Research on the Innovation of Intelligent Teaching Mode of Economics and Management Majors from the Perspective of New Liberal Arts

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Abstract: With the development and application of information technology, the teaching mode of liberal arts majors is undergoing profound changes all over the world. In this context, the construction of new liberal arts in China urgently requires the promotion of intelligent teaching reform in liberal arts majors, among which the economics and management majors that help to govern the country are at the forefront of intelligent teaching reform. Therefore, this paper discriminates the connotation and relationship between the new liberal arts and the smart teaching of economics and management majors, discusses the smart teaching practice, Dilemma and mode composition of economics and management majors from the perspective of the new liberal arts, and then puts forward the innovation strategy of smart teaching mode of economics and Management Majors in China from the perspective of the new liberal arts from three aspects: the innovation of teaching concept, the implementation of smart teaching and the guarantee of smart teaching.

Keywords: New liberal arts, Major in economics and management, Intelligent teaching mode.

1. Introduction

The university is the cradle of talent training, and the liberal arts education in the university is an irreplaceable force to shape the humanistic spirit, create humanistic knowledge, inherit and promote humanistic culture, and promote the symbiotic development of world civilization. However, since the post-modernism pioneer Leonta declared that "liberal arts is dead" in the 1980s [1], only in 2018 did the American Hillam College swear to "design models for liberal arts" [2], the liberal arts could be "reborn", which also marks that the global liberal arts construction has entered a new era of comprehensive reform and innovation. Under its positive influence, the teaching concept, teaching mode, teaching content, teaching technology and teaching supervision of liberal arts majors are undergoing profound changes worldwide.

For China, the construction of new liberal arts is not only a part of the new liberal arts movement in the world, but also a key force in the cultivation of builders and successors serving the cause of socialism with Chinese characteristics [3]. The Party Central Committee attached great importance to the construction of new liberal arts and put forward the concept of new liberal arts construction earlier than Hillam College. On May 17, 2016, President Xi Jinping at the symposium on philosophy and social science work, it was pointed out that "based on China, learning from foreign countries, mining history, grasping the present, caring for mankind, and facing the future, efforts should be made to build philosophy and social science with Chinese characteristics, fully reflecting Chinese characteristics, Chinese style, and Chinese style in guiding ideology, discipline system, academic system, discourse system, etc."Therefore, the construction of new liberal arts should highlight the requirements of socialism with Chinese characteristics, among which economics and management disciplines are an important part of the construction of new liberal arts in China because they help to govern the country. However, the problem is that in China's financial colleges and universities, social sciences, including economics and management, have basically taken the road of introducing western disciplines, which has led to an excessive western color in the academic system, the selection of main courses, the use of reference textbooks, research paradigms, evaluation standards and teaching models, and it is difficult to fully reflect the "Chinese characteristics, Chinese style, Chinese style". Especially in the context of the rapid development and wide application of modern information technologies such as big data, mobile Internet, Internet of Things, cloud computing, artificial intelligence, 5G technology, etc., the traditional liberal arts majors represented by economics and management still have serious problems such as insufficient supply of new talents needed by society, slow construction of intelligent teaching system, etc.

2. New Liberal Arts and Smart Teaching of Economic Management Majors

2.1. New Liberal Arts

As the general name of "humanities and social sciences" (philosophy and social sciences), "liberal arts" is generally believed to originate from Cicero's practice of listing "human qualities" as a basic training project for debaters in his book On the Argumenter. In a narrow sense, it usually includes philosophy, economics, politics, history, law, literature and art, ethics, linguistics and other disciplines. In the first half of the 20th century, China's liberal arts professional system was created and developed continuously due to the imitation of the American university system.

In the late 20th century, in order to solve the problem of the decline of traditional liberal arts in European and American countries, Hillam College proposed the concept of "new liberal arts" construction. Unlike Hillam College, which believes that the new liberal arts mainly has the characteristics
of professional restructuring and interdisciplinary, in August 2018, China proposed in the document of the Central Committee of the Communist Party of China that "higher education should strive to develop new engineering, new medical, new agricultural and new liberal arts" (hereinafter referred to as "four new" construction), the connotation of "new liberal arts" is at least related to the promotion of new technology, the emergence of new demand and the requirements of new national conditions "in China [5], and has strategic Innovative, open, systematic, targeted and other diversified characteristics [6] are the inevitable choice and driving direction of China's liberal arts professional construction in the new era.

