

Exploring the Implementation Path of Organized Scientific Research in Colleges and Universities

Tian Zhou^{1, a}

¹Office of Humanities and Social Sciences, Central China Normal University, Wuhan, Hubei, 430079, China

^azhoutian_aha@163.com

Abstract

Under the background of the new era, the scientific research work alone has unable to meet the needs of the construction of world science and technology, colleges and universities must carry out organized scientific research, through overall resource allocation, focus on discipline layout, perfect the achievement evaluation system, establish interdisciplinary research teams, improve the system of scientific research management, overcome the plight of scientific research scattered weak and the shortage of resources, promote the scientific research service the Communist Party of China and the national major strategic demand, promote the prosperity of philosophy and social science.

Keywords

Organized scientific research in colleges and universities; implementation path; philosophy and social science research.

1. Introduction

《Several Opinions on Strengthening Organized Scientific Research in Universities and Promoting High-level Self-reliance and Self-improvement》 point out: " Organized scientific research in universities is an important form of realizing the institutionalization of scientific and technological innovation in universities and serving the strategic needs of the country and the region."The Opinions clearly points out that universities are an important part of national strategic technology forces. Based on the new development stage, universities should strengthen organized scientific research on the basis of continuous high-level free exploration and research.

The 20th National Congress of the CPC proposed: "improve the new national system, strengthen national strategic technology strength, optimize the allocation of innovative resources, and optimize the positioning and layout of national research institutions, high-level research universities, and leading science and technology enterprises."The foundation of the rise of a strong scientific and technological country is self-reliance in science and technology, which is inseparable from free exploration and organized scientific research. At present, the world is undergoing great changes unseen in a century. The environment for economic and social development is complex and diverse, and the scientific research problems are becoming increasingly complex. The individual scientific research mode can no longer meet the urgent needs of high-quality social development, so we must promote interdisciplinary, cross-departmental and cross-university organized scientific research.

Colleges and universities is the important main force of scientific and technological innovation in China, through organized scientific research comprehensively strengthen innovation system construction, give full play to the new national system advantage, to improve independent innovation ability.Serving the national strategic needs with higher quality and greater

contribution, and scientifically answering the questions of China, the world, the people, and the times, is an inevitable requirement for accelerating the construction of China's autonomous knowledge system, and promoting the prosperity and self-reliance of philosophy and social sciences.

2. The Connotation and Evolution Process of Organized Scientific Research

Organized scientific research refers to serve the national major strategic needs as the goal, aiming at the international frontier issues and major social development issues, through the optimal allocation of scientific research resources, promote the flow of innovative elements to major projects, major engineering, and major platforms, achieve breakthroughs in major original achievements, support the high-quality development of the economy and society, and realize the transformation of scientific research from free exploration to responding to national needs.

"Organized scientific research" in 2022 issued by 《Several Opinions on Strengthening Organized Scientific Research in Universities and Promoting High-level Self-reliance and Self-improvement》, but organized scientific research is not a new concept, in the process of national science and technology development, the ideological connotation and practical requirement is always exist, in philosophy and social sciences and higher education career development, organized scientific research has shown different characteristics in terms of national orientation, independent innovation, clear objectives, and comprehensive support.

Wang[1] uses the introduction of representative policies as a node, according to the relationship between national stance and research orientation in the policy documents, the "organized scientific research" is divided into four stages, respectively is "national leading" and "task driven" stage, "national demand" and "market oriented" stage, "national lead" and "free exploration" stage, comprehensive construction of high level "organized scientific research" stage. In the process of development, its concept also presents the characteristics of gradually enhanced national orientation, steady improvement of independent innovation, and constantly clear goals, and gradually builds a high-quality "organized scientific research" with Chinese characteristics. Ma [2] thinks with the change of knowledge production mode, scientific research gradually presents an interdisciplinary, interdisciplinary characteristics, organized scientific research from the "broad" concept to "narrow" concept, from "one dimensional" field to "multidimensional" field, from a single linear development to diverse and spiral upward development, emphasize scientific research activities in the government, universities, research institutions, enterprises and other multiple subject closely participation, focus on academic logic, the national major demand and economic development. Xu[3] divides the development of scientific research in Chinese universities into four stages, based on the complexity and organization of university research.: from scratch, mature self-organized scientific research, individual organized scientific research, organized scientific research vigorous development, scientific research support continues to increase, achievements continue to emerge, and the level of scientific research is significantly improved. Zhang[4] analyzes the different connotations and specific manifestations of organized scientific research in the four historical periods of the Communist Party of China. In the development of philosophy and social sciences in universities led by the leadership of the CPC, organized scientific research has made great progress, and many major projects and major achievements of philosophy and social sciences have achieved landmark development.

