Research on the Application of Sports Skills Transfer Principle in Gymnastics Teaching and Training Based on Humanistic Care

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Abstract: Gymnastics is a sport with complex and diversified movement structure rather than synchronization. In gymnastics teaching and training, the phenomenon of transfer of sports skills is widespread. The structure of competitive gymnastics movements is complex and diverse, and it is difficult to practice. Teachers should grasp the intrinsic relationship of movement techniques, master active teaching methods and reduce the influence of negative factors in teaching. Some projects have negative impacts on learning and mastering new content, and the impacts of this formed skill on mastering another skill are called skill transfer. Scientific and reasonable application of “transfer principle” in sports psychology courses to competitive gymnastics teaching and training can enable students to master gymnastics knowledge, skills and techniques as soon as possible and as much as possible in limited class hours, and can also improve students' ability to analyze and solve problems. Based on the perspective of humanistic care, this paper discusses and studies the application of the principle of movement skills transfer in gymnastics teaching and training.

1. Introduction

In physical education teaching, various kinds of knowledge, skills and techniques have different degrees of influence on each other, which is directly related to the effect of students' learning and mastering sports knowledge, technology and skills [1]. Although competitive gymnastics is one of the backbone courses in physical education institutes, the total course hours are also decreasing year by year, which undoubtedly brings many new problems to the teaching of competitive gymnastics. The teaching methods of Gymnastics in Colleges and universities must be timely optimized [2]. The formed sports techniques not only show the skills that have been learned and mastered, but also have different effects on the previously formed motor skills and the formation of new sports techniques in the future, and have the effect of skill transfer [3]. Action skill refers to the ability to complete an action according to certain technical requirements. This requires precise movement, speed, rhythm in a certain order and time to complete the motor skills formed by the action. Scientifically and rationally apply the “migration principle” in the course of sports psychology to the teaching and training of competitive gymnastics. It can enable students to master gymnastics knowledge, skills and techniques as soon as possible within a limited class time, and improve students' analytical problems. And the ability to solve problems [4].

In the current college gymnastics teaching, the study of teaching methods can be said to become a key factor in achieving the improvement of gymnastics teaching quality [5]. The action characteristics of the gymnastics itself require different types of equipment and different levels of difficulty to be performed on different equipment items, so the technicality is very strong [6]. From a single action technology, although the project is different, the difficulty and the type of technology are different, but it is not an isolated single body. Movement skills are the ability to use muscles correctly in the right time, which requires precise force, speed, and sequence in a certain order and time [7]. The impact of some projects is negative, hindering the learning and mastery of new content, and the impact of this formed skill on the mastery of another skill learning is called skill transfer [8]. In the gymnastics teaching, the application of the principle of motor skills migration enables students to master gymnastics skills, techniques and knowledge in a shorter period of time [9]. The formation of motor skills not only indicates that the movement technique has been learned and mastered, but also has different effects on the formation of new motor skills.
before and in the future, that is, the migration of skills.

2. Characteristics of Teaching and Training of Athletic Gymnastics

In educational psychology, transfer phenomenon is one of the important theories, often appearing in human memory, reasoning, intuition and application ability. Due to the diversity of gymnastics technical movements and the connection between various internal elements of complex movements, the structure of technical movements is similar and more similar, and the phenomenon of movement skills transfer is common. Competitive gymnastics is a closed sports skill, in which the human body is often in an unusual state, with certain difficulty and thrilling, and at the same time it is also artistic and ornamental [10]. Due to the unconventional and dangerous nature of competitive gymnastics movements, it is very difficult for students to practice, which often leads to fear. Therefore, they have to be closely linked with psychology in the process of gymnastics teaching and training. In gymnastics, because of the equipment characteristics of each gymnastic event, its movement techniques are often self-contained. If the relationship between gymnastics skills is regarded as vertical connection, skill transfer between the same events can be called vertical transfer. As a teacher, we need to fully grasp the transfer-related principles, and actively guide students on the basis of fully practicing the rules of gymnastics skills and physical and mental characteristics.

The more similarity of single technology among different projects, the greater migration between projects. Sports testing project management refers to the management of information related to sports testing projects. Its functional modules include the addition of sports testing items, modification and deletion of sports testing items, weight setting, etc. The database Tables involved in the implementation process are mainly test item information Tables, and the implementation process is shown in Fig. 1.

