

Suzhou goalkeepers is the highest, followed by the goalkeepers of the Anhui Chuzhou, Guangxi Nanning, and Guangxi Beihai teams. The defensive performance is relatively low, and the defensive performance is lower. The defensive performance of the team's goalkeepers can have a certain impact on the team's performance.

Among the goalkeepers of the top four women's handball teams at the 2024 National Student Games, the goalkeepers of the Chuzhou team in Anhui are better at one-pass fast passes, the goalkeepers of the Suzhou team in Jiangsu are better at one-pass fast passes, and the goalkeepers of the Chuzhou team in Jiangsu are better at one-pass fast passes. The goalkeepers of the Guangxi Beihai team have relatively poor performance in one-pass and short-pass fast passes.

Among the goalkeepers of the top four women's handball teams at the 2024 National Student Games, the goalkeepers of Guangxi Nanning are the best at defending flank and low-line shots, the goalkeepers of Jiangsu Suzhou are the best at defending inside and center shots, and the goalkeepers of Guangxi Nanning are the best at defending low-line shots. The Anhui Chuzhou team has the best defensive effect when hitting the ball, and the goalkeepers of the Guangxi Beihai team do not have obvious advantages in defending against various types of shots.

Conclusion. Women's handball goalkeepers should strengthen the training of their own technical skills in defense, focusing on the development of defensive literacy, prediction, reaction speed, and mobility, etc. At the same time, they should accumulate more experience in real combat games to comprehensively improve the defensive effect of youth goalkeepers.

Women's handball goalkeepers should conduct targeted training and improve themselves in response to their own shortcomings in the accuracy of shots from line defenders, insiders, lower lines, and the main roster. At the same time, they should also pay attention to studying the shooting skills and habits of players in various positions of the opponent, and then respond in advance to increase the likelihood of success in defense during the game.

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A STUDY ON THE INFLUENCE OF SWIMMING LEARNING SEQUENCE ON JUNIOR HIGH SCHOOL PHYSICAL EDUCATION ENTRANCE EXAMINATION SCORES

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Keywords. Swimming instruction sequence, physical education in junior high schools, entrance examinations, impact on grades, skill development.

With the deepening reform of physical education entrance examinations in my country, swimming, as a sport combining physical fitness and practicality, has been included as an optional subject in the physical education entrance examinations for middle schools in many regions. However, swimming instruction in middle schools currently typically suffers from the problem of "emphasizing technical instruction while ignoring the teaching sequence. Most teachers directly teach holistic swimming movements (e.g., freestyle and breaststroke), ignoring the principles governing students' basic physical fitness and the acquisition of technical decomposition. This leads to poor student performance on examinations and a lack of motivation due to insufficient mastery of movements and a mismatch in physical fitness.

Relevant research shows that the development of motor skills should follow the law of "cognition - decomposition - integration - automation." Swimming is complex sport, and a scientific approach to teaching sequences directly impacts skill acquisition and test performance. Currently, research on swimming teaching methods has focused primarily on optimizing individual techniques, with limited empirical research examining the correlation between teaching sequences and entrance examination performance. Therefore, this study develops a progressive swimming teaching sequence and compares the effectiveness of traditional teaching models to provide a scientific basis for improving swimming performance in junior high school physical education entrance examinations [1].

Material and Methods. Participants were 120 sixth-grade students with no swimming experience from Beimen Primary School in Kaihua County. There were 62 boys and 58 girls, aged 14-15 years. All students voluntarily chose swimming (50-meter breaststroke/freestyle) as their physical education entrance exam. Students were randomly divided into an experimental group (60) and a control group (60). No significant differences were found in key indicators such as height, weight, and cardiopulmonary function between the two groups ($P > 0.05$), making them comparable.

The experimental group utilized a progressive teaching sequence of "Basic Physical Training - Technique Analysis - Integration - Simulation Testing." The experiment lasted eight weeks, with two 60-minute lessons per week. In the control group, lessons followed the traditional "technical instructions" teaching sequence.

Research methods. Literature review, observation, pedagogical testing, pedagogical experiment, questionnaires, and mathematical statistics.

Key performance indicators for both groups of students were tested before and after the experiment.

Performance indicator: 50-meter swim time (compliance with physical education exam time standards).

