Research on Teaching Mode of “Ideological & Political Theory Teaching in Computer Courses” in Chinese Local Universities

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Abstract: In the era of intelligence, computer professionals are particularly important to the national information construction and information security. Universities should not only cultivate the professional knowledge and ability of college students, but also guide the value, that is, to carry out ideological and political courses. Based on the analysis of the problems existing in the ideological and political education of computer courses in Chinese local colleges and universities, analysed the connotation of the ideological and political courses of computer courses, and puts forward the principles of curriculum resources construction for the effective integration of professional courses and ideological political elements, the thought path for the construction of Ideological and political teachers of computer courses, efficient teaching methods and the reform plan of learning evaluation of the combination of process assessment and final assessment, the combination of knowledge assessment and ability assessment, and the combination of professional assessment and ideological and political assessment. It provided a reference path for ideological and political courses of computer science.

1. Introduction
At present, the computer specialty in local colleges and universities has made great contributions to the cultivation of talents with professional knowledge and professional ability, and has provided a large number of talents for the society. But in the ideological and political aspects of the curriculum, there are still many deficiencies, there is no good teaching mode. To do a good job in the ideological and political education of computer courses in local colleges and universities should become the key work of relevant colleges and departments in Colleges and universities. We should improve and reform teaching resources, teaching methods, teaching means, teaching process, teaching evaluation, construction of teaching staff and relevant policies, so as to make the ideological and political education of computer courses constantly improve the quality and cultivate high-quality talents in line with the requirements of the times.

2. Problems in Ideological and Political Education of Computer Courses in Local Colleges and Universities
a. Teacher's concept of Ideological and political teaching is weak. Some computer professional teachers think that ideological and political education is the work of Ideological and political teachers, counsellors, class teachers and relevant leaders, and has nothing to do with their own teaching work. Therefore, when carrying out professional teaching, the ideological and political problems of the curriculum are rarely considered or even not considered at all, which leads to the ideological and political work of the curriculum is not carried out in place.

b. The elements of Ideological and political teaching cannot be deeply integrated with professional knowledge. Although some computer teachers have carried out the ideological and political thinking of the course, they have only designed the ideological and political elements of the course preliminarily, and have not deeply integrated the ideological and political elements of the
course with professional knowledge. In classroom teaching, the explanation of the ideological and political content of the course was far-fetched, and the teaching effect was greatly reduced.

c. Lack of Ideological and political teachers in computer professional courses. Computer science is closely integrated with the society. After graduation, some doctoral graduates of 985, 211 and first-class computer majors will give priority to large companies and scientific research units with relatively high salaries, and teaching in local colleges and universities is a relatively backward choice. Therefore, at present, there is a lack of computer professional teachers in local colleges and universities, especially those who can have the knowledge of computer science and curriculum ideological and political education and have a better integration.

d. Backward teaching methods. At present, the computer teaching in some local colleges and universities was only limited to classroom teaching, and did not pay attention to the cultivation of practical ability, so that students' ability was not improved quickly. They just memorized some concepts and theoretical knowledge by rote, which affected the students' learning initiative.

e. University policy was not in place. In terms of the policy of curriculum ideological and political, most of the leaders of colleges and universities stayed in the oral, and emphasized in many meetings. However, there was no supporting policy in the aspects of specific workload assessment, professional title evaluation and teaching evaluation, which led to the majority of teachers not active in the ideological and political work of curriculum.

3. The Connotation of Ideological and Political Education in Computer Course

Human society is moving from the information age and digital era to the intelligent era. We have been able to feel the more active, intimate and convenient life experience brought by intelligent transportation, intelligent medical treatment, intelligent education, and smart finance. Intelligent manufacturing is changing the traditional industry to play a huge efficiency. The driving force behind all this is driven by data, computing power and algorithm Intelligent.[1]

Computer algorithm is the core of the intelligent era, which embodies the efficiency, computing power, and also reflects the value idea. A destructive computer program can destroy the information system of an enterprise, an industry or even a city in a very short time, thus leading to the suspension of enterprises, industries and cities, causing huge losses to the society. Therefore, the programmer in the intelligent era must have lofty moral sentiment.

