

The Ideological and Political Research of Engineering Technology Course in Higher Vocational Education Under Job Course Competition Certificate Accommodation Mode

-- Take The Course of Structural Drawing and Construction as An Example

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Abstract

Based on the integrated mode of Job Course Competition Certificate, in order to reconstruct the teaching content of the professional basic course Structural Diagram Recognition and Construction of the architectural engineering major in higher vocational colleges, this paper takes the training of post skills as the main line to carry out the ideological and political construction of the course. Innovative teaching methods are proposed to enrich classroom teaching forms. To carry out the ideological and political implementation path of Pan-campus growth ecology and other courses, to cultivate the good engineering values of "excellence" of higher vocational engineering students as future engineering and technical personnel, and to improve the vocational competence of students.

Keywords

Job Course Competition Certificate; Course ideology and politics; Making it better.

1. Introduction

Higher vocational colleges are important places for the output of high-skilled and technical talents in various fields. The quality of ideological and political education will affect the quality of talents. Higher vocational ideological and political education is to organically integrate the elements of ideological and political education into the theoretical and practical teaching of professional courses, and realize ideological guidance and ability growth simultaneously in the teaching of professional knowledge and technology, which is the organic integration of knowledge, ability and quality of talent training [1]. Among them, the ideological and political reform of professional courses is the main body, the most critical and the most difficult part to solve. Structural Drawing and Construction is the foundation of a core skill course for architectural engineering technology major in higher vocational colleges. To explore the ideological and political system of the course and form the ideological and political system of the course will help cultivate the enthusiasm and interest of engineering students, mobilize their potential ability and innovation consciousness, and cultivate professional recognition, career loyalty and social responsibility. This paper takes the practice of Job Course Competition Certificate integrating human training mode in Engineering technology major of the School of Engineering and Engineering. Engineering as an example to explore the implementation of ideological and political education in the course, in order to provide reference value and significance for other engineering courses.

2. Analysis of current situation of ideological and political construction.

Course ideology and politics is a complex and systematic subject. In the past five years, Chinese educators have achieved substantial achievements in education and teaching construction during their exploration in this field. However, there are many problems in the course of ideological and political development, which are mainly manifested in the following aspects:

2.1. Course and ideology and politics.

The course content and ideological and political affairs are separated from each other. Instead of integrating ideological and political affairs naturally into the course, the ideological and political elements are abruptly added into the course, resulting in a lack of attention to the internal logic and integration between the ideological and political elements and the course.

2.2. Teaching methods and teaching experience.

The core quality of engineering technology major is mainly: standardization consciousness, responsibility consciousness, precision consciousness, innovative thinking and ingenuity spirit. On the basis of cultivating these core qualities, they are manifested as having strong engineering practice ability, love and dedication spirit, hard-working quality, teamwork consciousness, communication and coordination ability. At present, ideological and political teaching has not explored the methods suitable for the development of its own major or course from the objective reality, and has forcibly adopted the experience and methods of others, but has not combined the internal laws of the major and course, and forced integration reform, which often has little effect and is difficult to achieve the effect of ear, brain and heart.

2.3. Lack of master plan and system.

At present domestic less education research from the perspective of professional courses include 1 + X textual research, skills contest, and so on carries on the overall planning and resource balance is just in a few courses or sections course manifests the course and the integration of ideological and political education, or only in the theory of course manifests the course and the integration of ideological and neglect the practice courses, In particular, courses such as 1+X vocational skill certificate and skill competition are integrated with ideology and politics, which is far from the standard of "full staff, full process and all-round" education.

2.4. The connotation and extension of the integration of Job Course Competition Certificate need to be strengthened.

X certificate is a vocational skill level certificate, which is a proof of learning results. It is not an admission type qualification, nor is it a professional title certificate to identify the work experience and performance of the position. X certificate in professional skill level and professional teaching standards, training content and teaching content, skills assessment and examination facilities as the goal, to guide colleges and universities in a timely manner to new technology, new craft, new standard, new request in the process of professional personnel training, makes the colleges and universities to adapt to the new trend of development of the science and technology and the job market in the development of new demand. At the same time, by mobilizing the enthusiasm of social forces to participate in vocational education, leading the innovation of high-quality training and evaluation mode. The connotation and extension of X certificate should be integrated into professional courses, which not only pay attention to the training of skills, but also cultivate students' soft power such as patriotism, social responsibility and moral norms.

