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Research on Ideological and Political Teaching Reform of Computer Major Courses

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Abstract: Imperceptibly integrating ideological and political education into the teaching of computer majors in military schools can build a collaborative model of computer courses and ideological and political education, improve the teaching quality of computer courses and the education effectiveness of military schools, to better implement the fundamental task of cultivating morality and educating people. This requires the computer teachers of the military school to integrate the elements of ideological and political education in the curriculum and give play to its recessive educational role so that computer teaching and ideological and political education form a collaborative education model. Based on this, this paper explores the reform of ideological and political teaching in the computer major curriculum of the military academy, to promote the ideological and political ideas of the curriculum to be better integrated into the classroom of computer major, and lay a solid foundation for the military academy to train more high-quality and outstanding talents.

Keywords: Curriculum ideological and political teaching; Computer major; Teaching reform; Path exploration

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1. Introduction

Curriculum ideological and political education requires all teachers to establish the idea of ideological and political education, participate in the whole course, process, and staff education work to form a collaborative education system that promotes the fundamental task of moral education [1]. In essence, curriculum ideological and political education does not belong to a new course, but an advanced teaching thinking mode and teaching concept, requiring course teachers to integrate ideological and political elements into teaching activities so that students form correct ideas and good moral quality. Computer courses occupy a position that cannot be ignored in the teaching and education system of military schools. By establishing the concept of ideological and political education, teachers can deeply explore the ideological and political elements, combine the needs of students' ideological development and quality development, improve their own ideological and political education functions, build a new class teaching model of computer majors, and lay a good foundation for students' future study and development [2].

2. The necessity of ideological and political teaching reform of computer professional courses

2.1. It is conducive to promoting the overall growth of students

In the new era, society's requirements for the comprehensive quality of skilled talents are constantly rising. Instead of assessing students' skill level alone, students' comprehensive ability is assessed from all aspects. Based on the characteristics of military school education management, by adhering to the ideological and political concepts of the curriculum, teachers can add new goals of ideological and political education, combine computer knowledge teaching, core quality training with ideological and political education, and cultivate students' good ideas and ways of doing things through computer classroom teaching [3]. At the same time, under the guidance of curriculum ideology and politics, teachers can mobilize students to learn knowledge, improve the enthusiasm of the ideological realm, cultivate their ideological and moral quality and professional skills, and guide students to embark on the road of comprehensive and healthy development.

2.2. It is conducive to deepening the ideological and political reform of the curriculum

Under the background of the current higher education reform, methods to carry out ideological and political education throughout personnel training and teaching have become an important issue for military schools to implement all-round and whole-course education. Under the concept of modern education, China's higher education has changed from focusing on quantity to improving quality and focusing on cultivating the core qualities of students. As an important part of higher education, the education of computer courses should play a part in the construction and development of curriculum ideology and politics. By paying attention to the guidance of curriculum ideological and political ideas, teachers can deeply understand the connotation of curriculum ideological and political ideas, take curriculum ideological and political ideas as an important direction of leading the teaching reform of computer major, broaden the teaching channels, and deepen the curriculum ideological and political reform in classroom teaching [4].

3. Analysis of the current situation of ideological and political teaching reform of computer major courses

3.1. Lack of attention

The education emphasizes hidden curriculum, requiring teachers to intersperse ideological and political elements in all aspects of computer professional teaching so that students can experience and feel in learning activities. However, some teachers do not pay enough attention to curriculum ideology and politics, only regard curriculum ideology and politics as basic teaching tasks, and fail to provide students with a good curriculum and learning environment [5]. Some teachers believe that ideological and political education belongs to the task of political teachers, and they should not interfere at will, only needing to complete the teaching task of computer courses as planned [6]. The content of ideological education is closely related to all fields of real life, and the study and application of computer knowledge are closely related to social life. There are a lot of ideological and political elements in computer courses, coupled with the special nature of the military school itself makes the ideological education of students appear particularly important [7]. However, some teachers failed to correct the status of ideological and political and computer teaching courses, lacked ideological and political professional ability, and limited the combination of ideological and political elements and computer professional teaching.

