

# Research on the Integration of Ideological and Political Elements in the Course "Database Technology and Application"

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**Abstract**—In the course of curriculum ideological and political integrated teaching concept design process, the main basis is "Living morality and fostering people", which has a positive role in promoting the development of Chinese higher education. To this end, relevant staff should integrate ideological politics and daily course teaching. This article summarizes the curriculum teaching objectives and curriculum ideological and political objectives based on previous work experience. The author discusses the integration of ideological and political elements in the course "Database Technology and Application" from seven aspects. They including top-level design and planning, revision of curriculum syllabus, reform practice and promotion, "database security maintenance" teaching ideology and politics, "database integrity" teaching ideology and politics, ideological and political improvement of teacher construction, and ideological and political realization of teaching process.

## 1 INTRODUCTION

In the actual teaching of ideological and political theory courses in schools, educators should base on the educational policy put forward by General Secretary Xi Jinping, adhere to the direction of socialist school running, and regard the construction of ideological and political courses as the basic strategic measures to foster morality. In addition, each school must further enhance the ideological and political research of the curriculum, deepen the ideological and political reform of the curriculum, and fully demonstrate the teacher's education function. This can ensure that the basic courses and professional courses are combined with the ideological and political theory courses to help each other, promote each other, and build a synergistic effect. This is also the essence of all-round education.

## 2 REFORM PRACTICE IDEAS

In the implementation of reform operations, universities should take the overall improvement of talent training capabilities as the foundation, and drive the construction of the ideological and political connotation of the "Database Technology and Application" course. This is also the process of clarifying the goals of curriculum moral education. In this way, the hidden ideological and political content and the curriculum ideological and political demonstration modules in the course teaching content can be excavated, and the main role of teachers in educating people can be fully displayed. At the same time, this can also strengthen the ideological connotation of curriculum teaching and combine it with value guidance

to strengthen the ideological and political education of educators. More importantly, relevant departments and staff must comprehensively promote the theory of curriculum ideological and political construction, create curriculum ideological and political samples, and finally establish a more distinctive curriculum ideological and political education model, and strengthen the concept of strengthening moral education and cultivate people.

## 3 CURRICULUM TEACHING OBJECTIVES AND CURRICULUM IDEOLOGICAL AND POLITICAL OBJECTIVES

### 3.1 Course Teaching Objectives

In the course of teaching this course, teachers should adhere to the following teaching objectives to ensure the teaching effect. First, understand the actual development process of database management technology. In this process, educators and students not only need to understand the basic concepts and architecture of databases and the characteristics of relational databases, but also need to be proficient in the application of relational database standard languages. Teachers should also ensure that students understand database security protection measures and database integrity, and understand the inherent theory of relational databases. In addition, in the research of database system, teachers should also understand that the system has design means, and understand the specific design and development of database application system in combination with the surrounding application environment. When cultivating students, teachers need to use the relevant teaching and basic knowledge abilities required for engineering work,

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so that students have strong thinking skills, computer program theories and methods, and understand specific software development procedures.

### **3.2 Course Ideological and Political Goals**

The design of the ideological and political goals of the actual curriculum should be based on the concept of "moisturizing things without sound" combined with the characteristics of actual engineering majors. Teachers should introduce the core values of socialism in the teaching of professional courses, and shape new political beliefs and value orientations. Teachers can dig out the unique industry value and historical content from the curriculum value when completing their work, and start from the perspective of the development process, give students good learning quality and spirit, and be people-oriented. More importantly, students also need to master a more scientific worldview and methodology. Teachers need to create a more stable ideological foundation for the growth of students. In the teaching of professional courses, teachers should also combine value orientation and knowledge transfer to clarify specific ideological and political teaching goals. This is also the basic process of promoting the core values of socialism.