3. The Dilemma of Organized Scientific Research in Colleges and Universities

Universities and colleges are the main force and basic support among the "five major forces" of China's philosophical and social sciences, playing a key in promoting the development and innovation of philosophical and social sciences, accelerate the construction of China's autonomous knowledge system through organized scientific research, promote the construction of discipline system, academic system, and discourse system, serve the China's major strategic needs and solve Chinese problems with Chinese theories, giving full play to the main force role of universities.

Universities have strong scientific research force, high-scale scientific research teams, high-quality scientific research platform, relatively sufficient research funds, etc., universities also have a wealth of disciplines, and have obvious advantages in multidisciplinary integration. However, it cannot be ignored that colleges and universities also have some difficulties in carrying out organized scientific research.

First, the scientific research force is scattered. As research forces are scattered and researchers often fight for themselves, it is difficult to form a strong and stable team, which is a problem to be solved in organized research. At present, scientific research cooperation is mostly temporary teams for application projects, but no real work cooperation is formed in actual research. Complex scientific research problems need to be solved by various forces, and the lack of "big teams" naturally makes it difficult to effectively respond to the major national strategic needs and solve the major realistic problems.

Second, there are differences between scientific research direction and national strategic needs. At present, the scientific research activities in universities mostly follow the free exploration mode. The researchers often choose the research direction based on their personal research foundation and research interests, which is difficult to meet the national social needs and regional economic development needs, and the transformation of achievements and social services are affected.

Third, the scientific research evaluation model needs to be innovated. In recent years, China's science and technology system reform continuously made new breakthroughs, reforms such as project review, talent evaluation, and institutional assessment are being accelerated. However, the mechanism for evaluating the results of technological innovation still has some outstanding problems. Achievement evaluation system is not perfect, index of single, standard of quantitative will lead to the utilitarian tendency of scientific research activities. The evaluation system puts too much emphasis on individuals rather than teams, leading to a lack of reasonable and effective resource allocation mechanisms for organized research teams, making it difficult to form stable and effective team collaboration mechanisms.

Fourth, the scientific research guarantee mechanism needs to be improved. Scientific research activities need the coordination and cooperation of multiple units such as colleges, research departments, financial departments, and audit departments. "Big platform, big team, big project, big achievement, and big contribution" often have a longer construction cycle and face more uncertainties, is still room for improvement in the organization of teams, management of projects and funds, management of research space and equipment, hiring of mobile researchers, and setting up graduate student research assistant positions, so as to free researchers from tedious administrative affairs and allow them to spend more time and energy on research.

4. Exploring the Implementation Path of Organized Scientific Research in Colleges and Universities

As the main force of basic research and the source of major scientific and technological breakthroughs, colleges and universities are an important part of the national strategic scientific and technological forces, and play an important leading position in the innovation system. Organized scientific research has broken the disciplinary barriers of universities, effectively integrated superior disciplines and resources inside and outside the university, carried out scientific research tasks with clear goals, led other social innovation subjects to develop together, and respond to national strategic needs, global strategic needs, regional development strategic needs and development needs of industrial enterprises. In the implementation path, colleges and universities can make efforts from the following five aspects:

First, to optimize the top-level design and coordinate resource allocation. Organized scientific research should focus on major national needs, scientifically answering the questions of China, the world, the people, and the times, optimize the top-level design, identify and clarify the needs of economic and social development and practical problems of discipline construction and development. Based to goal-oriented and problem orientation, coordinately optimize the allocation of innovative resources, concentrate funds, equipment, platforms, and talents on major theoretical and practical issues that provide academic for advancing the CPC's theoretical innovations and Chinese path to modernization, and on major basic theoretical issues that play a key role in the development of Chinese characteristics philosophical social science and the construction of China's autonomous knowledge system. Implement comprehensive strategic planning, promote deep integration, provide long-term and stable support for excellent research teams, and effectively advance organized research.