3.2. The content of integration is monotonous

In the current computer professional teaching, some teachers introduce theoretical ideological and political

content into the classroom. When teaching relevant knowledge, they usually introduce boring ideological and political theories in an imparted way. The integrated ideological and political elements are relatively monotonous, which is not attractive to students and is not conducive to their learning and mastery [8]. At the same time, they fail to choose the ideological and political elements flexibly. In the teaching of computer specialty, some teachers combined traditional teaching ideas, according to the content of the textbook to teach computer professional knowledge. In the integration of ideological and political content, the teachers often introduce some ideological and political principles and content after explaining computer professional knowledge, but the content often does not fit the student's topic of interest due to the lack of ideological and political education experience and professional knowledge [9]. After learning computer professional knowledge, students also need to learn these ideological and political principles, and the learning pressure increases, which is not only difficult to ensure the learning effect of computer majors, but also difficult to understand the spirit and connotation of ideological and political science. As a result, the content of ideological and political integration is monotonous, resulting in computer professional ideological and political teaching being dull and boring, so it is difficult to play the role of ideological and political education [10].

4. The reform path of ideological and political teaching of computer professional courses

4.1. In-depth exploration and use of curriculum ideological and political education resources

4.1.1. Analyze the background of computer technology development from multiple angles and sort out ideological and political factors

The development process of computer science is long and tortuous, teachers can find rich ideological and political education elements in the development process of computers. Taking machine translation research as an example, it started as an idea of machine translation but underwent withdrawal of research institutions and the project was hard to maintain, and the unremitting efforts of scientists eventually developed a translation method that meets the requirements, hence this process reflects the spirit of scientists to keep advancing, constantly innovating and never giving up. It is a favorable opportunity to analyze the relevant contents of the course from multiple angles and to dig out and sort out the ideological and political factors contained in it to guide the students to develop good faith and firm will [11]. For another example, the teacher can introduce the legendary life of von Neumann, the father of the electronic computer, teach the concept of stored programs and the binary principle proposed by him, and let the students analyze the valuable qualities of von Neumann. This can not only stimulate students' enthusiasm for learning but also broaden their scope of knowledge. Alternatively, the faculty may introduce the development status of China's supercomputer to the students, enhance their sense of mission, guide them to constantly strengthen computer literacy, and contribute to the development of the national computer cause. At the same time, teachers also need to strengthen the application of big data tools, modern teaching technology makes learning data statistics, learning situation analysis, and other work more and more simple. In the teaching process, teachers can analyze the learning situation through big data, and then perform dynamic adjustments for the ideological and political teaching [12]. In other words, with the help of big data, teachers can carry out a specific analysis of the implementation of the curriculum in this period and clarify the goal of ideological and political education in the next stage, so that the curriculum can better serve the development of students.

4.1.2. Combine trending issues to explore ideological and political factors

When exploring the elements of ideological and political education, teachers should properly incorporate some new content such as current affairs, and industry trends, and appropriately expand the course content, so

that the content of ideological and political education can be updated and the persuasive power of ideological and political education can be enhanced. For example, as the new focus of the current computer field, the development of artificial intelligence is changing with each passing day, and a variety of new intelligent technologies and intelligent robots are dazzling and novel [13]. Machine vision temperature measurement system can quickly identify a person's body temperature without affecting his or her activities; virus sequencing based on AI algorithm can greatly shorten vaccine research and development time; the powerful computing power of ticket-snatching software can support tens of thousands of people to grab tickets at the same time, and so on. Introducing such content into the class, which is closely related to current life, can make students more interested in studying computer courses and also think more deeply about the content of the class. Teachers should pay attention to the new developments and new changes in the field of computers, pay attention to social hot topics, introduce social hot topics with thinking significance in class, build situations for students, and encourage students to think about problems in the situation. These practical cases make students associate computer learning with experience in life practice, enhance students' perceptual cognition and enhance students' sense of experience, and urge them to pay more and more attention to new changes in the computer field in life practice, actively try new technologies, and strengthen their interest in learning artificial intelligence technology and sense of mission.

