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# Research on the integration path of physical training and police practical skills in police academy

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**Abstract:** With the increasingly complex social security environment, public security education is facing higher requirements, especially in training high-quality law enforcement personnel to adapt to the complex police environment, how to optimize the training system has become a key issue. The organic integration of physical training and actual police skills is an important way to improve the comprehensive quality of public security team. However, at present, there is a common separation between the two kinds of training, which fails to fully reflect the practical value of mutual cooperation, thus restricting the training effect and the practical application ability of the students. In this study, the status quo and problems of physical training and actual combat skills training in the police academy education system are deeply analyzed, focusing on the necessity of the integration of the two and the implementation path. Through systematic theoretical analysis and practical exploration, a series of optimization schemes including scenario-based training, scientific physical fitness improvement strategy and integrated curriculum design are proposed. This study not only provides an important theoretical basis for the improvement of the education quality of

the police academy, but also provides practical guidance for promoting the all-round development of the students and enhancing the effectiveness of law enforcement.

**Key words:** Police academy cadets; Physical training; Police practical skills; Integration path; Education optimization

### 1 Introduction

With the increasingly complicated social security situation and the diversification of police tasks, the physical quality and actual combat ability of police personnel are facing higher requirements. In recent years, with the frequent occurrence of emergencies and the increasingly intelligent and concealed forms of crimes, the complexity and high risks in the process of law enforcement have increased significantly, and the physical fitness and police skill level of police officers have become the key factors<sup>[1]</sup> determining the efficiency of law enforcement and their own safety. In this context, the police academy, as the core institution of training high-quality police personnel, has attracted much attention<sup>[2]</sup> for its education quality and the scientific and effective training system. However, at present, there are still significant deficiencies<sup>[3]</sup> in the coordination of physical training and police actual combat skills training. This problem not only restricts the overall improvement of the students' comprehensive quality, but also adversely affects their actual combat performance and law enforcement efficiency in the future police work.

As an important part of police academy education, physical training and police actual combat skill training have irreplaceable core status.

Table 1. Physical training objectives and composition of physical quality

Objectives	Basic physical fitness
Improve students' basic physical fitness	Strength
	Endurance
	Speed
	Flexibility
	Agility

The goal of physical training is to improve the basic physical qualities of the trainees, including strength, endurance, speed, flexibility and sensitivity (Table 1), so as to provide a solid physiological foundation<sup>[4]</sup> for the efficient implementation of police skills. However, police actual combat skills training focuses on key technical and tactical capabilities required in law enforcement, such as unarmed defense

control, weapon operation and emergency conflict, emphasizing the precision and flexibility<sup>[5]</sup> of skills. However, the current training model is generally fragmented in terms of teaching design, implementation content and goal setting. Physical training pays more attention to the single improvement of physical quality, and lacks the linkage with specific police actual combat scenes; While skill training pays too much attention to the standardization of movements, and fails to fully consider the dynamic demand of skill execution on physical fitness. This "independent" training mode makes it difficult for students to realize the collaborative application of physical strength and skills in high-pressure law enforcement situations, which significantly weakens their comprehensive actual combat ability.

Based on the above problems, this study deeply analyzes the current status of physical training and police actual combat skills training and the main contradictions, and explores the scientific path and optimization strategy of the integration of the two. By constructing a scientific, practical and integrated training system oriented to actual combat needs, the aim is to comprehensively improve the comprehensive quality and adaptability of the students, so as to provide important theoretical support and practical guidance for the improvement of the overall actual combat ability of the public security team.

## **2 The status quo of physical training and police actual combat skills in police academy**

### **2.1 Status quo and problems of physical training**

As an important part of the public security education system, the core goal of physical training in police academy is to improve the basic physical quality of students through scientific and systematic training, including key abilities<sup>[6]</sup> such as strength, endurance, speed, sensitivity and flexibility. These physical indicators are not only the basic guarantee for students to carry out police tasks, but also the important support to ensure the efficiency and safety of law enforcement process. However, at present, there are still many problems in the practice of physical training in police academy, which significantly restricts its effect and the full realization of its objectives.

