

Construction Status, Realistic Dilemma, and Breakthrough Path of First-class Discipline in Jiangsu Province

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Abstract

Under the background of the national strategy of 'double first-class' construction, the construction of first-class disciplines in Jiangsu Province takes producing innovative achievements, cultivating innovative talents, and promoting interdisciplinary integration as main tasks, aiming at improving the overall discipline level of universities in Jiangsu. This paper reviews the status quo and achievements of constructing first-class disciplines in two rounds of Jiangsu 'double first-class' construction universities regarding the number of subject projects, subject evaluation level, patent output, and other aspects. It is found that there are some problems in the construction of first-class disciplines in Jiangsu Province, such as unbalanced distribution and development of first-class disciplines, lagging innovation of management system and mechanism, and insufficient transformation of scientific research output and achievements. Based on this, it is proposed suggestions that optimize the layout of first-class disciplines and promote the balanced development of disciplines; innovative discipline organization management and improve the efficiency of discipline organization; improve the conversion rate of scientific research achievements and realize the positive interaction between the construction of first-class disciplines and regional social development.

Keywords

Double first-class construction; First-class discipline; Discipline construction; Jiangsu Province.

1. Introduction

Discipline construction is the leader of 'double first-class' construction. In 2015, The Chinese State Council issued the Overall Plan for Coordinating and Promoting the Construction of World-class Universities and Disciplines, which put forward the construction of world-class universities and disciplines. After two rounds of 'double first-class' construction in 2017 and 2022, Jiangsu Province has made remarkable progress in discipline construction, but it still faces key issues such as how to further break through the bottleneck on the existing basis, optimize the discipline layout, strengthen the characteristic advantages, and enhance the international competitiveness.

Existing related researches focus on four aspects. First, the research on the construction process of first-class disciplines in China. The institutional experience of the construction of disciplines in China has shifted from 'key' to 'first-class' (Ma & Zheng, 2022), and the development of early key disciplines has promoted the construction of first-class disciplines (Xie, 2020). Second, the research on the dilemma of first-class discipline construction in China. The construction of first-class disciplines in China's local universities has some problems, such as the orientation pursuit of 'tall and complete', the blind 'marketization' of discipline setting, the 'closed' development of discipline space, the 'scattered' strength of discipline team (Shen, 2017), the administrative allocation of discipline resources, and the vulgarization of discipline culture and ecology (Xie & Chen, 2017). Third, the research on the path of China's first-class

discipline construction. Discipline construction should fully stimulate the internal and external vitality of the discipline, not only to fully grasp the government, the market, and other external driving factors, but also to improve the construction of internal teachers, culture, and other aspects (Wang & Zhou, 2020). Fourth, the comparative research on the construction of first-class disciplines. The construction of first-class disciplines varies from country to country due to different cultures and national conditions (Lei, Zhong, & Qiao, 2018; Wu, 2019).

The existing research mainly analyzes the quality of the construction of first-class disciplines in China from the macro level and lacks an analysis of the effectiveness, dilemma, and path of the construction of first-class disciplines at the provincial level. Based on the data of project establishment and construction of two rounds of first-class disciplines in Jiangsu Province, this study deeply analyzes the effectiveness and practical difficulties of the construction of first-class disciplines in Jiangsu Province and puts forward forward-looking and operable policy suggestions in combination with the needs of economic and social development and the reality of higher education in Jiangsu Province.

2. Statistics of Jiangsu first-class Disciplines under the Background of 'Double first-class' Construction

2.1. Project establishment of first-class disciplines in Jiangsu under the background of 'double first-class' construction

In September 2017, the Ministry of Education, the Ministry of Finance, and the National Development and Reform Commission of China jointly issued the Notice on Announcing the List of World-class Universities and First-class Discipline Construction Universities and construction Disciplines and announced the first round of the list of 'double first-class' construction universities and construction disciplines. A total of 43 disciplines from 15 universities in Jiangsu Province were included in the scope of world-class discipline construction. Among them, Nanjing University and Southeast University were selected as world-class university construction universities, and 13 universities including Suzhou University were selected as world-class discipline construction universities, ranking first in China after Beijing in the number of first-class discipline construction. In February 2022, the Ministry of Education of China announced a new round of double-first-class construction lists (see Table 1). Jiangsu has 16 universities and 48 disciplines selected, ranking third in China in the number of first-class disciplines. Compared with the first round, Jiangsu added 1 university and 5 disciplines. The second round of 'double first-class' construction canceled the division of first-class universities and first-class discipline construction universities, consolidated the foundation of promoting 'double first-class' construction based on disciplines (Zhou and Wu, 2016; Ministry of Education of China, Ministry of Finance of China, & National Development and Reform Commission of China, 2022).

