

# Feasibility study on the introduction of Pilates exercise in physical education teaching in art colleges and universities

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**Abstract:** The purpose of this study is to conduct an in-depth analysis on the feasibility of Pilates courses in physical education teaching, which has attracted a lot of attention for its unique exercise mode and remarkable effect. Taking Guangdong Dance and Drama Vocational College as an example, we will comprehensively explore the feasibility of introducing Pilates exercise into physical education teaching. By deeply analyzing the uniqueness of Pilates exercise and combining it with the needs of physical education teaching, we aim to evaluate the actual effect of introducing Pilates exercise in this context. This study also aims to provide theoretical support for the decision to promote the integration of Pilates into physical education in relevant art colleges and universities.

**Key words:** Pilates; physical education; feasibility

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## 1 Introduction

After the reform of our club-based teaching model for physical education, we added Pilates as part of an expanded physical education program. The physical education program in art colleges needs to be compatible with the characteristics of the profession, which can improve physical fitness and promote professional development. Pilates differs significantly from traditional fitness exercises in the form of movement. It is an exercise performed on a mat that focuses on muscle control and requires constant attention to the state of the body, paying full attention to the feeling the body's movement so that the mind and body become one. Pilates exercise has a positive impact on the professional performance of art students, which can be seen from the fact that Pilates has been used as a supplementary exercise for art and dance majors. Therefore, the introduction of Pilates exercise programs in colleges and universities is in line with the historical development of art colleges and has been widely recognized in the field of art.

## 2 Research object and method

### 2.1 Research objects

The research objects include students studying in Guangdong Dance and Drama Vocational College, college teachers and fitness instructors.

### 2.2 Research methods

We will use the literature method, expert interview method, logical reasoning method and mathematical statistics method to study and analyze the relevant content involved in this paper.

### 3 Research results and analysis

#### 3.1 The creation and development of Pilates exercise

Pilates was founded and promoted by German Joseph Hubertus Pilates [1]. He combined the essence of Eastern yoga, Western ballet and Chinese Tai Chi to create a unique fitness and rejuvenation experience. Pilates is a kind of exercise, which focuses on shaping the body form and pursuing the unity of mind and body. Through proper breathing and concentration on muscle control, you can increase your strength, balance, coordination and flexibility, while soothing your muscles and improving your ability to control your body. It focuses on training and shaping the deeper and smaller muscles of the body to give them more strength and a trimmer and more toned appearance, as well as establishing the correct movement patterns and sequences to enable people to have better control of their bodies.

Pilates is a method of exercise that focuses on building core strength and also includes classes for body posture correction. This course is scientific and sustainable, and can effectively promote the development of students' comprehensive quality. Some domestic colleges and universities have successfully tried to combine the Pilates course with the physical education dance course, confirming that the Pilates course is beneficial for students majoring in physical education dance, which can improve their body posture maintenance, balance and coordination qualities, and improve their athletic competition level [2]. Overall, the physical fitness of college students is in dire need of improvement. Future research can further enhance the reform and development of physical education programs in vocational colleges and universities by integrating the curriculum, strengthening the training of Pilates teachers, and widely promoting the Pilates exercise.

#### 3.2 Feasibility of introducing Pilates exercise in physical education

##### 3.2.1 Analysis of fitness experts' support for the introduction of Pilates exercise in colleges and universities

The rationalized suggestions of experts have important reference value and guidance for decision making and implementation in related fields. In order to collect constructive opinions, experts related to fitness sports were visited and consulted, totaling 30 people. (See Fig.1 for details)