First of all, the disconnection between the training content and the actual police needs is still a prominent problem. At present, the physical training of the police academy mostly adopts traditional training methods, which mainly focuses on the improvement<sup>[7]</sup> of basic physical indicators such as strength (such as weightlifting, push-ups) and endurance (such as long-distance running). Although these methods play a positive role in improving the physical level of students, they fail to fully consider the actual needs of police tasks in the design of training content. Police scenarios often require high-intensity and short-duration explosive power and flexibility support, such as hunting down criminal suspects or responding to sudden violent incidents, while traditional physical training rarely carries out targeted exercises to meet these needs. In addition, the current training model lacks contextualized design and is difficult to simulate the dynamic physical demands in real law enforcement environments, resulting in trainees' inability to effectively translate physical abilities into actual combat performance in practice. Moreover, the singleness of the training mode and the lack of personalized design further limit the training effect. At present, the physical training of the police academy generally adopts the standardized mode of "one-size-fits-all", which imposes the same training content and intensity on all the trainees. This mode fails to fully consider the individual differences<sup>[8]</sup> in gender, age, physical fitness and adaptability of the trainees. Some trainees are

difficult to meet the training requirements due to their weak physical foundation, and may even suffer sports injuries due to excessive training or improper methods. In addition, the training content is relatively repetitive and the form is monotonous, which is difficult to stimulate the enthusiasm and long-term motivation of the students, thus weakening the training effect and the ability of the students to improve. At the same time, the lack of training effect evaluation and feedback mechanism also has an adverse impact on the optimization of training results. The current evaluation methods mainly rely on the traditional individual physical fitness tests, such as running speed, push-ups and so on. Although these tests can reflect the students' physical fitness level in some aspects, they fail to comprehensively measure their overall performance in high-pressure real combat scenarios. Finally, the limitation of training resources and environment also restricts the implementation effect of physical training to a certain extent. Many police academies have significant deficiencies in the allocation of physical training resources, including the limited area of training grounds, the insufficient quantity and quality of equipment, and the insufficient professional ability of instructors. Training facilities in some schools are rudimentary and unable to support diverse and targeted training needs. The professional background of physical training instructors is usually concentrated in the field of traditional physical education, and they lack a deep understanding of the needs of police actual combat, which further limits the effective combination of physical training and actual combat needs.

To sum up, in order to comprehensively improve the quality of police academy physical training, it is necessary to carry out scientific adjustment and optimization in many aspects. By improving content design, implementing personalized training, perfecting effect evaluation and feedback mechanism, and strengthening resource allocation and teacher training, we can not only significantly improve the actual effect of physical training, but also better support the development of students' comprehensive ability. This will provide a solid guarantee for the efficient implementation of police tasks in the future, and promote the modernization of police education system.

**2.2 Current situation and problems of police actual combat skill training**

Police actual combat skills (Table 2) training is the core link in police academy education to cultivate students' ability to cope with complex law enforcement situations.

Table 2. Police actual combat skills training

Objectives	Content covered
Police academy education develops cadets' ability to cope with complex law enforcement situations	Unarmed defense control Instrument use Weapon use Police control negotiation Handling of violent cases

It mainly covers unarmed defense control, equipment use, weapon use, police control negotiation, violent case handling and<sup>[9]</sup> so on. Compared with physical training, police skill training pays more attention to the accuracy of technical movements and the flexibility of tactical application. However, there

are still many limitations in the implementation of the current training system, which restricts the improvement of the training effect and the students' comprehensive actual combat ability to a certain extent.

First of all, the disconnect between technical and tactical training is one of the main problems. The current training usually focuses on the decomposition of a single technical action, such as the standardized operation of the unarmed defense control action and the standardized process of weapon disassembly and assembly. Although this method is helpful for students to master the essentials of movements, its applicability in practical scenarios is limited. In the real police situation, the use of skills needs the cooperation of dynamic tactics. For example, the unarmed defense control action needs to be adjusted according to the real-time reaction of the criminal suspect, and the disposal of violent incidents needs to be flexibly responded<sup>[10]</sup> to according to the environmental conditions. The current training model lacks the collaborative design of technology and tactics, which makes it difficult for students to flexibly apply their skills in complex situations. Secondly, the lack of situational actual combat training further weakens the practicability of skill training. The existing skills training is mostly completed in fixed venues and controllable conditions, which lacks the simulation of the complexity of real police scenes. For example, most training tasks are conducted in low-risk or stress-free environments, while real law enforcement scenarios are often accompanied by high pressure, uncertainty and emergencies<sup>[11]</sup>. This "de-actual combat" training mode cannot effectively improve the trainees' skill stability and mental toughness under high-intensity or high-pressure conditions, leading to some trainees' skill mistakes or psychological loss of control when facing real situations. At the same time, the lack of systematicness and comprehensiveness of training also limits the ability of students to perform in practical tasks. At present, training is designed independently of individual skills, such as repeating standardized procedures for unarmed defense control techniques or marksmanship techniques. Policing often involves a mix of different skills. For example, in violent situations, trainees are required to quickly complete a sequence of pursuit, unarmed defense control, and weapon handling<sup>[12]</sup>. The current training model does not pay enough attention to the integration and connection of skills, which makes students prone to the problem of movement fault or reaction lag in practical tasks. Finally, the uniformity of the evaluation system is also a key link that needs to be improved. The current evaluation index mainly focuses on the standardization and accuracy of technical actions, such as the shooting percentage or the completion speed of defense control actions. However, these indicators cannot fully reflect the students' comprehensive performance ability in real scenes, especially the skill execution efficiency and movement stability<sup>[13]</sup> under high physical consumption or high pressure conditions. In addition, the feedback and improvement mechanism of trainees after training is weak, and there is a lack of targeted suggestions, which affects the continuity and effectiveness of skill training.

