

# Exploration of Discipline and Specialty Development Paths for Education under the Vision of “New Liberal Arts”

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**Abstract:** The “New Liberal Arts” aims to drastically reform traditional liberal arts education, promote interdisciplinary integration between the humanities and sciences, gradually incorporate new technologies such as artificial intelligence and big data into liberal arts teaching, and guide students to engage in cross-disciplinary and cross-field learning to enhance their core competencies. As one of the eight major disciplines in universities, education serves as an indispensable “front” in the construction of the New Liberal Arts. Based on this, this paper analyzes the new requirements imposed by the New Liberal Arts initiative on the discipline of education, examines the challenges faced by the development of education-related majors, explores the development paths for education disciplines and specialties in the context of the New Liberal Arts, and proposes promoting cross-disciplinary integration, improving the curriculum system for education majors, conducting special teaching on artificial intelligence, innovating classroom teaching methods, and optimizing talent training programs to comprehensively enhance the quality of teaching and education in the discipline of education.

**Keywords:** New Liberal Arts; Education discipline; New challenges; Specialty development; Development paths

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## 1. Introduction

In 2020, the New Liberal Arts Construction Work Conference was held, and the Declaration on New Liberal Arts Construction was released, proposing to take eight major disciplines as pilots. Combining the characteristics of their respective disciplines and specialties, it aims to accelerate interdisciplinary integration, enable new technologies to empower teaching reforms in liberal arts disciplines, and promote high-quality development of liberal arts education. As education shoulders the heavy responsibility of cultivating young teachers, it is essential to actively advance the construction of the New Liberal Arts. Against the backdrop of current educational informatization reforms, artificial intelligence should be utilized to empower the curriculum construction and classroom teaching of education disciplines, actively create “golden courses,” eliminate “shallow courses,” promote cross-field integration of courses from different disciplines, foster the connotative development of

liberal arts majors, stimulate students' innovative and dialectical thinking, enhance their information technology application capabilities, and lay a solid foundation for their future employment.

## **2. New requirements for education disciplines under the New Liberal Arts construction**

### **2.1. Innovating educational concepts**

The “newness” of New Liberal Arts lies in “innovation,” with its core philosophy being to use new technologies such as artificial intelligence, big data, and cloud computing to innovate traditional liberal arts educational concepts, teaching content, and methodologies, promoting interdisciplinary integration between the humanities and sciences. This aims to stimulate students' innovative thinking and guide them to solve problems using cross-disciplinary and cross-field knowledge, thereby enhancing the quality of liberal arts education <sup>[1]</sup>. Under the New Liberal Arts framework, teaching in education disciplines must innovate educational concepts, promote interdisciplinary integration between the humanities and sciences, and improve the general education curriculum system to enrich students' professional knowledge reserves, digital teaching capabilities, and ethical literacy, comprehensively enhancing the teaching quality of education majors.

### **2.2. Innovating training objectives**

The core goal of the New Liberal Arts is to cultivate liberal arts talents who understand and love China, courageously shoulder the mission of national rejuvenation, and foster social scientists for the new era, meeting the talent needs of China's basic and higher education reforms to support the construction of “double first-class” (world-class universities and disciplines) initiatives. Guided by the New Liberal Arts, education majors in colleges and universities should aim to cultivate composite talents. On one hand, they should focus on cultivating students' rational thinking, problem-solving abilities, and artificial intelligence technology application skills, while developing their international vision; on the other hand, they should return to China's educational practices, introduce educational models from foreign universities, encourage students to pursue higher academic qualifications in education-related fields, and improve the quality of education talent training <sup>[2]</sup>.

### **2.3. Innovating training models**

The development of education disciplines and specialties from the New Liberal Arts perspective must adhere to a problem-oriented approach, form interdisciplinary teacher teams, jointly develop curriculum systems integrating the humanities and sciences, restructure the curriculum system for education majors, carry out interdisciplinary teaching, empower education discipline teaching with artificial intelligence, and build an “artificial intelligence + teaching” model to further improve teaching and talent training quality <sup>[3]</sup>. Additionally, New Liberal Arts construction requires broadening the horizons of education major students, guiding them to learn new technologies such as artificial intelligence, big data, and cloud computing, stimulating their innovative thinking, and enabling them to use new technologies to solve problems encountered in courses like philosophy, education, literature, and linguistics, as well as challenges in teaching internships, thereby enhancing their teaching capabilities.

## **3. Practical dilemmas faced by the development of education disciplines in colleges**

## **and universities**

### **3.1. The curriculum system needs improvement**

Education majors aim to cultivate talents for primary and secondary school teaching and educational management, primarily offering courses such as educational psychology, history of Chinese education, history of foreign education, principles of moral education, educational sociology, and teaching methods for primary and secondary school Chinese or mathematics. However, they lack courses in emerging educational fields and contemporary topics, failing to meet the requirements of New Liberal Arts construction. Additionally, the absence of interdisciplinary courses integrating the humanities and sciences makes it difficult to carry out cross-field and interdisciplinary teaching, affecting students' understanding of the New Liberal Arts and hindering the cultivation of their innovative and dialectical thinking <sup>[4]</sup>.

