

Construction of Economics and Management Laboratories in Local Application-Oriented Undergraduate Institutions: Challenges and Development Pathways

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Abstract: The development of economics and management laboratories presents a significant challenge for local application-oriented undergraduate institutions. This study explores the difficulties encountered by these institutions in the construction of such laboratories and potential resolution strategies. The paper emphasizes the crucial role of economics and management laboratories in enhancing talent cultivation quality, fostering application-oriented talent and promoting institutional transformation. Through an analysis of the primary issues facing current laboratory construction, this paper proposes a series of innovative development ideas. These suggestions aim to provide feasible solutions for the construction of economics and management laboratories in local undergraduate institutions, with the goal of cultivating more high-quality, application-oriented talents adaptable to modern economic management demands.

Keywords: Local undergraduate institutions, Economics and management laboratories, Application-oriented talent, Talent cultivation model, Laboratory construction and development.

1. Introduction

Local undergraduate institutions, as the mainstay of higher education popularization and the core of undergraduate education in China, have the primary task of cultivating application-oriented talent. The cultivation of such talent requires not only a solid theoretical foundation but also an emphasis on comprehensive quality improvement, particularly in practical abilities and innovative thinking. The cultivation of versatile talents with both theoretical knowledge in economics and management and strong practical and application abilities, capable of adapting to modern economic management demands, has become a major challenge for economics and management majors in local undergraduate institutions [1]. To achieve this cultivation objective, laboratory construction is undoubtedly an indispensable key component.

Economics and management laboratories are crucial venues for students to develop hands-on skills and core platforms for application-oriented undergraduate institutions to implement practical teaching. In recent years, with strong promotion from the Ministry of Education, the construction of economics and management laboratories has made significant progress. Noteworthy achievements have been made in both hardware facility updates and optimization of experimental project content, methods and means. However, due to late starts and insufficient attention, content construction remains a bottleneck constraining laboratory development. Therefore, the exploration of new construction ideas for economics and management laboratories has become an urgent task.

2. Strategic Significance of Economics and Management Laboratory Construction in Local Application-Oriented Undergraduate Institutions

2.1. An Inevitable Choice for Enhancing Talent Cultivation Quality

Economics and management majors are application-oriented disciplines with strong practical components. The effectiveness of practical teaching directly impacts students' knowledge mastery and comprehensive application abilities. Therefore, strengthening the content construction of laboratories has become a key task for university laboratories in the current and future periods and an essential path to improving talent cultivation quality. With social development, traditional verification-type experimental teaching models have gradually revealed limitations, giving rise to design-oriented, comprehensive and innovative experimental teaching methods [2]. Promoting practical teaching reform in universities, broadening the construction ideas of economics and management laboratories, and deepening practical teaching content to cultivate students' innovative abilities have become urgent tasks in current higher education reform.

2.2. Core Requirements for Cultivating Application-Oriented Talent

The fundamental mission of higher education institutions, including local undergraduate colleges, is talent cultivation. After extensive exploration and discussion, a consensus has been reached in the industry regarding the cultivation of application-oriented talent in local undergraduate colleges. Application-oriented talent, in contrast to academic talent, refers to versatile professionals capable of flexibly applying specialized knowledge and skills to their professional social

practice. Many local undergraduate colleges have implemented effective measures towards this goal, such as revising professional talent training programs, increasing the proportion of practical teaching and enhancing students' hands-on abilities through multiple approaches [3].

While diverse pathways exist for cultivating application-oriented talent, laboratories undoubtedly serve as the primary arena for practical teaching in local undergraduate colleges. The cultivation of application-oriented talent necessitates various experimental and practical teaching methods. This is particularly crucial for economics and management majors with strong practical components. Strengthening the construction of economics and management laboratories, continually elevating laboratory work standards, and fully leveraging their basic functions are of significant importance in comprehensively improving the quality of talent cultivation in these fields at local undergraduate colleges. Through theoretical teaching to solidify students' professional knowledge base, followed by experimental teaching to transform theoretical knowledge into various work-related capabilities, students' market competitiveness can be effectively enhanced. Consequently, laboratory construction has become an inevitable requirement and crucial support for the development of economics and management majors.

2.3. Important Support for Promoting the Transformation and Development of Local Undergraduate Colleges

The state is actively guiding some local undergraduate colleges towards application-oriented and vocational education. These institutions are shifting their cultivation models to de-emphasize disciplinary boundaries, focus on strengthening professional skills and dedicate themselves to cultivating technical talent. This transformation is not a novel concept, but rather a deepening and extension of the application-oriented talent cultivation philosophy [4]. Therefore, strengthening laboratory construction has become increasingly urgent and significant for local undergraduate colleges. Laboratories are not only the nexus of theoretical knowledge and practical operation but also key venues for cultivating students' innovative abilities and practical skills. Through improved laboratory construction, students can be provided with learning opportunities more closely aligned with actual work environments, thereby enhancing their employment competitiveness. Furthermore, high-quality laboratories can attract more excellent prospective students, promote university-enterprise cooperation and supply more high-quality application-oriented talent for local economic development.

