

# *Exploration of the Ideological and Political Construction Model for Cyberspace Security Talents in the Context of New Engineering Based on Unity of Knowledge and Action*

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**Abstract:** In the context of new engineering, the teaching mode of ideological and political construction in the unity of knowledge and action course for cyberspace security talents was discussed. The education concept of cultivating innovative, practical and comprehensive talent was established. Students' patriotism and practical spirit are emphasized on cultivation. Emphasis is placed on how to integrate ideological and political education elements into professional learning in the context of the new engineering discipline, and build a multidisciplinary integrated curriculum system. Based on the actual situation of students, we develop a comprehensive talent cultivation plan and explore new models of ideological and political education teaching in the curriculum, which will exploring new ideas to improve the quality of training new engineering talents in China, and further enhance the adaptability of cyberspace security talent training to the development of the digital economy. At the same time, through the practical application of this model, it will provide empirical guidance for the exploration of cyberspace security talent training and teaching models under the new engineering.

## 1. Introduction

Based on the new scientific and technological revolution, the new industrial revolution and the new economy, the new engineering has put forward new and higher requirements for the talent training of innovative higher engineering education in China <sup>[1]</sup>. Among them, because of the particularity of network security discipline, network security personnel training has been widely concerned. From the perspective of training objectives, network security talents under the background of new engineering are network security technicians with correct political stance who adapt to and lead the development of new technologies and new industries. From the perspective of training content, the training of network security talents under the background of new engineering is based on the combination of computer technology represented by cloud computing, big data and

artificial intelligence and network security knowledge <sup>[2]</sup>. From the perspective of training mode, network security talents under the background of new engineering are to train innovative network security talents with firm patriotism to provide backup force for national security.

The general Secretary stressed that "competition in cyberspace is ultimately a competition for talents." The cultivation of talents not only refers to the technical training of talents, but also takes into account the cultivation of ideology and morality. Therefore, the concept of curriculum thinking and politics came into being. Curriculum thinking and politics refers to a comprehensive educational concept that combines subject courses with ideological and political courses in the form of building a whole-course, whole-course education pattern, and takes "cultivating morality and educating people" as the fundamental task of education <sup>[3]</sup>. However, there are still many problems in the implementation of curriculum ideology and politics in colleges and universities. For example, the problem of "formalization" is prominent, the phenomenon of "two sides" between discipline teaching and ideological and political education is serious, the educational value of curriculum ideology and politics has not been paid enough attention, teachers have not explored the elements of ideological and political education enough, and the evaluation method of curriculum ideology and political education is unreasonable. In view of this problem, teachers should first clarify the problems of "what kind of person to train, how to train people and for whom to train people", and carry out curriculum ideological and political research around these problems. Secondly, teachers should truly internalize ideological and political education in the teaching of professional courses, externalize and practice, and combine ideological and political training goals with knowledge training goals and skills training goals. Schools should build a complete personnel training system, ideological and political training and professional knowledge training. To build a perfect classroom system structure, the introduction of ideological and political knowledge before class adopts the hidden classroom mode to integrate ideological and political knowledge into the major to stimulate students' ideological and political learning enthusiasm. Finally, students' sense of social responsibility and sense of mission are cultivated through student mutual evaluation and teacher evaluation.

## **2. The importance of curriculum ideology and politics in college talent training**

"Curriculum thought and politics" is to run Marxist theory through the whole process of teaching and research, to deeply explore the ideological and political teaching content of the major, to build a working pattern of the combination of philosophy and social science disciplines and professional disciplines, and to realize the combination of professional knowledge and ideological and political education "collaborative education" <sup>[4]</sup>. The following is the significance of classroom ideology and politics entering professional classrooms:

### **2.1 Implement the requirements of the fundamental task of Lide and cultivating people**

Moral cultivation is the most important thing in college education, which requires teachers to teach students knowledge, cultivate their ability, cultivate their correct moral concept and improve their ideological and political quality. Although the course of cyberspace security is an engineering course, because cyberspace security is closely related to people, teachers should strengthen the ideological and political education of students in cyberspace security. Integrating correct ideology into the classroom can make students form a sound personality, cultivate students' good ideological and moral concepts, and become "people with great love, great virtue and great feelings" as said by the general secretary.

