

# *Research on Safety Management of Special Education Laboratory in Normal Colleges and Universities*

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**Abstract:** As an important base for cultivating special education talents, the effectiveness of the safety management work of special education professional laboratories directly affects the life safety of teachers and students and the teaching order. This thesis analyzes the current situation of safety management of special education professional laboratories in general teacher training colleges, discusses the existing problems and their causes, and puts forward corresponding improvement strategies. The results of the study show that improving the management system, strengthening safety training, updating experimental equipment and perfecting the emergency plan are the keys to improve the safety management level of special education professional laboratories.

## 1. Introduction

Special education laboratory is an important place for training special education talents, and its safety management is directly related to the life safety of teachers and students and the quality of teaching. However, there are many problems in the safety management of special education professional laboratories in normal colleges and universities at present, such as unsound management system, lack of safety training, obsolete equipment, etc. These problems have seriously restricted the safe operation of the laboratories and the development of special education profession.<sup>[1]</sup> Therefore, it is of great theoretical value and practical significance to conduct an in-depth study on the safety management of laboratories specializing in special education and put forward effective improvement strategies.

## 2. Analysis of the Current Situation of Safety Management in Special Education Laboratory

There are many problems in the current situation of safety management in special education professional laboratories. It requires the joint efforts of schools, teachers, and students. They need to strengthen safety management awareness, emergency management and response capabilities, safety training and assessment, as well as improve management systems and standards. The equipment and facilities should be timely updated and maintained, so as to ensure the safe operation of laboratories and the safety of teachers and students.<sup>[2]</sup>

## **2.1 Management System and Norms**

The safety management system of special education professional laboratories is often not perfect, lacking specificity and systematicness. Some laboratories have not even established specialized safety management systems, resulting in a lack of clear guidance and standards for safety operations during the experimental process. At the same time, the existing security management system is also insufficiently implemented, with problems such as inadequate implementation and lack of supervision.

## **2.2 Safety Awareness and Training**

The safety awareness of teachers and students in special education specialized laboratories is generally not strong, and their understanding of the importance of laboratory safety is insufficient. Before entering the laboratory, there is often a lack of necessary safety education. Even if there is safety knowledge training, it often lacks specificity and effectiveness. Personnel are not organized to conduct laboratory safety knowledge assessments, and the educational effect is not ideal. In addition, the laboratory lacks safety warning signs, such as labeling of highly toxic substances and flammable and explosive materials, making it difficult for teachers and students to identify potential safety hazards during the experiment.

## **2.3 Equipment Facilities and Maintenance**

The equipment and facilities in the laboratories of special education majors often have problems such as obsolescence and aging, and lack timely maintenance and updating. Some laboratory instruments and equipment have been in use for too long, their performance has declined, and there are potential safety hazards. At the same time, the environmental hygiene of the laboratory is not optimistic, and some of the rooms are not categorized for storage of goods and medicines, and are placed in a messy manner, which not only affects the overall aesthetics of the laboratory, but also increases the risk of safety accidents.

## **2.4 Emergency Management and Disposal**

The emergency management work of special education laboratories is generally weak and lacks perfect emergency plans and disposal mechanisms. Once a safety accident occurs, it is often impossible to dispose of it quickly and effectively, which can easily result in casualties and property damage.<sup>[3]</sup> In addition, laboratory members do not have a good understanding of waste disposal requirements, and improper waste disposal also increases safety risks.

## **3. Improvement Strategies for Safety Management of Specialized Laboratories in Special Education**

The safety management of special education professional laboratory is of great significance for guaranteeing the safety of teachers and students and maintaining the teaching order. For the current special education laboratory safety management problems, this paper puts forward the following improvement strategies.

### **3.1 Improve the Safety Management System and Norms**

The college should establish a specialized laboratory safety management system for special education majors, clarify the safety management objectives, responsibilities, and requirements of

the laboratory, and ensure that all safety management measures are followed.

Laboratory management personnel should refine laboratory safety management standards, including experimental operating procedures, equipment usage regulations, chemical storage and handling methods, etc., to ensure that teachers and students comply with relevant regulations during the experimental process and reduce safety risks.

The college should improve the safety management responsibility system, clarify the responsibilities and authorities of laboratory management personnel and teachers and students in safety management, and form a good situation of joint management.

### **3.2 Strengthen Safety Training and Awareness-raising**

Regular laboratory safety training for special education majors is conducted, including laboratory safety knowledge and emergency handling measures, to improve the safety awareness and operation skills of teachers and students.<sup>[4]</sup>

The college should strengthen safety education and training for new laboratory personnel to ensure that they understand the safety regulations and operating procedures of the laboratory and avoid safety accidents.

The college should organize safety knowledge competitions and carry out safety culture promotion activities to enhance the safety awareness and sense of responsibility of teachers and students, and form a good atmosphere where everyone pays attention to safety and participates in safety management.

### **3.3 Renewal and Maintenance of Equipment and Facilities**

The college should increase investment in special education laboratory equipment and facilities, timely eliminate old equipment, and introduce advanced and safe experimental equipment.

At the same time, laboratory management personnel should regularly inspect and maintain laboratory equipment and facilities to ensure they are in good working condition and reduce safety risks caused by equipment failures. Strengthening laboratory environmental hygiene management is also important, as maintaining laboratory cleanliness and hygiene can reduce safety accidents caused by environmental hygiene issues.

