

Exploration and Practice of Ideological and Political Education in Vocational Education Curriculum Based on Learning as the Center

Li Li*, Hongqiang Zhao, Xingxiang Guo, Xiaoyao Wang

Naval Aviation University Qingdao Branch, Qingdao, China

Abstract: Anti mold technology in aviation material storage is an important foundational course for aviation material management majors. In order to effectively play the role of the main channel for classroom education, curriculum ideological and political reform has been carried out in the course of curriculum teaching, effectively integrating curriculum ideological and political concepts into professional classrooms. Based on learning as the center, curriculum ideological and political goals have been established, curriculum ideological and political elements have been explored, and the entire process of education mode has been explored. Implementation precautions have been proposed, and ideological and political education has been implicitly embedded in various stages of the teaching process. Through students' independent participation and self-awareness, ideological and political internalization has been achieved, providing reference and inspiration for the ideological and political reform of other courses.

1. Introduction

The three interrelated issues of "who to cultivate, how to cultivate people, and for whom to cultivate people" are the fundamental issues of current education. For any country to develop at the fastest speed, there must be a large number of talents with both moral and talent. As universities can cultivate high-quality talents for society, the role of universities must be fully utilized. University teachers must organically integrate ideological and political elements into their curriculum teaching, consciously combine knowledge impartation and value guidance, and achieve a perfect unity of teaching and education^[1-2].

Anti mold technology for aviation material storage is a discipline that studies the life activity patterns and applications of storage mold, and is a fundamental course for aviation material management majors. In previous curriculum teaching, there were also some ideological and political cases involved, but the relevant ideological and political elements were not many, which could not meet the requirements of ideological and political education in the new era curriculum. How to effectively implement ideological and political education in the curriculum has become an urgent issue for teachers of aviation material storage and mold prevention technology to consider.

2. Follow the course syllabus and establish the ideological and political goals of the course

The course objectives specify the degree to which students expect to achieve their professional knowledge, abilities, and comprehensive qualities after learning the course. They are the basis for determining the course content, teaching objectives, and teaching methods, and are also the most critical guidelines guiding the entire teaching process. Therefore, in order to implement ideological and political education in the curriculum, the first step is to construct curriculum goals and form a new curriculum goal that integrates professional goals and ideological and political goals.

The teaching objective of the aviation material storage mold prevention technology course is to guide students to understand the development process and research content of storage mold, summarize the research methods and ideas of storage mold, clarify the life activity patterns and effective prevention and control of storage mold, etc. The course objectives include three parts: knowledge objectives, ability objectives, and ideological and political objectives. The establishment of ideological and political goals is centered around learning, focusing on students' professional core competencies according to their characteristics, based on teaching content, focusing on commonalities, and highlighting individuality. Curriculum ideological and political education is not simply about incorporating ideological and political

* Corresponding author: qdxqlxia@163.com

education content into professional courses, but rather subtly extending comprehensive qualities related to personal value orientation, professional ethics, national sentiment, and other aspects in the teaching of professional knowledge. Its core goal is to cultivate morality and cultivate people^[3-4]. On the basis of analyzing the ideological and political elements of the course, the ideological and political goals of the warehouse mold prevention course are proposed, cultivating a strong sense of patriotism, cultivating cultural confidence, possessing the concept of scientific prevention and control, emphasizing operating procedures, improving safety awareness, cultivating a rigorous, meticulous, and responsible work attitude, cultivating students' dialectical thinking ability, and guiding them to establish a correct worldview, outlook on life, and values^[5-6].

3. Based on the ideological and political objectives of the curriculum, explore the ideological and political elements of the curriculum

3.1 Cultivate a sense of patriotism and achieve cultural confidence

China's traditional culture is vast and profound. During the experience period of microbiology development, ancient Chinese people have made significant contributions in agriculture, brewing industry, immunology, and other fields. For example, in the ancient book "Qi Min Yao Shu", the brewing of vinegar is described in great detail, and it is pointed out that vinegar jars should be placed high and away from dampness to prevent the growth of mold. During the "Yangshao" period from 5000 BC to 3000 BC, and the "Longshan" period from 2500 BC to 2000 BC, China's drinking culture had already surpassed that of most regions of the world at that time. This also indicates that thousands of years ago, Chinese ancestors had already developed industrial production processes similar to today's microbial engineering, and this part of the content will also become the most memorable part for students. Our "cultural confidence" is not only reflected in poetry, songs, music, and art, but also in this "invisible world", making them feel proud. What we need to do is effectively inherit and continue to carry forward.