2.2. Distribution characteristics of first-class disciplines in Jiangsu Province

From the perspective of discipline distribution, the second round of first-class disciplines in Jiangsu Province covers two categories: universities under the central government and provincial universities, and there are 48 first-class disciplines in total, involving humanities and social sciences, science, engineering, agriculture, medicine, management, art, and other fields (see Table 2). From the perspective of disciplines of conferring academic degrees, there is a certain imbalance. The number of first-class disciplines in engineering is the largest, accounting for 60.42%, far exceeding other disciplines, showing the strong and key development of engineering in Jiangsu Province (Geng, 2021; Li & Zhou, 2018). They are followed by science (16.67%), medicine (6.25%), and agriculture (4.17%). From the category of universities, some universities have accumulated development advantages for a long time, making the project

disciplines belonging to the uneven distribution of university categories, the second round of construction of 48 disciplines, 41 first-class disciplines belonging to the universities under the central government and cover several disciplines, 7 disciplines belonging to the university for the provincial universities and mostly for engineering and science categories.

Table 1. List of the second round of first-class discipline construction in Jiangsu Province

University Name	First-class Disciplines (Number)	List of First-class Discipline Construction
Nanjing University	16	Philosophy, Theoretical Economics, Chinese Literature, Foreign Languages and Literatures, Physics, Chemistry, Astronomy, Atmospheric Sciences, Geology, Biology, Materials Science and Engineering, Computer Science and Technology, Chemical Engineering and Technology, Mineral Engineering, Environmental Science and Engineering, Library information and Archives management
Southeast University	12	Mechanical Engineering, Materials Science and Engineering, Electronic Science and Technology, Information and Communication Engineering, Control Science and Engineering, Computer Science and Technology, Architecture, Civil Engineering, Traffic Engineering, Biomedical Engineering, Landscape Architecture, Artistic Theory
Nanjing University of Science and Technology	1	Weapon Science and Technology
Nanjing University of Aeronautics and Astronautics	3	Mechanics, Control Science and Engineering, Aeronautical and Astronautical Science and Technology
Hohai University	2	Hydraulic Engineering, Environmental Science and Engineering
Soochow University	1	Materials Science and Engineering
Nanjing Normal University	1	Geography
Jiangnan University	2	Light Industry Technology and Engineering, Food Science and Engineering
China University of Mining and Technology	2	Mineral Engineering, Safety Science and Engineering
Nanjing Agricultural University	2	Crop Learning, Agricultural Resources and Environment
China Pharmaceutical University	1	Traditional Chinese Pharmacy
Nanjing University of Posts and Telecommunications	1	Electronic Science and Technology
Nanjing University of Chinese Medicine	1	Traditional Chinese Pharmacy
Nanjing University of Information Science and Technology	1	Atmospheric Science
Nanjing Forestry University	1	Forestry Engineering
Nanjing Medical University	1	Public Health and Preventive Medicine

Table 2. Statistics of Disciplines of Conferring Academic degrees

fields of Disciplines of Conferring Academic degrees	College category		Provincial colleges and universities	Total Proportion	
	Universities Directly under Ministries and Commissions of the Central Government				
Humanities and Social Sciences	4		0	4	8.33%
Sciences	6		2	8	16.67%
Engineering	26		3	29	60.42%
Agronomy	2		0	2	4.17%
Medicine	1		2	3	6.25%
Management	1		0	1	2.08%
Art	1		0	1	2.08%
Total	41		7	48	100%

2.3. Regional distribution characteristics of first-class discipline construction in Jiangsu Province

From the perspective of regional distribution, the construction of the second round of first-class disciplines in Jiangsu Province shows obvious regional differences, and the distribution of first-class disciplines is unbalanced, mainly concentrated in southern Jiangsu Province, and less in central and northern Jiangsu Province. On the whole, the number of first-class disciplines in South Jiangsu (Nanjing, Suzhou, Wuxi, Changzhou, and Zhenjiang) is 46, accounting for 95.83%, which reflects the concentrated advantages of South Jiangsu in educational resources, scientific research strength, and discipline construction. The number of first-class disciplines in Central Jiangsu (Nantong, Taizhou, Yangzhou) is 0, and the number of first-class disciplines in northern Jiangsu (Xuzhou, Huaian, Suqian, Yancheng, Lianyungang) is 2.

