

Research on the Strategy of Integration of General Education and Professional Education in Finance under the Background of New Liberal Arts

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Abstract: Realizing the integration of general education and professional education in finance is the key to cultivate a composite and innovative finance major in the context of the new liberal arts. In view of the current problems such as unclear talent training objectives, imperfect teaching system, and weak allocation of teachers, this paper puts forward strategies for the integration of general education and professional education in finance to promote finance from adapting to service to supporting and leading, from subject orientation to demand orientation, and from specialty segmentation to cross integration. It determines the talent training goal of "localization + international vision", creates a teaching system of "theory talent practice" coupling, establishes a teaching team of interdisciplinary, knowledge sharing and collaborative innovation, promotes the upgrading of traditional finance majors, and cultivates compound and innovative financial professionals who adapt to the development of new era and new financial formats.

Keywords: new liberal arts construction, finance, general and professional integration, interdisciplinary talent

1. Introduction

With the fierce competition in domestic and foreign markets and the rapid development of technology, the application of big data, blockchain, cloud computing, and artificial intelligence in the financial field has reshaped the traditional financial system from multiple dimensions^[1], mainly changing the logical framework, basic theory, research objects and methods of finance. It is urgent to cultivate innovative and compound high-level financial talents to adapt to changes. On the one hand, China's financial market is speeding up the pace of opening to the outside world, and international financial cooperation is increasing, which requires financial industry practitioners to not only master China's economic development but also improve their innovation ability in terms of international competition and cooperation^[2]. On the other hand, the cross-disciplinary features of finance majors are becoming increasingly prominent. Technical knowledge of underlying data and algorithms enabling the development of the financial industry, as well as the cross-border thinking of finance and technology have become essential elements for financial talents. Furthermore, the market economy system requires financial practitioners not only to have professional skills and practical ability but also to have professional ethics and moral character. Therefore, it is urgent to optimize the professional knowledge structure and education system of finance to meet the needs of talents for social change.

Integration of general education and professional education is a necessary choice to train finance professionals in the new era. By implementing the training system of integration of general education and professional education, the finance majors can carry out the fundamental task of cultivating virtues and cultivating talents, promoting the close connection and synergy between the professional skills and basic quality of finance talents, which meets the current social requirements for innovative and compound financial talents^[3]. However, in terms of the training concept, curriculum system structure, teaching mode, and other aspects, there are still problems such as the weakening and vagueness of general education and the mere formality of finance education^[4], resulting in the single quality and structure of finance talent training, obvious homogeneity, and insufficient difference, subjectivity, and innovation. Therefore, how to keep up with the pace of The Times, promote the effective integration of general

education and professional education of finance, and cultivate new financial talents to adapt to the new environment has become an urgent problem to be solved.

The construction of new liberal arts is a new opportunity for the innovation and development of finance. As a breakthrough in the traditional liberal arts discipline construction and talent training mode, the original intention is to adapt to the needs of the global new scientific and technological revolution and new economic development. It makes liberal arts education transform from adaptive service to support and guidance, from discipline orientation to demand orientation, and from specialty, division to cross integration. And it provides a new platform and opportunity for the cross integration of finance majors, science and technology, and humanities^[5]. Based on this, this study clarifies the existing dilemma of integration of general and professional education in finance, breaking through the thinking mode of traditional finance. First, from the perspective of new liberal arts construction, it takes inheritance and innovation, intersection and integration, and collaboration and sharing as the main ways. Second, it actively explores the training system of integration of general and professional education in finance, weakens the boundary between general and professional education, and breaks down the barriers to general and professional education. Give full play to the advantages of the integration of general and professional education to cultivate the compound and innovative financial professionals who adapt to the development of the new era and new financial formats.

2. The current dilemma of finance majors

2.1 Ambiguous talent training objectives

At the 2018 China National Education Conference, the thesis that "What kind of people to cultivate is the primary issue of education"^[6] was put forward. The direction of talent training is directly determined by the goal of talent training, but in some colleges and universities in China, a great many problems such as ambiguous talent training goals are existed, which increases the difficulty of the integration of general education and professional education.

The talent training goal does not keep pace with the times. New requirements for finance professionals have been put forward by the emergence of new financial models.