## **4 CURRICULUM IDEOLOGICAL AND POLITICAL CONCEPTS AND TEACHING STATUS OF "DATABASE TECHNOLOGY AND APPLICATION"**

### **4.1 Curriculum Ideological and Political Concept**

Ideological and political courses are mainly through the establishment of a full-staff, full-course and full-course education pattern, to ensure that various courses are consistent with the ideological and political curriculum theories, and to establish corresponding synergies, taking "strengthen moral education and cultivate people" as the foundation of education and establishing comprehensive education idea. From the perspective of university development, educators need to dig out corresponding ideological and political education materials based on various curriculum content. Teachers need to carry out all-round education for students in the follow-up, ensure the integrity of teaching and research, and introduce Marxism. The above content is not only the innovative point of socialist education theory, but also the new requirement of social development for college education. Universities are not only a place for knowledge transfer and ability training, they should ensure the full play of ideological and political functions. To achieve the above goals, colleges and universities should start with every major and every student, guide students to establish correct values and outlook on life, cultivate more qualified talents, and provide an ideological basis for subsequent social development. When ideological and political education and daily teaching are integrated, a new "curriculum ideological and political" model will be formed. This is also the process of leading the spiritual world of students [2].

### **4.2 Teaching Status of "Database Technology and Application"**

"Database Technology and Application" is a basic course in software technology and big data technology and application. The educational goal of this course is to guide students to understand the software development, database management and application, and database security settings. If you start purely from the perspective of skill training, students in this course need to master specific database design methods and database and data table management methods. This also involves the conditions for complete data implementation. We can clarify data output and maintenance operations according to actual requirements to complete security settings in time, and establish relevant application development objects based on the front-end interface. In the actual relational database construction, database management operations and application methods should be reflected, which will help teachers understand specific storage procedures and cursors and other comprehensive application development methods. Teachers can also start from the perspective of comprehensive skills to ensure that students have programming methods and thinking skills. From the perspective of teaching status, the "Database Technology and Application" course involves a lot of theoretical content. The concept is also relatively complex, with strong abstraction, it is difficult for students to associate it with daily life, which increases the difficulty of learning. In order to do a good job in the teaching of such courses, schools can carry out mixed teaching reforms, and at the same time combine online and offline education modes to appropriately increase the proportion of experimental teaching. After the teaching mode is applied, the teaching effect can be improved significantly. However, the frequency of practice and application of this type of teaching method is not high at this stage, and each school needs to make corresponding changes to give play to the teaching effect of "database technology and application".

## **5 THE INTEGRATION OF IDEOLOGICAL AND POLITICAL ELEMENTS IN THE COURSE "DATABASE TECHNOLOGY AND APPLICATION"**

In order to better implement the requirements of ideological and political work in colleges and universities to keep pace with the trend of socialist innovative education concepts, relevant staff should focus on "building morality" as a key content when working, and closely integrate specialized teaching content with ideological and political work together. Besides, schools should also dig out ideological and political education elements based on the content analysis results of "Database Technology and Application" to fully carry out the teaching design of "Curriculum Ideological and Political". In order to better introduce the teaching design of "Teaching Ideology and Politics", educators can explain the specific material situation and professional teaching goals of "Curriculum Ideology and Politics" based on database security maintenance and data integrity

[3].

### 5.1 Top-level Design and Planning

Before performing teaching work, teachers should understand the specific curriculum objectives, requirements and key points, closely focus on the ideals and beliefs of students, and convey love education and responsibility. Teachers need to educate students to love themselves, the collective, and the country, and cultivate their socialist core values of prosperity, democracy, fairness and justice. Teachers not only need to provide students with socialist ideological and political education with Chinese characteristics in the new era to maintain their physical and mental health, but also need to improve their scientific research integrity and academic moral education.

### 5.2 Course Syllabus Revision

Schools should regularly organize course teachers to carry out in-depth seminars, integrating professional training goals and the moral education goals of the "Database Technology and Application" course. Teachers need to establish new moral education training and revision curriculum syllabus and corresponding professional training goals and curriculum planning according to the construction requirements of "new engineering" and professional certification goals. Meanwhile, teachers should also take the curriculum system structure and knowledge content as the foundation, dig out the content of socialist core values and collectivism, and form new elements of moral education. Then, the teacher can pass the content to the students and clarify the main points of the main course chapter design [4].

