

The Application of Motor Skills Transfer in Aerobics Teaching

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Abstract: It is widely recognized that all phenomena and patterns of transfer exist, and this applies to the field of education as well. Physical education, an important subject, also involves the transfer of motor skills. Often, the transfer of motor skills is overlooked by both teachers and students. In most physical education and training processes, the transfer of motor skills is closely linked to the effectiveness of teaching and training. Therefore, this article uses aerobics as a case study to introduce the basic definition of motor skill transfer and the fundamental characteristics of aerobics. It also analyzes how motor skill transfer can enhance the effectiveness of aerobics in physical education. This approach helps people correctly apply the principles of motor skill transfer, thereby improving the quality of physical education.

Keywords: Motor Skills; Transfer; Aerobics; Physical Education

1. Basic Definition of Motor Skill Transfer

In general aerobic exercise instruction, it is common for new and old movements to influence each other. Specifically, some students, despite having already mastered certain movement skills, may still be influenced by their previous movements when learning new ones. Naturally, these new aerobic exercises also reinforce and enhance the existing skills. In aerobic exercise practice, various movements can interact with each other, a phenomenon known as motor skill transfer.

Generally, the transfer of motor skills has two aspects: positive and negative impacts. Based on this, it can be categorized into positive transfer and negative transfer. Positive transfer means that the gymnastics movements students have previously mastered facilitate the learning of new gymnastics movements, leveraging the advantages of their previous skills while reinforcing the new ones. Negative transfer, however, is a restrictive effect where previous

gymnastics movements hinder the learning of new ones, adversely affecting the mastery of new movements. Additionally, some new gymnastics movements can interfere with previously learned ones, creating mutual interference between them. Therefore, physical education teachers must actively leverage the positive transfer of motor skills during gymnastics instruction, striving to minimize negative transfer, thereby helping students accurately master new gymnastics movements.

2. Analysis of the Reasons for the Transfer of Aerobics Movements

Generally, the transfer of aerobic exercise movements involves multiple factors, which can be primarily categorized into two types: the first factor is related to people's physiological functions, particularly the nervous system. The structure of the nervous system directly influences the transfer effect of aerobic exercise movements. In terms of human physiological functions, the structure of the cerebral cortex and nerve fibers significantly promotes the transfer of aerobic exercise movements [1]. Typically, certain movements in aerobic exercise can stimulate the cerebral cortex, causing it to become excited or inhibited. This stimulation not only occurs at the initial location but also spreads to surrounding areas, leading to similar excitations or inhibitions in other areas. Therefore, previous aerobic exercise movements influence the development of new movements.

On the other hand, the structure of aerobic exercise movements also has a certain impact on the transfer of movement. Many aerobic exercises share similar or related movement structures, with some common factors. Aerobics practitioners have similar requirements for movement positions, with only minor differences in the details of specific movements [2]. Although students of aerobics have learned previous aerobic exercises and have a certain foundation in aerobic movements, when they start practicing new movements, the similarity in stimuli and the resulting similar reactions

positively influence their learning of new movements.

3. The Significance of Aerobics Teaching and the Existing Problems in Current Teaching

As society continues to evolve, technology has transformed people's lives. Most individuals live in a fast-paced, high-efficiency lifestyle with significant stress, leading to physical and mental fatigue, and some even face near-collapse sub-health conditions. Therefore, ensuring one's physical and mental health has become an increasingly important life goal for many. Influenced by this reality [3], various forms of fitness activities have rapidly integrated into daily life, with aerobics being one of the popular choices among modern people. Aerobics can effectively promote fitness. The aerobics system is diverse, featuring a wide range of movements that combine fast and slow, as well as dynamic and static elements, making it suitable for people of all ages and physical conditions. Anyone can find a suitable aerobics routine to suit their needs, thereby achieving the benefits of physical and mental health through regular practice [4].

3.1 The Teaching Atmosphere of Aerobics is Poor

The teaching atmosphere refers to the predominant emotional state that students exhibit during the learning process, encompassing their mental state, emotions, interpersonal relationships, and responses to the environment. Students' interest, enthusiasm, emotional experiences, and attention can fluctuate significantly within this atmosphere. In some regions, the low quality of physical education teachers makes it difficult to engage students in the often monotonous aerobics, leading to a lack of motivation for learning aerobics. Furthermore, inappropriate teaching methods further reduce students' interest in aerobics courses, failing to stimulate their enthusiasm and instead fostering laziness and a dislike for the subject [5]. Additionally, many aerobics instructors overlook the specific characteristics of their students and fail to design aerobics movements from a diversified perspective. Some instructors may use mechanical teaching methods, which directly results in lower teaching efficiency. To address these issues, aerobics instructors should strive to create a positive teaching environment that can spark students' interest in aerobics. Practical

teaching experience has shown that thorough action interpretation in aerobics instruction is crucial, as it can ignite students' passion for learning aerobics and increase their desire to participate.

3.2 Students Lack Interest in the Teaching Content of Aerobics

With the rapid development of society, aerobics has become a crucial course for students' health, playing a vital role in their future work and life. Therefore, enhancing students' interest and enthusiasm for aerobics and improving their physical fitness are key challenges in aerobics instruction [6]. In traditional aerobics classes, instructors often adopt a serious teaching style, leading students to merely mimic the instructor's movements with little interaction, which can easily lead to disinterest in aerobics. If this issue is not addressed promptly, teachers will fail to spark students' interest in aerobics, and students' enthusiasm for learning will remain low. Thus, by enhancing interest-based teaching in aerobics, we can create a joyful and positive learning environment, encouraging students' initiative and significantly improving their aerobics skills.

4. Measures to Promote the Effect of Exercise Migration in Aerobics Teaching

When learning new aerobic exercises, it's important to leverage the principles of motor transfer. This involves using your existing knowledge system effectively and understanding your physical capabilities. Specifically, when learning new aerobic movements, teachers should first guide students in analyzing the content of previous exercises. Then, after mastering the analysis of the upcoming new movements, students can selectively learn based on their personal characteristics. Finally, they should confirm whether they need to master the new movement technique. Therefore, when students select aerobic exercises to learn, their cerebral cortex can carefully analyze both their past experiences and the upcoming aerobic movements. If the analysis confirms that the new aerobic movement is similar to a previously learned one, with the same movement pattern, the cerebral cortex can automatically recall the learned movements, helping students better grasp the new aerobic movements. In the teaching process of sports aerobics, developing this good habit can help both students and teachers accelerate the teaching pace and

improve learning efficiency.

5. Conclusion

In the context of the current social situation, using sports transfer to teach aerobics is an inevitable trend, a product of the times. Therefore, we should adopt advanced sports transfer techniques in aerobics instruction. Aerobics, a sport with many interactive elements, can effectively develop people's movements and increase their interest in aerobics through exercise. By carefully studying various principles and refining them, and applying sports transfer to aerobics teaching, it is easy to enhance students' knowledge transfer in aerobics instruction.

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