Problems and solutions in the construction of large instrument sharing platform in Colleges and Universities

Huang Li
Center for basic research, Guangzhou Medical University, Guangdong, Guangzhou 511436

Abstract: to strengthen the large precision instruments and open sharing mechanism, the integration of the existing school resources, to expand the opening range and promote sharing level, and create a shared resource quality. The large instrument sharing platform facing the construction of the present problems, and puts forward the corresponding solutions.

Keywords: large-scale instrument; equipment sharing platform management

Introduction

Large scale equipment is the university personnel training, scientific research and social service innovation based on rigid conditions, with the development of higher education and national sustainable investment in education, equipment resource scale of colleges and universities is expanding, supporting the role of equipment on the high level of scientific research and innovation of cultivating talents is increasing, while vigorously carry out the instrument the equipment construction of colleges and universities, more and more attention to the opening and sharing of the large-scale instrument platform construction, improve the utilization efficiency of the equipment. The platform for the construction of large-scale equipment sharing school, will effectively improve the teaching level, scientific research development and the construction of the discipline of[1-3].

1 The importance of the construction of large scale instrument and equipment sharing platform

1.1 it is conducive to the integration of resources, to maximize utilization

In our country, because of lack of large-scale precision instrument and equipment open and the planned economy management mode, a lot of large precision instruments rarely open, only the Cobain professional use, management is closed, the lack of resource sharing platform and open sharing environment [4], open sharing platform for the establishment of the equipment resources belonging to a school or college uniform management, professional or research group broke restrictions, opening and sharing, make the resources to achieve the maximum use, reduce idle and waste.
1.2 It is beneficial to improve the use efficiency and promote the sustainable development

The establishment of a shared platform of large-scale equipment, the establishment of open sharing fund, increase the incentive to managers, can effectively mobilize the enthusiasm, sharing the hematopoietic function of the platform itself make large-scale equipment sustainable development of long cycle, is conducive to improve the use efficiency of large precision instruments and equipment. The implementation of paid use, the equipment used to pay the cost management unit can obtain income from equipment use, for the maintenance of the equipment maintenance, to ensure the healthy development of large-scale precision instrument and equipment. To solve the problem of large equipment daily operation funds through foreign service, to ensure the sustainable large equipment sharing platform Develop [5].

1.3 Conducive to the cultivation of innovative talents

Large equipment sharing platform construction is one of the essential public service system of teaching, scientific research and discipline construction, to improve the teaching and scientific research level, to promote the interdisciplinary, plays an important role in strengthening the training of high-level personnel. The establishment of large-scale equipment sharing platform, create a good research atmosphere, rational and effective use of resources of large instrument and equipment, to realize the resource share, is conducive to the coordinated development of teaching, scientific research, there is conducive to the cultivation of innovative talents.

2 Existing problems in the construction of large scale instrument and equipment sharing platform in Universities

2.1 The main target of large-scale instrument sharing platform is not clear

The vast majority of colleges and universities are in strict accordance with the large-scale equipment sharing platform for the construction of the main objectives of planning and construction, but there are some universities purely to follow suit, thunder and little rain. Only in the premise of large equipment resource to improve the school utilization rate and the increase of investment benefit, it is possible to build up effective open sharing platform. In addition, the construction of sharing platform is definitely not just a laboratory network sharing platform, some large-scale instruments of the school in a centralized place, the features, photos, contact information and other content on the web just paste. In fact, the work needs to be done is very complicated, sharing The construction of instrument platform is a long-term project

2.2 The investment is not enough, especially in the purchase of large precision instruments

Although many universities funding for scientific research and equipment funds greatly increased, but increased due to the introduction of talent, the increase of the PI team, the scientific research task, to achieve a large area and sharing directly for undergraduate teaching, there is great difficulty.

2.3 Institutional adjustment is not in place, resulting in new management confusion; laboratory system construction is not standardized

Because the original laboratory is mostly divided according to the department or the Department, now take the large instrument to manage together must be reestablished a corresponding management mechanism. The main office of personnel management are mostly from other school departments to adjust over, some even had never engaged in the laboratory management. Even if the final can put the instrument together to form a university or college level sharing platform, there will still be some contradictions in the laboratory management and laboratory personnel. The establishment of laboratory system and orderly implementation is a time-consuming process, but also to ensure the sustainable development of the sharing platform.
2.4 Experimental technical team construction follow-up slow, personnel training and professional title treatment lag

The construction of experimental technical team construction and teachers is not optimistic, the Department of instrument management personnel to use and understanding of the instrument is not enough skilled and profound. In addition, due to the setting of school administrative management and job titles, leading to the laboratory management and technical personnel in the title and to be met as other teachers series, so many comprehensive quality of laboratory personnel high not to go to the laboratory, teaching and research series. It is also a historical problem. However, the laboratory in the school teaching and scientific research work will play an increasingly important role, should strengthen the daily training of laboratory staff and improve the salary, job Title and other treatment High quality laboratory staff is the foundation of the successful construction of open shared platform. This problem is not solved, it will seriously affect the operation of the analysis sharing platform.

3 Measures to solve the main problems of instrument sharing platform

3.1 Establish standardized management experimental analysis and test platform

Now many of the school laboratory without the national standardization certification, some large instruments simply did not participate in the certification, laboratory personnel have not had the training work. In one of the most important causes of large scale laboratory equipment utilization rate is low the equipment purchase is not standardize, the instrument needs scientific argument and purchase: the integration of existing resources, strengthen the construction of new resources, increase public investment in large scale equipment; according to the school teaching, scientific research and discipline development of instrument and equipment purchase plan; strengthen the feasibility study before the purchase of equipment; good equipment technical indicators and market survey; recognition I understand the current status and development trend of related equipment at home and abroad, including the instrument and equipment specifications, performance, efficiency, price and customer service; equipment acceptance, careful registration, record, set up with instrument and equipment archives, provide sufficient basis for the follow-up management of [6].

3.2 Strengthening and perfecting the construction of laboratory system

To ensure the smooth operation of the laboratory sharing platform, we must establish and perfect the system. The establishment of equipment management and the relevant rules and regulations, clear large equipment responsible person and main responsibilities; to improve operation procedures of large-scale equipment and training system, improve the technical safety work of large equipment, stable experimental team and so on.

3.3 Strengthen the construction and management of experimental technical team

Only have a special talent, in order to give full play to the value of the platform. The laboratory school leaders of laboratory personnel still exists some misunderstanding. To gradually change the unjust cognition in the past, the quality of skills development and laboratory staff to establish laboratory personnel perfect incentive policies and adequate laboratory personnel training work of [7], instrument the equipment is assisted by the platform of large-scale equipment sharing. To establish the normal operation of the construction of laboratory personnel, should be the priority among priorities of the work.

3.4 Pay attention to and strengthen laboratory safety management

With the continuous development of university teaching and scientific research, critical school laboratory safety
management, we must attach great importance. The laboratory should organize regular colleges and laboratory safety inspection; the college laboratory from the policy emphasis on laboratory safety, earnestly implement the work safety responsibility system, to ensure the safety of the staff room of the instrument and the implementation of security responsibilities to laboratory management; school organization experienced the establishment of the laboratory safety supervision group, according to the plan to carry out laboratory safety inspection work.

Conclusion
Actively promote the large-scale equipment resource sharing in open platform construction work, optimize the allocation of equipment resources of the school, has a pivotal role, improve equipment utilization and investment benefit at the same time, the school also implement Scientific Outlook on Development heavy measures to achieve sustainable development. Through establishing and perfecting the management system and operation mechanism, sum up experience, sharing platform it will bring greater economic and social benefits for the school.

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