

Analysis on the Optimization of Ideological and Political Education of Basic Electric Courses Relying on Material Database

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Abstract: Curriculum ideological and political education” serves as a tangible manifestation of the educational concept in the new era. In constructing curriculum ideological and political education within basic courses of electrical engineering, the approach to integrating ideological and political elements into the curriculum is transformed into extracting such elements from the curriculum content. These elements are then organized into a material library, facilitating their seamless integration with the curriculum content while presenting a more organic effect. Moreover, this method enables targeted design of ideological and political aspects based on diverse knowledge requirements across different electrical engineering majors, as well as varying ideological and political characteristics. Consequently, it enhances the quality of curriculum-based ideological and political education.

Keywords: Basic courses of electricity; Ideological and political education; Material library

1. Introduction

Course-based ideological and political education is a tangible manifestation of the new era’s educational philosophy. It serves as a specific form to integrate moral character cultivation into the core of education, and to infuse ideological and political work throughout the entire process of teaching and learning. Course-based ideological and political education is an organic integration of knowledge, understanding, and abilities in talent cultivation. It combines various courses with ideological and political theory courses to achieve synergy, making ‘cultivating virtue and nurturing talents’ a comprehensive educational concept. This concept aims to guide thinking and enhance capabilities while imparting foundational theories and professional knowledge.

2. Challenges in the Ideological and Political Education of the Current Curriculum

Electrical foundation courses serve as indispensable prerequisites for majors such as mechanical engineering, automation, and telecommunications that encompass electrical engineering or electronics. These courses exhibit distinct disciplinary characteristics, encompass a wide range of professional subjects, establish numerous connections to specialized courses, and entail intricate learning requirements. In terms of positive aspects, the foundational courses in electrical engineering serve as crucial platforms for incorporating ideological and political education within science and engineering disciplines. However, due to variations in professional characteristics and course content across different majors, there are certain challenges associated with integrating ideological and political education into these fundamental courses. This is evident through the limitations posed by conventional approaches to designing curricula focused on ideology and politics.

2.1 The outdated ideological concept in the course of political education

Currently, the primary objective of ideological and political education in basic electricity courses is to incorporate relevant ideological and political content into the classroom through case studies, practical applications, discussions, and explorations. This approach offers several advantages: a wide selection range for ideological and political content with ample design flexibility; stimulation of students’ logical thinking and exploration mindset from a scientific perspective; cultivation of their serious attitude, meticulousness, and professional integrity from a craftsmanship standpoint; encouragement of their courage to innovate and overcome challenges by drawing inspiration from the growth process of scientists as well as significant discoveries and inventions. Consequently, this

subjective design enables meeting diverse ideological and political requirements. However, the challenge associated with a broader design scope lies in the potential mismatch between carefully crafted ideological and political elements and classroom content, leading to an inflexible, monotonous, or incongruous ambiance. Consequently, this disruption hampers overall classroom dynamics and impedes students' full engagement. The ideological and political content, although present, has not yielded the desired effect in fostering moral character; instead, it has exerted a detrimental influence on the acquisition of classroom knowledge.

2.2 The dispersion of ideological and political education content in courses affects its effectiveness.

In order to minimize the impact of integrating ideological and political content on the coherence of curriculum content and the effectiveness of classroom presentation, it is customary to carefully select ideological elements that are most congruent with the course material. These chosen elements are then elaborated upon and integrated in a coherent manner, aiming for a seamless assimilation akin to the dissolution of salt in water. Nevertheless, within courses featuring cohesive knowledge content, it is not necessarily guaranteed that the ideological and political elements integrated into each class align with one another; rather, they often exist independently. For example, while the preceding class delves into the challenges encountered during the development of the national electric power industry, the subsequent class focuses on embracing the scientific spirit of meticulousness and excellence exhibited by Western scientists. Although both classes effectively incorporate ideological and political content in accordance with curriculum requirements, a mere pursuit of integrating this content into each class 'like salt into water' may result in fragmented and disjointed ideological and political discourse upon completion of the entire course, significantly undermining its moral educational impact.

3. The Advantages of Ideological and Political Elements Library

3.1 The Necessity of Establishing the Material Library of Ideological and Political Elements in Curriculum

The establishment of a library for ideological and political education materials is a result of the evolving perspectives on ideological and political education. During the process of exploring the inherent ideological and political elements within course content, it is often possible to identify multiple elements within a single class or section. However, if every ideological and political element were to be fully explored and incorporated into classroom content, it would undeniably dominate the knowledge space, potentially overshadowing other aspects. Therefore, in the ideological and political design of each class, it is imperative to thoroughly explore all ideological and political elements. The curriculum content should be carefully analyzed to determine which specific ideological and political elements should be prioritized for inclusion. The ideological and political elements extracted from each class or part of the curriculum content are sorted out to form a material library.

