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# Research on the Collaborative Education Mechanism of Mental Health Education and Ideological and Political Education in Universities under the Influence of Big Data

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**Abstract:** In the context of the rapid penetration of big data technology into the field of higher education, mental health education and ideological and political education, as important components of higher education's educational work, their collaborative education is an inevitable requirement for implementing the fundamental task of "cultivating virtue" and promoting the all-round development of college students. Based on the characteristics and advantages of big data technology, combined with the current situation of the collaborative education of mental health education and ideological and political education in higher education, this paper analyzes the problems existing in the collaborative process, such as insufficient integration depth, poor data sharing, and incomplete mechanisms. It explores the internal logic and practical paths of the collaborative education driven by big data, and constructs a "data support, two-way integration, and closed-loop operation" collaborative education mechanism. This provides theoretical references and practical inspirations for improving the quality of higher education and promoting the coordinated development of college students' physical and mental health and value formation.

**Keywords:** Big Data; Mental Health Education; Ideological and Political Education; Collaborative Education Mechanism

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## 1. Introduction

As China's higher education enters a stage of high-quality development, "cultivating virtue and fostering talents" has become the fundamental task of universities<sup>[1]</sup>. The physical and mental health of college students and their value guidance have become the core focus of education. Currently, the social environment is complex and changing, and the rapid development of Internet technology poses multiple challenges for college students, such as academic pressure, employment anxiety, and interpersonal relationship troubles. Mental health issues are increasingly prominent, which puts higher demands on university mental health education. At the same time, ideological and political education, as an important way to shape college students' correct worldviews, life views, and values, needs to be deeply integrated with mental health education to achieve the organic unity of "cultivating hearts" and "cultivating virtue"<sup>[2]</sup>.

The rise and application of big data technology provide new technical support and development opportunities for the collaborative education of mental health and ideological and political education in universities. Big data has characteristics

such as massive volume, real-time nature, correlation, and predictability, which can accurately capture the ideological dynamics and psychological states of college students, break the time and space limitations of traditional education models, and achieve precise, personalized, and intelligent education<sup>[3]</sup>. However, at present, universities in China are still in the exploration stage in using big data to promote the collaborative education of the two aspects, and there are many problems that need to be solved urgently. How to build a scientific and complete collaborative education mechanism and fully leverage the enabling role of big data has become an important issue facing university education work at present<sup>[4]</sup>.

## **2. Analysis of the Current Situation and Problems of Collaborative Education between Mental Health Education and Ideological and Political Education in Universities under the Big Data Drive**

### **2.1. Current Situation of Collaborative Education**

#### **2.1.1. Gradual Enhancement of the Awareness of Collaborative Education:**

With the implementation of the fundamental task of “cultivating virtue and fostering talents”, universities have increasingly emphasized the integration of mental health education and ideological and political education. Most universities have established specialized working groups for education to comprehensively promote the collaborative education of the two aspects, clearly defining the responsibilities of each department and each teacher, and the atmosphere of collaborative education has become increasingly intense<sup>[5]</sup>.

#### **2.1.2. Preliminary Exploration of Big Data Application:**

Some universities have begun to try to use big data technology for educational work, establishing student data management platforms, collecting students’ ideological dynamics, psychological test data, learning behavior data, etc., and through data analysis, providing certain references for mental health education and ideological and political education, initially achieving precise exploration of educational work<sup>[6]</sup>.

#### **2.1.3. Continuous Expansion of Practical Forms of Collaborative Education:**

Universities have enriched the practical forms of collaborative education by offering “mental health + ideology and politics” integrated courses, holding theme class meetings, and conducting activities that combine psychological counseling and ideological guidance, promoting the initial integration of the two and achieving certain educational effects<sup>[7]</sup>.

### **2.2. Main Problems and Analysis of Collaborative Education**

#### **2.2.1. Insufficient Depth of Integration and the “Two-Sheet” Phenomenon: Misunderstanding of Ideological and Political Education and Mental Health Education:**

There is a deviation in ideological understanding: Some universities have insufficient understanding of the importance of collaborative education between mental health education and ideological and political education, failing to fully recognize the inherent unity of the two, regarding them as separate educational fields, and neglecting the educational value of collaborative education; at the same time, some teachers lack the awareness of collaborative education and are accustomed to the traditional educational model, unwilling to actively participate in collaborative education work.