Table 3. Regional distribution

Region	City	Number of Universities with First-class Disciplines	Number of First- class Disciplines	Proportion of First-class Disciplines
Southern Jiangsu	Nanjing	13	43	89.58%
	Soochow	1	1	2.08%
	Wuxi	1	2	4.17%
	Changzhou	0	0	0.00%
	Zhenjiang	0	0	0.00%
	Nantong	0	0	0.00%
Middle Jiangsu	Taizhou	0	0	0.00%
	Yangzhou	0	0	0.00%
	Xuzhou	1	2	4.17%
Northern Jiangsu	Huai'an	0	0	0.00%
	Suqian	0	0	0.00%
	Yancheng	0	0	0.00%
	Lianyungang	0	0	0.00%

3. Effectiveness of the Construction of First-class Disciplines in Jiangsu Province

3.1. Leading in the number of first-class disciplines construction

In the two rounds of Chinese ‘double first-class’ evaluation in 2017 and 2022, Jiangsu ranked third in the number of first-class disciplines (see Table 4). First, from the quantitative point of view, Jiangsu Province in the two rounds of ‘double first-class’ evaluation has maintained a high rate of selection. In the first round of the double first-class construction universities list announced in 2017, a total of 15 universities in Jiangsu Province were selected, including 2 world-class university construction universities (Class A) and 13 world-class discipline construction universities. Second, from the quality point of view, the first-class disciplines under the background of ‘double first-class’ construction cover several disciplines, and many disciplines have significant advantages and influence across the country.

Table 4. Number of universities and disciplines

Province	2022		2017	
	Universities (Number)	Discipline (Number)	Universities (Number)	Discipline (Number)
Beijing	34	166	31	156
Shanghai	15	64	14	57
Jiangsu	16	48	15	43
Hubei	7	32	7	29

3.2. Discipline evaluation level into the Chinese first square array

Among the 16 ‘double first-class’ universities in Jiangsu Province, 36 of the 48 first-class disciplines have entered the A grade, of which 21 are A+grade, 8 are A grade, and 7 are A-grade, accounting for 75% of the total number of first-class disciplines, and the overall situation still ranks third in China after Beijing and Shanghai. The distribution of first-class disciplines in various categories of ‘double first-class’ universities in Jiangsu Province is shown in Table 5. As the results of the fifth round of discipline evaluation of the Ministry of Education of China were not disclosed, the results of the fourth round of China discipline evaluation in 2017 were used for analysis.

Table 5. Distribution of A grade disciplines of fields of Disciplines of Conferring Academic degrees in discipline assessment of Jiangsu Provincial Ministry of Education in 2017

fields of Disciplines of Conferring Academic degrees	Grade			Total
	A+	A	A-	
Humanities and Social Sciences	0	3	1	4
Sciences	3	2	2	7
Engineering	12	3	4	19
Agronomy	2	0	0	2
Medicine	2	0	0	2
Management	1	0	0	1
Art	1	0	0	1
Total	21	8	7	36

From the perspective of schools, the inter-school distribution difference of ‘double first-class’ construction colleges and universities is significant (see Table 6). Among the 16 ‘double first-

class' construction colleges and universities in Jiangsu Province, 36 disciplines with an A grade of discipline evaluation are mainly distributed in Nanjing University and Southeast University.

Table 6. Inter-school distribution of A grade disciplines in discipline assessment of Jiangsu Provincial Ministry of Education in 2017