In November 2020, China's relevant universities and experts gathered in Shandong to jointly issue the "Declaration on the Construction of New Liberal Arts", which generally clarifies the mission requirements of China's new liberal arts construction and points out the direction for further discussion of the concept of new liberal arts [7]. However, the concept of "new liberal arts" has not been officially defined in China, and relevant academic research has only given some similar definitions from the perspective of comparison with traditional liberal arts. For example, Feng Guo believes that the new liberal arts is relative to the traditional liberal arts, and is an improvement of the traditional liberal arts [8]; Ma Ji believes that the new liberal arts is a strategic arrangement based on global new technology development and the development of socialism with Chinese characteristics in a new era [9]; An Fengcun and others believe that the construction of new liberal arts is not a negation of the traditional liberal arts construction, but a new vision of the connotation orientation of liberal arts and the talent training model [10].

In view of this, the connotation of "new liberal arts" in China is defined as: different from the formulation of Hillam College in the United States, and abandoning the reason of the decline of traditional liberal arts development, fully demonstrating the characteristics of "epochal, Chinese, cosmopolitan and technological", facing the future, in order to achieve the great rejuvenation of the Chinese nation and promote the final establishment of a community with a shared future for mankind, Promote the construction of a new liberal arts system with "Chinese characteristics, Chinese language, Chinese wisdom".

2.2. Smart Teaching for Economics and Management Majors

Smart teaching derives from the concept of smart education. Smart education was earlier implemented in the "Smart Country 2015" plan announced by Singapore, and became known around the world because IBM CEO Peng Mingsheng first proposed the concept of "Smart Earth" in 2008.

China established the "China Smart Engineering Research Association" as early as 2005, aiming to promote the research of smart science and the training of smart talents in order to realize the dream of the great rejuvenation of the Chinese nation. After 2008, China has been more active in promoting the construction of smart education. For example, the Ministry of Education has issued the Outline of the National Medium and Long term Education Reform and Development Plan (2010-2020), the Ten Year Development Plan for ICT in Education (2011-2020), and the 2017 Key Points for ICT in Education, which clearly requires to promote the deep integration of modern information technology and education and teaching, and strive to promote the innovation and reform of smart education. The Declaration on the Construction of New Liberal Arts also actively proposes to "integrate modern information technology to enable liberal arts education", and "actively adapt to and rely on modern information technology to achieve high-quality and high-level development of liberal arts education". Therefore, it is the trend of the times to promote the innovation of smart teaching models for liberal arts majors such as economics and management, the product of economic globalization, technological change and knowledge explosion, the inevitable stage of the development of education informatization, and the new realm and new demands of education informatization [11], forming an important supporting force for the innovation of China's smart education system.

As for the connotation of wisdom teaching, Li Linyan pointed out that its original intention is to stimulate, arouse and cultivate people's wisdom [12]. Cui Wenjuan believes that smart teaching is based on mobile communication, virtual reality (VR), cloud computing and other technologies, through the construction of a full field learning environment integrating virtual and real, in class and extracurricular, to achieve learning needs at any time, place and terminal, and to support students' autonomous learning and ubiquitous learning [13]. Niu Jinhong and others found that by constructing the learning environment of the information technology platform, teachers can easily use efficient teaching methods and methods, and students can obtain personalized learning services [14]. Therefore, smart teaching should include two meanings: first, through the implementation of smart teaching, to cultivate specialized high-quality talents with "rational wisdom, value wisdom, practical wisdom and innovative wisdom" [15], which requires that the teaching concept, teaching objectives, teaching content and teaching implementers (university teachers) are intelligent, rather than the traditional pan intellectual education; Second, teaching methods, teaching environment, teaching management, teaching evaluation and other contents should fully reflect the "wisdom", that is, modern information technologies such as big data, mobile Internet, artificial intelligence should be deeply integrated into the education and teaching process to comprehensively innovate traditional teaching technologies, teaching tools and teaching models.

In view of this, the connotation of smart teaching in economics and management majors is defined as: promoting the deep integration of modern information technology and education and teaching in economics and management majors in colleges and universities, comprehensively promoting the smart innovation of teaching objectives, teaching resources, teaching environment, teaching methods, teaching evaluation and teaching management, and striving to form a new teaching mode that is "student oriented", accurate supply, excellent coordination, and adapt to the social needs of the new era and the needs of national development.
3. Smart Teaching Practice and Mode Innovation of Economics and Management Majors from the Perspective of New Liberal Arts

3.1. Practice and Predicament of Smart Teaching in Economics and Management Major from the Perspective of New Liberal Arts

Since the Ministry of Education issued the Outline of the National Medium and Long term Education Reform and Development Plan (2010-2020) in 2010, which laid a theoretical foundation for smart teaching, the economics and management majors in colleges and universities in China have actively promoted the application of information technology in teaching, including practical practices such as mining the teaching content of network material design, improving the level of teaching informatization, improving the degree of digital intelligence of students' course selection and teaching evaluation, and researching and developing smart teaching solutions.