![Fig. 1 New test project program flow](image)

The basic factors affecting migration are, first and foremost, the common technical elements between motor skills. Any learning skill skill and later motor skill can have the same or similar technical elements in learning, and the common factor is one of the basic conditions of migration. The human body is structurally connected by joints of various parts of the body, so the human body can be simplified into a chain of links when studying human motion. In the sports movement, when it is hoped that the end of the chain will produce great speed and strength, the form of motion of the limb often appears to accelerate and brake from the proximal link to the distal end. In gymnastics, there are different and common factors in its movement structure. In the actual gymnastics knowledge teaching, the reasonable application of the movement transfer principle and
phenomenon is not only conducive to deepening the already established dynamic stereotypes, but also conducive to students to better grasp the similar movements of gymnastics movement structure. Scientific and reasonable use of the transfer principle of sports skills in psychology for teaching and training of competitive gymnastics movements will also effectively promote the teaching process and achieve twice the result with half the effort.

3. Application of Transfer Principle in Gymnastics Teaching and Training

3.1 Develop Students' Ability of Analysis and Generalization

Language is one of the basic methods in physical education teaching and training. Promoting the guidance of language has a great influence on the transfer of sports skills. The objective existence of gymnastics techniques and the mutual connection between their elements determine the transfer of the existing skills of the subject in the process of learning and forming new skills. Proper nutrition is the necessary guarantee for the recovery stage of excessive exercise. Especially after a large number of intense exercises, the natural recovery process of human body is slow and sometimes accompanied by some pain. The purpose of nutrition supplement is to shorten the recovery process and avoid pain. The students in the control group received simple exercise training without any additional conditions in the training of various intensities, and only according to the training plan. Anaerobic work and vital capacity did not increase significantly, because they belong to the category of anaerobic metabolism, and their tests are instantaneous strength. All indexes of excess recovery period were recovered above the normal level. The comparison of anaerobic work data before and after excess recovery is shown in Fig. 2.

![Fig. 2 Anaerobic power data index before and after excess recovery](image)

There is a mutual restrictive relationship between motor skills and analytical summarization skills. Skill formation and migration depend on analysis and generalization ability, and can improve and develop analytical and generalization ability in the process of forming new technologies. Whether a motor skill can produce a migration depends objectively on the interaction between technical actions and their elements, and subjectively depends on whether the learner has formed skills. There are a large number of identical and similar technical links between gymnastics technical movements, and there are mutual migration factors. Before the actual gymnastics course is launched, the teacher needs to be able to analyze the difficulty and type of the textbook content of the class, and make the regular content to be taught in the same category based on the content of the outline. Through the language guidance of the teacher or the coach, the teaching object can gradually clear and deepen the understanding of the action technology, and guide and inspire the students' positive thinking.
3.2 The Guiding Role of Language in Skill Transfer

In order for existing motor skills to have a positive migration impact in new learning situations while avoiding or reducing the effects of mutual and negative migration, it is necessary to clearly understand the common and different technical elements between them. The anaerobic power data index before and after the experiment recovery is shown in Fig. 3.

![Anaerobic work data before and after experimental recovery](image)

Fig. 3 Anaerobic work data before and after experimental recovery

Gymnastics teaching is based on the difficulty of technology. The gymnastics project has its own integrity and system. The basic technical movement is the foundation of the gymnastics as a whole and the system. In the teaching and training of competitive gymnastics, the negative transfer between action skills is not as much as the positive transfer, but its existence has a great impact on the whole teaching or training. As a gymnastic teacher, only by being able to master the rules of motor skills migration and correctly applying the positive effect of exercise, can students help them master gymnastics skills in a more accurate and fast way. The stronger the students' analysis and generalization ability, the more they can discover the internal connection between technologies and find their common points and differences. There is a mutual restriction relationship between sports skills and analytical generalization ability. Skills and transfer depend on analysis and generalization ability, which can be improved and developed in the formation process of new technologies. In teaching and training, students' analysis and generalization ability should be cultivated consciously.

4. Conclusion

The acquisition of each sports skill cannot be separated from the influence of past experience. The learning of sports skills now depends on the mastery of past sports skills, while the learning of future sports skills depends on the mastery of past and present sports skills. In teaching, we must pay attention to the common elements among the action techniques, so as to speculate on the mutual connection of the action techniques, which is a necessary condition for doing a good job in the transfer of the action techniques. Through the application of transfer principle in gymnastics teaching, the injury rate of students in gymnastics learning can be effectively reduced, the phenomenon of positive transfer can be effectively strengthened in teaching, and students can obtain better learning effect under the condition of inhibiting negative transfer. The more complex the technique, the higher the difficulty, the faster the skill will fade away. The elimination of the existing skill will make it difficult to form the skill of the same technical element. In teaching, the application of the principle of migration should not be limited to the teaching of a class. It should not only pay attention to the vertical application, but also pay attention to the horizontal application to simplify and optimize the teaching process, thus improving the quality of teaching. In the teaching, it is necessary to arrange the review time according to the actual situation to consolidate and improve the quality and proficiency of the sports skills, so that the similar technical elements play an active role in the formation of new skills.
References