First, the operation of the financial system is based on Internet information technology to realize the financing and settlement of funds, the operation, and the appreciation of capital, which requires universities to cultivate financial talents with Internet information technology. However, some universities are still based on traditional finance, only part of the Internet courses infiltrated into the finance major, and the scientific and technological talent factor is not taken into account in the talent training goal. Compared with the traditional financial industry, the talents required by the Internet finance industry involve two aspects of finance and the Internet, students not only need to master financial concepts by studying professional courses, but also need to effectively integrate information by learning computer program design language, big data analysis, machine learning, and other algorithmic general courses, but relevant general courses are not be set up by many colleges and universities. The graduates trained by colleges and universities have a single knowledge structure, practical and comprehensive.

Second, financial institutions in the new financial era will also get rid of the limitations of geographical space and realize the integration of capital flow and information flow. Colleges and Universities must face the differentiated needs of financial institutions for finance professionals, based on their actual conditions, and highlight their characteristics in the setting of courses, especially in general courses. For example, when setting up financial majors in colleges and universities, cultivating economic and financial talents, serving local micro-financial operations, and adapting to the needs of financial market segmentation can be our aim. However, from a practical point of view, the training programs of finance majors in various universities are similar, showing the phenomenon of emphasizing majors over general knowledge, with obvious homogeneity, and do not set their characteristics in general education courses.

Third, a new round of scientific and technological revolution and industrial transformation has promoted the demand for financial science and technology talents. Financial science and technology talents are not able to be cultivated by a single discipline of traditional finance. Colleges and universities should think about how to integrate the scientific and technological literacy needed by financial science and technology into the cultivation of financial literacy and financial skills. Clear ideas are still not owned by financial majors in colleges and universities, and the training objectives are vague. Therefore, it only adds some professional courses but does not set general education courses such as the overview of

financial technology frontier, blockchain technology, and application, big data analysis, artificial intelligence, etc., showing a phenomenon of focusing on specialty over general education. As a result, it is impossible to cultivate financial science and technology talents with a global perspective, who master information technology, data science, algorithms, and intelligent technology based on mastering financial theoretical knowledge and have a strong practical ability and innovation spirit.

2.2 Unbalanced teaching system

2.2.1 The convergence between general and professional courses is not smooth.

The content of the general and professional courses in finance is separated. Firstly, the proportion of courses in the curriculum of finance majors still exists problems, and there are fewer general education courses due to the school's lack of attention. Secondly, the content of general courses such as finance majors, ideological and political knowledge and technical knowledge is separated. The finance major courses cannot keep up with the forefront of financial development, the hot issues and case materials selected in the class are outdated, and the hot spots of financial development cannot be supplemented in time. This will cause students majoring in finance to be less sensitive to financial hot spots and lack ideological and political literacy. At the same time, due to the separation of finance major and technical knowledge, some courses that are highly related to the future career development of finance, such as supply chain finance, financial technology, and other related courses, are less open. Therefore, it may lead to students' limited scope of knowledge, narrow vision, and failure to meet the requirements of new financial formats.

The general course system of finance is not perfect. At present, in the process of constructing the curriculum system of finance, the general education curriculum lacks scientific top-level design and overall arrangement. There is a lack of unified setting standards and curriculum requirements. And the form and content review procedures are also lacking, and the operational assessment system is not perfect. In some schools, there may be problems with course knowledge hanging, lack of scientific distribution, and effective combination ^[7]. Between general education courses and professional courses, as well as within general education courses, there is a lack of correlation, logic, and systematization, which has become a bunch of separate, scattered, and messy specific knowledge miscellaneous, resulting in the lack of structure and integration of general education and professional education.

2.2.2 The teaching method is single and the theory and practice are disconnected

The teaching mode is single. With the support of science and technology and machinery and equipment, the mode of cultivating students in finance specialty is gradually enriched, but the teaching of a certain course is still relatively single, such as monetary banking. For the understanding of some concepts, teachers will teach theoretical concepts and give examples. However, no actual operation has been carried out, which leads to students' understanding of currency exchange only staying in acceptance and understanding. The teaching goal of strengthening students' practical application ability is not achieved. Students fail to internalize the general spirit into the driving force to guide professional practice, which also runs counter to the original goal of general and professional integration ^[8].

The combination of theory and practice is inadequate. Students learning only stops at classroom interaction, which is tantamount to talking on paper. Although the teaching of finance has paid attention to the cultivation of students' practical ability and set up some related internship courses, the facts reflect that students still have a period of the inapplicable stage when they enter society, indicating that students have not combined theory and practice well.

2.2.3 The teaching content is general and the quality of the course lacks depth

The teaching content lacks timeliness and internationalization. The teaching status of related professional courses in finance in colleges and universities is mainly taught based on the syllabus and is not combined with the actual development background and international advanced technology. It directly leads to students' insufficient understanding of international cutting-edge advanced technology and content and hinders the vision expansion and innovation ability training of finance students.

