Journal of Contemporary Educational Research, 2023, Volume 7, Issue 7
http://ojs.bbwpublisher.com/index.php/JCER
ISSN Online: 2208-8474
ISSN Print: 2208-8466

Analysis of Winter Physical Training and Functional Reserve in College Physical Education Teaching

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Abstract: Physical training and functional reserve in winter physical education teaching can optimize the energy consumption of the body, regulate cardiopulmonary function, and stabilize emotions. It is essential to clarify the strategies of winter physical training and functional reserve as well as the existing issues in college physical education teaching, which subsequently improves students' physical functions and achieves comprehensive development goals.

Keywords: College physical education teaching; Winter; Physical training; Functional reserve

Online publication: July 12, 2023

1. Introduction

In recent years, along with the deepening of teaching reform, people have paid more attention to teaching quality while pursuing teaching content, especially in the development of physical education teaching work and activities. Meanwhile, it plays a role in promoting its overall development. To help achieve this goal efficiently, this article focuses on winter sports teaching and explores its physical training and functional reserve methods [1].

2. The importance of physical training and functional reserve in winter physical education

Exercise can alter specific physiological functions of the human body, which is concluded after long-term practices and studies, and has been widely acknowledged by society. Through winter training, the physiological functions of the human body can undergo positive changes based on the individual's stable state, and allow individuals to obtain ideal exercise effects, which is also the ultimate goal of winter training [2].

2.1. Optimization of the body's energy consumption

The types of energy consumption of the body are divided into natural consumption and exercise consumption. For individuals who do not exercise for a long time, the relevant functions of the body will slowly lose their original capabilities. The acquisition and improvement of their skills can be accomplished through physical training, which had good implications for the body's optimal use of energy.

2.2. Regulation of cardiopulmonary function

Individuals who often participate in sports often have a good cardiopulmonary function and a relatively

strong adaptability to various sports. In contrast, individuals who do not participate in sports often experience exercise overload, as their cardiopulmonary function will find it difficult to adapt to the exercise, and there is a high possibility of malignant, dizziness, fatigue, aerobic metabolic disorders, and other conditions. Physical training in winter can activate the inertia of muscles, accelerate the frequency of muscle contraction in a low-pressure environment, optimize cardiopulmonary function, and achieve the purpose of energy storage in the body [3].

2.3. Emotional balance

Individuals' emotions alter during the change in exercise intensity, and emotional fluctuations will affect not only physiological functions but also sports performance accordingly. To achieve a stable exercise emotion, individuals need to adjust the exercise intensity according to their requirements. Therefore, winter physical training allows individuals to adapt to the changes in exercise intensity and stabilize their mentality to a certain extent.

3. Current existing problems in college physical education teaching

In analyses of the current actual development of college physical education teaching, physical education teachers were found to pay too much attention to the explanation of textbook theories. Many physical education teachers use a single teaching mode to speed up the completion of teaching tasks. In the process of teaching work, the dynamic communication between teachers and students is lacking as the teachers are focusing on demonstration. In addition, although some colleges and universities in our country have set up special physical education departments, the investment in sports funds is lacking as compared with other teaching subjects. Some colleges and universities have problems with old sports equipment and insufficient professional venues. Moreover, some physical education teachers use various methods to help students meet the assessment standards, but they do not pay enough attention to the spiritual core of sports. Different sports have varying challenges, and some entail a risk of injury, hence some students may choose sports with minimal challenges to pass the course assessment easily, which could hinder the development of students' comprehensive sports quality.

4. Winter physical training and functional reserve strategy in physical education teaching

4.1. Teaching activities in combination with the natural environment

As the northern region of our country is colder during winter due to its natural environment, many sports events are idle in this period. In this context, the migratory bird-style terrestrial professional training has been transferred to the southern region, but its effectiveness has yet to be verified, and the expense is exorbitant. To reduce the economic burden while highlighting the role of training, some college physical education teachers utilize the characteristics of the winter climate to allow students to reserve their physical functions through circular training [4].