3.2. Cultivate professional ethics of love and dedication and enhance social responsibility

In the course teaching process, it is of great significance to deeply explore relevant ideological and political elements and teaching cases, in order to cultivate students' professional ethics and social responsibility of love and dedication. As builders and successors of socialism with Chinese characteristics, students shoulder significant social responsibilities. Multiple group experiments and joint participation can cultivate students' sense of unity and collaboration and team management abilities. Students can deeply understand and consciously practice

professional spirit and norms, enhance the sense of professional responsibility in aviation material support positions, and cultivate a professional character of love, dedication, unity and cooperation.

3.3. Cultivate students' scientific thinking of dialectical materialism

Dialectical materialism is one of the most powerful tools and weapons for humans to understand and transform the world. Microbiology is an important component of natural science. Guided by dialectical materialism, it can help students correctly understand and study the objective laws of microorganisms. In microbiology teaching, the cultivation of dialectical thinking abilities, such as the law of unity of opposites, contradiction analysis, diversity and unity of things, is combined to enable students to apply dialectical thinking to view social and life phenomena, which helps them form a correct worldview.

3.4. Cultivate a rigorous and dedicated scientific spirit

Many microbiologists, in the pursuit of truth, do not believe in authority, are brave in exploration, dare to innovate, and even more scientists are willing to contribute everything to the scientific cause. For example, Fleming was good at observing and discovering no colonies around the culture medium contaminated by *Penicillium* during the bacterial culture process, and research discovered antibiotics. These achievements of scientists not only broaden students' horizons, but also help cultivate their scientific spirit of rigorous scholarship and brave dedication.

4. Based on the student-centered concept, reform the curriculum teaching mode

With the increasingly complete functions of online learning platforms and the abundance of MOOC resources, more and more professional courses have begun the reform of blended online and offline teaching. This teaching model helps to explore the "second classroom" of ideological and political education in the classroom, and better integrate ideological and political elements into professional course learning through subtle influence. By utilizing both online and offline channels to comprehensively implement curriculum ideological and political education, a closed-loop teaching process is formed, integrating curriculum ideological and political education into the "pre class, in class, and post class" three stages of teaching, achieving deep interaction and integration of knowledge ideological and political education, and maximizing the effectiveness of ideological and political education^[7-10].

4.1. Give full play to the teacher's leading and supervising role, and let students express their opinions before class

Online learning can provide students with free learning time and space, allowing them to fully grasp their learning initiative. In the process of blended online and offline teaching, by assigning learning tasks before class, students can obtain good teaching feedback online through teaching methods such as MOOC self-learning, knowledge point discussion, and pre and post class self-test. Students not only master the knowledge requirements in the teaching plan, but also further broaden their knowledge range. In the process of introducing ideological and political elements into the curriculum, ideological and political elements are infiltrated into students' daily learning through online channels, subtly helping them establish correct worldviews, values, and outlooks on life. With professional knowledge as the main line and ideological and political education as the auxiliary line, problems are introduced from the auxiliary line, and the main line is used to promote solutions, forming a spiral loop, stimulating students' main role in teaching practice, using interest to stimulate thinking, questioning to guide students' thinking, and using empirical thinking to guide students' thinking. Based on the smart teaching platform, group thinking, discussion, and display activities are carried out, quietly and synchronously realizing knowledge transmission, ability cultivation, the teaching goal of value shaping as a trinity.

4.2. Give full play to students' subjective initiative, and organize and guide teachers in class

Curriculum ideological and political education is a form of implicit teaching, which does not involve the transfer of ideological and political learning to professional classrooms. Instead, it requires teachers to integrate ideological and political education into various aspects of curriculum teaching through various teaching forms, in order to achieve a teaching effect that turns spring breeze into rain and moistens things silently. The blended online and offline teaching mode emphasizes a student-centered approach, with teachers playing an organizational, guiding, and supervisory role. Offline classroom teachers throw bricks and attract jade, introducing course ideological and political education from aspects such as aviation material industry role models, mold development history, and ideological and political education cases. Through diversified presentation of resources such as videos, animations, and texts, students are inspired to deeply think about ideological and political elements.

In addition, relying on course teaching experiments, we will organically integrate ideological and political elements with ability development to achieve comprehensive education. The experimental course is an important component of the teaching content of the warehouse mold prevention course, and also an important battlefield for practicing ideological and political education in the course. Integrate ideological and political elements such as safety awareness, environmental protection concepts, seeking truth from facts, teamwork,

and innovative spirit with the cultivation of experimental abilities, so that students can learn by doing, understand through doing, improve their quality and ability, and cultivate positive emotions. During the experimental process, guide students to carefully observe experimental phenomena and truthfully record them, cultivate their rigorous academic attitude and honest and trustworthy professional spirit^[11].

4.3. Create a context for the transfer of ideological and political elements, and consolidate and expand students after class

After class, assign online and offline consolidation and expansion exercises, integrating ideological and political elements such as current events, technological advancements, and character stories into the questions, in order to construct a good context for the transfer of ideological and political elements, encourage students to reflect after school, strengthen their political stance and beliefs, enhance patriotism, achieve cultural confidence, and cultivate professional ethics.