To sum up, there is great room for improvement in the technical and tactical cooperative design, situational simulation, comprehensive application of skills and improvement of evaluation system of police actual combat skills training. Through the construction of actual combat, scenario-based and integrated training system, the comprehensive combat ability of students can be more effectively improved, and the guarantee for police work to train professionals with higher adaptability and flexibility can be provided.

### **3 The necessity of integrating physical training and police actual combat skills**

#### **3.1 To meet the practical needs of police work**

As the core component of social security management, police work's complexity, abruptness and high risk put forward comprehensive requirements<sup>[14]</sup> for the comprehensive quality of law enforcement personnel. In police practice, the effective combination of physical strength and skill is not only the key to improve the efficiency of law enforcement, but also directly related to the security and legitimacy of law enforcement. In diverse policing scenarios, such as the handling of violent incidents, the pursuit of criminal suspects and emergency rescue, police officers need to react quickly in complex and dynamic environments, showing strong physical reserves and efficient skills.

Physical quality is an important basic guarantee for the execution of police skills. In high-intensity tasks, police personnel need to maintain a stable ability to execute actions under the condition of high physical consumption. For example, the quick implementation of unarmed defense control after a high-speed pursuit of a criminal suspect requires not only speed and endurance as support, but also strength and flexibility. Lack of physical strength may lead to skill and movement errors or even task failures, which seriously affect the effect of law enforcement. Research shows that the lack of physical strength is one of the key reasons for the operational errors and psychological fatigue of police officers in actual combat.

The police skill is the core element to ensure the accurate execution of the task, and its proficiency and flexible application directly determine the quality and efficiency of the task. In complex emergencies, police officers need to quickly assess risks, formulate tactics and carry out operations efficiently. The combination of these skills requires a high degree of physical and technical synergy. Single physical fitness or skill training can not meet the comprehensive needs of modern police, it is necessary to combine the two organically through scientific integrated training mode, in order to train police officers with all-round practical ability. In addition, police work often faces sudden and high-pressure situations, which further highlights the importance of the integration of physical strength and skill. The research shows that in the high-pressure environment, the physical reserve and skill stability of police officers are crucial to their operational effectiveness. For example, the scene of violent conflict requires police officers to accurately complete unarmed defense actions and effectively control the situation under the dual challenges of psychological pressure and physical consumption. Through the integration of physical fitness and skill training, the trainees can not only strengthen their physical quality and skill level, but also significantly enhance their psychological resistance to pressure and improve their ability to cope with complex police tasks.

To sum up, the practical needs of police work determine the necessity of physical fitness and skill integration training. Only through a scientifically designed integrated training system can we comprehensively improve the students' comprehensive performance in future police tasks, ensure the efficiency and safety of law enforcement work, and provide a solid guarantee for social stability and security.

#### **3.2 Improve actual combat ability**

Police actual combat ability is the core quality for police officers to efficiently complete tasks under

complex, dynamic and high-risk situations. The core goal of police academy education is to improve the students' comprehensive actual combat ability through systematic training, so that they can quickly adapt to the needs of police tasks and show professional law enforcement standards. However, the separation of physical strength and skill training in the current training mode prevents the trainees from effectively transforming their physical strength into skill execution, thus restricting the overall development<sup>[15]</sup> of their actual combat ability.