### **3.2. Severe employment situation for students**

Undergraduate graduates in education have abundant theoretical knowledge but lack first-line teaching and management experience, making it difficult for them to qualify for teaching, research, and management roles in various teaching, educational administrative departments, or public institutions. The employment situation is quite severe. Moreover, students in education majors generally have weak academic standards, research capabilities, and problem-awareness, making it hard for them to engage in academic research, resulting in a narrow employment scope and invisibly increasing employment pressure <sup>[5]</sup>. This indicates that the teaching of education majors in colleges and universities faces enormous challenges, with how to improve students' teaching skills, academic abilities, and management capabilities becoming the focus of teaching reforms in education disciplines.

### **3.3. Talent training programs struggle to adapt to social development**

Currently, the talent training objectives for education majors in colleges and universities are vague, failing to distinguish between the training goals for primary education, secondary education, vocational education, and higher education. This affects students' mastery of teaching skills for primary and secondary schools, vocational education, and higher education, invisibly impacting the quality of education talent training and struggling to meet the talent needs of various schools and educational administrative departments <sup>[6]</sup>. Furthermore, the talent assessment standards for education majors do not align with the development of teaching professional capabilities. Although students are required to obtain teaching qualification certificates, assessment standards are not formulated according to the characteristics of different disciplines and schools, affecting the development of students' professional capabilities, such as teaching abilities and professional ethics.

## **4. Development paths for education disciplines and specialties in the vision of “New Liberal Arts”**

### **4.1. Adhering to employment orientation and promoting cross-disciplinary integration**

Against the backdrop of the New Liberal Arts, colleges and universities should adhere to an employment-oriented approach, promote cross-disciplinary integration in education majors, and integrate curriculum resources to enhance professional quality.

Internal Integration within Education Disciplines: First, universities should prioritize internal integration of education majors. Based on the characteristics of the eight secondary disciplines in education, they should

promote cross-disciplinary integration among courses to improve teaching quality <sup>[7]</sup>. For example, institutions should facilitate the connection and integration between secondary disciplines such as primary education, humanities education, art education, and special education. This involves identifying interrelated knowledge points across disciplines, clarifying the relationships between preschool education, primary education, secondary education, art education, and vocational education, defining teacher training objectives and curriculum standards for different grade levels, and refining the teaching system for education majors. Second, universities should facilitate external intersections, promote the connection between the education major and science and engineering majors and courses, encourage the integration of liberal arts and sciences, conduct interdisciplinary and cross-domain teaching, stimulate students' interest in learning, thereby enhancing their innovation and rational thinking abilities, and inspire them to use rational thinking and information technology to solve practical problems, improving the comprehensive capabilities of students majoring in education <sup>[8]</sup>. For instance, universities can combine the characteristics of their own education majors and the employment data of education majors' students to promote the integration of the education major with majors such as medicine and computer science, add related majors like medical education and educational technology, further expand the employment scope of the education major, create more employment opportunities for students majoring in this field, and thus promote the high-quality development of the education discipline and its majors.

## **4.2. Improving the curriculum system and expanding professional teaching content**

Universities should actively promote the construction of the new liberal arts in the major of education, improve its general education courses, professional courses, and practical courses, and add courses in emerging educational fields and contemporary topics. This will ensure that the content of professional courses meets the requirements of the reform and development of basic education, vocational education, and higher education in China, thus promoting the high-quality development of the education major <sup>[9]</sup>. First, universities need to improve the general education curriculum system of the education major by adding courses such as artificial intelligence and aesthetic education. These courses should systematically explain the application of artificial intelligence in the field of education, as well as the integration of aesthetic education with various disciplines, so as to broaden students' horizons and enhance their ability to apply artificial intelligence technology, aesthetic appreciation, and humanistic literacy. In addition, universities should actively offer elective courses in natural sciences, such as big data and popular science courses, to promote the integration of humanities and social sciences and cultivate students' logical thinking. Practical courses in educational technology should also be offered, providing digital training in different disciplines, enabling students to understand the "artificial intelligence + education" model, and improving their digital teaching capabilities, laying a solid foundation for their future employment <sup>[10]</sup>. Second, universities should actively promote the construction of professional courses in the education major, create national-level quality courses, establish digital teaching resource libraries, and build the education major into a "first-class major" to further improve the teaching quality of the education major. For example, universities can create quality courses based on secondary disciplines, starting from major modules such as primary education, special education, vocational education, art education, and higher education. On the one hand, relevant materials on new curriculum standards and the new college entrance examination should be collected and integrated with courses such as educational psychology and subject teaching to expand the course content. On the other hand, interdisciplinary and digital teaching cases should be designed to clarify the application methods of artificial intelligence in education and teaching, thereby improving the quality of course construction.