The teaching content lacks depth. Under the influence of traditional educational concepts and methods, we do not pay attention to the penetration of financial-related knowledge and knowledge structure in the current teaching practice of finance, which makes the teaching content float on the surface. Thus, students do not understand the teaching content and cannot master the underlying logic and practical significance of finance. It will inevitably hinder the financial students' desire for knowledge.

2.3 Weak allocation of teachers for the “general and professional integration” and inadequate coordination

Teachers are the foundation of education. Teachers' quality is one of the core issues in the development of "general and professional integration", and it is an important link to promote the teaching reform of general education and specialized education in finance. However, the problem of weak links in the construction of teachers is still not solved, which is mainly manifested in the allocation of teachers and the cooperation and exchange mechanism of teachers.

There is a wide gap between the teaching staff of professional education and general education in colleges and universities. Since in the educational practice of finance, most universities in China pay more attention to their professional education, there are great differences in the recruitment, management, and training modes of professional teachers and general education teachers in colleges and universities. When selecting financial teachers, colleges and universities will focus on examining their academic achievements and financial professional knowledge to ensure the teaching ability and literacy of professional teachers, but do not pay enough attention to the construction of general education courses and the management and training of teaching teachers. Some general courses such as natural sciences, humanities courses, etc., can provide divergent thinking and creativity for finance students, but such courses are usually opened by teachers with few teaching tasks or personnel of the management department of institutions, or it is difficult for teachers to integrate relevant financial thinking into general courses. The teaching content is vague, which seriously reduces students' motivation and enthusiasm for learning. Therefore, the current weak allocation of teachers of general education courses makes the intersection and integration of finance professional education and general education required by finance need to be further improved and colleges and universities cannot cultivate comprehensive and comprehensive financial talents through the poor quality of the "general and professional integration" education system.

Teacher team building and cooperation exchange mechanisms need to be improved. Although some universities have begun to reform the education model of finance majors in recent years and pay attention to "general and professional integration" and "general and professional parallelism". However, some universities have not yet formed a perfect cross-disciplinary integration mechanism for teachers, and there are weak links in the establishment of cross-disciplinary and interdisciplinary teachers.

The teaching of financial education is usually dominated by teachers within the departments of economics and management, and the teacher system is relatively fixed. However, the current cooperative teaching mode of finance with teachers of other disciplines, other university teachers, or off-campus resources is not perfect enough, resulting in some problems in teaching practice. For example, the current rapid development of financial technology and other technologies requires students to know the law, big data analysis, artificial intelligence, and other knowledge, but some teachers do not yet have the interdisciplinary teaching ability to meet the needs of finance students, schools and society, and some universities do not yet have the teacher qualifications to open courses such as financial technology and blockchain strategy. For example, in the practical teaching of securities investment and other courses, it is necessary to deepen and expand the teaching content, but the communication between students and financial institutions, enterprise managers and other off-campus resources is not sufficient. Students' practical and innovative ability has not been cultivated with high quality.

Therefore, some teachers may lack an interdisciplinary knowledge system and "general and professional integration" education and teaching ability, but the imperfect interdisciplinary integration mechanism and insufficient cooperation and communication between teachers make students' "general and professional integration" educational resources not effectively guaranteed, and the effect of "general and professional integration" education is not significant.

3. Exploration of the strategy under the background of new liberal arts

The construction of the new liberal arts requires that the talent training in colleges and universities should change from discipline orientation to demand orientation, from specialty segmentation to cross integration, and from adaptation service to support and lead. The professional education system of finance needs to be based on the development needs of the times, the needs of national construction, and the actual needs of the society, cultivating financial talents with localization awareness and international vision. Universities should create a general and professional integration teaching system with theory talent practice coupling, establish a faculty team with interdisciplinary, knowledge sharing, and

collaborative innovation, promote the deep integration of general education and professional education, meeting the demand for innovative and complex financial talents in our country. Based on this, this paper puts forward the strategy of "general professional integration" in finance from three aspects: talent training objectives, teaching system, and teaching staff construction. The strategy structure is shown in Figure 1.

