

Research on the Practice of Blended Teaching Mode based on SPOC from the Perspective of Curriculum Ideology and Politics——Take the Electronic Circuit Board Design and Production Course as an Example

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Abstract : This paper updates the educational and teaching concepts, teaching methods and teaching methods. Through the analysis of the electronic circuit board design and production course, it explores the ideological and political reform of the course, adds the ideological and political teaching goals, and summarizes the methods for improving the ideological and political level. The theoretical and practical teaching has been improved to a certain extent.

Keywords : Curriculum Ideology and Politics; Higher Vocational Colleges; Teaching Mode

In order to actively respond to General Secretary Xi Jinping's call for the fundamental task of education in higher education, and guide students to establish a correct world outlook, outlook on life and values, this paper organically integrates curriculum ideology and politics into practice in a flexible way and multiple dimensions. In teaching, students are inspired to develop a sense of professional responsibility and mission of advocating science, daring to innovate, and daring to take responsibility. In 2013, Professor Fox of the University of California proposed SPOC teaching. In recent years, the domestic SPOC teaching model has been very popular. However, there is still a big gap in the exploration of the blended teaching model based on SPOC. Combined with the theoretical basis and practical process of previous research, it analyzes the historical and practical roots of the problem, and proposes specific solutions to meet the needs of information development and the need for teaching reform.

1. The necessity of exploring the practice of new teaching mode

The content of the course is broken and established, and the ideological and political education guides the direction. As the cornerstone of electronic products, printed circuit boards are the mother of electronic products in the fields of communications, automobiles, medical care, national defense, and aerospace. They will also become the basic force linking the previous and the next in the electronic industry chain. Industry development has solid confidence and Chinese wisdom. Under the current social environment, quality education requires all-round development, and engineering majors in higher vocational colleges need to establish teaching goals of knowledge imparting, ability training, and value shaping. Combined with the knowledge points of electronic circuit board design and production itself, deeply excavate the ideological and political elements, make the best use of the situation to guide the ideological and political, and moisten things silently and understand the three views.

New environment, new ideas, new content reconstruction. Based on the calibration points, reconstruct the course knowledge points. Through the research on the professional training objectives and the teaching objectives of the course, the course content is reconstructed, the knowledge points are systematized and fragmented, and the corresponding three-dimensional teaching materials are developed, which will open up new ideas for the future teaching mode and fully implement it. "Three all-round education", to promote ideology and politics into the eyes, into the brain, into the heart.

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Renew the concept of education, emphasizing the life-oriented. Take students as the foundation, and create a “four-you” classroom. In order to ensure the highest participation rate and the greatest attractiveness in the classroom under the blended teaching model, teachers need to make every effort to build a “four-have” classroom, which is interesting, informative, elegant, and orderly. Life-oriented, build a learning community. Under the SPOC-based blended teaching model, it focuses on the process of students’ self-improvement, takes students’ autonomous learning as the main line, and builds “autonomous and supportive” learning with “teacher-oriented and student assistance, peer mutual assistance and motivation” as the autonomous support strategy community.

Promote the vitality of colleges and universities, and promote the reputation of colleges and universities. Under the “SPOC+ ” blended teaching model, the supervision of courses is a new challenge for schools, which effectively promotes the vitality of education reform at the school and college levels, and improves the online supervision platform system. Students can improve their self-learning ability, problem-solving ability, and self-skills, effectively shorten the employment adaptation period in future job selection and employment, efficiently generate income and profits for enterprises, and improve the reputation and influence of colleges and universities.

2. Ideological and political elements of electronic circuit board design and production courses

General Secretary Xi Jinping pointed out: “The ideological and political work in colleges and universities is related to the fundamental issue of what kind of people colleges and universities cultivate, how to cultivate them, and for whom to cultivate them.” In order to cultivate qualified PCB talents for the country and take good courses in ideology and politics, the teachers of the course group of the college use local red educational resources to learn the history of the party and improve their own ideological and political literacy; combine the learning of the four histories to excavate ideological and political elements related to the curriculum, and establish relevant curriculum ideology. Political case library, integrating cases into classroom knowledge. Through the ideological and political teaching of the course, teachers are encouraged to use ideological and political cases in the course to achieve the internalization of ideology and politics, focusing on knowledge transfer and skill strengthening, and more emphasis on value guidance.

