

# The Path of Enhancing Vocational Abilities Based on the Actual Combat Needs of Fire and Rescue

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**Abstract:** Vocational abilities based on the actual combat needs of fire and rescue are particularly crucial and indispensable in the handling and response of disaster accidents and emergency rescue operations. In response to the challenges posed by the characteristics of fire and rescue alerts and the requirements of vocational abilities, this study scientifically defines the value connotation of vocational abilities based on the actual combat needs of fire and rescue, clarifying the urgency and necessity of improving these abilities. By analyzing the relationship between the vocational attributes and mission requirements of fire and rescue, as well as the situation of disaster alerts and combat operations, the study proposes a path for enhancing the vocational abilities needed in actual fire and rescue combat scenarios. This provides theoretical support and practical guidance for promoting the high-quality enhancement of vocational abilities in fire and rescue operations.

## 1. Introduction

Firefighting and rescue operations serve as a crucial force in responding to disasters and emergencies, and the level of professional ability directly impacts the safety of people's lives and property, as well as the effectiveness of emergency response operations.<sup>[1]</sup> According to statistics, from 2019 to 2023, the national firefighting and rescue services received a total of 8.746 million emergency calls, increasing from 1.276 million to 2.138 million. The overall practical combat capability of firefighting and rescue has shown an upward trend. On the scene of accidents and disasters, firefighters respond quickly and effectively, successfully rescuing and evacuating a total of 2.682 million people from various disasters and accidents. The number of firefighting and rescue operations in disaster areas is increasing, and there has been an increase in the number of firefighters deployed, fire engines used, and individuals rescued and evacuated. The relevant data and operational actions indicate that practical emergency response requires the support of professional ability with valuable attributes. The enhancement of professional ability is closely related to the increasing trend of disasters and accidents, making it imperative to improve professional ability in firefighting and rescue operations.

## 2. Scientific Connotation: Composition of Vocational Ability Elements in Fire and Rescue Operations

The professional ability of firefighting and rescue mainly refers to the comprehensive quality of firefighters and rescue personnel, encompassing the knowledge, skills, and qualities necessary for executing real-world tasks. It primarily includes technical, organizational, leadership, communication, and psychological capabilities. These abilities are reflected in the specific application of rescue skills, tactical utilization, emergency response, and team collaboration in firefighting and rescue operations, directly determining the quality and efficiency of firefighters and rescue personnel in disaster response and accident handling.

### 2.1. Technical Capabilities

There are strict requirements for firefighting and rescue capabilities. In firefighting and rescue operations, it is necessary to possess solid professional and technical knowledge, including basic

knowledge and professional capabilities related to disaster cause analysis, response and disposal methods, and disaster evacuation. In disaster response, it is crucial to be familiar with the specific use of various equipment and instruments, select appropriate response measures based on the disaster situation, and utilize scientific rescue techniques. Additionally, firefighting and rescue personnel must also possess certain medical emergency knowledge, on-the-spot emergency response capabilities, and emergency avoidance skills to promptly handle or avoid injuries or secondary injuries caused by disasters.

## **2.2. Organizational Capability**

In the handling and response to disasters and accidents, rescue time is often extremely urgent, requiring firefighters to quickly and orderly carry out rescue tasks. Therefore, firefighting and rescue operations require excellent organizational capabilities to rapidly mobilize and allocate resources during disaster response, ensuring the smooth conduct of emergency rescue operations.

## **2.3. Leadership**

In actual firefighting and rescue operations, especially at the grassroots level, commanders play a crucial role in leadership and command. As commanders, they lead other commanders and fighters to complete rescue tasks. In the handling of disasters and accidents, commanders must possess excellent leadership, command, decision-making, and crisis management abilities to ensure that firefighting and rescue operations are correctly decided, emergency commands are scientifically made, and rescue operations are orderly executed.

## **2.4. Communication Skills**

In firefighting and rescue operations, especially at the grassroots level, commanders play a crucial leadership role. As commanders, they lead other firefighters and commanders to complete rescue missions. In handling disasters and accidents, commanders must possess exceptional leadership, command, decision-making, and crisis management abilities to ensure that firefighting and rescue decisions are made correctly.