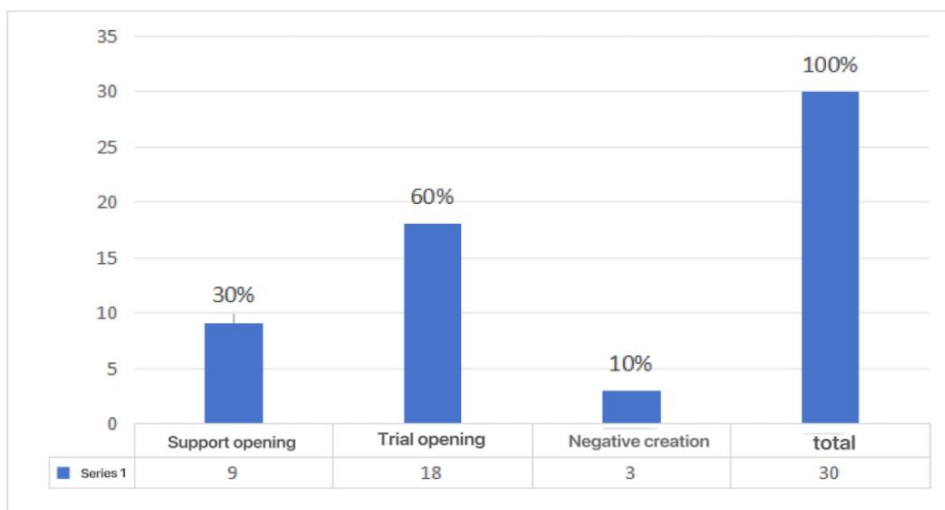


Fig. 1 Statistics of experts' support for the introduction of Pilates courses in colleges and universities

Figure 1 shows that there are three kinds of opinions on the opening of Pilates courses in colleges and universities: 60% of experts think that the courses should be opened on a trial basis, 30% of experts support the opening of the courses, and basically all of them hold a positive attitude. 10% of the minority of experts express their opposition to it, because they think that there is a lack of professional guidance and training of the teachers, and that the teaching evaluation system is

not perfect. Pilates course is not limited by the field equipment, the exercise way is unique and innovative, the effect is remarkable, and the teaching concept is simple and clear, which is more suitable for enthusiastic and lively college students. Pilates course is in line with the characteristics of university sports, and is combined with various physical fitness tests. The Pilates course is a new teaching mode which adopts the club mode in our college. Pilates course is an option to adapt to the direction of curriculum construction and teaching reform. Pilates course is inevitable in the times.

### 3.2.2 Pilates exercise characteristics meet the requirements of physical education classes

The historical development of Pilates has proved that it has been used as an auxiliary training for the art of dance and has had a far-reaching influence. Pilates is an exercise that integrates the body, mind and consciousness, helping to build muscle strength, core strength, and a beautiful body shape, improve flexibility and balance, enhance body awareness and promote a rich imagination [3].

From the very beginning, Pilates has been built on a foundation of exercise science, which synthesizes physiological and psychological research to create a set of exercises called "cybernetics" with clear training principles [4]. Pilates is an easy exercise to learn. By using deep intercostal breathing, students are able to reduce accumulated negative emotions such as anxiety, stress, frustration, anger or depression. Pilates training methods are very effective in building core strength, catering to college students' pursuit of new things, and are popular among college girls for their ability to shape their body lines and achieve a slimmer body.

Modern college students are prone to hunchback, scoliosis, pelvic tilt, and incorrect sitting posture due to long hours of looking down at their cell phones, sitting at their desks for long periods of time to study, and lack of exercise. Abnormal body postures have an impact on students' appearance and psychological state, as physical problems may affect their social and learning abilities, and greatly affect their physical and mental development. When designing the course content, it is important to truly meet the real needs of students, stimulate their interest and motivation to learn, and enliven the classroom atmosphere in order to improve the effectiveness of classroom teaching.

### 3.2.3 Pilates exercise development for the expansion of the body of knowledge in sports

Pilates is a rehabilitation functional training system that maintains and improves body posture by exercising deep small muscles, achieves body balance, enhances muscle strength and flexibility, as well as promotes the healing of old injuries and injury prevention [5].

The majors in our school are mainly dance, drama, acting, music, and art and design. These majors require a high level of external form, and a person's physical appearance can reflect the condition of their mental outlook. For students in the physical movement field, they need to practice specialized technical movements for a long period of time, which may cause some "occupational diseases", such as anterior pelvic tilt, posterior tilt, rotation, and changes in the curvature of the spine. Due to the lack of core strength, compensatory force generation problems will occur, which in turn affect the changes in joint mechanics and kinematics, resulting in muscle fatigue and soreness, and leading to the development of poor posture [6]. Pilates is a very effective training method, which can make the bone alignment become better, improve the curvature of the spine, enhance the flexibility of the joints, reduce body pain and neck and waist discomfort, and at the same time, it can achieve the effect of tightening the core and lifting the buttocks, and improve the stability and coordination of the body.