4.1.3. Integrate AI cases to cultivate students' craftsman spirit

In the new era, artificial intelligence technology has provided important support for the development of science and technology and promoted the innovative development of intelligent control, visual recognition, big data mining and analytical processing, and image recognition language technology. In the process of integrating ideological and political education into the computer courses of military schools, it is necessary to be good at combining the application scenarios of AI in related industries to make cases, to encourage students to enhance their confidence in the development of computer technology in the context of case construction, and form a craftsman spirit in the study and research of related technologies, and constantly pursue excellence in the process of completing their studies and employment. Considering that many military students have passed their driver's licenses and have a certain understanding of the automatic driving system of automobiles, relevant cases can be introduced into the classroom when guiding students in computer courses. For example, the instructor shows the auto automatic driving scene through videos, pictures, live broadcasting, and other forms, prompting the students to deeply perceive the new changes brought by artificial intelligence to car driving, and the importance of artificial intelligence to alleviate driver fatigue and improve car safety. The ideological and political elements in these cases demonstrate the responsibility of scientific research workers to society and stimulate the students' craftsman spirit in the field of computer technology. The valuable qualities formed in the study can be transferred to the study of other disciplines and future work, to enhance their sense of responsibility and scientific and technological understanding.

4.2. Innovating the ideological and political teaching model of computer major courses

In the process of integrating ideological and political education into the computer curriculum of military schools, teachers should attach importance to the innovation of teaching mode and strengthen the flexible application of cutting-edge teaching concepts and technologies to change the students' learning state and promote the integration of knowledge learning and ideological and political quality improvement process. This requires teachers to dare to break the tradition, make more beneficial attempts in the combination of modern online teaching and offline teaching, and use concept innovation and technological innovation to enhance the

appeal of computer teaching in military schools and the times. For example, when teaching involves the content of speech processing technology, online teaching resources can be made full use of to stimulate students' thinking and promote students to carry out topic discussion and exploration through the context constructed by it. First of all, teachers can take pictures of life scenes and use some photos of commonly used equipment involving speech processing technology as teaching materials. When making these teaching materials into teaching resources, pay attention to the selection of content presentation forms in combination with the teaching process and objectives to ensure its applicability. Secondly, teachers can take the development of speech processing technology and daily application problems as the main line, connect online teaching resources with offline teaching resources, arrange teaching links according to a certain logical order, guide students to learn relevant knowledge, understand and predict the development prospect of speech processing technology, and promote them to establish the awareness of learning computer technology to change life and work mode. Thirdly, some open practical tasks should be designed for students, asking them to further understand the application of speech processing technology through investigation, interview, observation, and other ways, to encourage them to complete the sublimation of thought and knowledge. Due to the high openness and heavy workload of the practical tasks, this part can be designed as group cooperative learning, so that students can form new understandings in the collision of ideas and exploration practice, and improve their knowledge. The process of cooperative learning can magnify and test individual ability, and help to create a positive atmosphere for the study of computer technology, and ideological and political knowledge, which is of great significance for the development of learning ability, comprehension ability, and active learning habit of contemporary military cadets. Finally, it is necessary to introduce the theme of "why and how to struggle" to encourage the students to combine the results of group cooperation and study, based on the expectation of intelligent life and learning mode, to explore what computer knowledge and operational skills, and what ideological preparation as military students in the new era need to master [14].

