

# Application of Project Management in Laboratory Work of Colleges and Universities

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**Abstract:** Project management is a relatively popular subject in the recent international, in many fields and industries have been used, and achieved good results. The personnel in the laboratory of colleges and universities usually have the academic background of science and engineering, and have insufficient understanding of laboratory-related work, which leads to the laboratory-related work only in the usual management of teaching staff. Therefore, the concept of project management should be applied in the laboratories of colleges and universities, which can improve the final management efficiency and quality of laboratories to a certain extent.

**Keywords:** Project management; Institutions of higher learning; Laboratory

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## 1. The current situation of laboratory management system in colleges and universities

### 1.1 Not aware of the importance of laboratory management

Management mechanism is the key to university laboratory management. University laboratories have always adopted the same management system. Because the government in university education has emerged as the role of managers and controllers, which leads to the identity of the laboratory management personnel overlap, and there are unclear responsibilities, especially in the past thinking, under the action of the university laboratory corresponding appraisal institution too pay attention to the results of the assessment, when management is not according to the specific situation of the laboratory, The management of the laboratory can not be carried out independently, and it is difficult to achieve the goal of improving students' innovation ability<sup>[1]</sup>.

### 1.2 There are deficiencies in the way of management thinking

At present, the experimental teaching management form used by colleges and universities in China has taken initial shape. Even though experimental teaching reform has been carried out all the time, experimental teaching has always been dependent on theory because of the function of previous management thinking, and the situation of attaching importance to theory and neglecting experiment is more serious.

## 2. The necessity of using project management in laboratory work in colleges and universities

### 2.1 The theory of project management is the key to support laboratory management

Laboratory management is the implementation of all activities in the laboratory management, including laboratory teaching activities and teaching reform and so on. The main body of laboratory management is the staff, so it is necessary to strengthen management and improve the existing management level of laboratory activities. The application of project management in university laboratory management, it is necessary to control the project activities carried out by the laboratory. In the process of opening, planning and implementation of experimental projects, some means are used to control them until the end of the laboratory. In this process, use the right way to avoid problems in the laboratory, in order to achieve the goal of improving the management level of the laboratory<sup>[2]</sup>.

### 2.2 The application of project management to laboratory management is the need of The Times development

With the rapid progress of society, the demand for talents is increasing day by day. Colleges and universities have always been committed to cultivating more comprehensive talents with high professional quality and strong innovation ability for the society. At present, the new curriculum reform points out that we should create an educational model suitable for national conditions. However, in the laboratory management of colleges and universities, the previous management forms not only restrict the teaching methods, but also stifle the students' own personality to a large extent, resulting in students' insufficient ability in innovation, and it is difficult to quickly adapt to the current social environment. Applying project management to university laboratory management can quickly adjust the existing management form of the laboratory, change the existing management structure of the laboratory, and then promote the development of university education, and strive to provide more talents to the society.

### **3. The application of project management in laboratory management of colleges and universities**

#### **3.1 Principles of laboratory management in institutions of higher learning**

Project management theory of the system is the present resources and environment to make the project planning and control system, in view of the laboratory management, not only need to manage laboratory teaching, team of these subsystems, equipment, materials and cost, at the same time also need to manage laboratory coordinated development between each subsystem, it can cultivate more high-quality talent. Therefore, the management mode of the laboratory needs to unify the economic and social value of the laboratory, with the help of the regulation and management of different subsystems in the laboratory, to promote the normal operation of the laboratory, so as to give play to the real benefits of the laboratory.

#### **3.2 The path of laboratory management in institutions of higher learning**

It is necessary to create a new management mode to apply project management in the management of university laboratory. First of all, the laboratory needs to be able to divide the project management category, and create scientific, reasonable and systematic management policies according to the characteristics of the laboratory. At the same time, the problems encountered in the management are further analyzed and studied to find the causes, and more effective measures are used at the same time. For example, laboratory projects can be conceived and selected in a democratic way at the beginning and at the time of design; In the implementation period, if there are problems in the development to analyze and solve, and control the definition and review of the experiment, so as to ensure the effectiveness of the experiment; After the completion of the specified requirements to fill in the report, etc.

#### **3.3 The mode of laboratory management in institutions of higher learning**

Laboratory management using project management should be carefully divided into projects, laboratory projects can be combined with the corresponding standards to be divided. For example: educational reform project, construction project and its teaching project, the management means and system used by various projects are different. Teaching projects should attach importance to the quality of teachers' team and the management of teaching mode. The construction project should pay attention to the management of the future development form of the laboratory; Educational reform projects should attach importance to the management of laboratory planning and information. In the management division, the power and responsibility of each employee to participate in the control of the laboratory, so as to improve the existing management level of the laboratory.

### **4. Conclusion**

In a word, the application of project management in laboratory management in colleges and universities can not only make the existing management mode of the laboratory achieve innovation, deepen the relevant reform, but also improve the quality of laboratory management is one of the important means. Only by improving the management level of laboratories in colleges and universities can we meet the requirements of the new curriculum reform on the teaching model and promote the common progress of schools and laboratories.

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