## **2.5. Physical and mental qualities**

The disaster scene is fraught with numerous stressors that can easily put commanders and responders into a state of crisis. In responding to disasters, it is essential to possess robust physical health, a resilient mental state, and stable spiritual qualities. During operations, it is crucial to remain unaffected by external distractions, always maintaining a calm, rapid, and accurate judgment, and making scientific decisions with composure. In the face of extreme difficulties and dangerous environments, one must never back down, persisting in responding and conducting emergency rescue until the end. Continuous efforts should be made to enhance awareness of disaster situations and improve operational response effectiveness.

## **3. Value judgments: Current dilemmas in professional capabilities during firefighting and rescue operations**

As society rapidly develops, the complexity of disasters and the diversity of disaster types continue to increase. Firefighting and rescue operations are facing more complex disaster situations, greater rescue difficulties, and higher professional requirements. The constituent elements of practical demands, such as professional skills, psychological qualities, team collaboration, and equipment technology, are also facing challenges.<sup>[2]</sup> It is necessary to build professional capabilities from multiple perspectives in order to successfully carry out rescue missions in complex and changing disaster situations.

### **3.1. There is a lack of integration between professional knowledge and practical skills**

The occupation of firefighting and rescue requires certain professional knowledge and skills, but there is a huge gap in the supply of professional talents. The hierarchical structure is unreasonable,

and it does not match the changes in disaster types. The regional distribution of grass-roots forces is uneven, and the professional abilities and qualifications for job positions need to be improved. This makes it impossible to effectively respond to complex disaster environments and complete urgent, difficult, dangerous, and heavy rescue tasks, thereby affecting the quality and efficiency of emergency response and rescue operations in disaster areas.

### **3.2. Insufficient coping abilities in terms of professional physical and mental qualities**

Firefighting and rescue operations involve complex environments such as high altitudes, water areas, underground spaces, rapids, extreme cold, high temperatures, smoke and heat, electromagnetic fields, and pollution. Task locations are becoming increasingly complex, posing greater risks and difficulties in emergency rescue. The extremely high-risk nature of the profession and uncertain disaster situations require firefighters and commanders to possess strong physical and mental qualities. When facing emergency disasters or extreme conditions, practitioners often experience feelings of inferiority, anxiety, and even depression due to factors such as being unable to complete tasks, fulfill responsibilities, or deal with teammate casualties or casualties among those being rescued. Behaviorally, this manifests as excessive dependency, overexcitement, suspicion, loss of appetite, and in severe cases, even paranoia towards others, which can affect professional performance and team morale, resulting in an inability to fully utilize one's professional capabilities in the workplace.

### **3.3. The level of equipment technology application is limited in its advancement**

As operational responsibilities and tasks evolve, equipment and technology require continuous upgrading and replacement. The demands for equipment quantity, technological advancement, and performance specifications in combat missions are increasingly high. However, some firefighting and rescue teams still face shortcomings in terms of outdated equipment and lagging technology. Especially at the grassroots level, there is a lack of suitable firefighting and rescue equipment, limited technological capabilities, and significant changes in equipment structure, making it difficult to respond to rescue operations in new domains.

### **3.4. Inadequate command ability and communication and collaboration skills**

In disaster relief operations, on-site command is crucial, requiring commanders to possess efficient command and coordination capabilities. However, some commanders may have issues such as improper organization and command, inadequate on-site coordination, and inflexible on-site command, resulting in chaotic rescue operations, waste of resources, and other issues. Additionally, some firefighters lack team spirit and collaboration skills, have insufficient professionalism, and poor decision-making and execution abilities on the scene, which restricts the efficiency of handling or rescue operations.<sup>[3]</sup>

### **3.5. The lack of professional training and educational training poses a challenge**

In the face of disasters and accidents, the project for enhancing the professional capabilities of firefighting and rescue personnel requires support from a comprehensive training system. The establishment of a training system encompassing "all types of disasters and major emergencies" is not yet complete, lacking certainty and a sense of direction. There is a gap between the new professional situations, new operational tasks, and new rescue responsibilities. Issues such as unclear and monotonous training objectives and content, outdated and unstructured training methods, and the absence of training materials hinder professional development and constrain the improvement of ability and quality.