3. Practice research on the ideological and political teaching mode of the course “Electronic Circuit Board Design and Production”

Course ideological and political content and teaching resource construction. Combined with the study of “Four Histories”, the ideological and political elements of the curriculum are excavated, and the three-dimensional goals are included in the outline, lesson plans and courseware, so that emotional value education runs through the whole process of teaching. (Figure 1). Push the development trend of electronic circuit board design to the student port through diversified methods, guide students to have a preliminary understanding of printed boards in life, make students full of confidence in future career development plans, strengthen the country’s development path, and cultivate patriotic feelings; In the process of PCB board layout of the perpetual calendar, the teacher explained the rationality and scientificity of the layout in order to save space and resources, thereby introducing saving and saving mineral resources; Professional terminology and professional attitude enable students to feel the charm of the profession, integrate the spirit of craftsmanship, and improve the spirit of professionalism.

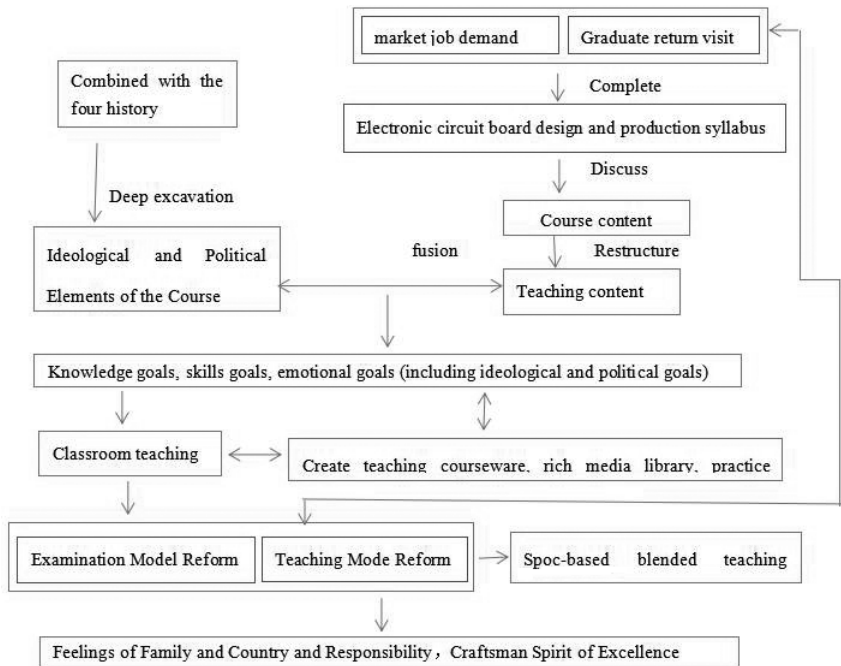


Figure1. Course ideological and political design ideas.

Curriculum teaching mode reform. Electronic circuit board design and production is a highly technical course, and the subject-based teaching method is adopted in the learning process. Through corporate contacts, graduate interviews, and combined with professional talent training programs and curriculum standards, teachers determine tasks and divide their main tasks into steps. After students are divided into groups, they break down subtasks and complete the main task together. In the teaching process, the basic knowledge learning is first completed through online learning; offline, vocational education cloud, enterprise WeChat and other platforms are used to guide students to think with questions, make summaries, fully mobilize students' learning autonomy, and cultivate students' innovative thinking and analysis. The ability to solve problems, arrange after-school homework such as structural appreciation and short pictures and videos, will be reviewed by teachers in a centralized manner, so that students can feel the sense of honor brought by learning.

4. Conclusion

In the actual teaching process of "Electronic Circuit Board Design and Production", the "student-centered" teaching concept has always been implemented. According to the rules of vocational education, combined with the analysis of learning conditions, it adheres to the teaching concept of industry-education integration and school-enterprise co-education, give full play to the professional quality of teachers, the spirit of exploration of students, the information-based teaching environment, the teaching resource library, and the cloud teaching platform, run through the student-centered, result-oriented teaching ideas, in-depth course goals, business needs, and ideological. The goal of political education is realized in the course, guiding students to reorganize and integrate teaching resources for independent learning, and combining with typical problems to carry out online and offline mixed teaching methods such as in-class lectures, practical demonstrations, and online assessments to complete the teaching implementation process.

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