

Research on Ideological and Political Education into Front-End Development Courses

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Abstract: The front-end development course, as a computer science course, aims to cultivate students' skills and knowledge in front-end development. However, mastering technology and knowledge alone is not enough for students. They also need to possess ideological and moral qualities, a sense of social responsibility, and innovative abilities, which will have a positive impact on their comprehensive development and contribution to society. Therefore, research should be conducted on how to integrate ideological and political education into front-end development courses, in order to further clarify the ideological and political education goals of front-end development courses, based on the goal of ideological and political education in the curriculum, improvements will be made to the teaching content and design of the front-end development course. Taking the selection structure as an example, the ideological and political education in the course will be integrated into the classroom for practice, allowing students to master professional knowledge while achieving the goal of moral education.

Keywords: Front-end Development; Curriculum Model; College Students.

1. Introduction

Course ideological and political education is an important means for universities to implement the spirit of the National Conference on Ideological and Political Work in Higher Education Institutions. It is necessary to adhere to the concept of "three comprehensive education" as guidance, integrate the idea of educating all staff, the whole process, and all aspects into talent cultivation, fully leverage the educational role of professional courses in universities, and truly cultivate high-quality and high-level skilled talents for society.

Comprehensively promoting the construction of ideological and political education in courses is the fundamental task of implementing moral education and cultivating talents. The construction of ideological and political education in courses is an important task of comprehensively improving the quality of talent cultivation, and it clarifies the goals, requirements, content priorities, and promotion methods of ideological and political education in courses. Front end development courses are important courses for computer majors, and it is necessary to integrate ideological and political education into front-end development courses.

The existing education only focuses on the cultivation of knowledge and abilities, lacking the cultivation of qualities and ideas. At present, front-end development courses not only need to cultivate students' abilities to analyze problems, design algorithms, write code, and maintain code, but also need to guide students to be honest college students in the teaching process, cultivate their craftsmanship spirit, scientific spirit, and innovative thinking, and pay attention to patriotic education, Encourage students to contribute to the computer industry. Therefore, introducing ideological and political education into front-end development courses is a supplement and support to existing education.

2. Application Status

In recent years, various universities have attached increasing importance to the ideological education of students,

and have introduced policies and measures for curriculum ideological and political construction, gradually integrating curriculum ideological and political education into the teaching of frontline teachers in universities. This has also prompted scholars and teachers to conduct a series of research and exploration on curriculum ideological and political education. For example, some scholars elaborate on how ideological and political elements such as patriotism, professional pride, professional responsibility, and craftsmanship can be integrated into professional courses. Some scholars explore the ways and methods of integrating ideological and political elements into front-end development courses, while others provide practical cases of course ideological and political integration for different knowledge points in front-end development courses. This article attempts to explore the application of ideological and political education in front-end development courses, explore the elements of ideological and political education in front-end development courses, design teaching methods for the application of ideological and political education in courses, and use function calls as an example for teaching practice. It aims to cultivate students' textbook knowledge and personal abilities while also doing some moral education work, achieving the goal of cultivating students with socialist core values, professional ethics, and personal qualities in ideological and political education.

3. Course Ideological and Political Application Design

The front-end development course adopts a blended online and offline teaching design that integrates ideological and political elements into the course. Course resource development is carried out before teaching. The teaching process includes pre class self-learning, classroom teacher-student interaction, and post class practical training. Students can independently learn the basic concepts and ideas of front-end development before class, cultivate their patriotism, and enhance their confidence and sense of responsibility by understanding the development process of China's computer

industry; Through classroom learning and practical training after class, master the development methods of front-end pages, design functional pages that meet specific needs, and reflect team spirit in the design process. Through the teaching process, not only cultivate students' front-end development ability, but also cultivate their rigorous and pragmatic attitude, scientific spirit, and innovative ability.

3.1. Explore Ideological and Political Elements

The front-end development course includes knowledge points such as development history, data types, control structures, functions, arrays, etc. It can explore corresponding ideological and political elements from each knowledge point. For example, introducing the current situation of front-end development in China, inspiring students' patriotism and enthusiasm for bringing glory to the country; Guide students to have a rigorous and meticulous understanding by explaining that the same words have different meanings due to their capitalization; The use of selection structures can display different results, allowing students to understand the importance of choosing the correct outlook on life and values; The loop structure requires a statement to be executed thousands of times to achieve the desired result, allowing students to understand the principle of accumulation, perseverance, and transitioning from quantitative to qualitative change; Combining different data types together to form a structure, which leads to different students coming together to form a whole, and thus cultivates students' sense of teamwork and collective honor.