## **4. Path Selection: Enhancing the Vocational Abilities of Fire and Rescue Personnel Based on Actual Combat Needs**

Firefighting and rescue involve a wide range of fields, professions, and industries with no boundaries. Their professional capabilities embody systematicness and comprehensiveness, necessitating the enhancement of professional skills training and the construction of tiered talent

teams with different levels of positions. It is imperative to construct paths for improving professional capabilities from various angles, enhance the comprehensive qualities, professional abilities, and practical skills of firefighters and commanders, improve the efficiency of emergency rescue and response based on professional qualifications, and establish an emergency rescue system that covers all types of disasters, terrains, and climates. This is of great significance for safeguarding the lives, properties, safety, and health of the people under disaster conditions.

#### **4.1. Enhancing practical and operational training**

Given the sudden, complex, and uncertain nature of disasters and accidents, firefighters must possess the capabilities of rapid response, efficient handling, and dealing with complex situations. Therefore, disaster response and emergency rescue should be included in the training content for firefighters. By conducting large-scale practical exercises and simulating disaster scenarios, we can enhance the operational capabilities of commanders and firefighters in complex environments and extreme conditions, ensuring that they maintain a high level of combat readiness in the event of emergencies.

#### **4.2. Enhancing professional knowledge and skills**

With the rapid expansion of firefighting and rescue responsibilities, the teaching and training system urgently needs reform, and even reshaping and reconstruction. Firefighters and rescuers are an essential force in responding to disasters and accidents, and rapid response and professional knowledge are key to controlling disasters and minimizing losses. They must not only possess professional literacy and technical capabilities specific to their roles, but also have knowledge in areas such as national policies on emergency management, sociology, psychological assistance, media communication, and laws and regulations. Furthermore, encouraging commanders and firefighters to participate in relevant learning and obtain high-level professional qualifications has a significant impact on reducing the impact of disasters and accidents.<sup>[4]</sup>

#### **4.3. Updating equipment technology application**

With the continuous advancement of technology, the disasters and accidents faced by fire rescue and the targets of emergency rescue operations have become increasingly complex. It is necessary to update emergency rescue equipment and iterate and upgrade response and disposal technologies to adapt to changes in disaster situations and promote the modernization of fire rescue capabilities. By introducing advanced fire-fighting equipment and applying cutting-edge technologies, the efficiency of fire rescue operations and the safety of the operational disposal process can be improved.

#### **4.4. Optimizing command and coordination mechanisms**

Fire and rescue operations require close collaboration with other relevant departments to jointly respond to disasters and accidents and improve collaborative efforts on the rescue scene. It is necessary to strengthen pre-disaster warning and monitoring, pre-positioning of resources, consultation and analysis during disasters, and information sharing to ensure rapid capture of operational elements in actual combat.<sup>[5]</sup> Information technology should be leveraged to support scientific and intelligent command, and a scientific command system should be established to ensure rapid and accurate transmission of commands, forming an efficient and orderly collaborative operational system. This will ensure efficient operation of rescue commands and improve overall disaster rescue capabilities.

#### **4.5. Improving the educational and training system**

Given the significant destructiveness and instability of disasters, the diverse characteristics of police situations, and the varying types, scales, and occurrence environments of disaster incidents, the difficulty of handling them has further increased. Fire and rescue training is based on practical training tailored to different disaster scenarios and changing disaster patterns. Improving the fire and rescue training system is crucial to enhancing professional capabilities and achieving professionalization, specialization, and modernization in firefighting and rescue operations.<sup>[6]</sup>

## 5. Conclusion

Faced with increasingly complex disasters, effectively responding to disasters and accidents and meeting the need for rescue throughout the entire process have become crucial indicators for enhancing firefighters and commanders' projects. The components of professional capabilities can only be strengthened to facilitate the scientific resolution of rescue and combat missions. Exploring the professional capabilities of firefighters reflects the optimal emergency response effectiveness attribute of the main force and national team, especially in emergency rescue operations for disasters and accidents. Professional capabilities are directly related to the quality and effectiveness of rescue operations and the foundation of safeguarding people's lives and property.

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