### 3.2.4 The continuity and systematic nature of Pilates exercise helps to facilitate the teaching of physical education programs

The training method of Pilates exercise is realized through dynamic and coherent cyclical movements, many of which mimic the basic actions common to human daily life, such as walking, swimming, picking up objects and so on. And these

actions are characterized by simplicity and ease of learning from life. Pilates exercise is divided into two levels according to the difficulty of mat and apparatus, of which mat training is the foundation and essence of Pilates, and the difficulty is divided into beginner, intermediate and advanced movements. According to our talent training program, our college students need to complete 3 semesters of physical education, thus students have enough time to learn the systematic technical movements. According to the needs of students of various majors, the teaching is stratified. The movements of Pilates are beautiful, slow and stretching, which are very suitable for students of art colleges to learn. Through continuous learning and exercise, they can improve their living habits, and students are able to assess different posture problems and develop a sense of lifelong sports.

### 3.3 The state of resources for Pilates in art vocational colleges and universities

#### 3.3.1 The hardware of Pilates is in its infancy

Pilates exercise does not have too high demands for environment and facilities, just a mat and a ray of sunshine are enough to create an excellent space for fitness environment. Our school campus has a beautiful environment, and students can choose to practice Pilates exercises in the green space and plaza. Therefore, we can take advantage of the school's field resources and superior environment to practice Pilates exercises. Students who are interested in improving their movement skills will find that it is a fun highlight to be able to exercise anytime after class. Students rarely train small muscle groups and deeper muscles in their normal lives, and improvements in muscle strength are made gradually, not once and for all. As a result, students feel muscle soreness and have a very strong physical reaction during the first few class sessions. It is also this reaction that allows students to gain a deeper understanding of their bodies and a clear goal of fitness and body building. In the classroom, students learn the content and training methods taught by the instructor, and then they combine them with their own physical condition to impose localized muscle training. This allows for the continuation of the movement, and plays a positive and good role in promoting lifelong sports.

#### 3.3.2 First modeling of faculty conditions for the Pilates movement

Pilates exercise is an emerging fitness sport in China, so that not many people really understand and master its essence, connotation and skills, which is also an emerging sports program must face the popularization and development process. I have been interested in Pilates during my postgraduate studies, and actively participated in the mat Pilates and large apparatus training courses, and through years of exploration and practice, I have accumulated some teaching experience. For the technical movements of Mat Pilates, there is a clear and explicit teaching strategy and assessment requirements. The physical education infrastructure of our school is still being improved, and the wind and rain court has a limited number of students in class, so we should immediately add new sports and introduce Pilates courses to enrich, supplement and improve the content of physical education teaching. This is also a dual need to respond to the progress of the times and promote the reform of physical education teaching in colleges and universities. Most of the teachers in our school are young and experienced. They have a good professional foundation and teaching experience, and they have great potential for development. The school can help them master the basic knowledge and skills of Pilates through various forms of Pilates learning or training, so that they can be competent in teaching Pilates.

## 4 Conclusion

Pilates movement is developing rapidly in the country because it has a unique fitness effect and unique program characteristics catering to the needs of modern people for health, but also suitable for the physical and mental development of college students and the pursuit of fashion and beauty personality. In higher vocational colleges and universities, it is of great significance to increase Pilates courses to expand the content of college sports teaching and promote the diversified development of college sports.

Pilates class has a rich complementary effect on students' physical education classes, and at the same time, it can improve students' comprehensive physical quality. It cultivates students' good temperament and integrates students' body, mind and will to create a beautiful body shape and cultivate noble artistic sentiment. The role of Pilates has a positive impact on the physical and mental qualities required for art students' specialties, meets the students' learning requirements, and lays the foundation for college students to cultivate a lifelong physical exercise lifestyle, so it is feasible and necessary to open Pilates courses in art colleges and universities.

### **Conflicts of interest**

The author declares no conflicts of interest regarding the publication of this paper.

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