# On the relationship between music and sports

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ABSTRACT. The relationship between sports and music is a subject with research value. This paper will analyze the necessity and inevitability of introducing music into the physical education classroom. Based on the historical development track of sports music connection, this paper analyzes the rhythm of sports and music. The purpose of this study is to provide theoretical and practical reference value for the development of sports teaching.

Keywords: sports; music; relevance

# 1. Introduction

As a special language, music is gradually integrated into physical education, and it has become an indispensable content and soul of some sports, and has a greater impact on students' mind and body. The task of physical education in quality teaching is not only the aspect of sports, but also the cultivation of students' intellectual education, moral education and aesthetic education. To this end, this paper combines the empirical and rational thinking of the close integration of sports and music that the author has been in the sports work for many years.

#### 2. The historical development of sports and music

In the long history of sports development, music has always been closely related to it. In the Western Zhou Dynasty, there has been a "stabbing method" with music to form a "dancing elephant". The Western Han Dynasty also painted a "dancing" [1] with accompanying accompaniment and the Tang Dynasty. "Sword Dance" is now more and more closely related to the formation of music and sports in

the sports stage, and involves a wide range of fields. People have naturally associated music and sports in their understanding and regard them as a whole.

# 3. Rhythmic laws of sports music

#### 3.1 Music and athletes' physiological and psychological factors

Practice has proved that the rhythm of music can control and induce the frequency and amplitude of athletes' movements, as well as the psychological state of the game. Therefore, in the environment with music, or similar music rhythm changes<sup>[2]</sup>, physical training, sports competition, etc., is conducive to improving the rhythm of the neural response, making the excitement and inhibition more balanced, improving the coordination ability of the athlete's body; It helps to restrain the athlete's attention and thinking, control the direction of their psychological activities, and make the skill exercises more effective, so as to achieve the purpose of improving training and competition performance. It has been found through practice that there is a significant difference in the degree of recovery between suitable music accompaniment and no music accompaniment. Heart rate and respiratory rate with music accompaniment recover faster.

# 3.2 Music and sports load relationship

By using the rhythmic laws of music, it is possible to effectively control the exercise load of training or physical education classes, and prevent athletes from suffering from excessive fatigue or excessive exercise load<sup>[3]</sup>. You can use the rhythm of cheerful music to stimulate and control the enthusiasm of exercise exercises to achieve the purpose of maintaining exercise intensity. Use different rhythm speeds to control the size of the practice density. For small exercise load training, you can choose a musical accompaniment with a short melody and a speed of 130-150 beats/min. For large exercise load training, you can choose a longer melody with a speed of 160 beats/min. The above music accompaniment. The exercise program can also be adjusted according to the speed and rhythm of the pre-designed music to achieve a scientific change in the exercise load curve.

## 3.3 Relationship between music and motor skills and sports performance

All kinds of sports technical actions are completed according to a certain action rhythm, and the action rhythm reflects the time characteristics of different stages in the action process. During exercise, the intensity of the force, the scale of the movement space, and the length of the movement last constitute the rhythm of the technical movement<sup>[4]</sup>. Running is a change in rhythm caused by a change in the pace and stride. In sports practice, rhythm has a great influence on athletic performance. For example, the rhythm of the 3-step column of the 110m high column has a certain regularity, and the shorter the step, the better the score. Another example: if the running rhythm of the long jump is damaged, it will not be able to jump accurately, thus affecting the speed of the running and the completion of the correct technical movement. The formation of new rhythm patterns when the motor skills are mastered and the movement techniques are completed.