Physical training is an important basis for improving actual combat ability. In police work, actual combat scenarios are often accompanied by high physical consumption, such as high-intensity tasks such as long tracking, continuous violent conflict or emergency rescue. In these situations, adequate physical reserves are the key to successful completion of the task. However, physical training alone does not translate directly into actual combat ability. Studies have shown that while traditional physical training can improve physical indicators such as strength and endurance, it can only improve motor coordination and skill stability under high pressure. This shows that only relying on a single physical training can not meet the needs of police actual combat for comprehensive ability.

Skill training is the key link to enhance actual combat ability. Current skills training mainly focuses on the standardization of technical movements, usually carried out in low-intensity or single-task situations, such as unarmed defense control, weapon operation or standardized process operation of emergency response. Although this model can improve technical proficiency, it is difficult to effectively simulate the high-intensity and complex environmental requirements of real-world tasks. For example, in sudden violent incidents, police officers need to quickly complete arrests under the condition of high physical consumption, which requires a high coordination of technical proficiency with physical reserves and psychological resilience to pressure.

The integration training of physical fitness and skills is an effective way to improve actual combat ability. By integrating physical training into skill training situations, students can repeatedly practice skills under the condition of physical exertion, thus significantly improving the stability and practicability of skills. For example, practicing unarmed defense control movements immediately after a high-intensity interval run can help students adapt to the need for physical and skill coordination in a practical task. In addition, integration training can also enhance the trainees' comprehensive coping ability by simulating complex law enforcement situations (such as violent conflict, multi-tasking), making their performance under high-pressure conditions more professional.

To sum up, the improvement of police actual combat ability not only depends on the separate training of physical strength and skills, but also needs the organic integration of the two. Through the scientifically designed integrated training mode, students can give full play to their physical advantages and flexibly use their skills in high pressure and complex situations, so as to realize the comprehensive improvement of actual combat ability.

### **3.3 Optimize the allocation of educational resources**

The scientific allocation of educational resources is the key guarantee to realize the integration of physical fitness and skill training. In police academy education, the separate training mode of physical

fitness and skill not only causes the repeated use of educational resources, but also limits the maxim<sup>[6]</sup>ization of training effect. Optimizing the allocation of educational resources, through resource integration and scientific design, can comprehensively improve the quality and efficiency of the training system, and provide important support for the development of students' comprehensive ability.

At present, there are significant problems in the allocation of training resources in the police Academy. First of all, the uneven distribution of training venues and equipment. Some police academies include basic equipment such as treadmills and dumbbells in physical training, but the use of such equipment in skills training scenarios is limited. However, skills training is mostly focused on specific sites, such as combat classrooms or shooting ranges, and lacks the integration of physical training facilities. This kind of resource segmentation not only increases the cost of education, but also leads to the poor connection between physical fitness and skill training, which weakens the overall training effect. Secondly, there is a lack of overall planning in the training schedule. At present, physical training and skill training are usually carried out independently in different time periods. For example, strength training is scheduled in the morning and unarmed defense control exercises in the afternoon. This arrangement ignores the synergistic relationship between physical strength and skills, and it is difficult for students to experience the actual impact of physical exertion on skill execution in comprehensive training. This separate time arrangement increases the training burden and reduces the overall efficiency.

Resource sharing and collaborative utilization should be the core strategy to optimize the allocation of educational resources. We can realize resource sharing through the multi-functional design of the venue. For example, the strength training area is combined with the skill training area, so that the trainees can seamlessly transition to the skill training situation after the completion of the strength training, and improve the comprehensiveness and coherence of the training. In addition, optimizing the training schedule is also crucial. The content of physical training can be embedded into the skill training module through the integrated course design, so that students can experience the dynamic influence of physical consumption on skill execution in the real task simulation, so as to strengthen the synergistic effect of the two. In addition, the introduction of technical means is an important way to improve the efficiency of resource utilization. The application of smart devices and virtual reality (VR) technology can create diverse training scenarios in a limited space and time. For example, VR technology can simulate complex chase scenes and combine physical and skill training in a virtual environment, which not only enriches training forms but also maximizes resource utilization.

To sum up, optimizing the allocation of educational resources is the core of improving the effect of physical fitness and skill integration training. Through resource sharing, time planning and the effective application of technical means, the police academy can significantly improve the efficiency and quality of the training system, lay a solid foundation for the all-round quality development of students, and train higher-level talents for police work.

