the previous 8.81 s, and $F = 5.146$, $P = 0.027 < 0.05$; in the "1000 meters" index comparison, median and standard deviation after the experiment (237.91 ± 18.61), median, and before the experiment standard deviation (248.91 ± 19.00), after the experiment than before the experiment to reduce 11.00 s, and $F = 5.557$, $P = 0.022 < 0.05$; in comparison index shuttle run in the median and standard deviation after the experiment (12.76 ± 1.20), the values and standards of the poor before the experiment (13.50 ± 0.93), after the experiment than before the experiment to reduce 0.74 s, and $F = 7.691$, $P = 0.007 < 0.05$; in the Sit and Reach comparative indicators, median and standard deviation after the experiment (13.21 ± 4.95), median, and standard laboratory before the difference (8.09 ± 4.98), increased 5.12 cm after the experiment than before the experiment, and $F = 17.274$, $P = 0.000 < 0.05$. Changes in male college students physical quality of analysis experiments ranked in descending order of Sit and Reach, shuttle run, 50 m, 1000 m, long jump.

Quality indicators movement in which the body during sports, human organs, systems exhibit various degrees of physical ability, an important measure for speed and simple operation (50 m), strength (long jump), endurance (1000 m), Sensitive and flexibility (sit and reach). In conjunction multimedia teaching martial arts, there are many joint range of activities, stretching and flexibility exercises ligament tissue around the joints, the body reaches the maximum range of motion, flexibility makes very significant improvement. Secondly, under conditions of martial arts exercises, for a variety of actions of essentials, and the curvature of the line to make fast, accurate response, flexible and complete a variety of actions, so that comprehensive sexuality sensitive obtain a very significant increase. Finally, in the martial arts exercise, movement speed, and strength of the University Chijiu endurance has significantly improved. Visible through the teaching and practice of martial arts, body movement after the experiment Male College Students Quality Indicators radians from high in the end were the Sit and Reach, shuttle run, 50 m, 1000 m, long jump, Sit and Reach, shuttle run has a very significant difference, other differences were significant.

Table 3. Analysis of Changes of Physical Exercise Quality (n=33)

| Index | After exp.($X \pm S$) | Pre exp.($X \pm S$) | differen ce | F value | P value | Ranking |
|-------------------------------|-------------------------|-----------------------|----------------|------------|------------|---------|
| 50 meters (s) | 7.79 ± 0.67 | 8.18 ± 0.62 | -0.39 | 5.863 | 0.018 | 3 |
| Long jump (s) | 234.03 ± 15.76 | 225.22 ± 15.55 | 8.81 | 5.146 | 0.027 | 5 |
| 1000 meters (s) | 237.91 ± 18.61 | 248.91 ± 19.00 | -11.00 | 5.557 | 0.022 | 4 |
| 4x10 meter shuttle run (s) | 12.76 ± 1.20 | 13.50 ± 0.93 | -0.74 | 7.691 | 0.007 | 2 |
| Sit and reach (CM) | 13.21 ± 4.95 | 8.09 ± 4.98 | 5.12 | 17.274 | 0.000 | 1 |

4.4. Change of Psychological Quality after the Experiment

Before and after the experiment to male college students physical function (no psychological abnormalities, normal development of intelligence, good character, vigor, rich emotional life) questionnaire, enter SPSS16.0 statistical software to Analyze Compare Means to treatment and calculator process. Can be obtained from Table 3: the psychological quality "not psychologically abnormal" index comparison, median and standard deviation after the experiment (3.84 ± 1.03), median, and standard laboratory before the difference (3.28 ± 0.81), after the experiment than the experiment before