#### 4. music combined with sports value

# 4.1 Music combined with sports significance

The importance of the close combination of sports and music is also reflected in the following two levels:

(1) One level is the important significance of the close integration of sports and music in a narrow sense. Sports and moral education, intellectual education, and aesthetic education together constitute the four major elements of education, and music plays an important role in aesthetic education<sup>[5]</sup>. The great educators of the pre-Qin period in China also put forward the educational thought of "reciprocation of rites and music". In the 18th century, Germany's outstanding thinker Schiller also proposed the idea of comprehensive education: "There is a health-promoting education, an awareness-raising education, an education to promote morality, and an education that promotes appreciation and beauty. This last kind The purpose of education is to cultivate the whole of our emotional and spiritual strength to be as harmonious as possible." Visible sports and aesthetic education, including music education, are all integral elements of comprehensive education. The close combination of the two will help the two to achieve a win-win situation and achieve

the educational effect of 1+1>2.

(2) Another level is the importance of the close integration of sports and music in a broad sense. The broad sense of sports has penetrated into all aspects of people's cultural life, and its popularity has been extensive. Everyone knows. Among all the art forms, music is widely known for its popularity. This is just like the revolutionary teacher Engels said: "In all art, only music can produce cooperation with the masses, and at the same time, in expressing power, music is also the winner..." It can be seen that the close combination of sports and music can make both Complement each other and complement each other, its significance, it goes without saying.

#### 4.2 The influence of music on the development of athletes' dynamic rhythm

The sense of rhythm of music is the ability of people to feel the length, strength, weakness, pause, etc. of sound. It is a comprehensive reflection of human hearing <sup>[6]</sup>, understanding and imagination. The sense of rhythm in motion is a dynamic feeling, which is an inductive ability of athletes to change speed and strength. People with good music rhythm can form a good sense of dynamic rhythm through certain training. The tension and relaxation of muscle force can naturally alternate and reach the best state, so that the most difficult action can be completed in the most labor-saving way. A good athlete must have a good sense of dynamic rhythm to adapt to the various rhythmic laws in the movement, and to complete different movements smoothly and harmoniously. And a person with poor motivation and rhythm, his coordination of movement will inevitably be worse, it is difficult to accurately complete various actions. Therefore, athletes are often listened to music of various rhythm types, and rigorous training under the temperament of a specific rhythm type can cultivate a good sense of power rhythm.

In addition, from a biological point of view, the rhythm of music can improve the rhythm of the neural response, so that the athletes correctly perceive the different stages of the movement and the different movement rhythms and speeds taken at different stages, and the music rhythm directly controls the speed of the athletes. Through the repeated training, the athletes unconsciously have a close relationship with the music. When the athlete's movements are almost combined with the music

changes, the consistency of the music melody and the flexibility of the rhythm are transformed. The athletes make the movements of the athletes smooth and harmonious, and the athlete's dynamic rhythm is improved. An athlete with a good sense of dynamic rhythm can not only perform the movement accurately and gracefully, but also be more expressive.

#### 4.3 Music is used in physical education

A strong rhythm and melodic music can make people feel power, stimulate people's passion and improve the excitability of the cerebral cortex. It can evoke the interest and enthusiasm of students to learn, and generate internal motivation for learning technology movements. In the football festival World Cup, the theme songs of each session are exhilarating. The fans watched the bloody game and enjoyed the songs of body and mind resonance. What could be more touching than this? Not only that, in the process of learning and consolidating technical movements, students fail to achieve their goals or requirements, causing their self-esteem and self-confidence to be hurt, causing them to have nervous emotions such as nervousness, irritability and anxiety. The power of music has a profound and profound impact on people's spiritual world. And the physical education class is different from the general cultural class. The exercise makes the students' body and mind develop and exercise, but it also brings physical and mental fatigue to the students. Music has a direct impact on the limbic system and the brainstem network. She plays a role in people with certain rhythm, speed and tone, calming, excitement, analgesia, adjusting heart rate, lowering blood pressure and so on.

#### 5. Conclusion

Music is the art of sound, art is the art of image, and sports is the art of line expression. They all reflect a certain social life and express certain thoughts and feelings. Through the realization of music combined with sports, teachers and students can promote the emotional pursuit of creating teaching beauty, and the artistic ability and humanistic quality of teachers and students can be comprehensively improved in the beautiful environment.

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