The computer major in colleges and universities is the main channel to cultivate talents in the era of intelligence. The ideological and political connotation of computer course is to go with the ideological and political theory course in the same direction, form a synergistic effect, carefully design teaching resources and teaching process, deeply integrate ideological and political elements such as adhering to the leadership of the Communist Party of China, patriotism, excellent traditional culture and good civic morality in the professional teaching process, deeply implement the socialist core values, and cultivate patriotism, excellent traditional culture and good civic morality Innovative, pursuit of excellence in line with the requirements of socialism with Chinese characteristics of modern and intelligent talents.

4. Construction of Teaching Resources with Deep Integration of Ideological and Political Elements and Professional Course Content

Curriculum teaching resources are the focus of curriculum teaching and the first problem to be considered in the reform of Ideological and political education. The construction of Ideological and political teaching resources of computer courses should not only start from the overall talent training objectives, but also update the teaching contents and optimize the curriculum system according to the requirements of the training objectives and talent training methods, reflect the contemporary computer science and technology development, the interdisciplinary knowledge intersection and penetration and other aspects into the curriculum resources, and integrate the ideological and political elements of the curriculum into the professional courses. In the process of teaching resources, we should cultivate students' ability to master new computer knowledge, new
technology and problem-solving ability, as well as cultivate students' strong patriotism and noble moral sentiment. The basic principles of construction are as follows:

a. Scientific principle. The development of curriculum resources should be designed and screened scientifically in a scientific manner. It should not only ensure that the materials of the course conform to the development of computer science and technology, meet the requirements of basic and advanced nature, but also conform to the laws of teaching. In the teaching design, teachers should make clear the key points of teaching, distinguish the primary and secondary contents, arrange the teaching capacity reasonably, consider the choice of teaching content, and give students more space and time. In the selection of various curriculum resources, we should focus on the selection of those resources that are conducive to students' learning, thinking, cooperation and innovation. It is beneficial to the development of the curriculum resources and the utilization of the teaching resources.

b. Principle of deep integration. The construction of curriculum resources is not only the construction of computer professional resources, but also the construction of Ideological and political resources. The two should be deeply integrated and seamless. We should strengthen the consciousness of deep integration of curriculum professional resources and ideological and political resources, build ideological and political resources closely around computer professional curriculum knowledge, promote the construction of computer professional curriculum resources through ideological and political resources construction, and adhere to the same goal, synchronous deployment and work together. [2]

c. The principle of student participation. Constructivism holds that students' knowledge is not acquired by teacher's teaching, but by means of meaning construction with the help of other people in a certain situation. Therefore, it is necessary for students to participate in the construction of curriculum resources. By participating in the construction of curriculum resources, students can understand the course content in advance, lay a certain learning foundation for follow-up learning, which is conducive to the smooth implementation of the teaching process and improve the learning efficiency.

d. Easy to operate principle. The designed curriculum ideological and political teaching resources should be easy to operate, easy to implement in the course teaching process, and avoid the influence of the introduction of curriculum ideological and political resources on the teaching of professional courses.

5. Establishing an Efficient Team of Ideological and Political Teachers for Computer Courses

According to the theory of constructivism, students should be the core and teachers should be the leading role in teaching, which makes the role of teachers very important. It requires teachers to learn, explore and innovate from the perspective of constantly improving their own quality and students' quality, and constantly enlighten themselves and students; teachers are required to have extensive professional knowledge, high academic level, scientific research ability and innovation level, and also have humanities and social science literacy, understand and be familiar with China's 5000 year excellent cultural history, and be familiar with Marx Principles, Mao Zedong Thought and the general plan of the Communist Party of China in the new era, can be good at organically integrating professional knowledge with the ideological and political resources of the CPC's leadership, patriotism, excellent culture and socialist civic morality, so as to educate and guide students, so that students love learning professional knowledge, improve their professional ability, enhance their innovative consciousness and consciously strengthen their thoughts of political consciousness.