For example, in 2010, Zhejiang University first proposed the construction blueprint of "smart campus". In 2012, driven by the Education Management Information Data Standard (20120315), the construction standard and application specification of "smart campus information system" were established, and the construction of smart teaching for economic management majors in colleges and universities in China became more and more powerful. In 2016, Superstar developed a free application for Xueuetong to further help economic management majors achieve mobile teaching, mobile learning, mobile reading and mobile social networking. In June 2019, Tsinghua University and the school jointly developed the rain classroom intelligent terminal online, integrated complex information technology into PowerPoint and WeChat, built a communication bridge between extracurricular preview and classroom teaching, assisted teachers in pushing MOOC videos, exercises, and voice preview courseware to students' mobile phones, and achieved real-time answer and bullet screen interaction in the classroom, with fast and free digital and intelligent technical support. To inject strength into the smart teaching practice of economic management majors. After the national strategy for the construction of new liberal arts was formally put forward, the reform of smart teaching in economic management majors in colleges and universities in China was further accelerated, and the construction of the "smart teaching demonstration area" was increasingly fruitful, and the new liberal arts research and reform practice projects involving the first 394 colleges and universities were also launched. At present, modern information technology has not only been widely used in a series of theoretical and practical courses offered by economic management majors in China, but also various teaching methods based on online platforms and social software have been implemented, which has led to more significant substantive results in smart teaching.

However, there is still a serious problem that the liberal arts in modern China mainly come from the West [16], and the liberal arts disciplines such as economics and management basically follow the road of introducing western disciplines. Not only does the theoretical system of the discipline come from the imitation of the West, but also many of the original textbooks for economics and management courses come from the United States. Although the education of western economics and management disciplines has something to learn from, excessive reliance on the teaching paradigm of western economics and management disciplines is not conducive to the study of China's national economic strategy, economic policy and economic problems, nor can it reasonably explain the "miracle of China's growth". What is more serious is that it will not help the majority of theoretical workers in China to "proceed from the national conditions, come from China's practice, go to China's practice, write papers on the land of the motherland, and make the theory and policy innovation conform to China's reality and have Chinese characteristics". To this end, to promote the innovation of smart teaching mode for economics and management majors in China, we should not only focus on the wisdom of teaching methods, but also build a smart teaching system from the aspects of teaching objectives, teaching content, teaching design, etc. based on "Chinese wisdom, Chinese theory and Chinese stories".

3.2. Innovation of Smart Teaching Mode for Economics and Management Majors from the Perspective of New Liberal Arts

In the new era, under the appeal of the construction of new liberal arts in China, the teaching system of economics and management majors urgently needs to be transformed and innovated, so as to further deepen the "socialist economic theory with Chinese characteristics" and tell a good story about "China's economy and China's management". At the same time, there is an urgent need to deeply integrate modern information technology, explore and innovate the smart teaching mode of economics and management majors, and explore a new paradigm of teaching economics and management majors in China from the aspects of teaching objectives, teaching resources, teaching environment, teaching methods, teaching evaluation and teaching management.

3.2.1. Tell A Good Story About China and Highlight the Chinese Wisdom

The major of economy and management in China shoulders the responsibility of cultivating intelligent talents of economy and management in the new era for social development and economic progress, so it is particularly necessary to pay attention to the education of "Chinese traditional culture, Chinese economic thought and Chinese management wisdom" in teaching, which requires that the teaching goal of economy and management major should focus on telling "Chinese stories", on the one hand, it should deeply reflect the teaching idea of "life oriented" and "accurate enlightenment", Strengthen the training level of economic and management smart talents; On the other hand, it also needs to be deeply integrated into the ideological and political education of the curriculum, fully demonstrate the Chinese achievements and wisdom of economic construction and economic management, strengthen the "confidence in the socialist road with Chinese characteristics, theory, system and culture" of teachers and students of economic management majors, and effectively reverse the current unfavorable situation that economic management majors rely on western teaching paradigms excessively. In the process of teaching innovation of economy and management majors in China, we should better build "Chinese spirit, Chinese value, Chinese power, and Chinese discourse".
3.2.2. Build A Digital Intelligence Cloud Base and Refine Chinese Theory with Resources