5. Precautions for implementing ideological and political education in the teaching process

5.1. Teachers need to improve their ideological level

"Teachers, preaching and imparting knowledge to dispel doubts". Teachers play a crucial role in the entire teaching process, not only teaching students knowledge, but also actively cultivating talents. The effectiveness of curriculum teaching is deeply influenced by teachers' educational ability and ideological awareness. Therefore, teachers should continuously improve their ideological level, carefully study and understand the policy documents of the Party and the country, effectively tap into the ideological and political elements in the curriculum, and organically integrate them into teaching and education work.

5.2. Teachers should control the quantity of ideological and political elements

In teaching, it is necessary to fully grasp the organic combination of teaching content and ideological and political elements. It is not advisable to introduce too much ideological and political elements into each class, as it may lead to a reduction in the teaching time of professional knowledge. In short, the effectiveness of ideological and political education in the curriculum mainly depends on the carrier of the curriculum. Teachers must base themselves on the curriculum teaching plan, combine it with the teaching content, carefully prepare each class, carefully design teaching links, and timely integrate ideological and political elements, ultimately achieving the ideological and political goals of the warehouse mold prevention curriculum.

5.3. Teachers need to verify the ideological and political effects of the course

In order to further test the teaching effectiveness, teachers can add some questions containing ideological and political elements when organizing online quizzes of professional knowledge. Introducing ideological and political elements into test questions can not only test students' understanding of relevant ideological and political elements, but also promote students' emphasis on curriculum ideological and political education and increase their participation in curriculum ideological and political education.

6. Conclusions

The practice of ideological and political education in the course of aircraft material storage and mold prevention technology has shown that as an extension of teaching content, ideological and political elements not only broaden students' horizons, cultivate their emotions, deepen their understanding of knowledge, but also enhance their sense of professional identity and mission. The multimedia presentation methods such as videos and animations presented in the ideological and political cases of the course make the course more vivid, enhance students' interest in learning, stimulate their internal driving force for learning, cultivate students' patriotic thinking, cultivate educational sentiments, cultivate students' dialectical rational thinking, and guide them to establish correct worldviews, values, and outlook on life [12].

References

1. Li L.H. (2022) The Curriculum Ideological and Political Practice Path of Blended Teaching from the Perspective of "Three Comprehensive Education" [J]. University, (6): 153-156.
2. Lawton D. The Tory Mind on Education[M]. Routledge.2012.1:252.
3. Zhao E.D., Yu T.T., Liu L.W., et al. (2018) Cultivating the Mind, Understanding Virtue, and Combining Taoism with Art - Constructing a Course of Integrating Information Technology and Teaching on Ideological and Political Education [J]. Chinese University Teaching, (9): 54-57.
4. Yin X.P. (2018) The Value Implication and Path Selection of Ideological and Political Education in the Cleanest Campus Action Course [J]. Journal of Taizhou University, 40 (2): 90-92-97.
5. Balamuralithara Balakrishnan; Fumihiko Tochinnai; Hidekazu Kanemitsu. Engineering ethics education: A comparative study on Japan and Malaysia [J]. Science and Engineering Ethics, Volum 25, Issue 4.2019. (1069-1083).
6. Lou T.L., Lu P.M., Ye J.E., et al. (2021) Exploration of Curriculum Ideology and Politics in the Online and Offline Mixed Teaching Mode [J]. Education and Teaching Forum, (25): 185-188.
7. Zheng W.R., Dong D.M. (2023) Design of Ideological and Political Education for Pharmacology Curriculum Based on SPOC Mixed Teaching Model [J]. Health Vocational Education, 41 (12): 78-81.
8. Wang L., Fan Y., Xu J.N. (2023) Construction of an Ideological and Political Case Database for Element Chemistry Curriculum and Practice of Online and Offline Hybrid Progressive Teaching [J]. Chemistry Education, 44 (4): 27-30.
9. Huang X.S. (2021) Design Practice of Ideological and Political Education in College English Curriculum Based on SPOC [J]. Journal of Higher Education, (19): 118-121.
10. Qu Y.H., Dong B.R. (2022) Exploration of the Integration of Ideological and Political Elements in the "MOOC+SPOC+Flipped Classroom" Mixed Teaching Model [J]. Journal of Mudanjiang University, 31 (8): 91-97.
11. Liu X.H. (2021) Exploration and Practice of Ideological and Political Education in the Implementation of Microbiology Curriculum [J]. University Education, (7): 92-94.
12. Zhao Y.X., Sun S.Q., Gong P. et al. (2021) Exploration and Practice of Curriculum Ideology in Microbiology Teaching [J]. Chemistry of Life, 41 (12): 2747-2753.