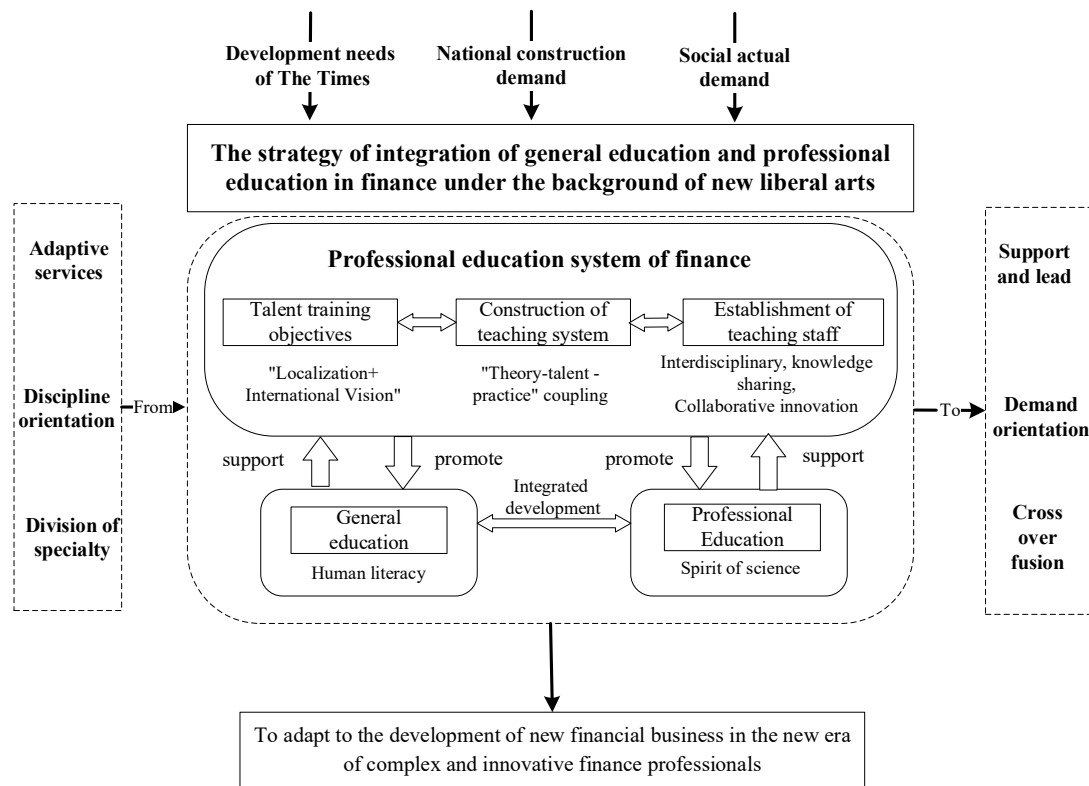


Figure 1: Strategy structure of "General and professional integration" of finance major under the background of new liberal arts.

3.1 Taking talents with localization awareness and international vision as the training goal

The new historical node requires the cultivation of finance professionals with local deposits. The Belt and Road Initiative and the Community of Shared Future for Mankind proposed by China are being accepted by the world. The excellent traditional Chinese culture, especially the ideas, humanistic spirits, and moral norms that run through it, has provided strong spiritual support and internal motivation for the development and growth of the Chinese nation and the construction of China's international discourse system^[9]. Therefore, universities should aim at cultivating talents with local deposits, integrate general education elements such as political literacy, the Chinese system, and the Chinese model into professional education, and guide students to think about professional problems with Chinese characteristics. The universities should incorporate localization consciousness into their talent training goals. In course teaching, universities should realize the combination of academic research and practical education, solid theoretical learning and vivid case analysis, and socialist core values and course teaching. Take the course Financial Markets and Financial Institutions as an example. In addition to the common elements of education, the characteristic elements of education in Chinese financial markets and financial institutions will be mined, and the students' localization consciousness will be inspired by the case study of ideological and political content. In the explanation of banking institutions, cases related to the relationship between inclusive finance, green finance, and banking are introduced, so that students can understand the major national strategies. At the same time, in the process of speech, discussion, and competition, such topics as financial hot spots, social news, and value orientation are introduced to give positive guidance to students and strengthen their local consciousness.

The international form requires the training of financial professionals with an international perspective. With the gradual improvement of China's international status and influence, China has gradually become a participant in global governance. Finance education in colleges and universities

needs to keep up with the new international situation, explore international ideas, and cultivate senior finance talents with international vision and integration of Chinese and Western. One is to pay attention to oral foreign languages and financial and business English in general education courses. The new situation of the international economy and society and advanced financial knowledge can be integrated into the professional education courses, and bilingual teaching methods can be adopted both online and offline to carry out foreign language ability building and improve foreign language level, to achieve a virtuous circle of promoting competence through specialization and assisting specialization. Second, universities should build an education model of general and professional integration for cross-cultural exchanges, encourage students to participate in summer camps at overseas universities, carry out Sino-foreign joint training, organize students to join Sino-foreign research cooperation projects, help students understand cutting-edge theories of finance, leading students to capture the trends of financial markets from an international perspective.

