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The Application of Multimedia Technology in Track and Field Training

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Abstract: With the continuous progress of science and technology in China, multimedia technology has been widely applied. In track and field training, the application of multimedia technology can improve training efficiency and accelerate training progress. However, as track and field training is a highly technical event, it is necessary to pay attention to the scientific and reasonable use of multimedia technology when applying it, and play its auxiliary role, otherwise it will affect the efficiency of track and field training. In order to fully leverage the role of multimedia technology, this article will conduct relevant research, analyze the main role of multimedia technology in track and field training, and then analyze the application strategies of multimedia technology in track and field training on this basis, hoping to provide reference assistance.

1. Introduction

With the rapid development of the social economy, China's scientific and technological level continues to improve, and multimedia technology has also been widely applied. In the process of sports training, the application of multimedia technology can present the teaching content more vividly and vividly, making it easier for athletes to understand the learned content. Therefore, in track and field training, coaches need to combine the actual situation of athletes, scientifically and reasonably apply multimedia technology for track and field training, and improve the efficiency and quality of track and field training. However, due to the lack of corresponding technical understanding and application experience among many coaches, this technology is not widely used in the field of track and field training. In order to change this situation and indirectly promote the development of China's track and field training level, it is necessary to conduct relevant research.

2. The role of multimedia technology in track and field training

2.1. Beneficial for improving training efficiency

For example, when practicing long jump, many athletes initially believe that it is a relatively simple event because during the approach process, only a quick takeoff is required, but this perception is incorrect. Although long jump may seem simple, there is a certain level of complexity throughout the entire exercise, such as the need for athletes to master certain skills during the approach process. Coaches can use multimedia technology to showcase the steps of approach, takeoff, and landing

during long jump training, allowing athletes to quickly master these skills. In addition, coaches can also showcase the mistakes made by athletes during the training process, enabling them to quickly understand the mistakes made by athletes during training and make timely corrections. Coaches can also showcase the excellent performance of athletes during training, giving them more motivation to learn. For example, during high jump training, athletes are prone to problems such as body soaring and body landing. In this case, coaches can break down the movements of athletes during the competition and display them through multimedia technology, allowing athletes to understand how they jump too high and too far during the competition, enabling them to have a detailed understanding of the techniques involved, and allowing athletes to identify their own shortcomings and make improvements during the competition[1-2].

2.2. Help understand athletics

According to Table 1, it can be seen that many modern athletes have incorrect understandings of track and field events.

Table 1: Investigation Results of Athletes' Cognition of Athletic Events

Investigating issues	Survey results (20 people)
What do you think is athletics	Single project (15 people), multiple projects (5 people)
What do you think are the main events in athletics	Running (6 persons), Standing long jump (11 persons), others (3 persons)

In fact, there are many different types of athletics events, such as throwing and jumping. When learning throwing events, athletes first need to master throwing techniques in order to achieve better results during the throwing process. If athletes simply view track and field events as running, it will lead them to misunderstand track and field training. Therefore, coaches should compare athletics with other events, allowing athletes to understand the difficulty and training methods of athletics through comparison. For example, during the training process, coaches can have athletes participate in a speed race and set some obstacles to help them complete the task. After completing the task, the coach can explain the different events and techniques in athletics to the athletes. For example, during a competition, if an athlete fails to control their body's center of gravity while running, it is easy to experience a situation where their body soars and falls. This requires athletes to control their body's center of gravity during the running process in order to complete the competition tasks well. Coaches can also use multimedia technology to demonstrate to athletes the control methods of body center of gravity in high jump, long jump, and other events. By comparing, athletes can have a deeper understanding of track and field training and increase their interest in it[3].

2.3. Stimulating Athlete Interest

Applying multimedia technology to track and field training can effectively stimulate athletes' interest, make them feel the charm of track and field sports, and enable them to train in a relaxed and pleasant atmosphere, improving training efficiency. For example, during hurdle training, many athletes may experience body inertia causing their bodies to soar. Coaches can showcase the process of hurdles through multimedia technology, allowing athletes to feel the impact of body inertia during hurdles. Coaches can also display the athlete's body movements during the hurdles process, such as soaring and falling, through multimedia technology, allowing athletes to understand the impact of body inertia during hurdles and how to avoid such situations. By using multimedia technology, the fun of track and field training can be increased, allowing athletes to feel the charm of track and field sports and stimulate their interest in learning. Table 2 shows the changes in the interest performance

of an athlete over the past three months before and after the application of multimedia technology [4].