#### **2.2.2. Low Level of Big Data Application and Unfulfilled Data Support Function:**

The application of big data technology in the education field of universities is still at an initial stage. Universities lack a complete data collection, storage, analysis, and application system, inconsistent data standards, and inadequate data security measures, making it difficult for big data technology to effectively empower collaborative education work.

**2.2.3. Incomplete Collaborative Education Mechanism and Lack of Long-Term Guarantee:**

Universities lack specific systems for collaborative education, have no clear regulations on the goals, processes, responsibilities, and evaluations of collaborative education, resulting in the lack of institutional constraints and guarantees for collaborative education work, making it difficult to proceed smoothly.

**2.2.4. Lagging Professional Talent Team Building, Insufficient Training in Big Data**

Technology for Mental Health Teachers and Ideological and Political Teachers, and Lack of Introduction and Cultivation of Big Data Talents: Universities lack a training mechanism for comprehensive education talents, insufficient training in big data technology for mental health teachers and ideological and political teachers, and lack the introduction and cultivation of big data talents, resulting in lagging professional talent team building and inability to meet the needs of collaborative education.

**3. Principles and Internal Logic of the Collaborative Education Mechanism for Mental Health Education and Ideological and Political Education in Universities under the Big Data Drive****3.1. Principles of the Collaborative Education Mechanism Construction****3.1.1. The Principle of Cultivating Virtue and Educating People:**

Cultivating virtue and educating people is the fundamental task of universities. The construction of the collaborative education mechanism must revolve around this fundamental task, integrating value guidance throughout the entire process of mental health education and ideological and political education, achieving the organic unity of “educating the mind” and “cultivating virtue”, guiding college students to establish correct values and cultivate healthy psychological qualities.

**3.1.2. The Principle of Data-driven:**

Fully leverage the advantages of big data technology, taking data as the core, achieving data integration, sharing and deep application. Through data mining and analysis, accurately capture the thoughts and psychology of college students, providing precise support for the collaborative education work, and achieving the precision and individualization of education work.

**3.1.3. The Principle of Collaborative Linkage:**

Break the barriers between mental health education and ideological and political education, promoting the collaborative linkage of the two in terms of goals, content, methods, and teams, strengthening communication and collaboration among various departments and teachers, and forming a synergy for education, enhancing the effectiveness of collaborative education.

**3.1.4. The Principle of People-oriented:**

Centering on college students, fully respecting their individual differences, paying attention to their psychological needs and ideological confusion, through personalized education guidance and psychological counseling, meeting the growth needs of college students, promoting their all-round development.

**3.1.5. The Principle of Long-term Effectiveness:**

The construction of the collaborative education mechanism should focus on long-term effectiveness. Through complete system design, guarantee measures and evaluation systems, ensure the regular and institutionalized promotion of collaborative education work, avoiding being superficial, and achieving continuous improvement in the effectiveness of education.

### **3.2. The Internal Logic of the Construction of the Collaborative Education Mechanism**

Under the drive of big data, the internal logic of the collaborative education of mental health education and ideological and political education is a closed-loop logic of “data collection - data integration - data analysis - precise education - feedback optimization”. First, through multiple channels to collect the ideological data, psychological data, learning data, and life data of college students, providing a data foundation for collaborative education; second, build a unified data sharing platform to realize the integration and sharing of various data, breaking data silos; third, through big data analysis technology, conduct in-depth mining of massive data, accurately identify the psychological confusion and psychological problems of college students, clarify the key points and direction of education; then, based on the analysis results, carry out personalized ideological guidance and psychological counseling, achieving precise education; finally, collect the data on the effectiveness of education, evaluate and optimize the collaborative education work, forming a closed-loop running collaborative education logic, continuously improving the effectiveness of education.

From the internal connection, mental health education and ideological and political education are the core elements of collaborative education, and they are mutually dependent and mutually promoting: Mental health education provides psychological support for ideological and political education, helping college students establish a healthy psychological state and enhancing the acceptance of ideological and political education; Ideological and political education provides value guidance for mental health education, guiding college students to establish correct values, alleviate psychological pressure, and promote the improvement of psychological qualities. Big data technology is the enabling element of collaborative education, providing technical support for the integration of the two, achieving the precision and intelligence of education work, and promoting the efficient operation of the collaborative education mechanism.