2.5. Ideological and political examination needs to be strengthened and perfected.

Course ideological and political education mainly promotes the transformation of values internalization to personalization through humanistic and social education in professional courses. General higher vocational colleges on the effectiveness of ideological and political construction acceptance evaluation basis can be divided into three categories: the first is teaching standards and teaching design scheme, including teaching syllabus, overall design, courseware or teaching plan; The second is the summary of teaching experience, teaching research papers published and other text materials; Finally, it is the classroom record and practical effect, including the typical case of education, micro class video, demonstration class and so on. Perfect program and student development can not draw equal sign, these explicit materials are difficult to truly represent student development and the effect of moral education. The ideological and political elements are not reflected in the course assessment, so that the ideological and political reform of the course is not finally implemented. Evaluation is the most important step to carry out the reform of ideological and political teaching.

2.6. The ideological and political ability of professional teachers is in urgent need of strengthening and training.

Among the teachers in higher vocational colleges, the teachers of professional courses do not pay much attention to the ideological and political concepts of the course. They only want to teach their own professional courses as long as the students' passing rate of professional courses reaches the standard, but they do not pay attention to the teaching mode of ideological and political courses. As a result, teachers lack global thinking and comprehensive teaching view in specific course teaching. In teaching, students' learning of professional courses is only paid attention to, and students' comprehensive literacy training and other comprehensive skills training lack of guidance, leading to talent training only focuses on skills, ignoring quality education. Professional teachers' ability of ideological and political construction is weak.

3. Course Ideological and Political Construction Path

Job Course Competition Certificate needs to incorporate professional certification and personnel training, position requirements as the core, dominated by skills, through adjusting the talent training scheme, course structure optimization design, content, teaching methods and means to upgrade, promote vocational education service ability, to enhance learners' vocational skills and comprehensive professional quality. The four ways of course ideological and political construction include strengthening the construction of teachers and constructing the course ideological and political team system; Strengthen the ideological and political element mining, construct the ideological and political content system of the course; Strengthen the construction of classroom teaching, construct the ideological and political teaching system; Strengthen the construction of evaluation mechanism, construct course ideological and political evaluation system; To realize the ideological and political courses and ideological and political courses in the same direction, the formation of collaborative education effect, solid progress in the whole process of all-round education of the large pattern construction.

3.1. The goal of professional personnel training is integrated with the goal of ideological and political education.

Construction engineering graduates mainly engaged in the construction enterprises first line the builder, quality engineer and certified safety jobs, such as the structure of image recognition and reinforcing steel lofting is the core of professional post ability, namely to be able to according to the national standard, standard atlas, structure construction drawing, such as read structure information, and on this basis, Calculate the length of the steel bar, the number of

roots, weight and design the steel bar figure, in order to better complete the specific work of each post. Structural Drawing and Construction is a professional basic course of architectural engineering technology major. Students are required to accurately understand the standard atlas, accurately master the structure of steel bars, accurately read construction drawings, accurately carry out reinforcing steel lofting, and finally cultivate reinforcing steel lofting craftsmen who serve the industrial goals, adapt to the industrial development, meet the needs of the industry, and meet the needs of the post. The main task of the course is to fully implement the party's education policy, the implementation of promoting morality and cultivating people fundamental task, and meet the requirements of national construction industry development on talents cultivation, on the higher vocational education construction engineering technology professional training requirements, cutting-edge technology in the field of construction, through the real integration of teaching, To cultivate students to have the comprehensive ability of understanding the drawing of reinforcement structure, understanding the structure of reinforcement, and being able to reinforce steel lofting, Make the students become high quality technical and skilled talents with all-round development of morality, intelligence, body, beauty and labor. Therefore, the ideological and political objectives should be integrated in the talent training program, including: First, can develop hard-working professional ethics; Can develop serious and responsible, rigorous and meticulous awareness of norms; Can develop active thinking; Can develop the ability of unity and cooperation; Second: by organizing students to participate in production and labor after class, to cultivate students' correct labor values and good labor quality, and to form Marxist labor view. Firmly establish the concept of labor is the most glorious, labor is the most beautiful, cultivate students love labor, respect ordinary workers, have not afraid of hard, not afraid of hard work spirit, form good labor habits. Third, by serving the construction of integrated urban and rural development, we will cultivate capable craftsmen who are "diligent, striving for excellence and sincere unity", and build the four fine industry values of "adhering to lean, pursuing precision, abiding by sincerity and creating fine products", and cultivate architects who are emotional, thoughtful and responsible.