### **4.3. Innovating classroom teaching methods to improve professional course quality**

From the perspective of the new liberal arts, teachers of the education major in universities should actively promote digital teaching reforms, innovate curriculum teaching methods, stimulate students' interest in learning, encourage them to independently explore professional knowledge, and create a favorable classroom atmosphere, thereby improving the quality of professional teaching. Teachers can use VR technology to create teaching scenarios for different disciplines and design virtual characters, enabling students to practice skills such as classroom teaching, teaching design, and classroom interaction in virtual scenarios, helping them master classroom teaching skills. For example, teachers can use VR technology to simulate teaching situations in subjects such as Chinese, mathematics, and information technology, design virtual characters for students and teachers, and guide students to design subject teaching plans and classroom interaction plans online, allowing them to experience realistic teaching scenarios, deepen their understanding of knowledge such as classroom teaching processes, teacher-student interaction skills, and teaching design, and improve their teaching skills<sup>[11]</sup>. In addition, teachers can use AIGC and DeepSeek software to automatically generate teaching courseware and teaching cases, improve the quality of lesson preparation, and expand the content of teaching materials. They can also guide students to use AIGC and DeepSeek software to search for materials related to primary education, special education, vocational education, and art education, enabling students to view artificial intelligence education dialectically, stimulating their innovative and dialectical thinking, encouraging them to use artificial intelligence technology to solve practical problems, and comprehensively improving the comprehensive abilities of students majoring in education. Furthermore, teachers can carry out project-based practical teaching. They can design teaching tasks with different themes according to the teaching content, encourage students to form groups freely, and let them design teaching plans and simulate the teaching process through group cooperation, stimulating their enthusiasm for independent learning, improving their teaching design and teaching research abilities, and further enhancing students' practical abilities<sup>[12]</sup>.

### **4.4. Conducting specialized AI teaching to enhance students' innovative abilities**

Under the background of the new liberal arts, teachers of the education major in universities should actively carry out special teaching on artificial intelligence, explain knowledge such as machine learning, deep learning, AIGC, and DeepSeek software to students, and guide them to explore the extensive applications of artificial intelligence in the field of education and teaching. This can stimulate their innovative thinking, encourage them to independently learn artificial intelligence technology, improve their information literacy, and help students majoring in education master digital teaching skills<sup>[13]</sup>. First, teachers can lead students to analyze the new problems and new educational concepts emerging in educational reform in the era of artificial intelligence, list popular AIGC and DeepSeek software, blended teaching models, and big data teaching evaluations. They should guide students to use artificial intelligence as a thinking tool, encourage them to actively learn skills related to educational informatization, and enhance their innovation capabilities. Second, teachers can guide students to use artificial intelligence technology to collect teaching cases and videos of different disciplines, enabling students to understand issues such as teachers' excessive dependence on the Internet, blind copying of online courseware, and fixed thinking patterns in the era of artificial intelligence. Teachers should guide students to use artificial intelligence technology rationally, prevent them from over-relying on it, improve students' teaching reflection abilities, and help them meet the employment standards of primary and secondary school teachers, thereby enhancing their employment competitiveness<sup>[14]</sup>. In conclusion, under the background of the new liberal arts, teachers of the education major in universities should use artificial intelligence to reshape the teaching system,

improve students' innovation and thinking abilities, and cultivate teacher talents with innovative thinking who are adaptable to the development of educational reform in China.

#### **4.5. Optimizing talent training programs to improve training quality**

Against the backdrop of the new liberal arts initiative, universities should base themselves on the context of China's educational reform and promptly optimize the talent cultivation plans for the education major. On the one hand, they should adjust the talent cultivation objectives and methods by referring to the job skill standards for primary and secondary school teachers as well as vocational college teachers, promoting the alignment between the talent cultivation plan for the education major and the job skill standards. The focus should be on assessing students' abilities in online teaching, courseware production, and application of artificial intelligence technology, enabling students to master teaching skills required for different educational stages and types of schools in advance, thus laying a solid foundation for their future employment. On the other hand, universities should comprehensively deepen cooperation with local primary and secondary schools, art training centers, and vocational colleges. They should regularly organize students majoring in education to participate in internships at nearby primary and secondary schools and art training institutions, allowing them to assist backbone teachers in lesson preparation, observe demonstration classes, and serve as classroom assistants. This helps students understand the classroom teaching process and accumulate teaching experience, thereby enhancing their practical teaching abilities<sup>[15]</sup>. In addition, universities can jointly carry out online remote training with primary and secondary schools, establishing an "online + offline" training model. This promotes communication between students and frontline teachers, strengthens their professional identity, stimulates their passion for the education profession, and comprehensively improves the quality of talent cultivation in the education major.

### **5. Conclusion**

In summary, colleges and universities should actively advance the construction of the New Liberal Arts, taking education majors as a pilot to promote the integration of education courses with science and engineering disciplines, accelerate cross-disciplinary development, improve the curriculum system of education majors, cultivate students' logical thinking abilities, facilitate interdisciplinary integration within education disciplines, optimize teaching resource allocation, and enhance the quality of curriculum development. At the same time, teachers of education majors should innovate classroom teaching methods to stimulate students' learning interests, carry out specialized AI teaching to enhance students' innovative capabilities and AI technology application skills, and promote the high-quality development of education majors to cultivate more outstanding normal university talents for the country.

### **Disclosure statement**

The author declares no conflict of interest.

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