adding 0.56 points, and $F = 6.019$, $P = 0.017 < 0.05$; in comparison targets "intelligence normal development" in the median and standard deviation after the experiment (3.30 ± 0.88), median, and standard laboratory before the difference (2.68 ± 0.85), an increase over the previous experiment after experiment 0.62, and $F = 8.105$, $P = 0.006 < 0.05$; in the "perfect personality" comparative indicators, median and standard deviation after the experiment (3.33 ± 1.16), experiments median and standard front differential (2.69 ± 1.17), an increase over the previous experiment after experiment 0.64 points, and $F = 4.952$, $P = 0.030 < 0.05$; in the "vigor" comparative indicators, median, and standard laboratory after difference (4.09 ± 0.88), median, and standard front differential experiment (3.34 ± 1.06), an increase over the previous experiment after experiment 0.75, and $F = 9.531$, $P = 0.003 < 0.05$; in the "rich emotional life" indicators compare the median and standard deviation after the experiment (3.58 ± 1.09), median, and standard laboratory before the difference (2.93 ± 1.08), an increase over the previous experiment after experiment 0.65, and $F = 5.639$, $P = 0.021 < 0.05$. Changes of Experimental Psychology Quality Male College Students from strong to weak rankings were full of energy, the normal development of intelligence, no psychological abnormalities, a rich emotional life, a healthy personality.

Psychological quality is the physical qualities are based in practical activities through the interaction of subject and object, and the progressive development and the formation of the psychological potential, a comprehensive measure of vital energy, characteristics, quality and simple operation and behavior of the index is not psychological abnormalities, normal development of intelligence, good character, vigor and rich emotional life. Beautiful martial arts musical accompaniment rhythm sets their martial arts movements, virtually asking their thoughts and behavior integration movement, over time, slowly to promote students in the life of thought and action can also be integrated psychological, reaching significant remission Students not psychologically abnormal performance; learning martial arts action, mainly in the movement to enhance memory, intelligence has to make a very significant improvement; students that martial arts education can promote their health, learning and living in a strong, optimistic deal Division Health and social relations, significantly improve college students' perfect personality; martial arts teaching enabled Students cardiac function to get exercise and perfect, improved diet, increase supply, to sleep, a very significant increase Students vigor; in martial arts learning constantly Self listen to music and self-experience, trigger deep Emotional, while college students to enrich every day, a very significant increase Students rich emotional life. Visible through the martial arts teaching and practice, after the experiment male college students physical and mental quality index change radians from high in the end were full of energy, the normal development of intelligence, no psychological abnormalities, a rich emotional life, good character, and there were significant difference, abundant energy, the normal development of intelligence has a very significant difference, other differences were significant.

Table 4. Experimental Change of Male College Students Mental Quality (n = 33)

| Index | After exp.($\bar{X} \pm S$) | Pre exp.($\bar{X} \pm S$) | differen ce | F value | P value | Ranki ng |
|---------------------|-------------------------------|-----------------------------|----------------|------------|---------|-------------|
| No mental disorder | 3.84 ± 1.03 | 3.28 ± 0.81 | 0.56 | 6.019 | 0.017 | 3 |
| intelligence | 3.30 ± 0.88 | 2.68 ± 0.85 | 0.62 | 8.105 | 0.006 | 2 |
| Healthy personality | 3.33 ± 1.16 | 2.69 ± 1.17 | 0.64 | 4.952 | 0.030 | 5 |
| Plenty of energy | 4.09 ± 0.88 | 3.34 ± 1.06 | 0.75 | 9.531 | 0.003 | 1 |
| emotional life | 3.58 ± 1.09 | 2.93 ± 1.08 | 0.65 | 5.639 | 0.021 | 4 |

4.5. Evaluation of Multimedia Education after the Experiment

Before and after the test for male students Course Evaluation multimedia (multimedia teaching students appropriate level, multi-media teaching students how aggressively, multimedia teaching on students' understanding, multimedia teaching degree for students interested in multimedia teaching students satisfaction) questionnaire. Can be obtained from Table 5: multimedia effects in male college students Course evaluation "multimedia teaching students appropriate level" indicators of comparison, the experiment after a median = 3.91 hours, standard deviation = 0.72 and $T = 31.060$, $P = 0.000 < 0.01$; in the "multi-media teaching degree students actively" comparative indicators, after the experiment median = 4.61 hours, standard deviation = 0.61 and $T = 43.429$, $P = 0.000 < 0.01$; in the "multi-media teaching students to understand the extent of" index comparison, median = 4.00 points after the experiment, standard deviation = 0.79 and $T = 29.065$, $P = 0.000 < 0.01$; in the "multi-media teaching on students' interest level" in the comparison value indicators, after the experiment = 4.27 points, standard deviation = 0.72 and $T = 34.135$, $P = 0.000 < 0.01$; in the "multi-media teaching on students' satisfaction" in the value of comparative indicators, after the experiment points = 4.45, $SD = 0.71$ and $T = 35.985$, $P = 0.000 < 0.01$.

