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Research on the Reform of College Aerobics Examination Based on Modern Educational Technology

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Abstract

Aerobics is a popular physical fitness program in physical education classes and extracurricular activities at colleges and universities, enjoyed by both teachers and students. The development of multimedia technology reflects the needs of modern educational technology. What role does modern educational technology play in the development of aerobics teaching in colleges and universities? The application of multimedia technology in aerobics teaching at colleges and universities is a new challenge that the field is currently facing. Combining with the current trend of college physical education reform, this paper utilizes literature review, questionnaire surveys, logical analysis, mathematical statistics, and expert interviews to identify the primary factors influencing the reform of aerobics examinations in colleges and universities in H province. Based on modern educational theory and the characteristics of colleges and universities in H province, relevant countermeasures and reform measures are proposed. The purpose is to enhance the content and methodology of the aerobics course examination.

Keywords

Modern educational technology, College aerobics, Examination reform

1. Introduction

Carrying out aerobics teaching in colleges and universities can not only help college students achieve the functions of keeping fit, building up and improving their own sports skills, but also effectively improve their humanistic quality, sentiment, and innovative practice ability (Yaru Chen, 2022). Aerobics is a popular sport day, and while engaging in this sport, you will experience a lot of passionate fun, which meets the needs of modern people's aesthetics and fitness, and can also meet the requirements of self-entertainment (Yanyun Xia, 2022). It can play a unique and positive role in cultivating students' basic knowledge, basic technology, and basic skills of physical education, as well as in cultivating students' psychological quality and aesthetic education, etc. (Xu Yanping, 2019).

Aerobics is a kind of sport that is accompanied by music, taking physical exercises as the basic means and aerobic exercise as the basis, and achieving the purpose of improving health, shaping the body, and entertainment (Miaoyan Wu, 2019). With the acceleration of the development of aerobics, the types of aerobics are constantly updated, and students' demand for aerobics is increasing. Because there is no unified syllabus and teaching materials for aerobics courses for physical education majors in China at present, there are great differences in the setting of special courses for physical education majors. Many types of research on aerobics examination reform have pointed out that the existing aerobics courses are single in content and lack diversity, and the teaching theory and methods are not systematic and perfect, which

is not only unfavorable to the development of aerobics in colleges and universities but also unfavorable to the better popularization and development of this sport (Chen Xinrui, 2019).

The use of multimedia information technology in modern educational technology can make the whole aerobics learning process intuitive and self-operable, and enable students to enter the information exchange process better and faster and become more active and confident in the whole aerobics learning process. Based on modern educational technology, this paper investigates and analyzes the current situation of aerobics teaching and college students' demand for aerobics, finds out the problems existing in the content and method of aerobics examination in colleges and universities, and finally puts forward the overall development countermeasures for the content and method of aerobics examination in colleges and universities.

2. Research objects and methods

2.1 Research objects

In this paper, the current situation and development countermeasures of aerobics teaching in colleges and universities in H province are taken as the research object, and the aerobics teachers, college students, and some experts and scholars randomly selected from colleges and universities in H province are taken as the investigation object.

2.2 Research methods

2.2.1 Literature data method

From the preparation period before the opening of the thesis to the writing period, I consulted a large number of papers, related books, magazines, newspapers, internet and related materials, government announcements, documents, etc., which provided a theoretical basis for the topic selection and writing of the thesis, and comprehensively grasped the related research status of this thesis.

2.2.2 Expert interview method

According to the needs of this study, on the basis of an extensive questionnaire survey, the famous experts and scholars of aerobics major were interviewed by face-to-face, telephone and discussion, in order to seek the expectations of experts and teachers on the setting of aerobics special courses and some views on optimizing the setting of aerobics special courses, and to provide theoretical guidance and help for this study.

2.2.3 Questionnaire survey method

On the basis of consulting literature and mastering the actual situation of setting up aerobics courses in colleges and universities, the author divides the design of the questionnaire into teacher questionnaire and student questionnaire.