3.2. Instructional Design

After proposing relevant classroom exercises in classroom teaching, teachers encourage students to actively engage in proactive learning, mobilize their enthusiasm, and encourage them to actively participate in group discussions. Students in the group cooperate with each other to complete learning tasks, cultivating the spirit of teamwork in student groups. Specifically, each class can be divided into the following steps:

(1) Understanding the effectiveness of students' self-directed learning before class can allow them to share their learning experiences before class;

(2) Present the key and difficult questions for this lesson, and have group discussions with all students. Ask questions between groups;

(3) Teachers summarize and evaluate based on the discussion results;

(4) Teachers assign classroom exercises, students complete them in class, and teachers provide personalized guidance;

(5) Teachers conduct exercises, evaluations, and Q&A;

3.3. Teaching Evaluation Design

Traditional teaching evaluation generally only uses exam scores as assessment criteria, and integrating ideological and political education into curriculum evaluation will be divided into score evaluation and ability evaluation. Not only do we evaluate students' daily test scores, experimental report scores, and final exam scores, but we also evaluate their teamwork ability, innovation, and learning initiative. After comparing the classes that implement ideological and political education with traditional teaching methods, we summarize the advantages and disadvantages of integrating ideological and political education into the curriculum with traditional teaching methods, and make corresponding improvements to teaching design and implementation, forming an effective

continuous improvement loop.

4. Practical Cases of Course Ideological and Political Education

This article will take the example of selecting structures and design case studies during the teaching process. Through case studies, students will master the grammar of selecting structures and integrate ideological and political elements into the teaching process. This will not only help students understand new knowledge but also achieve the goal of moral education.

4.1. Classroom Teaching Practice

(1) Pre class preview, students learn through the teaching resources provided by the SuperStar platform, and independently learn the if and switch sentences for selecting structures in advance. The mastery of knowledge points is checked through pre class exercises assigned by the teacher. Students submit difficult questions to the online discussion module in the form of comments, and the teacher can answer questions online and keep track of the student's learning dynamics in a timely manner.

(2) Classroom discussion, each group conducts group discussions on the questions raised in class, such as asking students to execute different programs based on different conditions, and focusing on discussing the differences between if statements and switch statements in the selection structure.

(3) The difficulty in selecting a structure for classroom exercises is how to use if and switch statements to solve practical problems. Classroom exercises are assigned to students to complete in class and train their problem-solving abilities.

Exercise: Judge students' grades. A score below 60 is considered unqualified, a score between 60 and 80 is considered qualified, and a score between 80 and 100 is considered excellent. This question is a typical multiple-choice structured question type, which judges students' grades and outputs different results based on different grades. It helps students understand the importance of choosing the correct outlook on life and values.

Method 1: Most students can think of using the if statement to complete this question, and judge one by one to see if it meets the conditions. At this point, we remind students that the algorithm for a problem may not be unique. Please consider whether there is a more efficient algorithm, and each group can discuss it on-site.

Method 2: This question can also be completed using the switch statement, with one judgment. Comparing the judgment conditions with the conditions after the case can output the results at once without the need for individual comparisons. Method 2 has one comparison, which is much more efficient than Method 1. Through the explanation of this exercise, students can understand that solving problems can try to design more efficient algorithms and cultivate their innovative spirit.

4.2. Teaching Evaluation

After class, a questionnaire survey was conducted on the different abilities of students. The survey results showed that students are supportive of integrating into the ideological and political teaching mode of the course. The vast majority of students have mastered the knowledge points of this class, and

have also improved their teamwork ability. This class achieved the expected results, but students need to improve their learning initiative. In the future, teaching design will be improved to address this point.

5. Conclusion

This article introduces course ideological and political education into front-end development courses, explores the application of course ideological and political education in front-end development courses, and introduces the practical process of using selection structure as a case. The teaching has achieved the expected effect, providing reference for other knowledge points in the course to carry out course ideological and political education. Next, we will carry out ideological and political practice on other knowledge points of front-end development courses, strengthen students' ideological education, and gradually improve the teaching quality of front-end development courses

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