## **2.2 Requirements for improving the teaching quality of cyberspace security courses**

In the Internet era, the network is the carrier of conveying information and culture. Therefore, in the teaching process of cyberspace security, students can be taught how to correctly understand the network and use the network to regulate their own behavior. Teachers should enhance students' awareness of the importance of cyberspace security and improve students' learning quality.

## **2.3 Enhancing the role of cultural communication**

Previous computer teaching activities often lack explanation of Chinese culture, making students accept and identify with Western values invisibly, which is not conducive to enhancing students' cultural self-confidence. In the teaching of cyberspace security, it is necessary to focus on introducing China's excellent traditional culture, combating uncivilized network problems, leading students to use the network correctly and properly, and being the defender of national network security and the disseminator of traditional Chinese culture.

## **3. Problems in the implementation of curriculum ideology and politics**

As the name implies, ideological and political education in class cannot be separated from the classroom. At present, there are still major problems in the development of curriculum ideological and political education, resulting in inadequate integration of ideological and political education in class and poor implementation effect, which makes it difficult to achieve the goals of curriculum ideological and political education, and thus affect the growth and development of students<sup>[5]</sup>.

### **3.1 Teachers' ideological and political ability is not in place.**

At present, there is often a process in which teachers have tried their best to impart ideological and political ideas in class, but students' acceptance is generally low. This is because although the teachers of specialized courses have a high level of ideology and politics, they have not undergone professional training. Take the major of cyberspace security as an example. Cyberspace security belongs to engineering, and teachers in this part are often not good at integrating ideological and political concepts into professional courses, resulting in rigid and rigid classes. Therefore, they cannot translate their ideological and political concepts into guidance for students' goals and values, resulting in students' doubts and doubts on teachers' ideological and political views. Thus, it reduces the enthusiasm and enthusiasm of thinking and politics in the curriculum.

### **3.2 Curriculum Ideological and political education system is not complete**

At present, classroom ideology and politics often focus on the transmission of political opinions, rather than the assessment and understanding of students' comprehensive quality. Under such circumstances, the ideological and political content of the curriculum is monotonous, which cannot stimulate the learning enthusiasm of ideological and political knowledge in the classroom and internalize it<sup>[6]</sup>. More and more schools are aware of the importance of ideological and political thinking in class, but it is difficult to find the connection between ideological and political ideas and academic research. If teachers cannot help students understand and relate the connection between ideological and political content of courses and social practice, it is difficult for them to learn or apply excellent ideological and political ideas and values. Therefore, it is very important to establish the connection between ideological and political knowledge and learning content, and set up a complete curriculum ideological and political education system.

### **3.3 The evaluation method of curriculum ideology and politics is not scientific enough.**

Classroom ideology and politics are closely related to people's ideology and politics and it is not easy to quantify, so we must ensure the comprehensiveness and scientificity of the evaluation content. However, in the existing education system, the evaluation method of curriculum ideology and politics still stays in the written way, which cannot intuitively understand the degree of students' understanding of ideology and politics, and it should be clear that students' acquisition of ideological and political concepts is a gradual process. The examination method may lead to students' ideological consciousness and moral cultivation can not be really improved or even not conducive to stimulating students' enthusiasm for learning.

## **4. Ideological and political research methods for cyberspace security courses**

It is one of the key contents of classroom ideology and politics to enhance the political level of college teaching and cultivate comprehensive talents <sup>[7]</sup>. Cyber security is one of the national security guarantees, but also requires practitioners to have a high degree of political ideology, cyber security course ideology and politics can be studied from the following points.

### **4.1 Improve the ideological and political level of teachers**

Teachers are the implementers and disseminators of classroom thinking and politics. Therefore, it is urgent to train a team of high-level ideological and political teachers, give full play to the resource-oriented role of high-quality ideological and political resources and courses on the sharing platform, and organize teachers to study ideological and political courses regularly. Different from other disciplines, ideological and political theory has the characteristics of sharing and real-time, so it is also very important to obtain a wide range of learning resources. At the same time, teachers should update their ideological and political knowledge in real time, communicate more with other teachers, pay attention to the latest current events, deeply understand the internalization of them, and carry out targeted teaching guidance. Teachers should sort out the ideological and political elements such as national conditions, moral character and scientific outlook in professional courses, and select appropriate ideological and political elements for teaching and application; Finally, through the design of feasible ideological and political teaching content, the ideological and political elements are integrated into the teaching process of professional courses to complete the ideological and political construction of professional courses <sup>[8]</sup>.