University Name	Discipline	2017	2012
Nanjing University	Philosophy	A	5
	Theoretical Economics	A-	4
	Chinese Literature	A	4
	Foreign Languages and Literatures	A	2
	Physics	A	1
	Chemistry	A-	2
	Astronomy	A+	1
	Atmospheric Sciences	B	2
	Geology	A+	1
	Biology	A	5
	Materials Science and Engineering	B+	
	Computer Science and Technology	A	8
	Environmental Science and Engineering	A	3
	Library information and Archives management	A+	2
	Mechanical Engineering	B+	10
	Materials Science and Engineering	B	
Southeast University	Electronic Science and Technology	A	2
	Information and Communication Engineering	A-	3
	Control Science and Engineering	A-	7
	Computer Science and Technology	B+	9
	Architecture	A+	2
	Civil Engineering	A+	3
	Traffic Engineering	A+	1
	Biomedical Engineering	A+	1
	Landscape Architecture	A-	2
	Artistic Theory	A+	1
Nanjing University of Science and Technology	Weapon Science and Technology	A+	1
Nanjing University of Aeronautics and Astronautics	Mechanics	A+	4
	Control Science and Engineering	B+	9
	Aeronautical and Astronautical Science and Technology	B+	5
Hohai University	Hydraulic Engineering	A+	1
Soochow University	Environmental Science and Engineering	A-	
Nanjing Normal University	Materials Science and Engineering	B+	13
Jiangnan University	Geography	A+	5
	Light Industry Technology and Engineering	A+	2
China University of Mining and Technology	Food Science and Engineering	A+	1
	Mineral Engineering	A+	1
	Safety Science and Engineering	A+	1
Nanjing Agricultural University	Crop Science	A+	2
	Agricultural Resources and Environment	A+	1
China Pharmaceutical University	Traditional Chinese Medicine	B+	
Nanjing University of Posts and Telecommunications	Electronic Science and Technology	B+	14
Nanjing University of Chinese Medicine	Traditional Chinese Pharmacy	A+	3
Nanjing University of Information Science and Technology	Atmospheric Science	A+	1
Nanjing Forestry University	Forestry Engineering	A+	2
Nanjing Medical University	Public Health and Preventive Medicine	A+	3

3.3. ESI discipline ranking has improved significantly

According to the ESI data released in November 2024, 190 disciplines of the 16 ‘double first-class’ universities in Jiangsu Province entered the top 1% of ESI, an increase of 113 disciplines compared with the beginning of the ‘double first-class’ construction strategy (see Table 7).

Table 7. Number of ESI top 1% disciplines in Jiangsu Province

University	Top 1% disciplines (Number)	
	November 2024	January 2017
Nanjing University	21	16
Southeast University	17	10
Nanjing University of Science and Technology	11	4
Nanjing University of Aeronautics and Astronautics	8	3
Hohai University	10	2
Soochow University	19	8
Nanjing Normal University	14	4
Jiangnan University	11	5
China University of Mining and Technology	10	4
Nanjing Agricultural University	13	6
China Pharmaceutical University	11	3
Nanjing University of Posts and Telecommunications	6	3
Nanjing University of Chinese Medicine	7	2
Nanjing University of Information Science and Technology	9	2
Nanjing Forestry University	10	0
Nanjing Medical University	13	5

3.4. First-class disciplines become patent output support disciplines of universities under the background of ‘double first-class’ construction

Among the 16 ‘double first-class’ construction universities, the most important supporting disciplines of patent output in 10 universities are first-class disciplines under the background of ‘double first-class’ construction. As shown in Table 8, the ‘double first-class’ construction policy plays a significant role in promoting the development of disciplines and the ability of scientific research and innovation in universities.

Table 8. Supporting disciplines of patent output in Jiangsu Province

University	Discipline
Nanjing University	Physics
Southeast University	Electronic science and technology
Nanjing University of Science and Technology	Chemistry
Nanjing University of Aeronautics and Astronautics	Aeronautical and Astronautical Science and Technology
Hohai University	Hydraulic Engineering
Soochow University	Materials Science and Engineering
Jiangnan University	Food Science and Engineering
China University of Mining and Technology	Mining engineering
Nanjing University of Posts and Telecommunications	Electronic science and technology

4. Problems and Challenges in First-class Disciplines Construction in Jiangsu Province

4.1. Imbalance in the layout and development of first-class disciplines

Two rounds of 'double first-class' construction data show that the distribution and development of first-class disciplines in Jiangsu Province is unbalanced. First, from the perspective of discipline distribution, the number of first-class disciplines in engineering accounted for 60.42%, and the four disciplines of science, industry, agriculture, and medicine accounted for 87.51%, far exceeding humanities and social sciences, management, and other disciplines. This unbalanced distribution of disciplines not only affects the rationality of the overall discipline layout in Jiangsu Province but also restricts the cross-integration and innovative development of different disciplines. Second, from the perspective of regional distribution of first-class disciplines, first-class disciplines are mainly concentrated in southern Jiangsu, especially in Nanjing, where the number of first-class disciplines accounts for 89.58% of the total number of the province. The construction of first-class disciplines in Central and northern Jiangsu is relatively weak, lacking influential and competitive discipline peaks, which not only restricts the development level of local higher education but also affects the improvement of the overall discipline strength in Jiangsu Province. Finally, there is still a big gap between the development of the discipline plateau and peak and the construction goal of Jiangsu Province to form a new pattern of higher education strong province with a high plateau is solid and peaks occur one after another. Specifically, in the internationally accepted ESI global discipline rankings, the disciplines of Jiangsu universities entering the top 1% and top 1‰ of ESI global disciplines are mainly concentrated in engineering and medicine. On the whole, the subject areas covered by the discipline plateau and peak construction are not broad enough.