Distribution and recovery of teachers' questionnaires: 90 questionnaires were distributed to aerobics teachers in 15 colleges and universities in H province, 85 were recovered, and 80 were valid, with a recovery rate of 94.44% and an effective rate of 94.12%.

Distribution and recovery of student questionnaires: 650 questionnaires were distributed to students who took aerobics classes in the above 15 colleges and universities, 596 were recovered, and 541 were valid, with a recovery rate of 91.69% and an effective rate of 90.77%.

Reliability of the questionnaire: This study adopts the repeated test method. One month after the questionnaire was collected, the questionnaire was retested and the reliability of the questionnaire was analyzed. The results showed that the correlation coefficient was 0.81, which indicated that the reliability of the questionnaire was good.

Validity of the questionnaire: After subjective evaluation and objective test, 10 physical education experts and 8 aerobics experts were hired to evaluate the contents and measures of the teacher questionnaire and the student questionnaire. The results show that the questionnaire is effective and feasible, and meets the research needs.

2.2.4 Logical analysis method

In the process of literature data analysis and thesis writing, formal logic and dialectical logic methods are used to deduce, summarize, analyze, and synthesize the research results in order to ensure the compactness of the thesis.

2.2.5 Mathematical statistics

EXCEL and SPSS10.0 software are used to process and count the relevant data and charts, which provides a research basis for this subject.

3. Research results and analysis

3.1 An analysis of the gender and professional proportion of aerobics teachers in some universities in H province

Among the 15 schools surveyed, there are 58 aerobics teachers, of which 62.07% are female teachers and 37.93% are male teachers, as shown in Figure 1.

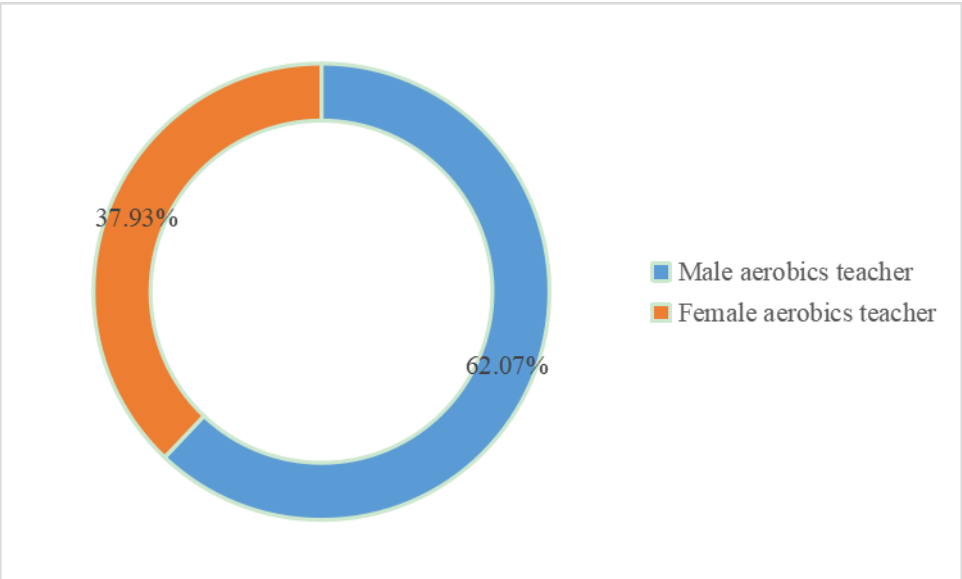

Figure 1. Number and proportion of male and female aerobics teachers in 15 universities.

The unreasonable gender distribution shows that aerobics is still regarded as a sport for girls in most schools. Aerobics has only been determined as the examination content of physical education departments in recent years, which may be due to the prejudice or lack of interest of male students majoring in physical education in school, resulting in the lack of male aerobics teachers in colleges and universities at present. The lack of aerobics knowledge and skills of male PE teachers may affect the better development of aerobics in colleges and universities.