### **4.2 Adopt correct teaching methods**

Teachers should formulate ideological and political strategies in combination with curriculum practice. First of all, teachers need to clarify their main responsibilities, clarify the fundamental issues of what kind of people should be trained in political work in colleges and universities, how to train people and for whom to train people, do a good job in the overall curriculum planning, identify innovative points to integrate Marxist theory with their own teaching disciplines, and form an innovative integration of professional disciplines and ideological and political disciplines. Take cyberspace security course as an example. In the knowledge teaching process, teachers can combine the history, development trends of cyberspace security discipline and the importance of national cyberspace sovereignty security, and run ideological and political thoughts of the course through the entire teaching process, strengthen ideological guidance and value shaping, and form a synergistic effect. This paper introduces the remarkable achievements of our country in this field, objectively and comprehensively expounds the gap between our country and the developed countries, and

stimulates the students' sense of social responsibility and mission. So that students fully understand the importance of network security, stimulate students science and technology to serve the country, love the profession, the future to participate in the development of the industry feelings.

Teachers can integrate invisible teaching methods into the teaching process. In the teaching materials of cyberspace security, teachers are not only required to pay attention to the teaching of professional knowledge, but also to dig deep into the ideological and political education of the teaching materials, and strive to promote the organic combination of professional knowledge and ideological and political education to achieve the purpose of teaching and educating people. At present, explicit curriculum is generally implemented in the course teaching process, but explicit classroom has a clear purpose. The main form of explicit classroom teaching is that teachers use direct ways to convey educational content. However, for ideological and political education in the classroom, the focus of teaching is not to impart ideological and political theoretical knowledge to students, but to establish correct ideological and moral beliefs. Therefore, teachers can adopt the method of invisible curriculum to carry out teaching work, and suggest students to accept ideological and political education consciously from various teaching activities and teachers' words and deeds, so as to stimulate students' patriotic enthusiasm. Taking cyberspace security as an example, in explaining the network attack and defense, China's remarkable achievements in this field are listed to enhance students' pride and patriotic feelings, and lead students to the right direction of life.

To construct a personalized education mechanism under curriculum ideological and political construction. In order to meet the economic and social demand for diversified and complex cyber security talents with correct ideological and political concepts, teachers should naturally deliver ideological and political education to students according to the characteristics of The Times they live in during the teaching process. In the guidance of students' career planning, it is also necessary to establish a personalized curriculum training system based on students' interests and the analysis of national and social needs, so as to expand the ideas of talent training. Through personalized training, we can enhance students' intrinsic autonomy in learning and interest driving force, and cultivate outstanding talents with patriotic feelings.

### **4.3 Curriculum ideological and political evaluation**

Schools may set up curriculum ideological and political education objectives evaluation, quantifying students' professional quality and labor education. For example, in the course implementation process, whether the students' behavior conforms to the moral code, whether they take the initiative to publicize network security knowledge, etc. The teams involved in the training were evaluated in various aspects such as intra-group, inter-group and teacher evaluations.

## **5. Conclusion**

With the gradual development of computer network, the scope of cyber security is gradually expanding, and the demand for cyber security talents is gradually increasing. For cyber security teachers, how to train cyber security talents with both virtue and ability is a very important issue. As for the cyber security, it is very important for teachers to train the cyber security talents with both moral and ability. In terms of future cyberspace security, teachers should not only start from the professional field, dig deeply into the ideological and political elements in the textbooks, but also keep up with current affairs, understand the target connotation of the core quality, and constantly improve the ideological and political evaluation system of the subject curriculum, so that the ideological and political education elements can penetrate into the teaching of cyberspace subjects, and achieve the effect of educating people silently.

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