## **3. Specific Construction of the Collaborative Education Mechanism for Mental Health Education and Ideological and Political Education under the Big Data Drive**

### **3.1. Establish a data sharing mechanism to break data silos**

Data sharing is the foundation of the collaborative education driven by big data. Only by integrating and sharing various data can the supporting role of big data be fully exerted. Firstly, build a unified data management platform for college students, integrate the student data of the mental health education center, the ideological and political department, the academic affairs office, the student affairs office, and the counselor’s office, including psychological test data, ideological report data, academic performance data, life behavior data, and reward and punishment data, etc., to achieve centralized storage and unified management of data. Secondly, formulate unified data standards, clearly define the scope, format, process, and responsible entities of data collection, ensure the standardization, accuracy, and completeness of data, and avoid data heterogeneity and duplicate collection. Thirdly, establish a data sharing management system, clearly define the scope, authority, and process of data sharing, standardize the use and management of data, ensure data security, and encourage each department and each teacher to actively share data to break data silos and achieve efficient utilization of data.

### **3.2. Build a precise education mechanism to achieve the synergy of “mental health education” and “ideological and political education”**

Precise education is the core goal of collaborative education. Relying on big data technology, achieve precise integration of mental health education and ideological and political education.

#### **3.2.1. Precise identification:**

Through big data analysis technology, deeply mine the ideological data and psychological data of college students, build a model for evaluating the thoughts and psychological states of college students, precisely identify the ideological confusion, psychological pressure, and potential psychological problems of college students, and clarify the key objects and key

contents of education.

### **3.2.2. Precise measures:**

For different types and different needs of college students, formulate personalized collaborative education plans. For students with psychological problems, combine psychological counseling and ideological guidance to help them relieve psychological pressure and establish correct cognition; for students with ideological confusion, combine ideological education and psychological counseling to guide them to establish correct values and solve ideological confusion; for outstanding students, strengthen value guidance and psychological quality cultivation to promote their all-round development.

### **3.2.3. Precise warning:**

Use the predictive function of big data to build a model for early warning of college students' psychological crises and ideological deviations, monitor the ideological and psychological dynamics of college students in real time, promptly detect potential risks, issue warning signals, and provide intervention basis for counselors, mental health teachers, etc., to achieve early detection and intervention of psychological crises and ideological deviations.

## **3.3. Build a collaborative linkage mechanism to form a teaching synergy**

The collaborative linkage mechanism is the key to promoting the deep integration of the two. Through clarifying the responsibilities of each entity, strengthening the coordination and cooperation of each link, and forming a teaching synergy.

### **3.3.1. Organizational collaboration:**

Establish a collaborative education working group for colleges and universities, led by school leaders, coordinate the mental health education, ideological and political education, big data management and other departments, clarify the division of responsibilities of each department, hold regular collaborative education work meetings, coordinate and solve problems existing in the collaborative education process, and promote the orderly progress of collaborative education.

### **3.3.2. Team collaboration:**

Strengthen the collaboration of mental health teachers, ideological and political teachers, counselors, and big data technicians, establish a regular communication and cooperation mechanism. Mental health teachers and ideological and political teachers learn from each other and cooperate with each other, achieve integration in teaching, consultation, and guidance; counselors as the frontline force of collaborative education, strengthen communication with mental health teachers and ideological and political teachers, timely feedback the ideological and psychological dynamics of students; big data technicians provide technical support for collaborative education, assist in data collection, analysis, and application work.

### **3.3.3. Content Synergy:**

Promote the integration of mental health education and ideological and political education, incorporate ideological elements into mental health education courses, psychological counseling, and mental health activities, guiding students to establish correct values through psychological counseling; integrate mental health knowledge into ideological and political education courses and theme-based activities, helping students understand mental health knowledge and enhance their psychological adjustment abilities.

### **3.3.4. Method Synergy:**

Integrate mental health education and ideological and political education methods, combine with big data technology, and innovate educational methods. Utilize online platforms to carry out personalized psychological counseling and ideological

guidance, and precisely push educational content through big data analysis; conduct theme class meetings, psychological counseling, and social practice activities offline to achieve online and offline collaborative education, and enhance the effectiveness of education.

