Discussion on the Design of Ideological and Political Course and Online Teaching Scheme of Programming Language Course

Xiangyu Ma

USA School of Computer and Information Engineering, Shanghai Polytechnic University, Shanghai, China
xyma@sspu.edu.cn

Abstract: The ideological and political teaching of programming language course has certain characteristics in content, process and form. The teaching goal takes moral cultivation as the fundamental task to lead knowledge learning and ability training. It requires to establish a correct three outlook, go together and form a synergistic effect. To implement the fundamental task of establishing morality and cultivating people, we must integrate value shaping, knowledge imparting and ability cultivation. For the construction of "ideological and political curriculum" of programming language project-based teaching, we should thoroughly clarify the teaching content of programming language courses, combine the characteristics of programming language courses, deeply tap the ideological and political elements of programming courses, reasonably and effectively integrate into the teaching of programming courses, so as to achieve the educational effect of moistening things silently.

Keywords: Ideological and Political Course; Online Teaching Scheme; Programming Language Course.

1. Introduction

In recent years, the research on classroom teaching has achieved fruitful results both in theory and in practice, and the efficiency of classroom teaching has also been improved to varying degrees. However, on the whole, the current situation of "high consumption but low efficiency" in classroom teaching has not been completely changed. It should be said that there are many factors that affect the improvement of classroom teaching efficiency. The quality of teaching materials, curriculum structure, teachers' quality, teaching methods, and social environment are all important factors. We need to continue to carry out research from both theoretical and practical perspectives, so as to form an overall resultant force to improve classroom teaching efficiency. However, as far as the current situation of classroom teaching is concerned, the author believes that strengthening the goal consciousness of classroom teaching should be an inevitable choice to improve the efficiency of classroom teaching.

In the past, the teaching of programming language course was mainly based on professional knowledge and skills learning. After the ideological and political content of the course was added, it was aimed at quality education, relying on the teaching of programming language course, and infiltrated the value shaping into the learning process of programming language course through implicit education mode, so as to achieve a silent quality education process. The selection of teaching content, the design of teaching process, and the selection of teaching methods need to consider moral education. By selecting appropriate integration points, the content of professional courses and ideological and political elements are skillfully integrated. Therefore, in the evaluation of ideological and political education of programming language courses, the evaluation of ideological and political education of courses and the evaluation of teaching process are inseparable. Besides scientific and accurate professional knowledge and skills, the evaluation system also needs to consider moral education.

2. Related works

By revising the talent training program, we emphasize the all-round development of morality, intelligence, physical education, beauty and labor. Professional education is organically integrated into ideological and political education, which not only enables students to master the network professional technical skills, but also trains students to become professional skills application talents with high ideological and political awareness. However, for a long time, the higher education based on the mode of professional knowledge infusion and theory teaching has relatively ignored the cultivation of ideological and political education in professional courses. The purpose of reasonable innovation of talent training mode is also to solve the problem of "organic integration" between ideological and political education and professional curriculum education. It is also the starting point and destination of professional education to improve the application ability of professional knowledge, transform the learned knowledge into professional skills, apply them to enterprise project practice, and provide enterprises with talents with high technical level and high ideological awareness.

Figure 1 shows many elements of ideological and political education and online teaching that need to be included in the programming language course.

![Fig. 1 Education Methods](image-url)
3. Discussion

3.1. Improve teaching objectives

In teaching, if you want to fully remind the moral education function, you need to excavate the moral education materials contained in the textbooks as much as possible in the process of spreading knowledge and developing intelligence for students. In fact, teachers need to pay attention in the selection process, try to choose materials that can have positive educational significance for students, and prevent unhealthy effects on students. In teaching, the penetration of moral education also needs to be properly grasped. Too frequent or too few moral educations cannot achieve the correct education for students. In a word, in the process of moral education for students, the primary goal is to help students achieve the establishment of a good three outlook, so that students can view the world correctly.

Teaching practice tells us that teaching objectives play a guiding, motivating and detecting role in classroom teaching activities. Any effective teaching must first have a clear goal. The teaching practice tells us that a clear and specific teaching goal is like a lighthouse on the sea, which always leads the teachers' "teaching" and students' "learning" towards the predetermined direction, and gradually leads the teaching to the other side of success. Therefore, teaching objectives play a role of directional navigation in the teaching process.

Learning psychology tells us that a correct, specific teaching goal that conforms to the laws of students' learning psychology can not only effectively stimulate students' learning motivation, promote and promote students' learning activities, but also strengthen students' learning will, temper and cultivate their tenacious learning perseverance. Countless teaching facts have also proved that when students understand the learning objectives and learning values, they will stimulate their interest and needs in learning and will devote themselves to learning activities. Therefore, teaching objectives have the function of encouraging and urging students to study hard in teaching activities.

To confirm how much progress students have made, how much development they have made and how effective teachers' teaching is, we must measure and evaluate the teaching results. The main basis for measuring and evaluating the success of teaching is the achievement of teaching objectives. If we deviate from the goal, measuring and evaluating the teaching results will inevitably lead to students' loss of confidence and motivation in learning.

3.2. Deeply explore the ideological and political elements

To solve a code problem, teachers can teach more methods, compare the centralized methods, and tell students how to choose a method from the perspective of efficiency, which is professional quality; If we continue to explore and optimize the code algorithm from a personal point of view, so that we can continue to grow, this is the philosophy of continuous learning; From the perspective of values, we should guide students to explore the nature of the profession. Doing a job is not only to get a salary, but also to value the dedication of personal work. Doing more is not to lose. Money is not the only standard to measure personal value. Affirmation of personal value is more about self-affirmation. I spent more time optimizing the code, although it only improved the efficiency of the company by 1%. But my small individual has also made contributions to the company. Every screw in the society has its irreplaceable contribution and value.