## **4 The path of integrating physical training with actual police skills**

### **4.1 Introduction of scenario-based training**

Scenario-based training is an important way to realize the deep integration of physical training of

police academy students and actual police skills. By constructing situations that are highly close to real police work, students can carry out collaborative training of physical fitness and skills in a dynamic and complex environment, thus significantly improving their comprehensive coping ability. Compared with the traditional separate training mode, scenario-based training can not only effectively make up for the disconnection between physical fitness and skill training, but also significantly enhance the pertinence and actual combat of training, laying a solid foundation for students to better adapt to future police work.

Through highly simulated law enforcement situations, scenario-based training can significantly improve students' mental toughness and decision-making ability. In high-risk scenarios such as simulated violent conflict management, trainees are required to quickly identify threats, assess risks in a complex crowd environment, and use skills such as unarmed defense control and weapon handling to complete tasks. This situational training requires students to maintain the accuracy of their skills in a state of high physical exertion, while quickly responding to sudden changes in situations. By repeatedly participating in the simulation of these high-pressure situations, students can not only gradually build up their confidence in dealing with complex tasks, but also effectively improve the stability of actual combat performance. Secondly, scenario-based training can strengthen the synergy between physical strength and skills. In the traditional training mode, physical training usually focuses on the improvement of a single index, such as strength, endurance or sensitivity, while skill training focuses on the decomposition of fixed movements, and there is no substantive relationship between the two. Scenario-based training breaks this limitation by designing dynamic tasks. For example, in simulated pursuit tasks, students are required to implement unarmed defense control actions immediately after high-intensity running, so as to achieve an organic combination of physical exertion and skill execution. This training method can not only improve the stability of the trainees' skills under the condition of physical exertion, but also enhance their flexible coping ability in complex situations. In addition, scenario-based training can also effectively improve the trainees' participation and initiative in training. The traditional training mode is often difficult to stimulate students' enthusiasm for training due to its single content and high repetition, but scenario-based training provides students with more challenging and interesting training experience by introducing diversified tasks and situations.

To sum up, scenario-based training provides a scientific and efficient way to realize the deep integration of physical strength and skills. By highly simulating real police situations, students can comprehensively improve their comprehensive qualities in a dynamic environment, thus laying a solid foundation for the efficient completion of complex police work in the future.

#### **4.2 Scientific physical training strategies**

Scientific physical training strategy is the key path to achieve the deep integration of physical fitness and police skills of police academy students. Different from the traditional physical training which only improves the basic physical fitness, scientific physical training ensures that physical training not only meets the individual needs of students, but also effectively supports the application of police skills in actual scenarios through data-driven, personalized design and comprehensive application of multi-dimensional training methods.

Accurate evaluation based on data is an important basis for scientific physical training. With the help of intelligent equipment and data monitoring system, the police academy can dynamically track the physical status of students and fully grasp their performance in strength, endurance, speed, sensitivity and other aspects. For example, by means of heart rate monitoring, running speed analysis and strength testing, the physical basis of students can be accurately assessed to provide a scientific basis for the formulation of subsequent training plans. Secondly, personalized design is the core element of scientific physical training strategy. There are significant differences in gender, age, physical fitness and other aspects of police academy students, and the unified training mode is difficult to meet the needs of different students. For example, for female cadets, the training content can increase flexibility and sensitivity training; For students with a weak physical foundation, the training intensity should be reduced appropriately and the goal should be achieved through gradual improvement. In addition, it is also very important to carry out targeted design according to the needs of different police skills. For example, for those who are likely to be involved in violent conflict management in the future, the training content could focus on the development of explosive force; And for patrol trainees, it could focus on strengthening endurance and cardiopulmonary function training. Finally, the combination of multi-dimensional training methods is the core practice of scientific physical training. Through the comprehensive use of a variety of training forms such as strength training, high-intensity interval training (HIIT), flexibility exercises and coordination improvement, students' physical fitness can be comprehensively optimized. Dynamic movements, such as weight-bearing sprints and side-to-side movements, can be introduced into strength training to simulate the real demands of movement in policing tasks; And designing cycle patterns of alternating intensity during high-intensity interval training to enhance the trainees' cardiorespiratory endurance and adaptability. Such multi-dimensional method can not only meet the actual needs of police tasks, but also effectively improve the comprehensive efficiency of training.

Therefore, scientific physical training strategy can provide more efficient training methods for police academy students through the organic combination of accurate evaluation, personalized design and multi-dimensional methods. This strategy can not only significantly improve the effect of physical training, but also lay a solid guarantee for the efficient application of police skills, so as to comprehensively enhance the students' comprehensive quality and actual combat ability.