3.2 The help of material library to the ideological and political construction of curriculum

The visualization of ideological and political elements selection and the clarity of the overall design of ideological and political content are crucial for enhancing the effectiveness of curriculum in promoting ideology and politics. Generally, it is recommended to focus on refining one or two key ideological and political elements in each class or section of the curriculum. Additionally, different courses within various disciplines may vary in terms of their emphasis on knowledge structure. Consequently, when it comes to ideological and political education, there exists a divergence in terms of fitting different ideological and political elements into the knowledge structure, determining appropriate levels of emphasis and difficulty, as well as aligning with professional orientations. Therefore, by utilizing a comprehensive library of ideological and political elements that categorizes all relevant components, different disciplines can selectively emphasize and refine appropriate ideological and political elements based on their professional characteristics when encountering the same knowledge domain in order to achieve optimal ideological and political outcomes.

4. Innovation of Ideological and Political Teaching Methods in Curriculum through the Utilization of a Ideological and political elements material library

4.1 Reinforce the core aspects of ideological and political construction and formulate comprehensive strategies for its implementation

As an integral and systematic project, for the curriculum content to effectively convey its ideological and political impact, it is imperative that the overall teaching design incorporates the ideological and political content. Therefore, teachers play an indispensable role in optimizing curriculum development, revising professional teaching materials, enhancing instructional design, and more importantly, in the realm of ideological and political education across various educational systems such as management, teaching, and subject domains. To delve into the ideological and political construction of professional and subject-based education effectively, it is imperative to fully leverage teachers' innovative concepts and practices while elevating the quality of curriculum's ideological and political construction to comprehensively enhance talent cultivation capabilities. On the other hand, the construction of a comprehensive

ideological and political curriculum material library, integrating resources related to the curriculum, and establishing subject-specific material libraries for teachers. Simultaneously, seamlessly incorporating ideological and political elements into classroom teaching by identifying the most suitable approaches for integrating different ideological and political elements. Facilitating mutual learning among teachers to foster synergy in order to effectively implement curriculum-based ideological and political construction. This will enable a synergistic effect between professional course teaching and theoretical courses on ideology, thereby promoting the development of an “all-round education” model.

4.2 Efficiently extract ideological and political content while avoiding forced and inflexible integration

Firstly, we must redefine the notion of “integrating ideological and political elements into the curriculum content” by relinquishing subjective consciousness. Thoroughly examining the curriculum content and meticulously organizing the inherent ideological and political elements should be prioritized. Based on specific circumstances, these elements can be categorized according to diverse curriculum contents, teaching plan arrangements, class hour allocations, or other approaches to establish a Ideological and political elements material library.

4.3 Enhancing the Precision of Diverse Professional Requirements and “Customized” Ideological and Political Design of Curriculum

Basic electricity courses are typically designed not only for a single discipline in colleges and universities, but also cater to multiple disciplines. While different fields related to electricity require fundamental theoretical knowledge, the specific focus of this knowledge varies across disciplines, resulting in greater disparity in demand for professional foundational theory. For instance, majors in communication and information will place greater emphasis on electronics, while even the same course in electrotechnics or electronics may have varying focuses across different majors. Given the diverse content of courses, including those with differing contents within the same subject area, it is inevitable that the formation of corresponding ideological and political systems within these courses will differ. Although they are the same fundamental courses in electrical engineering, it is essential to explore ideological and political elements from the diverse knowledge structures of various disciplines. Additionally, when selecting these elements, they should align with the professional characteristics of students. Only through this approach can the ideological and political curriculum transition from abstract concepts to practical reality, encompassing industry developments, current events, and future disciplinary directions. This will enable students to better comprehend the essence of ideological and political content while fostering a greater willingness to embrace moral education principles and truths expounded within such content, ultimately facilitating more efficient moral education outcomes.

5. Conclusion

By leveraging the ideological and political curriculum material library as a central resource, this study employs a dual approach. Firstly, it delves deeply into the course content to unearth and efficiently extract the ideological and political elements, thereby organizing them into an extensive collection of curriculum materials. Secondly, it tailors the selection of ideological and political components from fundamental courses across various disciplines based on their professional characteristics and developmental requirements. This process involves employing diverse methodologies to finely customize the design scheme for ideological and political education using the aforementioned material library. Such an approach not only enhances the quality of ideological and political curricula but also offers novel insights for curriculum development and talent cultivation.

References:

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