After the experiment, five indicators were higher than the average 3.9, are more than satisfactory, and the P value = $0.000 < 0.01$, indicating that there was a significant difference in the views of all groups of college students, can reflect the true facts of the situation. But there are differences in the average size of the first "multi-media teaching degree students actively" Mean = 4.61 is very good close to 5, followed by "multi-media teaching on students satisfaction", "multimedia teaching level of interest to students," "multi-media teaching students the level of understanding "for the better, and finally as" multi-media teaching students appropriate level "close to good effect. Visible, male college students after the experiment results of multimedia lesson better overall assessment, worthy of promotion.

Table 5. Evaluation of Multimedia Education after Experiment (n=33)

| Index | Mean | Std. Deviation | ranking | T value | P value |
|--|------|----------------|---------|---------|---------|
| suitability of the multimedia teaching | 3.91 | 0.72 | 5 | 31.060 | 0.000 |
| positive degree for students | 4.61 | 0.61 | 1 | 43.429 | 0.000 |
| students' understanding degree | 4.00 | 0.79 | 4 | 29.065 | 0.000 |
| interested degree for students | 4.27 | 0.72 | 3 | 34.135 | 0.000 |
| student satisfaction | 4.45 | 0.71 | 2 | 35.985 | 0.000 |

5. Conclusion

Multimedia teaching is an advanced teaching method, with a set of graphics, image, animation, sound and other media in one of the advantages, is conducive to develop teaching resources, the organic combination of various media and comprehensive application, create a real teaching situation, simulate the real environment, is conducive to improve the teaching effect, make up the traditional in the teaching of single use only sound media limitations and shortcomings; multimedia teaching based on projection and sound amplification equipment, is conducive to the class, can greatly improve the efficiency of teaching; multimedia technology and computer network technology, can better realize and promote students' individualized learning and collaborative learning combination of learning styles, at the same time, can easily achieve long-distance education communication and interaction, to compensate for the limitations of the traditional teaching and closed one-way transmission to greatly. However, there are many shortcomings in the practical application of the multimedia teaching method, such as: the

relative reduction of the communication between teachers and students, the teaching speed is too fast, the color of the screen is too strong and easy to produce visual fatigue, *etc.* The majority of teachers in teaching did not play the advantages of a variety of media, but only one print media, as the tool instead of writing on the blackboard, multimedia interactive function and analog functions used less, greatly weakened the effect of multimedia teaching. In addition, the influence of multimedia technology in the teaching of another big reason is that the cost is too high, in the resource sharing is still relatively short; in the technical application, the lack of systematic training, the teacher is gradually master the multimedia technology, so some suitable for multimedia production software is not skilled, the main purpose is to teach students in the classroom teaching, students are not very good solution, all these are restricting the use of multimedia technology and means to improve teaching efficiency and effect factors. Through the research, it is found that the efficiency and effect of the multimedia teaching should be improved from the whole, and the optimization of teaching should be studied from four aspects: teachers, students, technology and management.

After the experiment of male college students body shape changing arc descending order of weight, height, chest circumference, and there were no significant differences of body function change; radian descending order of blood pressure, heart rate, vital capacity, vital capacity and heart rate, there are significant differences, no significant difference in heart rate; physical quality index changes from high curvature in the end in order to sit and reach, 4 x 10 m shuttle run, 50 meters, 1000 meters, long jump, sit and reach, 4 x 10 m shuttle run there are very significant differences, other significant differences; mental quality index change curve descending order energy, the normal development of the intelligence no, abnormal psychology, rich emotional life, healthy personality, and there was a significant difference, there was significant difference in energy, the normal development of the intelligence, other significant differences; better overall evaluation of male college students of multimedia class after the experiment, is worthy of promotion.

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