Technique indicator: Technique mastery was assessed by three experienced swimming coaches using the "Technical Assessment Sheet" (100 points each, including movement standardization and rhythmic continuity).

Learning adaptation indicator: The frequency of "fear of learning difficulties" (e.g., fear of choking, difficulty mastering movements) was assessed using questionnaires [2].

Results and discussion. Comparison of 150-meter swimming results between the two groups. Before the experiment, no significant difference was observed in the average 50-meter swim time between the experimental and control groups (135.2 ± 12.5 seconds in the experimental group, 136.7 ± 11.8 seconds in the control group, $P > 0.05$). After the experiment, the average time in the experimental group decreased to 112.6 ± 8.3 seconds, while in the control group it decreased to 128.4 ± 10.5 seconds. The improvement in results in the experimental group was significantly greater than in the control group (12.3% vs. 6.1%, $P < 0.05$).

The analysis shows that the "basic physical training stage" in the experimental group provided physical support for subsequent technique acquisition. Elementary school students are in a period of growth and development, and insufficient core strength and cardiorespiratory endurance directly lead to "distorted movements" and "insufficient endurance" during swimming. Early physical training effectively addressed this issue. The "simulated exam phase" helped students adapt to the exam rhythm in advance, avoiding the influence of "unfamiliarity with the process" (e.g., slow starts and long turns) on their performance. This is the main reason for the superior results of the experimental group.

Comparison of swimming technique acquisition between the two groups. After the experiment, the average swimming technique score in the experimental group (89.2 ± 5.7 points) was significantly higher than in the control group (72.5 ± 7.3 points, $P < 0.05$), and the percentage of standardized technique in the experimental group (91.7%) was significantly higher than in the control group (68.3%). Regarding technical characteristics, the experimental group's pass rates for key aspects such as "kick and turn efficiency" and "breathing during arm stroke" were more than 20% higher than those of the control group.

This result suggests that the "technique decomposition stage" coincides with the development of swimming skills: elementary school students have a limited understanding of complex movements, and direct instruction in complete movements can easily lead to problems associated with "holistic learning" (e.g., the common problems of "weak kick and turn" and "inconsistency between breathing and arm stroke" in students in the control group). At the same time, decomposition training allows students to overcome technical difficulties one by one, laying the foundation for integrating complete movements and ultimately improving technical standardization [3].

Conclusion. A scientific swimming teaching sequence (basic physical training - technical training - full integration - simulated exam) can significantly improve performance on junior high school physical education entrance examinations. Its essence lies in its alignment with students' physical and mental development and the logic of swimming skill development.

This progressive teaching sequence not only improves students' technical proficiency but also enhances their adaptability to learning, reduces anxiety, and lays the foundation for developing long-term exercise habits.

The traditional "technical indoctrination" teaching sequence ignores physical training and technical preparation, easily resulting in students with "weak technique and slow performance improvement," making it difficult to meet the requirements of junior high school physical education examinations.

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IMPROVING THE TECHNIQUE OF SHORT-DISTANCE RUNNING OF COLLEGE STUDENTS ENGAGED IN SPRINTING, USING INNOVATIVE METHODS

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Sprinting is a foundational discipline in track and field, playing a significant role in enhancing college students' physical fitness and fostering their spirit of competition. However, the training methods currently employed in many universities still rely heavily on traditional approaches, which depend on coaches' subjective observations and lack precise, quantitative feedback. This limitation hinders the in-depth improvement of students' sprinting techniques. With the widespread adoption of smart devices and analytical software, technology-assisted training has introduced new possibilities for overcoming these limitations. By utilizing accessible tools such as smartphone video recording and sensor applications, combined with specialized analysis software, key technical indicators can be quantitatively assessed, offering data-driven support for training optimization [1]. The purpose of this study is to examine the application effects of technology-assisted tools such as video analysis and sensor-based metrics in college students' sprint training. It aims to validate their impact on improving technical indicators and to provide a practical reference for optimizing the sprint-training model in universities.

In the context of the widespread application of information technology in education, the modernization and scientific refinement of training methods have become important directions for the development of physical education in universities. As a foundational event in track and field, sprinting requires a high degree of technical precision, yet traditional training models often rely on coaches' empirical observation and subjective feedback. This approach makes