After more than 40 years of rapid development, China has made remarkable achievements in many fields such as economic development, cultural innovation, social progress, and national governance. However, the pace of economic management specialty construction in China, which still relies excessively on western teaching materials, obviously lags behind China's economic development. On the premise of not completely denying the mature theory of western economic management discipline, we should constantly create, explore Accumulating and publicizing "Chinese cases, Chinese achievements, and Chinese knowledge", continuously refining Chinese theories in the teaching resources of the economic management specialty, constantly writing Chinese wisdom thoughts and Chinese wisdom achievements into the teaching materials of the economic management specialty in China, comprehensively improving the "Chinese element, Chinese color, and Chinese trend of thought" in the teaching resources, and comprehensively improving the digital and intellectual construction level of the teaching resources. Effectively improve the utilization efficiency, sharing level and educational efficiency of the self built digital intelligence cloud library of financial colleges and universities in China.

3.2.3. Be Good at Endowing Material Resources and Financial Resources, And the Environment Promotes Immediate Learning

The wide application of smart phones and the overlapping and fragmented characteristics of knowledge in economic and management disciplines have prompted contemporary college students to prefer independent search, independent learning and spontaneous application of knowledge. This requires that a good intelligent learning environment should be formed in the teaching process of economic and management majors in China, such as improving the wisdom of traditional multimedia classrooms, creating intelligent training rooms, building smart classrooms with high standards, and improving smart learning platforms. Create smart learning community, etc. We should make good use of material resources and financial resources, accurately support the investment and construction of intelligent teaching infrastructure, create an instant learning environment that is "anytime, anywhere and on demand", and improve the interactivity, real-time and matching of intelligent teaching in economic management majors.

3.2.4. Deeply Integrate Information Technology and Optimize the Learning Process

Contemporary young college students are the most active greeters and users of new technologies and new things. Smart teaching platforms such as Superstar Learning Link and Rain Classroom based on mobile terminals, national smart education platforms covering the country, and social platforms such as QQ, WeChat, Nai Nai and Tencent Conference are powerful tools for economic management majors to carry out smart teaching. Economic management majors should focus on smart teaching platforms and smart teaching tools as the main carrier, Continuously optimize teaching design, teaching interaction and teaching methods. Teachers of economics and management majors should strengthen their familiarity with information tools, make more use of modern information technology to innovate teaching methods, drive the optimization of students' learning process with the optimization of teaching process, and effectively improve the enthusiasm, pleasure and effectiveness of students' learning.

3.2.5. Improve Smart Campus, Evaluation System and Management Intelligence

Through the use of cloud computing, virtualization, the Internet of Things and other technologies, the comprehensive integration of university resources and application systems, such as the realization of intelligent smart campus construction for university teaching, research and management, can provide convenient and intelligent services for teachers and students of economic management majors from many aspects, such as student course selection, teaching materials release, teacher-student interaction, student assessment, teaching management and teaching evaluation. Therefore, it is necessary to further improve the construction of smart campus, In order to promote more systematic teaching evaluation of economic management majors, more timely, more humanized and more intelligent teaching management.

4. Innovation Strategy of Smart Teaching Mode for Economics and Management Majors from the Perspective of New Liberal Arts

From the perspective of the new liberal arts, the innovation of the smart teaching mode of the economic management specialty requires not only the collaborative support of multiple elements, but also the emphasis on strategies and methods. Specifically, it can be promoted from three aspects: the innovation of teaching concepts, the implementation of smart teaching and the guarantee of smart teaching.

4.1. Pursue the Concept of Smart Teaching and Lead the Innovation of Teaching Content

Constructivist learning theory holds that learning is a process of meaning construction by learners, and wisdom can only be acquired by learners' spontaneous and active construction. In this sense, the smart teaching of economics and management majors should be deeply integrated with modern information technology, and always focus on "student-centered". Through the smart innovation of the whole teaching process, it can help students better complete the knowledge construction process and improve the efficiency of students' wisdom construction. Under the appeal of the new liberal arts, the "student-centered" philosophy of smart teaching is carried out, which requires more attention to the "Chinese wisdom, Chinese value and Chinese spirit" of discipline knowledge in the economic management majors, and the wisdom, modernity, objectivity and sociality of teaching content. This requires that the teaching content of economics and management majors should not only reflect the wisdom achievements of global civilization development, but also highlight the outstanding achievements in China's traditional wisdom, China's economic construction wisdom, China's enterprise management wisdom and China's national governance wisdom, and promote China's economic development thought and China's management wisdom under the leadership of the Party.