3.2. Integration and reorganization of knowledge content of 1+X textual examination and skill competition.

The knowledge content of 1+ X certificate and skill competition was optimized and reorganized, and the integrated training program of post course competition and certificate was adjusted and optimized. The contents of the four modules are deeply integrated in the teaching objectives, teaching content, teaching resources and assessment content of architectural design major, engineering technology major, engineering cost and other majors. At the same time of completing the regular course study and assessment, the vocational skill level certificate study and examination can be completed simultaneously, and the certificate can be obtained, so as to avoid the situation of brushing questions before the examination because of the certificate examination. Optimize the course setting according to the 1+X construction engineering vocational skill level standards and skill competition assessment requirements. Integrate the certificate and skill competition content into the talent training program and course system organically according to the vocational skill level standards, competition requirements and professional teaching standards, combined with the actual needs of regional industry enterprises. Enable learners to obtain vocational skill level certificates while completing academic education, improve job ability through skill competition, and realize multi-subject collaborative innovation. Information collection should be completed through school-enterprise cooperation to improve the knowledge and skill integration of 1+X Construction Engineering Drawing Reading Skills Certificate and construction drawing Reading Skills competition. Through analysis and arrangement, the knowledge points of certificate

examination and competition are classified into four modules: architectural plans, architectural drawings, structural plans and structural drawings. See Table 1 below for details.

Table 1. 1+X Intermediate Certificate examination content and skills competition content module integration.

1+X Intermediate Certificate examination content.	Involved in professional.	Involved in course.	Job.
Architectural drawing module.	All majors of the school of construction engineering.	Architectural drawing and CAD.	Design position in architectural design institute.
Architectural plans module.		Preliminary design, residential design, public design.	Design position in architectural design institute, Structural design Institute design position.
Structural plans module.	Engineering technology major, engineering cost major.	Structure recognition, construction, reinforcing steel lofting, cutting, foundation engineering construction, main engineering construction.	Design position in architectural design institute, Structural design Institute design position, Construction unit construction position, Construction unit management position, Cost consulting unit cost position.
Structural plans module.		Reinforcement drawing, calculation, construction technology.	

When teaching, the OBE concept and method of engineering certification education are fully integrated, and various teaching methods are adopted to carry out modular teaching reform. According to the characteristics of each module, the teaching team gradually selects small and medium-sized construction engineering drawings as the carrier to carry out task-driven, case simulation or project teaching. In the process of teaching, we collected various types of ideological and political cases with corresponding enterprises and institutions in time.

3.3. Construction of course ideological and political case base based on the integration of Job Course Competition Certificate.

The construction and use of high quality and efficient ideological and political case base is the only way to implement ideological and political education. The construction of case base follows five principles: standardization, practicability, timeliness, systematicness and convenience. Element of dig through the course of ideological education, construction of specific goals, clear classification, rich contents, various forms of ideological education putted forward, the reasonable use and promotion, will be full to educate, the whole process of education, comprehensive three education into practice, enhance the engineering course and the resultant effect of ideological and political education, cultivate highly skilled, highly qualified talents.

3.3.1. Frame building of case base.

The ideological and political cases should be interactive and enlightening. The library of ideological and political cases should be shared and used to provide rich practical cases and material resources for ideological and political education. According to the teaching needs of post training, textual research and competition, the main line of ideological and political education is firstly determined around the training objectives. Secondly, according to the status of professional courses in the talent training program, the theme task of ideological and political

education of each course is determined by the main line. Thirdly, the corresponding modules are selected from the ideological and political case base to support a certain ideological and political education theme of the course. Finally, according to the teaching content of the professional course, the specific cases are extracted from the modules with keywords, and the ideological and political education cases of this course are constructed. The framework of ideological and political database of "five subjects, five main lines and five fine cases" is built, as shown in Table 2 below. The themes of ideological and political education in professional courses complement each other and form a network of ideological and political education.

Table 2 The Job Course Competition Certificate integrates the ideological and political framework.

Point into a line, line to form a surface, comprehensive coverage				
Five major ideological instruction, Education main body.		Five major ideological instruction Education main line.	Case carrier.	Quality objective training.
Patriotism.	Understanding Chinese wisdom, inspire the feelings of home and country.	The base class.	Six components three atlas: Foundation, column, beam, slab, stair, 22G101-1/22G101-2/22G101-3. Six cases of job types: draftsman, rebar detailer, construction crew, cost engineer, quality inspector, inspector. Design work-engineering design cases, The construction work-engineering construction cases, quality management cases, security management cases. Cost of the post-Engineering quantity price class case, Supervision post-comprehensive management case. Two types of training: drawing reading class, drawing class. Four major training approaches: 1+X architectural engineering drawing skills examination, enterprise construction engineering drawing skills competition, Zhejiang architectural engineering drawing recognition competition, National architectural engineering drawing recognition competition.	Foundation: Life to have confidence, confidence is the foundation of success.
Scientific spirit.	Internalize the system of methods, cultivate scientific thinking.	Technology class.		Column, wall: Life is like a house, faith is like a column, that is to insist on, hard solid life.
Team spirit.	Develop work habits, improve teamwork.	Management class.		Beam: Do a line of love, love a line of drilling, love and dedication.
Love job.	Cultivate engineering ethics, inspire Professional Responsibility.	Information class.		Slab: Platform is very important in the progress of life.
Awareness of norms.	Accumulation of professional quality, inheriting the spirit of craftsman.	Comprehensive universities.		Stairs: Life is like climbing stairs, to down-to-earth, step by step forward.
Sensitive and studious, learning to apply, interpersonal communication, organization and coordination, team consciousness, good at observation, learning by analogy, hard-working, conscientious and responsible, rigorous and meticulous, analysis of success or failure, summing up experience, learning and tireless, perseverance, unity.				
New applications have a sense of responsibility and a craftsman spirit.				