4.2. Lag in the management system and mechanism innovation

After two rounds of 'double first-class' construction, there is a certain lag in the innovation of the management system and mechanism of first-class disciplines in Jiangsu Province, which is embodied in the unclear responsibility of the main body and the fragmentation of management, and the lack of resource allocation and dynamic adjustment mechanism, which further aggravates the imbalance of discipline layout and development. On the one hand, clear subject responsibility is the key to ensuring the orderly progress of discipline construction. However, the current management system has the problem of a vague definition of main responsibilities, and the division of powers and responsibilities among various departments and levels is not clear enough, resulting in frequent buck-shifting in the management decision-making process and reducing management efficiency. The lack of unified management standards and coordination mechanisms among different disciplines and regions makes it difficult to effectively integrate disciplinary construction resources and hinders interdisciplinary integration and innovative development. On the other hand, the resource allocation of first-class discipline construction often relies too much on traditional administrative means, ignoring the role of market mechanisms and social forces, resulting in insufficient flexibility of resource allocation and dynamic adjustment mechanisms.

4.3. Insufficient in scientific research output and achievement transformation

Jiangsu Province has problems of low quality and limited influence in scientific research output. On the one hand, although the number of scientific research papers in Jiangsu Province continues to grow, the proportion of high-quality and high-impact scientific research achievements is not high, and there is a lack of achievements that can lead the forefront of disciplinary development and have significant innovative value. On the other hand, the international recognition of Jiangsu's scientific research output still needs to be improved, especially the ranking of ESI and other international academic evaluation systems, compared

with top disciplines at home and abroad, there is still a certain gap. Although the first-class disciplines in Jiangsu Province have produced many high-level scientific research achievements, the ability to transform these achievements into practical applications is not strong, and the integration degree with industrial development is not close enough. The transformation mechanism of scientific research achievements is lack of effective market orientation and incentive mechanisms makes it difficult for scientific research achievements to be successfully transformed into productive forces.

5. Conclusions and Suggestions

5.1. Optimize the layout of first-class disciplines and promote balanced development of disciplines

The construction of first-class disciplines in Jiangsu Province needs to promote the balanced development of disciplines. First, strengthen the initiative of optimizing the discipline layout of 'double first-class' construction in Jiangsu Province. Jiangsu Province's 'double first-class' construction universities should take the opportunity of 'exploring a new mode of development with independent characteristics', better exert the enthusiasm and creativity of the construction of first-class disciplines to actively optimize and adjust the layout of disciplines. Second, enhance the ability of 'double first-class' construction discipline layout to respond to the national strategic needs of China. Based on the new development stage, the construction and development of first-class disciplines in Jiangsu universities should be re-ordered or re-selected according to the national strategic needs, more accurately reflect the current and future long-term construction of a new development pattern of differentiated needs for the development of different disciplines, and improve the ability to serve the national strategic needs. Third, promote the development and application of discipline frontier tracking methods. The future construction of first-class disciplines should actively explore the introduction of similar tracking technology and its results to provide dynamic and refined policy evaluation tools and decision-making references for the optimization and adjustment of disciplinary layout.

5.2. Innovative discipline organization management and improve the efficiency of discipline organization operation

Innovating discipline organization management and improving the operation efficiency of discipline organizations will become the key paths to promote the development of disciplines and enhance academic competitiveness. First, build a flexible and open discipline organization structure. The traditional pyramidal organization structure often restricts information flow and resource sharing, which is not conducive to the stimulation of interdisciplinary cooperation and innovative thinking. Therefore, a flat, networked, or matrix organization structure should be explored to promote exchanges and cooperation between researchers from different disciplinary backgrounds and form an open and inclusive academic atmosphere. Second, strengthen goal orientation and performance management. Clarify the long-term goals and short-term tasks of the discipline development, and break down the goals to each research team and individual to ensure that each member has a clear understanding and commitment to the realization of the common goals. Third, optimize the allocation and utilization of resources. Reasonable allocation of human, material, financial, and other resources to ensure priority support for key areas and projects. Making use of information means to realize the digital, network, and intelligent management of resources, and improve the efficiency of resource use.