At the same time, it is also necessary to ensure the logicality, preciseness and sociality of the teaching content of the economic management specialty. On the one hand, teachers should pay attention to logic and preciseness in organizing
and arranging curriculum knowledge. The structure of the knowledge they teach is convenient for students to learn, remember and understand, and the content of the knowledge they teach can withstand careful verification, so as to better play the role of guiding students to construct their own knowledge system; On the other hand, the teaching content of economics and management majors also needs to pay attention to social values, including helping students analyze China’s economic and management phenomena, solve economic and management problems they encounter, train students’ innovation awareness, innovation ability and entrepreneurial wisdom, and effectively cultivate builders and successors of socialism with Chinese characteristics.

4.2. Create A Smart Teaching System and Focus on Smart Teaching Implementation

It is a systematic project to carry out the smart teaching mode of economics and management majors from the perspective of new liberal arts. It is difficult to achieve the set goals only by innovating a certain course, a certain teaching link or a certain teaching design. Therefore, it is necessary to promote the creation of a smart teaching system, including scientific integration and coordination of the “five elements” involved in the smart teaching mode, and design a smart teaching program process for each link of “pre class preview, in class learning, and after class review”, We will continue to improve the effectiveness of smart teaching. The design of smart teaching system for economics and management majors based on the smart teaching program process is shown in Figure 1.

![Figure 1. Design of smart teaching system for economics and management majors](image)

Figure 1 shows that the smart teaching system for economics and management majors should include four parts, namely: smart teaching goal design, smart teaching resource development, sharing, utilization and smart teaching environment creation and optimization, smart teaching implementation, and smart teaching evaluation and management. What needs to be further explained is that the development, sharing and utilization of intelligent teaching resources need to rely on the intelligent teaching environment. On the contrary, the creation and optimization of intelligent teaching environment also need the support of high-quality intelligent teaching resources, and the two should develop and promote together. The implementation quality of smart teaching directly affects the construction effect of smart teaching mode, which requires not only the support of smart teaching methods, but also the creation of an excellent smart teaching team to achieve the goal of "finding problems in pre class preview, scientifically analyzing and solving problems in class learning, and expanding the knowledge learned in
post class review" with high standards, so as to achieve "draw inferences from one example" and "apply learning to practice". Relying on the construction of smart campus, the evaluation and management of smart teaching will play a role in the implementation process of smart teaching in a timely manner to ensure the efficient development of smart teaching in economics and management majors. Teaching management, assessment of students, and evaluation of teachers' smart teaching can achieve accuracy, intelligence, and real-time, which is conducive to improving the humanization and interactivity of smart teaching, and helping to comprehensively improve the teaching quality and teaching level of economics and management majors.

4.3. Consolidate the Guarantee of Smart Teaching and Explore New Breakthroughs in Smart Teaching

Encourage colleges and universities to explore new breakthrough points in smart teaching based on their own characteristics and comparative advantages in discipline construction, and promote the overall level of smart teaching of economic management majors in colleges and universities in China to continuously improve.

First of all, in the top-level design of education, we explored and issued institutional documents on the smart teaching reform of new liberal arts majors, standardized the smart teaching reform process of economic management majors, promoted the construction of the national smart education platform, and supported the creation of first-class majors, first-class disciplines and key universities for smart teaching reform. Secondly, improve the financial support of the central and regional governments, narrow the gap between universities in western regions, third and fourth tier cities and those in relatively developed cities, as well as the gap between science, engineering and medical universities and liberal arts universities in the development of smart teaching in economics and management, and fill in weaknesses, loopholes and promote coordinated development. Thirdly, we should strengthen the exchange and research support for smart teaching, encourage advanced universities to help less advanced universities, and strive to improve the level of smart teaching of teachers in the economic management specialty by increasing the number of smart teaching research projects in the economic management specialty, and increasing the number of smart teaching research achievements in the economic management specialty. Finally, we will encourage the economics and management majors in China's universities to constantly break through the inherent paradigm of smart teaching, encourage qualified universities to increase the development, innovation and implementation of smart teaching resources and tools, and create a new situation of teaching reform of economics and management majors in China that is "model driven, smart, China's program, and the world's leading".

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