3.2 Investigation of the auxiliary examination content of the aerobics course

According to the survey results of the auxiliary examination contents of aerobics courses in some colleges and universities in H province, among the 58 aerobics teachers in some colleges and universities in H province, 10 aerobics teachers have no auxiliary examination contents in aerobics classes, accounting for 17.24% of the total number. 24.14% and 13.79% of the aerobics teachers have joined the cushion strength exercise and the body and body balance training in their teaching. 37.93% of teachers will add aerobics Latin, boxing, and other popular exercises in their teaching, and only a few of them use "holding light equipment" to develop students' local muscle strength, accounting for the total number.

3.3 Investigation and analysis of aerobics class equipment and facilities

According to the survey, the order of equipment and facilities owned by 15 universities is a mat, mirror, dumbbell, pole, pedal, fitness ball, and others (no equipment). Mirrors and poles are the basic equipment for aerobics teaching. Mirrors are used for self-study, mutual learning, and self-correction, while poles are tools for training students' basic qualities. From the percentage data, it can be seen that only 18.97% of teachers can attend classes in front of mirrors, and only 13.79% of venues have poles. The proportion of mats, dumbbells, and pedals is not very large, so the utilization rate of equipment will not be very high.

3.4 Distribution proportion of hours of aerobics special courses in colleges and universities in H Province

In the special course setting of aerobics, the arrangement of the proportion of theoretical courses and practical courses is

particularly important, which is the key point to be stipulated in the course setting.

According to the distribution of theoretical and practical course hours in colleges and universities in H province, the total hours of theoretical courses in aerobics special courses are less, with an average of only 8.70%. The overall structure takes the technical practical course content as the core, and the setting of special course content pays more attention to the cultivation of technology and skills than the teaching of theoretical knowledge. Although practice class is the main form of aerobics special teaching, according to the requirements of aerobics special course teaching and training objectives, the number of hours of theoretical knowledge of aerobics special course in colleges and universities in H province can not meet the training standard, which limits the content of aerobics special teaching, affects the teaching effect and is not conducive to the training of aerobics special talents.

3.5 Analysis of the selection of aerobics teaching materials

Aerobics teaching materials are all means and materials used by teachers in aerobics teaching activities for students to choose and deal with, which are loaded with aerobics knowledge and information. They include aerobics textbooks, aerobics audio-visual materials, electronic teaching materials, etc., which are texts that teachers should teach and students should learn, Aerobics teaching material is the systematization and concretization of aerobics syllabus, which reflects the basic knowledge, skills, and methods of aerobics. Therefore, it is also one of the contents to understand the current situation of aerobics teaching to investigate the selection of aerobics teaching materials as the important support and load of aerobics course.

3.6 Investigation of the existing examination methods of the aerobics course

The aerobics examination method is the general name of the ways, ways, and means to realize the task or goal of aerobics teaching. It plays an intermediary and bridge role in practicing aerobics teaching tasks and goals, and has the functions of imparting knowledge, forming action skills, guiding practice, developing experience, cultivating ability, and improving learning efficiency. Therefore, it is very important to find out the main problems existing in the examination methods and means of aerobics courses in colleges and universities in H province.

According to the results of the survey, 40% of colleges and universities in H province adopt traditional examination methods in the implementation of aerobics examination methods. Among the 15 universities surveyed, only 33.33% adopted general audio-visual teaching, 20% adopted multimedia video teaching, and 6.67% adopted the online examination method.

4. Countermeasures for the reform of aerobics examination in colleges and universities in H Province

4.1 Applying modern educational technology, teaching students in accordance with their aptitude, and implementing personalized examination

In the old exams, teachers can't take care of each student's different performance one by one, so as to meet the requirement of teaching students in accordance with their aptitude. The application of multimedia teaching can improve this state. In the process of aerobics teaching, teachers can provide students with several sets of playing teaching materials at the same time through the playing system, so as to provide students with different levels of examination content. Students choose to study according to their actual situation and decide the progress of study.