College training programs should highlight the characteristics of the combination of internationalization and localization, adhere to inheritance and innovation, fully implement moral cultivation, constantly deepen cultural consciousness, firm cultural confidence, and strive to build a financial discourse system with Chinese characteristics.

3.2 Building a teaching system that combines theory, talent, and practice.

This study will optimize the curriculum system and improve the effectiveness of integrated education. In the construction of the curriculum system of a finance major, the proportion of general education courses should be increased to narrow the gap between general and specialized courses. Establish a connection mechanism between general education and professional education. For example, ideological and political elements of general education run through the whole link of financial professional education and use thinking with Chinese characteristics to understand the reform and development process of the financial market. Revise the curriculum system design by making curriculum quality standards or curriculum effect evaluation. To construct a finance course structure covering knowledge, ability, and quality, at the same time, it is necessary to highlight the main line of "application" in course construction, emphasize the application of financial professional knowledge learned in practice, attach importance to student's professional skills and professional ethics, to make students handier in future jobs.

Innovate the teaching methods of curriculum implementation and promote the organic coupling of theory/ talent and practice. On the one hand, we should enhance the application of traditional cultural elements in the classroom, promote the organic combination of professional knowledge and traditional culture, and stimulate students' interest. While enriching students' understanding of financial concepts and systems, we can improve students' ability to solve problems. At the same time, industry professionals with financial practical experience could be hired, enhancing students' perceptual understanding and application ability of the financial business. On the other hand, practice courses integrating financial professional knowledge and technology and other general knowledge are added. For example, big data analysis positions in financial institutions require financial talents to have financial professional knowledge and big data analysis ability, improving students' financial theoretical knowledge and practical ability through practice.

The course content needs to be updated to enhance the classroom absorption ability. First of all, the construction of integrated courses for general finance majors should strengthen the tightness and integrity of the content design. On the one hand, the knowledge content of general finance courses and professional courses should be divided into certain modules, and the module construction should be continuously promoted. The course content is gradually promoted in the order from basic to comprehensive, to realize vertical linkage, and to gradually build a comprehensive and professional external integration system for finance students. On the other hand, general education should focus on the specific set of curriculum, that is, break the fixed teaching mode and logic, integrate and consolidate the spirit of "healthy personality" of related general education and the professional thinking composition of professional education through various forms of organic integration, to create a new independent specific curriculum.

The student's right of independent choice should be further strengthened, and the integration of theory and talents should be constantly promoted. On the one hand, colleges and universities can constantly promote the establishment and improvement of credit mutual recognition mechanisms and course-sharing platforms, strengthen the linkage between colleges and schools, innovate the management system of course release, review, implementation, evaluation, and perfection, and improve the incentive means of course system construction, to build a sustainable and benign development mechanism of integrating finance general and specialized courses. On the other hand, students' autonomy in participating in

learning should be further improved. Students can choose courses independently so that students can choose relevant finance courses according to their interests and future development needs. This kind of course, satisfies students' desire for knowledge of a certain aspect of finance and their demand for free learning to the greatest extent and makes the integrated course system of finance general specialty truly conform to the concept of freedom and integrity, thus cultivating more finance professionals with sound personality.

3.3 Establishing a faculty team with an interdisciplinary, knowledge sharing, collaborative innovation

Interdisciplinary teams need to be built. Firstly, the guidance group was set up to make an overall plan for the construction of teachers for finance majors according to the training objectives and teaching needs. Secondly, based on the planning of the guidance group, the cross-discipline teacher cooperation mechanism should be established and improved. In other words, teachers who have explored interdisciplinary fields between different disciplines should be fully explored, and a team of teachers including finance, computer, big data, artificial intelligence, and law should be set up to realize cross-disciplinary, cross-college and cross-school integration of teachers, providing a foundation for the assistant-oriented professional of finance major. Finally, relevant professionals from financial institutions are hired as part-time teachers to give classroom lectures based on their experience, to promote the development of "cross-integration teachers in colleges and universities.