3. Development Challenges Faced by Economics and Management Laboratories

3.1. Insufficient Planning Emphasis and Project Development Efforts

Currently, many application-oriented undergraduate colleges have limited experimental conditions, with existing equipment barely meeting basic teaching needs, resulting in a significant gap between professional reform and development goals. There is an urgent need for the formulation and implementation of targeted laboratory development plans. Presently, university laboratory construction often involves

dispersed applications based on individual professional needs, lacking systematicity, continuity and relevance. The core of laboratory development planning lies in experimental project development, which should be designed according to teaching and training requirements to achieve effective sharing and maximum utilization of experimental resources.

3.2. Contradiction Between Weak Foundations and Rapid Expansion of Professional Scale

Most local undergraduate colleges have been upgraded or restructured from former vocational colleges or transformed from independent colleges. The foundation for laboratory construction in these institutions is generally weak, with some starting from scratch. Additionally, as many economics and management majors are emerging disciplines, a weak foundation and low starting point are common phenomena. However, these majors are experiencing rapid development. Despite increased investment in economics and management laboratories by local undergraduate colleges in recent years, the rapid expansion of professional scale still makes it difficult to meet development needs.

3.3. Dual Constraints of Limited Funding and Insufficient Government Support

Local undergraduate colleges, with their relatively short establishment or transformation periods, often prioritize basic infrastructure construction under limited financial conditions, resulting in comparatively less funding for laboratory construction. Investment in economics and management laboratories is generally lower than that in science and engineering laboratories. Simultaneously, the development of local undergraduate colleges heavily relies on local government support, especially financial support. Consequently, the level of local government support becomes a critical factor.

3.4. Prevalence of the Engineering-Oriented, Liberal Arts-Neglected Mindset

A long-standing tradition in Chinese higher education emphasizes theoretical over practical learning, particularly evident in liberal arts disciplines. Many university administrators perceive laboratory construction as essential only for science and engineering majors, while economics, management and other liberal arts disciplines are deemed sufficiently served by basic computer equipment. This underestimation of the importance of experimental teaching often results in the prioritization of science and engineering laboratories over those for economics and management under limited funding conditions.

3.5. Lagging Development of Experimental Teaching Staff and Inadequate Management Standards

Many local undergraduate institutions undervalue the significance of experimental teaching in economics and management majors, regarding it as auxiliary education. This perception leads to lower remuneration for experimental teachers compared to their theoretical counterparts, severely impacting their work enthusiasm and resulting in staff instability and low motivation. Simultaneously, insufficient attention to laboratory management has created a gap between current practices and scientific, standardized and institutionalized management systems.

4. Innovative Approaches to Economics and Management Laboratory Construction and Development

4.1. Updating Concepts and Raising Awareness

Practical evidence supports the necessity of experimental teaching in economics and management majors. The key issue for local undergraduate institutions lies in the quality of laboratory construction rather than its necessity. Strengthening laboratory construction plays a crucial role in cultivating high-quality, application-oriented talents in economics and management and improving professional teaching quality. Therefore, local undergraduate institutions must update their concepts, raise awareness, and position economics and management laboratory construction as a strategic priority. It is essential to correct the misconception that liberal arts laboratories are dispensable and recognize the irreplaceable role of economics and management experiments in the overall teaching process, equal in importance to theoretical instruction.

4.2. Multi-Channel Funding and Resource Sharing through External Services

Local undergraduate institutions should incorporate economics and management laboratory construction into their annual budget allocations, increasing investment. For application-oriented undergraduate institutions, laboratory construction should not only meet internal teaching needs but also embrace the concept of external services with an open and shared approach. In recent years, numerous economics and management laboratories in application-oriented institutions have actively undertaken local taxation, auditing and corporate employee training tasks, providing technical support and consulting services to government and business entities. Furthermore, these laboratories serve as platforms for practical teaching exchanges, professional development discussions and teaching achievement demonstrations among peer institutions. By fully utilizing institutional hardware and human resource advantages, actively revitalizing assets, developing external services, implementing open education and enhancing social reputation, this external service model not only broadens the field of professional skill practice and improves laboratory and equipment utilization but also achieves resource sharing and generates additional revenue for institutions. Concurrently, this model provides students with more practical opportunities, enhancing their professional adaptability and employment competitiveness.