4.2 Change teachers' educational concept and establish a new examination concept

The traditional physical examination mode is basically teaching-centered, which pays attention to teachers' unidirectional physical education activities. In this process, PE teachers are the organizers of teaching materials, the exporters of knowledge, the masters of student activities, and the managers of classroom discipline, leading the teaching process. With the deepening of modern education reform, the trend of individualization and autonomy of education has become the mainstream of modern education reform. The design of physical education teaching is shifting from "teaching-centered" to "learning-centered", and the status of teachers and students has changed significantly in classroom teaching. Therefore, teachers should first actively change their educational concepts and lay a good foundation for the implementation of educational and teaching objectives.

4.3 Use diversified examination methods to improve examination efficiency

In order to improve examination efficiency, it is necessary for any discipline to use diversified examination methods. Therefore, in the process of developing aerobics teaching, it is necessary to strengthen the use of diversified examination methods, such as group, competition, music, and other examination methods, so that the artistry and times of aerobics can be fully displayed.

4.4 Expand the examination content, and strengthen the scientific and practical

Using limited class hours, and integrating theoretical explanations into outdoor practice can make students master more scientific principles and methods of aerobics, and lay a foundation for mastering a set of exercise methods of self-exercise, self-monitoring, and self-evaluation. The examination content of practical class should be moderate in difficulty. According to the students' basic classes, almost all the fitness exercises in the past were carried out in one mode, and students were divided into order, level, age, gender difference, and personal health status, and different contents and intensity exercises were inserted. As a special aerobics teacher, we must grasp the scientific and reasonable examination content and keep up with the rapid development of aerobics.

4.5 Interaction between calisthenics class and network

"Interactive teaching mode of calisthenics teaching classroom and network" is a new physical education teaching mode, which combines calisthenics classroom teaching with network teaching organically according to the cognitive characteristics of modern college students and makes use of the advantages and conditions of modern network technology, and forms a new physical education teaching mode in which classroom and network complement each other and teachers interact with students.

In this mode, the online teaching material of aerobics is vivid, intuitive, and integrates audio-visual, text, pictures, etc., which makes the study of aerobics more comprehensive and systematic and can effectively mobilize the enthusiasm of students. Teachers can answer students' difficult questions in time through QQ, a network instant messaging system, e-mail, and aerobics class, or give appropriate inspiration or enlightenment instead of giving correct answers to difficult questions.

5. Conclusion and suggestion

5.1 Conclusion

(1) In the surveyed schools, most of them use the mass exercise standard and self-made aerobics basic step combination exercises as the examination contents of aerobics courses. The auxiliary examination contents, such as physical training and light equipment exercises, have not yet become a part of the examination contents of aerobics courses in colleges and universities in H Province. Most schools have taught aerobics theoretical knowledge, but the contents are few and the practicability is not strong.
(2) Aerobics courses in colleges and universities in H Province mainly adopt traditional examination methods and means.
(3) At present, the main problems existing in the aerobics examination content in colleges and universities are: emphasizing technology, ignoring theory, the content items of technical courses are single and the actions are complex, and the content arrangement can not meet the needs of students.
(4) The facilities of aerobics courses are not ideal, and more than half of the students are not satisfied with the existing facilities.
(5) The assessment and evaluation of aerobics courses in colleges and universities in H province mainly adopt a simple technical "scoring system", which only makes an absolute evaluation on "good or bad movements", ignoring the usual assessment.

5.2 Suggestion

(1) Aerobics classes in colleges and universities should not only focus on technology but neglect theory. They should increase the proportion of theory classes, enrich the content of technology classes, reduce the difficulty of technology classes, and relieve students' pressure.
(2) In the course setting, it is necessary not only to make the content make most students feel interested in the practice, so as to implement, process, and reform in the true sense, but also to respect students' individual differences in concept,

so that students can truly become the main body, of course, content selection and setting.
(3) The evaluation of students' academic achievements should reflect the people-oriented concept of modern education, and adopt a combination of various evaluation methods to evaluate students' academic achievements.
(4) Strengthen the construction of aerobics teaching facilities, and provide a basic guarantee for ensuring aerobics teaching quality.
(5) Colleges and universities should strengthen the use of multi-disciplinary resources in colleges and universities, actively develop multimedia teaching software and establish teaching forums and other network platforms, and improve the teaching implementation system of physical education network teaching and counseling.

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