4.3. Improving the level of computer professional teacher construction

The level of teacher construction is a direct factor that determines the quality of teaching. Therefore, in the process of promoting the integration of computer teaching and ideological and political education in military schools, schools should attach importance to the professional development of teachers, and constantly improve the integration level of the course and ideological and political education from the construction of teachers [15]. Teachers need to strengthen the study and research of ideological and political theories and the implementation methods of educational work. By consolidating the knowledge base of ideological and political education and the ability base of ideological and political education, they can improve their ability to integrate computer teaching and ideological and political education in military schools, to give full play to their teaching and education functions more effectively in the growth of students.

5. Conclusion

In summary, the process of integrating ideological and political education into the teaching of computer majors in military schools is the process of realizing the dialectical unity of teaching and education, which plays an extremely important role in promoting the role of curriculum teaching and education. Teachers should attach importance to the integration of school computer courses and ideological and political education and lay the foundation for the organic integration of the two through the further mining and utilization of ideological and political education resources, the continuous innovation of teaching models, and the acceleration of teacher professional development.

Disclosure statement

The author declares no conflict of interest.

References

[1] Shi Q, 2023, Research on the Path of Ideological and Political Realization of Computer Major Curriculum. Career, 2023(10): 24–26.

[2] Zhou LM, 2022, Research on Ideological and Political Teaching Reform Practice of "Computer Network Technology Foundation" Course. Computer Application Abstracts, 38(10): 5–7.

[3] Liu AQ, Zhang SL, Xie LP, et al., 2023, Exploration on Ideological and Political Teaching of Computer Major Courses based on OBE Concept. Computer Education, 2023(10): 77–81.

[4] Li Y, Zhang ZC, 2023, Exploration on Ideological and Political Teaching of Computer Courses with "Red and Blue Blending". Computer Education, 2023(8): 65–69.

[5] Li J, 2023, Research on the Realization Path of Ideological and Political Education in Computer Major Curriculum under the Background of "Three Education Reform". Computer Knowledge and Technology, 19(11): 126–128.

[6] Zhou J, 2023, Research on the Integration of Ideology and Politics and Craftsman Spirit in Computer Major Curriculum. Journal of Jilin Engineering and Technology Normal University, 39(11): 57–60.

[7] Liu J, 2022, Ideological and Political Innovation and Practice of Computer Curriculum in Higher Vocational Colleges under the Background of Virtue and Education. Journal of Jinan Vocational College, 2022(2): 85–87.

[8] Qiao JS, 2021, Discussion on Ideological and Political Construction of Computer Curriculum in Higher Vocational Colleges. Nanbei Bridge, 2021(13): 3.

[9] Xiong Q, Li J, Xiang Y, et al., 2022, Thinking and Five-dimensional Approach of Promoting Ideological and Political Construction of Computer Curriculum. Computer Education, 2022(7): 122–125.

[10] Fu XB, Li MG, 2020, Research on Ideological and Political Construction of Computer Courses in Colleges and Universities. Decision Exploration, 2020(16): 66–67.

[11] Xu HF, 2021, Research on the Ideological and Political Realization Method of Computer Curriculum in Secondary Vocational Schools under the Background of New Era. Modern Vocational Education, 2021(44): 146–147.

[12] Ding HX, 2021, Research on the Integration of Ideological and Political Education and Craftsmanship Spirit in Higher Vocational Computer Science Courses. Journal of Hubei Open Vocational College, 34(20): 26–27 + 30.

[13] Lin CW, 2020, Exploration of Ideological and Political Education in Computer Science Courses: Taking Compilation Principles as an Example. Modern Vocational Education, 2020(18): 48–49.

[14] Zhang JX, 2019, Practice Analysis of Ideological and Political Construction of Computer Courses in Higher Vocational Colleges. Science and Fortune, 2019(36): 370.

[15] Lang ZH, 2019, Practice Research on Ideological and Political Construction of Computer Courses in Higher Vocational Schools. Journal of Tianjin Academy of Education and Science, 2019(2): 70–77.