### 5.3 Reform Practice and Promotion

First of all, all "database technology and application" educators need to go deep into the curriculum ideological and political construction model colleges to observe and inspect, organize teaching and training teams to conduct corresponding ideological and political teaching case studies, and actively construct new curriculum ideological and political teaching methods, and integrate them into practice. Colleges and universities must also integrate online and offline in student learning, and use information technology and artificial intelligence technology to promote the integration of ideological and political education and professional education. Teachers need to understand some excellent cases and simulation teaching methods to allow students to actively participate in the teaching of courses with rich ideological and political elements to ensure knowledge transfer and value guidance. Otherwise, colleges and universities can integrate curriculum ideology and politics into curriculum teaching construction, showing the characteristics of the whole process. What's more, educators can also start from the planning of the training program and the determination of the syllabus and teaching plan to do a good job assignment and correction, experimental training, etc.

These are important links that reflect the ideological and political elements of the curriculum. Finally, colleges and universities need to ensure the effective innovation of curriculum teaching mode, and promote the effective application of modern information technology in curriculum ideological and political teaching. This is also the essence of expanding ideological and political construction and methods.

### 5.4 Database Security Maintenance" Teaching Ideology

"Database Security Maintenance" is an important chapter in "Database Technology and Application", and the content of this chapter occupies an important position in the entire course. The specific teaching objectives include the following aspects. Firstly, students need to have a deep understanding of computers. Secondly, teachers need to have a comprehensive understanding of information security standards. Thirdly, teachers need to master common security technologies in the database. In order to achieve the above-mentioned professional teaching goals, relevant departments need to specify the following "curriculum ideological and political" teaching goals. Firstly, teachers should guide students to learn good professional ethics, especially for IT staff, who must abide by network ethics. Secondly, teachers should cultivate students' sense of identity and craftsmanship. Thirdly, teachers need to guide students to establish a sense of standardization and understand the specific meaning of it, and at the same time establish corresponding identification standards and abiding by the law. In addition, in the actual teaching process, teachers need to apply some materials to perform ideological and political education activities. Firstly, teachers should use materials related to professional ethics education to guide students to strengthen their own moral cultivation. Secondly, teachers should use China's current information security standards as materials and craftsmanship as the basic connotation to carry out specific education and training operations. Thirdly, teachers need to let students know the meaning of standardization through specific software crisis events, and gradually follow and agree with the awareness of standardization [5].

### 5.5 Database Integrity" Teaching Ideology

"Database integrity" also belongs to a part of "Database Technology and Application", which is mainly based on the physical design of the database. The actual professional teaching objectives are as follows. Firstly, teachers need to make students have a correct understanding of the integrity of the database and realize their own meaning. Secondly, teachers should allow students to comprehend and master the relevant mechanisms of database integrity checking. Thirdly, teachers should teach students how to use databases to define completeness and referential integrity. Based on the above goals, colleges and universities can formulate the following "curriculum ideological and political" teaching goals. Firstly, colleges and universities should

allow students to use "classroom teaching regulations" to strengthen their sense of identity with the various rules and regulations of the school. Simultaneously, colleges and universities should use it as a code of conduct to promote continuous improvement of the system. This is also the basic process of optimizing teaching quality. Secondly, colleges and universities should guide students to develop the habit of observing and understanding the connections between various things, strengthen their ability to deal with interpersonal relationships, and enable them to integrate into relevant groups better and faster. Thirdly, students should have a correct understanding of the relationship between individuals, groups and society, cultivate their own sense of ownership, and have a sense of collective honor and pride. More importantly, in the teaching process, teachers can use specific materials to perform ideological and political education. For example, colleges and universities can use news content "22 college students were expelled overnight" and so on to let students know what school rules are. At the same time, this can also enable students to properly restrict their own behavior and understand the role of the system. Furthermore, the school can also carry out "College Student Life Memories" theme activities to enable students to have a correct understanding and cognition of university life and correctly handle various interpersonal relationships. Teachers can also strengthen the students' collectivism concept and consciousness by focusing on the class collective. An overview diagram of specific database integrity is shown in Figure 1.