The knowledge sharing platform needs to be created. Relying on the interdisciplinary teacher team of finance majors, a hybrid knowledge-sharing platform combining online sharing platforms and offline communication modes is established. In other words, universities make full use of the Internet learning platform, carry out regular offline communication, pay attention to knowledge sharing aiming at the improvement of teachers' "general professional" teaching ability, realize the sharing and aggregation of "general professional" knowledge, realizing the interactive collaborative learning among teachers based on real teaching practice^[10]. In a word, the training of teachers' teaching thinking of "general professional integration" provides an effective carrier for the development of "general professional integration" of finance major, gradually realizes collaborative sharing with points and areas and improves the teaching ability and teaching level of teachers as a whole.

A collaborative innovation mechanism needs to be established. Based on interdisciplinary teams and a knowledge-sharing platform, a cooperative feedback mechanism for teachers' collaborative innovation should be established and improved. First, training channels needs to be broadened so that teachers can receive regular training. To provide training time and space for teachers, encourage teachers to go deep into other universities and enterprises at home and abroad for exchange, study, practice, and exploration, constantly update teachers' ideas and knowledge framework and learn the successful case experience in universities at home and abroad. Second, at the end of the training and during the teaching practice, the teachers are organized to carry out regular brainstorming, and regularly optimize the course content and teaching methods according to the course teaching experience and training experience. At the same time, the teachers should collect information from the students to form information feedback, and then communicate with each other and constantly update the teaching content. To alleviate problems such as inadequate deployment and cooperation among teachers, a closed-loop loop path of "teaching practice - teacher training - common exchange - student feedback - collaborative innovation" is formed through repeated cycles and inherited innovations.

4. Conclusion

Finance majors in colleges and universities should start from the talent needs of the economic society and the financial industry promptly. The old concept of "neglecting general knowledge and emphasizing specialty" needs to be abandoned, and colleges and universities should firmly grasp the platform and opportunity brought by the "new liberal arts construction". Besides, they should strive to promote the cross-integration of finance majors with other majors, forming a new paradigm of diversified and integrated financial talent training. Based on the perspective of new liberal arts construction, this paper analyzes the existing dilemma of finance majors and studies the general and professional integration strategies of finance majors, aiming to make useful explorations for cultivating compound and innovative finance professionals under the background of new liberal arts construction.

References

- [1] Yang Shenggang. *Reflections on accelerating the construction of first-class undergraduate specialty sites - taking finance as an example* [J]. *China University Teaching*, 2021 (08): 5-14 + 191. (in Chinese)
- [2] Zhang Jie. *Economics of Money and Finance in China: From the Introduction of the Western Paradigm to Localization* [J]. *Economic Research Journal*, 2020, 55 (11): 4-18. (in Chinese)
- [3] Yang Xiaoling. *Practical Exploration on the Integration of General Education and Professional Education in Application-oriented Colleges* [J]. *Education and Vocation*, 2017 (24): 101-104. (in Chinese)
- [4] Zheng Qinghua. *The integrated development of general education and professional education: the exploration of the cultivation path of first-class undergraduate talents with Chinese characteristics in the new era* [J]. *Chinese University Teaching*, 2018 (10): 9-14. (in Chinese)
- [5] An Fengcun, Wang Mingyu. *The Building of New Liberal Arts: Its Nature, Status and System* [J]. *Academic exchange*, 2019 (11): 5-14+191. (in Chinese)
- [6] Zhang Shuo. *Adhere to the path of socialist education development with Chinese characteristics to cultivate socialist builders and successors with all-around development of morality, intelligence, physique, art, and labor* [N]. *People's Daily*, 2018-09-11(001). (in Chinese)
- [7] Zhang Nanxing. *Promoting the Quality of Professional Education in Colleges and Universities with the Concept of OBE* [J]. *University Education Science*, 2019 (02): 11-13+122. (in Chinese)
- [8] Li Zhong, Gao Bo, Kang Can. *Exploration of practical teaching reform of excellent engineering talents under the background of new engineering* [J]. *Research in Higher Education of Engineering*, 2019 (S1): 36-38. (in Chinese)
- [9] Yuan Kai, Jiang Zhaoliang, Liu Chuanyong. *New Era, New Demand, New Liberal Arts—Exploration and Practice of New Liberal Arts Construction in Shandong University* [J]. *Chinese University Teaching*, 2020 (07): 67-70+83. (in Chinese)
- [10] Dai Yi, Liu Zhen, Fu Long. *Construction and Practice of Teachers Knowledge Sharing Training Model Based on Intelligent Education Platform* [J]. *China Educational Technology*, 2022 (01): 134-142. (in Chinese)