Table 2: Changes in the interest performance of a certain athlete before and after the application of multimedia technology in one year[5]

Time	Investigating issues	Survey results
Three months ago	Are you interested in athletics?	Very interested (), interested (), not interested (√)
Three months later		Very interested (√), interested (), not interested ()

3. The specific application points of multimedia technology in track and field training

3.1. Clarify technical essentials and strengthen basic training

In the process of track and field training, if coaches want athletes to master more knowledge and skills, they must conduct basic training, and the basic skills of track and field events are the foundation of basic training. Therefore, in the process of track and field training, coaches should make full use of multimedia technology to enable athletes to have a detailed understanding and learning of the basic techniques of track and field events, and strengthen the basic training of athletes. For example, when explaining the content of "how to run", coaches can use multimedia technology to display and explain the starting and running postures of different athletes, so that athletes can understand the correct starting and running postures, which is the key to improving athletes' performance. Through the application of multimedia technology, athletes can learn more about track and field events and increase their interest in learning track and field events[6].

3.2. Clarify training methods and choose reasonable means

In track and field training, coaches should choose suitable training methods based on different training objectives and requirements, in order to improve training efficiency. For example, in track and field sports, the practice of starting movements has certain difficulties. If coaches directly use traditional starting methods, it will cause athletes to experience problems such as body shaking and unstable center of gravity during the starting process. Therefore, coaches should actively innovate and optimize track and field training methods on the basis of traditional teaching models, and use multimedia technology for auxiliary teaching. In addition, for athletes of different age groups, their physical and psychological qualities, sports skills, and learning abilities all vary. Therefore, it is necessary to choose appropriate training methods based on specific circumstances. In summary, coaches should clarify training methods and choose reasonable training methods based on the characteristics of athletes themselves[7-8].

3.3. Analyze the actual situation and develop a reasonable plan

When conducting track and field training, coaches need to develop training plans based on the athlete's physical condition and athletic ability. In order to improve the effectiveness of training, coaches should arrange the training content reasonably according to the actual situation, and update and optimize the track and field training plan in a timely manner, providing athletes with more scientific and reasonable training content, in order to better adapt to track and field training. At the same time, coaches should adjust and optimize the content of track and field training based on the actual situation of athletes, so that it can better meet the learning needs of athletes and improve the quality of track and field training. During the training process, coaches should carry out teaching

work based on the actual situation of athletes, update and optimize track and field training plans in a timely manner, so that they can better meet the learning needs of athletes and improve their learning effectiveness[9].

3.4. Using multimedia technology to analyze the principles of motion

In the process of track and field training, athletes need to understand the knowledge they have learned, analyze and study their own technical movements, and improve their own movements through analysis and research. However, the sports principles of track and field athletes are relatively complex and need to be explained through text, pictures, and other forms. However, in the actual training process, many athletes are unable to fully understand the meaning, which leads to incorrect movements during training. And multimedia technology has rich colors and realistic animation effects, which can intuitively display the sports principles learned by track and field athletes, helping to improve the quality of training[10].

3.5. Correct athlete's incorrect posture through multimedia technology

During track and field training, many athletes make incorrect postures, which can seriously affect the training effectiveness. Therefore, in the actual training process, coaches should pay attention to correcting athletes' mistakes. After coaches discover that athletes have incorrect postures, they should use multimedia technology to display correct and incorrect movements during track and field training, allowing athletes to compare them. For example, in long jump training, athletes may experience problems such as faster speed and incorrect posture during takeoff due to the lack of running up movements during takeoff. Therefore, coaches need to demonstrate the correct and incorrect takeoff positions through multimedia technology.

4. Conclusion

In summary, in China's track and field sports, track and field training is the most fundamental and important, and traditional training methods can no longer meet the current social needs for high-level athletes. Therefore, coaches should actively innovate and optimize track and field training methods. It is recommended to start with multimedia technology and fully learn the application methods of multimedia technology in track and field sports, in order to promote athletes' independent learning through multimedia technology and further promote the improvement of China's track and field sports level.

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