#### **4.3 Build an integrated curriculum system**

The integrated curriculum system is the core carrier to realize the organic integration of physical training and police skills of police academy students. Traditional police academy courses are usually designed in the way of physical training and skill training being independent of each other, resulting in scattered training objectives and insufficient synergistic effect, making it difficult to give full play to the overall effect of training. However, by integrating training content, objectives and time arrangement, the integrated curriculum system enables students to systematically improve their comprehensive ability under a unified framework.

The integrated curriculum system focuses on the complementary design of physical fitness and skill content. In the course development, schools can organically combine the specific movement requirements

of skill training with the content of physical training. For example, high-intensity strength training module is added to the hands-free defense control course to enhance the strength support of students in actual operation; And incorporating endurance training into the shooting course to simulate the impact of physical exertion on skill execution during a long task. This content complementary design can effectively make up for the disconnect between physical training and skill training, so that students can efficiently complete skill tasks with physical support and improve their performance in actual combat situations. Secondly, the integrated curriculum system emphasizes the deep integration of interdisciplinary content. Police education is not only limited to physical fitness and skill training, but also covers psychological quality, legal knowledge and social ability. For example, after the high-intensity physical training, the psychological stress course is added to help students master the emotional management and stress coping methods under the condition of physical exhaustion; And integrating legal situation analysis into weapons operation courses to enhance students' understanding and application of law enforcement compliance. In addition, reasonable timing is the key to the successful implementation of the integrated curriculum system. By embedding physical training and skill training in the same curriculum unit, time duplication can be effectively avoided.

To sum up, the integrated curriculum system provides a systematic framework for the deep integration of physical fitness and skills through content complementarity, interdisciplinary integration and time optimization. This system can not only significantly improve the training efficiency of police academy students, but also comprehensively enhance their comprehensive combat ability, which provides an important guarantee for the training of high-quality composite talents in modern police work.

#### **4.4 Strengthen the application of technical means**

The introduction of technical means provides a strong support for the implementation of the training of the integration of physical fitness and skills. The rapid development of modern science and technology has promoted the intellectualization and high efficiency of training methods. Through the integrated application of virtual reality (VR), smart wearable devices and big data analysis technology, it can not only significantly improve the scientific and targeted training, but also provide technical support for the comprehensive development of students' abilities.

The application of virtual reality technology (VR) significantly enhances the immersion and actual combat of the training. VR technology can highly simulate a variety of police scenarios, such as violent conflict management, emergency response and criminal pursuit and other complex situations. In the virtual environment, students can experience dynamic situations and practice skills in a state of high physical consumption. In addition, the VR system can dynamically adjust the difficulty of the scene according to the performance of the students, providing personalized and targeted training experience for the students, and further optimizing the training effect. The introduction of smart wearable devices has realized the real-time monitoring of students' physical status. Through devices such as smart wristbands and heart rate monitors, students' exercise data can be collected in real time, including key indicators such as heart rate, step count and calorie consumption. These data provide a quantitative reference basis for coaches and trainees to accurately evaluate training effects and optimize training plans accordingly. In addition, smart devices can

also provide real-time warning of trainees' fatigue or potential sports injury risk, effectively ensuring the safety and continuity of the training process. Finally, big data analysis technology provides important support for the evaluation and optimization of training effects. Through the systematic collection and analysis of trainees' training data, the school can fully grasp the trainees' training progress, physical improvement and skill performance. For example, by comparing the performance data of different students in the same task, deficiencies in the training content can be identified and targeted adjustments can be made. At the same time, big data technology can also predict students' performance in future tasks, providing scientific basis for the formulation of personalized training plans.

To sum up, the application of technology has opened up a new practice path for the police academy's physical and skill integration training. Through the organic combination of VR technology, intelligent equipment and big data analysis, the scientific, personalized and practical effects of the training system have been significantly improved. This technology-driven training mode not only optimizes the utilization efficiency of educational resources, but also provides an important guarantee for the police academy to cultivate high-quality and composite police talents.

## **5 Conclusion**

The organic integration of physical training and actual police skills is the key to train high-quality police talents. Under the limitation of the current separate training mode, the integration training can not only effectively meet the practical needs of police work for comprehensive ability, but also significantly improve the students' actual combat performance and the utilization efficiency of educational resources. Through the introduction of scenario-based training, scientific physical improvement strategy, integrated course design and modern technical means, a more scientific and efficient training system is built in the police academy, laying a foundation for the overall improvement of the students' comprehensive quality.

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