For example, in the course of teaching computer basics, students are not only told that the father of computer is John von Neumann, but also can be interspersed with von Neumann's diligent and rigorous academic attitude in teaching; Von Neumann is meticulous and innovative in his work; Von Neumann's hard-working and persistent attitude towards life. All of these are moral education methods to create models for students.

3.3. Introduce the ideological and political mode based on the situation

The traditional teaching mode of the ideological and political theory course in colleges and universities in China is that teachers give theoretical explanations around the teaching materials in the classroom, and students understand and absorb the relevant content according to the teacher's explanations. In this traditional teaching mode, the teacher is the leading role in the classroom. The teacher opens the students' understanding of the ideological and political theory by preparing lessons and reserving theoretical knowledge. The main disadvantage of this model is that the teaching form is too single, and students are in a passive position in the classroom. Although the purpose of teaching is for students to better learn and master the relevant knowledge of the ideological and political theory course, because teachers spend most of their time explaining single theoretical knowledge and case materials, students are only responsible for being a receiver of information, and students become passive receivers of knowledge in the classroom, which is easy to make students fall into audio-visual fatigue and affect the final effect of teaching. How to break through the traditional single teaching mode, realize the innovation of teaching mode, and effectively make the classroom focus on students' learning effect to fully improve students' enthusiasm is an important direction of the reform of teaching methods of ideological and political theory courses.

4. Conclusion

The purpose of implementing "curriculum ideological and political education" in programming language project-based teaching is to establish morality, cultivate people and lead professional ability training, so that students' quality education and ability improvement can move forward simultaneously. It should reflect the overall improvement of students' knowledge, thought and ability, which is closely related to the overall design and implementation of teachers' teaching content, process and methods. We must grasp the focus of different dimensions, scientifically and rationally design the educational content and model, and stereoscopically present the teaching results, which is the key to the success of constructing the ideological and political education of the curriculum. At the same time, we must grasp the characteristics of many dimensions, be familiar with the teaching content, methods and evaluation, and finally achieve the goal of cultivating moral and human beings.

Acknowledgements

This paper was supported by the Training Funding Program towards young teacher of the universities in Shanghai.
References

[1] Wang Lei, Liang Yan. Reform and practice of ideological and political teaching system in pathology and pathophysiology of nursing specialty[J]. International Journal of Surgical Research,2022,5(3).

[2] Jian Xiang. Exploring Curriculum Ideology and Politics in First-Class Major Construction - Introduction to Artificial Intelligence as an Example[J]. Asian Journal of Education and Social Studies, 2022.

[3] Qunli Xing, Yiyuan Yang. The Practical Path of Ideological and Political Teaching of Ethnic Aerobics Courses from the Perspective of Lide Shuren[J]. Curriculum and Teaching Methodology, 2022, 5(9).

[4] Dong Wang. Refinement and Teaching of Cases of Curriculum Ideology and Politics in the Course of Composite Materials[J]. Journal of Educational Research and Policies, 2022, 4(9).

[5] Yue Liu, Lili Yu, Xiaoguang Su. Research on the Inquiry-Based Teaching Mode of College Computer Basic Courses Based on Ideological-Political Education in Curriculum[J]. Curriculum and Teaching Methodology, 2022, 5(8).

[6] Ke Xie. The Promotion of the Construction Path of "Ideological and Political Theories Teaching in All Courses" in Colleges and Universities[J]. Curriculum and Teaching Methodology, 2022, 5(8).

[7] Jingyao Huang, Jianrong Liu. Research on Constructing Ideological and Political Elements System of "College Physical Education: Tai Chi"[J]. Curriculum and Teaching Methodology, 2022, 5(8).

[8] Xu Bo, Wu Qian, Han Nanyu, Tang Xianghua, Huang Zunxi. Exploration and practice in ideological education in the course of "Protein and Enzyme Engineering"[J]. Sheng wu gong cheng xue bao = Chinese journal of biotechnology, 2021, 37(12).

[9] Yunfeng Gong, Xiaolan Lu, Delong Cui. Research on the Construction Strategies of "Curriculum Ideology and Politics" for Professional Courses[J]. International Journal of Frontiers in Sociology, 2021, 3.0(8.0).

[10] Xiaolan Lu, Yupeng Xie, Delong Cui. Research on the Integration of Curriculum Ideology and Politics into Electronic Practical Teaching Based on OBE[J]. International Journal of Frontiers in Sociology, 2021, 3.0(8.0).

[11] Haibo Yi, Meng Xiao. Research on the Method of Ideological and Political Integration of Artificial Intelligence Course[J]. The Educational Review, USA, 2021, 5(7).

[12] Chuanju Wang. Exploration of the Path to the Integration of Curriculum Ideology and Politics in College Foreign Language Curriculum[J]. International Journal of New Developments in Education, 2021, 3.0(3.0).

[13] Xinseng Wang, Junjian Hou. Exploration and Practice of Ideological Education in Engineering Courses[J]. Journal of Educational Research and Policies, 2021, 3.3(3).

[14] Guo Shuying. Research on Ideological and Political Teaching of Product Design Course for Industrial Design Major[J]. IOP Conference Series: Materials Science and Engineering, 2019, 573.

[15] Dr. Samiran Senapati. Ideological and Political Teaching Reform of Computer Network Course under the Concept of Thinking Innovation[J]. Indian Journal of Public Health Research & Development, 2018, 1(1).