4.3. Strengthening the Development of Laboratory Teaching Staff

The laboratory teaching team is central to experimental teaching and laboratory development. Establishing a team of experienced, theoretically sound, and practically capable economics and management experimental teaching staff is crucial for achieving application-oriented talent cultivation goals. Local undergraduate institutions must implement strong measures to enhance laboratory teaching staff development, selecting personnel with strong career aspirations, high academic qualifications and a passion for experimental work. This necessitates the establishment and refinement of experimental practice course systems and teacher performance evaluation mechanisms. Preferential

policies should be implemented for laboratory-related personnel in areas such as professional title appointments, further education opportunities and allowance distributions, encouraging theoretical course teachers to participate in experimental teaching and management. Support should also be provided for laboratory teachers to conduct scientific research and teaching studies to improve experimental standards and teaching quality. Additionally, the introduction of dual-qualified teachers—professionals with both solid theoretical foundations and rich practical experience—should be considered. These teachers can bring the latest industry dynamics and practical experiences into the classroom, providing students with more practical guidance. Collaboration with enterprises to engage industry experts as part-time teachers can further enrich experimental teaching content.

4.4. Constructing a Scientific and Rational Experimental Teaching System

Economics and management laboratories in application-oriented undergraduate institutions should gradually form a multi-disciplinary, multi-level experimental teaching system based on teaching and supported by scientific research. This system adheres to the educational philosophy of balancing theory and practice, emphasizing skill cultivation and orienting towards employment, encompassing three major types: basic experiments, comprehensive design experiments and innovative practices. It aims to cultivate versatile, high-quality talents with professional judgment capabilities. Professional skill modules should be constructed according to the cultivation objectives and employment needs of economics and management students in application-oriented undergraduate institutions. The modular system emphasizes vocational skill orientation, task-driven approaches and project-based teaching, aiming to cultivate students' practical skills and provide society with application-oriented, skilled and operational talents. While rationally utilizing internal resources, institutions should continuously explore new ideas, strengthen connections with local enterprises and organizations, establish mutually beneficial cooperative relationships, expand professional skill practice training bases and provide strong support for project-based teaching and internships.

To further enhance the experimental teaching system, the introduction of virtual simulation technology should be considered. By establishing virtual experimental platforms that simulate real economic management scenarios, students can make decisions and operate in a safe environment, accumulating practical experience. This not only compensates for the limitations of physical experiments but also increases students' learning interest and engagement.

4.5. Integration of Experimental Teaching with Disciplinary Competitions and Social Application Practices

In practical teaching, students are the primary focus, with instructors serving as guides in professional role training. Student participation in various disciplinary competitions is encouraged, promoting the application of acquired knowledge to real-world problem-solving. Industry experts are invited to campus, introducing cutting-edge theories and industry practices into the classroom, thereby enriching practical teaching content. For economics and management students, capability development extends beyond classroom

theory and laboratory skills training, necessitating social practice experience. Active student participation in diverse social competitions at various levels is thus encouraged, realizing the principle of learning through competition. Disciplinary competition platforms serve to enhance innovative talent cultivation and elevate students' professional practical qualities. Additionally, the establishment of student entrepreneurship incubation bases is considered, providing aspiring entrepreneurs with facilities, funding and guidance. Through simulated entrepreneurial processes, students can integrate classroom knowledge with practical business management, fostering comprehensive application abilities and innovative spirit.

4.6. Securing Support from Local Governments and Enterprises

Local undergraduate institutions are significant indicators of a region's civilization and development level. Local governments tend to increase support for local higher education institutions to promote regional economic development and social progress. As local undergraduate institutions, active integration into the local economic and social fabric is essential. Economics and management majors should actively engage with local economic and social landscapes, aligning disciplinary specializations with industry chains. Through collaborative establishment of experimental platforms with enterprises, enhancement of experimental and training bases, economics and management laboratories can be transformed into school-centered production and research bases serving regional enterprises, facilitating tri-party sharing of university-enterprise cooperation outcomes among schools, students and businesses. This collaborative model not only provides students with increased practical opportunities but also assists enterprises in addressing practical issues, promoting deep integration of industry, academia and research.

Concurrently, the establishment of industry colleges or joint university-enterprise research centers can be considered to deepen university-enterprise cooperation. Through collaborative development of talent cultivation programs, curriculum design and training project planning, talent cultivation can be more closely aligned with enterprise needs. Furthermore, inviting corporate executives as part-time mentors can provide students with career planning guidance, enhancing their employment competitiveness.

5. Conclusion

This study provides an in-depth analysis of the strategic significance, challenges and innovative development pathways for economics and management laboratory construction in local application-oriented undergraduate institutions. The research demonstrates the critical importance of economics and management laboratory construction in enhancing talent cultivation quality, fostering application-oriented talents and promoting institutional transformation. However, current efforts face multiple challenges including insufficient planning, weak foundations and funding shortages. In response, this paper proposes a series of development strategies including concept updating, multi-channel financing, faculty development, teaching system optimization, integration of competition practices and deepening university-enterprise cooperation. The implementation of these measures will assist local application-oriented undergraduate institutions in overcoming bottlenecks in economics and management laboratory construction, improving experimental teaching quality and cultivating more high-quality application-oriented talents adapted to modern economic management demands, thus making greater contributions to local economic and social development. In the future, higher education institutions should maintain focus on economics and management laboratory construction, continuously innovate experimental teaching models, and deepen industry-academia-research cooperation to address rapidly changing economic environments and talent demands.

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