5.3. Improve the conversion rate of scientific research results and realize the benign interaction between first-class disciplines and regional social development

Improving the conversion rate of scientific research achievements and realizing the benign interaction between first-class disciplines and regional social development. First, strengthen the market orientation of scientific research results. By strengthening industry-university-research cooperation, establish an effective docking mechanism between scientific research results and market demand to ensure the practicability and foresight of scientific research results. Second, optimize the process of transforming scientific research results. Build an efficient and coordinated system for the transformation of scientific and technological results, including results evaluation, intellectual property protection, technology transfer, and market promotion. Through the introduction of third-party professional institutions, the whole chain of results transformation services is provided to reduce the threshold and risk of transformation. Third, promote the deep integration of regional industries, universities, and research institutes. The construction of first-class disciplines should actively integrate into the regional innovation system and form a close cooperation network with local governments, enterprises, and scientific research institutions. By co-building R&D platforms, joint research projects, and sharing resources and services, to promote the rapid transformation and wide application of scientific research results in the region.

Acknowledgments

Project supported by the Education Scientific Planning of Jiangsu province, China (No. B-b/2020/01/29); Project supported by the Social Science Foundation of Jiangsu province, China (No. 22GLD001)

References

- [1] Ma, T. Q., & Zheng, Z. J. (2022). From "key" to "first-class":the logic of the reform of the discipline construction system in China from the perspective of historical institutionalism. *Journal of Higher Education Management*, 16(02), 47-58. Doi: 10.13316/j.cnki.jhem.20220224.005
- [2] Xie, R. (2020). From“Key Discipline”to“First-class Discipline”: The Perspective of Policy Learning. *Fudan Education Forum*, 18(02), 93-98. Doi: 10.13397/j.cnki.fef.2020.02.015
- [3] Shen, M. H. (2017). ‘Having achievements’ and ‘Having a proper position’: the orientation of local colleges and universities in the ‘double first-class’ initiative. *Research in Educational Development*, 37(07), 3. Doi: 10.14121/j.cnki.1008-3855.2017.07.002
- [4] Xie, L. L., & Chen, J. S. (2017). Discipline Governance: the Core Issue of Discipline Construction in Local Colleges and Universities. *Research in Educational Development*, 37(07), 38-45. Doi: 10.14121/j.cnki.1008-3855.2017.07.008
- [5] Wang, H. B., & Zhou, H. Y. (2022). The Realistic Dilemma and Breakthrough Path for the Construction of First-class Discipline Teams in Local Universities-Based on the Perspective of Organizational Behavior. *Hubei Social Sciences*, (09), 145-154. Doi: 10.13660/j.cnki.42-1112/c.015953
- [6] Lei, H., Zhong, Z., & Qiao, W. F. (2018). A Sino-US Comparative Study of Academic Discipline Development in the Research Universities and Its Implications for Double First-rate Development. *Tsinghua Journal of Education*, 39(06), 66-73. Doi: 10.14138/j.1001-4519.2018.06.006608

- [7] Wu, J. X. (2019). Policy Orientation, Core Characteristics and Construction Methods of World-Class Disciplines. *China Higher Education Research*, (02), 27-33. Doi: 10.16298/j.cnki.1004-3667.2019.02.06
- [8] Zhou, G. L., & Wu, J. X. (2016). What is the World-Class Discipline. *China Higher Education Research*, (01), 65-73. Doi: 10.16298/j.cnki.1004-3667.2016.01.20
- [9] Ministry of Education of China, Ministry of Finance of China, National Development and Reform Commission of China. (2022, January 19). Several Opinions on deepening the development of world-class universities and disciplines. Retrieved December 25, 2024, from http://www.moe.gov.cn/srcsite/A22/s7065/202202/t20220211_598706.html
- [10] Geng, Y. Q. (2021). Three questions in world first-class discipline development. *Journal of Southeast University(Philosophy and Social Science)*, 23(05), 134-139+152. Doi: 10.13916/j.cnki.issn1671-511x.2021.05.014
- [11] Li, F. W., & Zhou, C. (2018). The Advantage Accumulation Effect and Existing Problems of Top Disciplines in Jiangsu Universities. *Jiangsu Higher Education*, (06), 12-16. Doi: 10.13236/j.cnki.jshe.2018.06.003