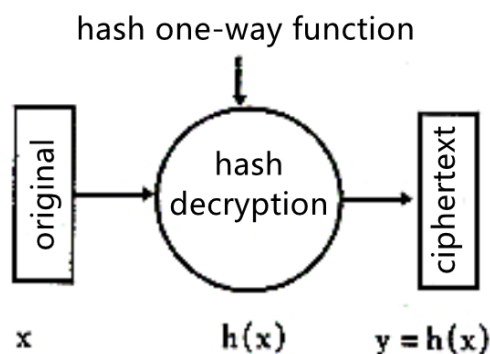


Figure 1. Database Integrity Overview Diagram

### 5.6 Ideological and Political Improvement of Teacher Construction

Teachers are the main body of the entire teaching activities. Teachers' morality and cultural level are directly related to the timeliness of ideological and political education. At this stage, there is a common phenomenon of teachers in colleges and universities that emphasize knowledge transfer and ignore value guidance. At this time, it is very important to strengthen the construction of teachers' ethics and style and enhance their awareness of educating people. At this stage, many colleges and universities have introduced the teaching team of database principle courses, and established a positive curriculum ideological and political concept. Colleges and universities should explore how to become an excellent educator in a variety of ways. Firstly,

teachers can use diversified party class activities to learn more about ideological and political content, enhance their sense of responsibility, and infect students with their own charm. Secondly, colleges and universities should make full use of the curriculum team, realize collective lesson preparation and exchange of ideas, and establish a pioneering model. This can ensure that teachers pass more knowledge to students and integrate innovative ideas into the entire course of teaching [6].

### 5.7. Ideological and Political Realization of Teaching Process

#### 5.7.1. Exploring Ideological and Political Factors Based on the Characteristics of Courses

If educators fail to present the characteristics of the curriculum in the teaching process, the actual ideological and political functions of the curriculum cannot be displayed. To this end, relevant staff need to conduct an in-depth analysis of the course content. This allows students to clarify the characteristics of the curriculum while providing a foundation for the construction of "curriculum ideological and political". For example, in the research of the specific "database development process", teachers can use science and technology as the primary productive force by comparing the backward technology in the past and the advanced technology development in the present to stimulate students' self-confidence. In addition, in database design, students should also learn more useful knowledge through the cultivation of unity and cooperation, patriotism and dedication in the spirit of "people-oriented". Besides, when teaching "database security", students should also cultivate a better sense of rights. In the experimental teaching of "SQL Programming", students should also develop a serious and responsible work attitude to create favorable conditions for subsequent career development and help students grow better and faster.

#### 5.7.2. Scientific Guidance Based on the Characteristics of Students

College students at this stage are more active and full of personality. They tend to be self-centered in their daily life and study, and they do not have a high sense of social responsibility. It is precisely because of the existence of this situation that college students' outlook on life and values are relatively vague, and they do not possess lofty ideals and ambitions. In view of these characteristics of modern college students, if only relying on preaching and instilling teaching, it often fails to reflect good teaching results. For this reason, teachers need to establish a relaxed and happy scene in the teaching process, so that students can develop a cautious working attitude in this atmosphere and strengthen their sense of social responsibility. Furthermore, teachers must effectively combine the content of the course with the course ideology and politics, choose appropriate teaching methods, and ensure that the course teaching effect is in the best state. For example, teachers can apply reading

instruction method, exploratory teaching method, etc. to ensure that students can maintain full participation and active exploration, and strengthen the effect of knowledge learning. Teachers can also make use of hot cases, short videos and other modes to ensure that students can "direct dialogue" with the real situation. Students can master more valuable information in experiential teaching and cultivate correct socialist core values. This will help students make their own contributions to the subsequent social and economic development.

## 6 CONCLUSION

To sum up, the development of actual curriculum ideological and political teaching work not only needs to show the characteristics of full coverage, but also ideological and political education should be run through the entire curriculum and teaching process, and the specific value guiding goals and moral education goals of professional talent training should be clarified. In addition, educators must integrate knowledge transfer and ability training into various disciplines. Teachers can also formulate ideological and political education methods according to the characteristics of actual courses, which reflect good teaching effects.

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