From the perspective of sports training during spring, the human body enters a burnout period, and physical training stimulates the vitality of the human body. If appropriate methods are used to train students, it can effectively adjust their relative functions of the human body and improve their sports performance. Therefore, physical education teachers should seize the opportunity of spring teaching to strengthen the training of students' physical fitness. Summer in our country is often scorching, and students will sweat a lot while exercising, leading to higher consumption of their body functions. Students will become lethargic if the replenishment is not timely. In order to prevent such situations, physical education teachers should employ flexible training methods that not only strengthen students' physical training but also optimize their sports skills which then effectively improve their sports performance. Wintertime is a vital period for performance improvement despite the human body skills have entered a period of fatigue from spring and

summer training. Physical education teachers should utilize wintertime as the harvest season to provide an important guarantee for the students' functional reserve. Physical education teachers should shift the focus from vigorous functional training to relaxing functional reserve. It is unwise to restrict the process of physical training by conventional and old habits and disregard the fundamentals of human movement. Instead, scientific and efficient methods should be applied while comprehending the law of nature, which then exert great influence on the human body. Therefore, adaptability is highly required to benefit sports training.

4.2. Adjustment of the training content according to the regional conditions

Winter training is a necessary component of physical education activities as it demonstrates a particular level of continuity. Currently, some colleges and universities in the northern region choose to shorten the winter training time in consideration of climate conditions, whereas some colleges and universities cancel winter training, hence reducing the physical fitness of students and hampering the cultivation of exercise habits. In order to solve the mentioned problems, physical education teachers can adjust the training time, preferably an hour arranged between 6:00 am and 5:00 pm, and can also be divided into the morning segment and the afternoon segment to complete the 1-hour training content, which is essential for students' sports training and positive cultivation of habits. In addition, teachers can utilize the campus infrastructure and arrange for physical training activities indoors, which included high leg lifts, barbell presses, barbell squats, etc., so that students can achieve functional reserves. Furthermore, teachers can formulate corresponding maintenance plans, regularly check and repair sports equipment, and remind relevant personnel to replace damaged equipment. Under the leadership of teachers, students can also participate in certain sports related to local climate conditions, such as skiing and skating exercises in cycles, hence achieving reasonable relief of students' learning pressure.

4.3. Improvement of students' physical fitness through scientific and effective training plans

The formulation of excellent training plans is crucial in the students' winter sports training. Some physical education teachers have continued the use of traditional training plans for a long time during physical education teaching, leading to no improvement in the students' physical fitness. There is also a high possibility of causing muscle wear and tear, which will eventually have an adverse effect on the students' physical health. Therefore, teachers need to formulate a qualified and efficient winter training plan, in combination with the actual situation of college students, to achieve a comprehensive and effective improvement of their physical fitness in a targeted manner. In the process of formulating the teaching plan, physical education teachers need to combine scientifically and effectively with the curriculum arrangement of colleges and universities to ensure the efficiency of the training plan.

For instance, physical education teachers can combine the actual characteristics of college students' professional courses, where the teachers of each subject can perform unified coordination work and make overall arrangements for course content and training plans. As advanced mathematics is intricate, physical education teachers may combine with the content of the subject list and offer physical education courses after advanced mathematics courses, hence relieving the learning pressure of students. In addition, teachers can effectively distinguish the students' abilities in a targeted manner during the process of winter training, where students' leg endurance is trained on the first day through barbell squat training, in which the weight of the barbell is determined based on the actual physical condition of the students, followed by pull-up exercises on the second day to strengthen students' back and arm muscles. Female students may perform exercises such as supine leg lifts to enhance their abdominal muscles and core stability. Within a week, the training of students' different body parts can be carried out to improve their overall physical fitness.

4.4. Optimization of the assessment and examination methods, and adjustment of the hierarchical learning status

In the process of physical education assessment for students, physical education teachers need to ensure the richness of assessment content and the rationality of assessment standards, while effectively combining teaching objectives and assessment methods at different levels, so as to achieve accurate and objective assessment of students' actual situation. The purpose of evaluating the learning situation is to avoid diminishing students' self-esteem caused by substandard test scores. Teachers should stimulate students' enthusiasm for physical education and physical training through scientific and reasonable assessments so that they can continue to work towards higher goals.

Physical education teachers need to combine the actual situation of groups at all levels as well as provide students with patience and targeted guidance during the physical training process. If students fail to achieve specific training goals, physical education teachers need to make corresponding adjustments based on the actual training situation. In the process of continuous feedback and adjustment, the physical training effects are continuously improved and optimized, the information on students' physical training is enhanced, and their interest in sports participation is stimulated.

5. Conclusion

In general, due to the constraints of winter weather conditions, it is challenging for students to achieve the goal of long-term physical training and functional reserve, which in turn restricts the improvement of their sports performance. In light of the current circumstances, physical education teachers should adopt appropriate methods to carry out winter physical education teaching in order to effectively stimulate students' sports enthusiasm while improving their physical performance, which then improves students' physical functions and achieves all-round development.

Disclosure statement

The author declares no conflict of interest.

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