### **3.4 Strengthening Emergency Management and Disposal Capacity**

The college should develop a comprehensive emergency plan for special education professional laboratories, clarify the emergency response process and responsible persons, and ensure that they can be quickly and effectively dealt with in emergency situations. At the same time, the college should regularly organize laboratory management personnel and teachers and students to participate in emergency drills, improve the ability of teachers and students to respond to emergencies, self rescue and mutual assistance. The college should strengthen communication and cooperation with relevant departments both inside and outside the school, and form a joint mechanism to respond to laboratory safety accidents.

### **3.5 Establishing a Safety Management Information System**

The college should use modern information technology to establish a safety management information system for special education laboratory, achieving informatization, intelligence, and refinement of safety management. Systematic management can improve the efficiency and accuracy of security management work, and reduce security risks caused by human factors.

To summarize, the improvement strategies for safety management of special education professional laboratories need to comprehensively consider multiple aspects such as system, training, equipment, emergency management and information system. By constantly improving and refining these strategies, the safety management level of special education professional laboratories can be effectively enhanced to provide a safe and stable experimental teaching environment for teachers and students.

#### **4. Conclusion**

After an in-depth study on the safety management of special education professional laboratories in general teacher training colleges, this paper comes to the following conclusions:

First of all, the safety management of special education professional laboratories is a systematic and complex work, which involves a number of aspects such as management system, personnel training, equipment maintenance and emergency response. These aspects are interrelated and affect each other, and negligence in any one of them may lead to the occurrence of safety accidents.

Secondly, there are many problems in the safety management of the current special education professional laboratories. Inadequate management system and poor implementation, missing or ineffective safety training, outdated and insufficiently maintained equipment, as well as unsound emergency handling mechanism are all common problems. These problems not only affect the normal operation of the laboratory, but also pose a potential threat to the life safety and health of teachers and students.

In response to these problems, the author have put forward a series of improvement strategies and suggestions. These include improving the management system, strengthening safety training, updating and maintaining equipment, and establishing an emergency response mechanism. These strategies aim to improve the safety management of laboratories at multiple levels, including system, personnel, equipment, and emergency response, to ensure the safe operation of laboratories.

In addition, this paper emphasizes the importance of strengthening laboratory safety culture. By creating a favorable safety atmosphere and raising the safety awareness of teachers and students, everyone can consciously abide by the safety regulations and work together to maintain the safety and stability of the laboratory.

To summarize, the safety management of laboratories specializing in special education in normal colleges and universities is a crucial task. By improving the system, strengthening the training, updating the equipment, establishing the emergency mechanism and strengthening the construction of safety culture and other measures, the safety management level of laboratories can effectively be improved and thus provides a strong guarantee for the healthy development of special education.

#### **5. Recommendations and Outlook**

For the study of laboratory safety management of special education majors in general teacher training colleges, the following are some suggestions and outlooks.

##### **5.1 Main Suggestions for Current Laboratory Safety Management**

Establishing a sound safety management system: Laboratory management personnel should develop safety management regulations, safety operation procedures, and safety management responsibility systems specifically for laboratories engaged in special education, ensuring that each laboratory member is aware of their safety responsibilities and obligations.

Strengthening safety education and training for laboratory personnel: The college should regularly carry out safety education and training activities to enhance the safety awareness and

ability of laboratory personnel to respond to emergencies. Special education majors should also receive appropriate laboratory safety training to understand and master basic laboratory safety knowledge and skills.

**Strengthening the construction of laboratory safety facilities:** The college should invest funds to improve the hardware facilities of the laboratory, such as installing additional safety protection equipment, improving ventilation conditions, and equipping necessary fire-fighting facilities, to ensure the safety of the laboratory environment.

**Strengthening the daily management and inspection of the laboratory:** Laboratory management personnel should strictly control the entry and exit management, goods management, and equipment management of the laboratory to ensure the order and safety of the laboratory. At the same time, regular safety inspections are carried out to find and deal with potential safety hazards in a timely manner.

## 5.2 Prospect of Future Laboratory Safety Management

**Introducing intelligent safety management technology:** Modern technological means, such as artificial intelligence and Internet of Things, should be used to realize the intelligence and automation of laboratory safety management.<sup>[5]</sup> For example, real-time monitoring and early warning of the laboratory can be realized by installing intelligent monitoring equipment; and the management of personnel entering and leaving the laboratory can be strengthened by introducing intelligent access control system.

**Strengthening the construction of laboratory safety culture:** The college should enhance the safety awareness and teamwork ability of laboratory personnel by organizing safety knowledge contests, safety drills and other activities. At the same time, an incentive mechanism is established to recognize and reward individuals or teams with outstanding performance in laboratory safety management, so as to stimulate everyone's enthusiasm and initiative to participate in laboratory safety management.

In summary, the safety management of laboratories specializing in special education in normal colleges and universities requires multifaceted efforts and measures. The safety management level of laboratories can be improved continuously by establishing a perfect safety management system, strengthening the safety education and training of laboratory personnel, upgrading the construction of safety facilities in laboratories, and strengthening the daily management and inspection of laboratories. At the same time, with the progress of technology and the development of society, the safety management of laboratories in the future will also develop towards a more intelligent, information-based, and humanized direction.

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