### **3.4. Build an evaluation feedback mechanism to optimize the collaborative education effect**

The evaluation feedback mechanism is an important support for ensuring the long-term operation of collaborative education. Through scientific evaluation and timely feedback, continuously optimize the collaborative education mechanism.

#### **3.4.1. Establish a diversified evaluation index system:**

Based on the goals and content of collaborative education, construct an evaluation index system covering students' ideological quality, psychological quality, learning performance, and living conditions, using a combination of quantitative evaluation and qualitative evaluation methods to comprehensively evaluate the effect of collaborative education. Quantitative evaluation mainly uses data indicators, such as the pass rate of psychological tests, the quality of ideological reports, and the improvement of academic performance; qualitative evaluation mainly uses student interviews, teacher evaluations, and social feedback, to fully understand students' growth and changes.

#### **3.4.2. Establish a regular evaluation mechanism:**

Regularly conduct evaluation of the effect of collaborative education, collect evaluation data through big data technology, analyze and summarize the effectiveness of collaborative education work, and promptly identify existing problems and deficiencies.

#### **3.4.3. Establish a timely feedback optimization mechanism:**

Timely feedback the evaluation results to each collaborative education entity, formulate optimization measures for existing problems, adjust the collaborative education plan, and improve the collaborative education mechanism, achieving continuous improvement of the collaborative education effect.

### **3.5. Build a guarantee mechanism to ensure the orderly progress of collaborative education**

The guarantee mechanism is an important guarantee for the smooth operation of the collaborative education mechanism. Through improving systems, strengthening team building, and increasing resource investment, provide strong support for collaborative education work.

#### **3.5.1. System Guarantee:**

Develop a complete special system for collaborative education, including data management system, collaborative work system, evaluation system, and safety system, clearly defining the responsibilities of each entity, collaborative process, and evaluation standards, standardizing the implementation of collaborative education, ensuring that collaborative education work is carried out in accordance with rules and regulations, and has a basis.

#### **3.5.2. Team Guarantee:**

Strengthen the construction of a composite education talent team, on the one hand, provide big data technology training for existing mental health teachers, ideological and political teachers, and counselors to enhance their ability to collect, analyze, and apply data; on the other hand, introduce big data technology talents and composite education talents to enrich the education team, forming a composite education team that "understands psychology, understands ideology, and understands data".

### **3.5.3. Resource Guarantee:**

Increase resource investment in collaborative education work, complete the construction of big data platforms, equip necessary hardware and software systems to ensure the smooth implementation of data collection, storage, analysis, and application; increase financial investment in mental health education and ideological and political education to support collaborative education activities, talent training, scientific research, etc.; strengthen campus culture construction to create a “educating the heart and cultivating morality, collaborative education” campus atmosphere, providing environmental support for collaborative education work.

### **3.5.4. Security Guarantee:**

Establish a complete data security management system, strengthen the protection of student data, standardize the collection, use, and storage of data, prevent data leakage, abuse, etc.; strengthen network security construction to ensure the safe operation of the big data platform, providing security guarantee for collaborative education work.

## **4. Conclusion**

Big data provides important technical support for the collaborative education of mental health and ideological and political education in universities, helping to solve the problems such as information lag, extensive coverage, and insufficient collaboration in the traditional education model, and promoting the transformation of educational work towards precision, intelligence, and systematization. Currently, the collaborative education in universities still faces practical problems such as insufficient integration, poor data flow, incomplete mechanisms, and weak teams. To build a scientific and effective collaborative education mechanism, it is necessary to take cultivating virtue as the foundation, drive with big data, and focus on improving five mechanisms: data sharing, precise education, collaborative linkage, evaluation feedback, and guarantee support. This will promote the deep integration of “educating the mind” and “cultivating virtue”, forming a comprehensive educational pattern involving the entire process, all aspects, and all participants. In the future, we should further promote the deep integration of artificial intelligence, big data, ideological and political work, and psychological work, strengthen institutional construction, team building, and technological upgrading, and continuously enhance the effectiveness and sustainability of collaborative education, providing a solid guarantee for cultivating new era individuals who are responsible for national rejuvenation.

## **Disclosure statement**

The author declares no conflict of interest.

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