Second, focus on the layout of disciplines to achieve cross-integration. Organized scientific research emphasizes the combination of interdisciplinary, interdisciplinary, across the system, on the basis of interdisciplinary and collaborative innovation, which requires universities to focus on the subject level ability, communities in superior discipline, the construction of discipline cluster, layout of new scientific research and subject direction, promote organized scientific research and optimization of discipline layout construction double double promote.

Third, to establish a scientific research performance evaluation system oriented towards the quality of innovative achievements and actual contributions, follow the research periodic, evaluate both quantity and quality, construct a recognition mechanism for different types of outcomes across institutions, disciplines, and fields, and evaluate research activities that are team-based, collaborative, term, and task-oriented. Accurately assess the contributions of social science researchers under the paradigm of organized research, and fully leverage the incentive role of the evaluation.

Fourth, set up an interdisciplinary research team. Compared with the government, enterprises and research institutes, universities have gathered research talents from various fields, and have the advantage of setting up interdisciplinary and high-quality research teams. Within the university, the college, as the specific organizing unit for talent training, scientific research, social service, and cultural heritage innovation, shall, within the scope of authorization of the school, implement autonomous management in terms of personnel, finance, and materials. The school has the function of guiding and supervising each college, and can form cross-disciplinary research teams through top-level design and overall coordination, organize different schools to concentrate backbone talents and advantageous resources to participate in major projects and grand programs, and produce landmark research results with significant academic innovation and cultural heritage significance.

Fifth, establish and improve the scientific research management system. The scientific research management system is an important guarantee to ensure the efficient and orderly conduct of scientific research activities. It is an important link to promote the organized scientific research to clarify the functional division of labor in the process of scientific research management, promote the collaborative office, simplify the process of administrative affairs, and enable researchers to concentrate on research. On the one hand, the process management of scientific research activities should be strengthened, the management responsibility of secondary colleges should be compacted, and the three-level management system of "school-college-project leader" should be formed, so as to reduce scientific research risks, improve the performance of scientific research projects, ensure the quality of scientific research results, and avoid the phenomenon of emphasizing project initiation over project completion. On the other hand, scientific research management should fully consider the changing practical needs and the actual needs of scientific research activities, and introduce corresponding rules and regulations to avoid the emergence of "black box" in process management.

5. Summary

At present, a new round of scientific and technological revolution and industrial transformation are developing vigorously, and the world has entered the era of great science. Competition among countries over the commanding heights of science and technology is unprecedentedly fierce, and scientific and technological innovation has increasingly become the main battlefield of the international strategic game. Organized scientific research makes full play to the advantages of the new national system, focusing on the major strategic needs of the country, efficiently allocating resources, promoting the reform of science and technology system and mechanism and the building of national industrial innovation system and capacity, breaks through the technical barriers of strategic industries, and contributes to the construction of "big platform, big team, big project, big achievements and big service".

After a long-term free exploration of scientific research mode, universities still face many difficulties, which can make efforts from the aspects of coordinating resource allocation, focusing on discipline layout, establishing interdisciplinary innovation team, improving the evaluation system, and improving the scientific research management system, strive to build world-class universities, and enhance the national strategic scientific and technological forces.

References

- [1] Wang Tianjian and Li Lanyuan, the policy process of "organized scientific research" and its development with Chinese characteristics. *Development and Evaluation of Higher Education*, 2024.40 (04): Page 43-52 + 121.
- [2] Ma Yonghong et al., logical turns and organizational mode of organized research in higher education : An interdisciplinary perspective. *Journal of Soochow University (Education Science Edition)*, 2024.12 (02): page 1-9.
- [3] Xu Guoxing, transformation from no scientific research to strengthening organized scientific research —— Review, review and foresight of the relationship between Chinese universities and scientific research. *China Education Policy Review*, 2023 (01): Pages 168-181.
- [4] Zhang Zhengwen, Promoting Self-strengthening of Philosophy and Social Sciences in Higher Institutions through Organized Research. *Social Sciences in Chinese Higher Education*, 2023 (01): p. 87-104 + 159.