The construction of Ideological and political of computer teachers can be carried out in local colleges and universities from the following aspects.

a. Policy efforts should be increased to attract high-level talents such as doctors of computer science to engage in teaching work in local colleges and universities. In terms of establishment, housing, scientific research funds, wages and other aspects, should incline to high-level talents and form a cash in mechanism at any time. As long as they complete the corresponding tasks and meet
the requirements of the assessment indicators, they can get the corresponding treatment immediately, so that the high-level talents can carry out teaching and scientific research work with peace of mind, and constantly obtain innovative achievements.

b. Increase the existing teacher training efforts, all computer teachers are carried out ideological and political training courses. All computer teachers consciously strengthen the study of Humanities and social science knowledge, strengthen the study of the leadership of the Communist Party of China, national consciousness, excellent culture and civic morality, so as to greatly improve the ideological and political level of computer teachers, so that they can better cultivate and guide students.

c. Strengthen the evaluation of Ideological and political teaching of computer course. For the computer teachers who are good at ideological and political teaching, they should give priority to the evaluation of professional title, post appointment and annual evaluation, so as to promote the computer teachers to consciously carry out the ideological and political education.

6. Reform in Teaching Methods

According to the requirements of constructivism teaching theory, in the teaching process, teachers should fully reflect the students' dominant position and fully mobilize their enthusiasm, initiative and creativity. According to the characteristics of students, teach students according to their aptitude. Teachers should reform the teaching method of “ cramming the whole room” and actively adopt the lively teaching methods such as heuristic teaching, discussion teaching and research teaching. The reform of teaching methods should be conducive to strengthening the cultivation of students' self-study ability, independent analysis and problem-solving ability, innovation ability, and the all-round development of students' personality and ability.

Under the guidance of the above ideas, in order to better promote the ideological and political work of the course and carry out teaching with high efficiency, teachers must reform the single classroom teaching mode of most computer professional courses, vigorously promote the online and offline mixed teaching, make full use of the ubiquitous characteristics of the network, and build a ubiquitous learning space, so that students can use smart phones, laptops, iPads and other equipment Online learning at any time, encounter problems, can immediately discuss students, teachers and students, so that students' problems can be solved in time. We should vigorously carry out flipped classroom teaching. Teachers should reserve questions for students in advance, prepare students before class, and carry out discussions between teachers and students in class. In the discussion, expand students' vision, cultivate students' sentiment, cultivate students' innovative thinking, exercise students' speech ability, and improve their ability to solve problems comprehensively. For more comprehensive problems, they can be arranged in the form of projects and themes in advance. Students study in groups, carry out independent exploration among group members, discuss and even debate among group members, and form a group plan. Finally, they give speeches in class. Other group members raise questions and discuss with the whole class, so as to cultivate students' exploration spirit and cooperation ability, lays a foundation for students to carry out practical project development and scientific research.

7. Reform of Learning Evaluation

As a feedback regulation mechanism of learning system, learning evaluation plays a guiding role in students' learning process. A good learning evaluation program can actively mobilize the enthusiasm of students, promote students to maintain a strong interest in learning, and get better learning results. The proportion of the usual score in the total score of the course should be increased to more than 50%. The usual assessment includes not only attendance, theoretical homework, experimental work, but also some stage quizzes, project design, theme learning, etc. Through the usual quizzes, students can seize the time to learn basic knowledge in the learning process, and avoid the final exam shock learning. Through 2-3 weeks of project design or theme learning, in groups of 3-5 people, students can get the group plan through independent exploration,
cooperative learning and mutual discussion, and integrate the ideological and political problems of the course, and give a speech in class. In addition, students' self-evaluation, group members' mutual evaluation, students' evaluation outside the group and teachers' evaluation are used to give the results of project design or theme learning. Only in this way can students' comprehensive ability and innovation ability be improved. The final examination will reduce the assessment of basic knowledge, increase the number of comprehensive discussion questions and open questions, and take the ideological and political problems of the course as the examination subjects, such as “how to improve the technical level of Chinese database”, “how to ensure the security of China's Internet”, “how to develop the independent intellectual property rights instruction system”, etc.[3]

8. Conclusion

As long as the majority of computer teachers in local colleges and universities adhere to the original intention of cultivating morality and cultivating people, adhere to the sincerity of all for the sake of students, strengthen the confidence that the socialist cause under the leadership of the Communist Party of China will surely achieve great victory, and carry out the ideological and political teaching reform of computer courses, they will certainly cultivate intelligent talents with both political integrity and ability who are patriotic, dedicated to the country, and powerful.

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References