3.3.2. Case base of ideological and political elements mining.

Ideological and political education is inseparable from ideological and political cases, and the running quality of cases is inseparable from ideological and political elements. According to the characteristics of vocational posts, combined with the corresponding 1+X textual examination and skill competition, the ideological and political elements are fully excavated into the course standards and contents, and the ideological and political library materials are expanded, so as to provide flexible and diversified specific plans for teachers to realize the ideological and political course in the implementation of teaching. Endowing ideological and political education of engineering career to the connotation of technical skills of construction engineering management, determining the main line according to the selected subject, teaching team division of labor and cooperation, according to the characteristics of each module, Step by step to select different dimension type engineering education from six aspects including perfecting unit knowledge element mining excavation, from the teaching point, textual research and competition content contained in the philosophy and element, from the current hot and difficult problems, from the teaching material, from the "cautionary tale", from the experiment training course to carry on the ideological elements in mining, let the ideological elements matching degree is higher.

3.3.3. Collection and collation of ideological and political database cases by classification

Collect and sort out ideological and political cases related to the course. With typical cases as the carrier, the relevant professional theoretical knowledge is elicited, so that students can deepen their understanding and application of professional knowledge and skills in project practice, cultivate students comprehensive vocational ability, and meet the needs of students' career development. School-enterprise cooperation to complete the importance and overlap of certificate and skill competition in professional positions into information collection, perfect integration of construction engineering management knowledge, skills and ideological and political goals, case grading. So that different majors and grades can extract appropriate and effective ideological and political cases in the integrated ideological and political database.

4. Ideological and Political Examination Plan

If the ideological and political effect of course is to be obvious, assessment and incentive are indispensable. This evaluation system mainly includes: first, the assessment and incentive of students. To test the effect of students' ideological and political education, formative assessment can be strengthened, and students' performance in the process of learning professional courses, such as "morality, ability, attendance, performance", etc., can be assessed. While paying attention to students' mastery of professional knowledge, whether they have good quality or not. The information assessment is added, and the enterprise evaluation is timely combined in the process of students' completing 1+X certificate, skill competition and on-the-job practice in enterprises, and the comprehensive evaluation is conducted around the evaluation indicators of students' "teamwork, exploration spirit, rigorous attitude and time concept". Development of literacy score system, timely monitoring, adjustment, assessment of student absorption. Adopt modular course examination method. It can independently or jointly develop architectural drawing ability evaluation software, architectural drawing ability evaluation software, structural drawing ability evaluation software, structural drawing ability evaluation software, etc., to carry out modular assessment, and integrate ideological and political assessment into the assessment system. Students can choose the examination time according to their own learning situation. Second, the assessment and incentive of teachers. The evaluation method was carried out in the form of questionnaire. Expert evaluation mainly from the case and ideological and political education, textbook content of the correlation, the depth

of the case content, the application of the case and other aspects of the evaluation. The questionnaire of teacher's self-evaluation and student's evaluation set five evaluation contents: case content selection, case inspiration, case attraction, case application and teaching effect. The case base can be adjusted again through the evaluation results. The evaluation table of ideological and political teaching effect is shown in Table 3 below.

Table 3. Evaluation table of ideological and political teaching effect.

Integrating ideological and political education into teaching effect assessment.					
evaluation content.	evaluation of the main body.				evaluation method.
	Student 30%.	Teacher 30%.	inside experts 40%.	Outside experts 40%.	
1. For the students to convey the correct attitude of life and work.					Combination of qualitative and quantitative.
2. Enhance students' sense of professional honor and responsibility.					
3. To inspire patriotism, professionalism and artisan spirit.					
4. Enhance the ability of hands-on operation, communication and cooperation.					
5. According to the drawing construction, according to the actual amount of good faith consciousness.					
6. Ability to use professional knowledge to analyze and solve problems.					
7. Teachers use cases to match and fit.					
8. Innovation and diversity of teachers' ideological and political teaching methods and means.					
9. Teachers ideological and political application expression skills and abilities.					
10. Student ideological and political literacy improvement curve and increment					
The moral education of students is evaluated from many angles, so as to make the evaluation scientific, reasonable, comprehensive, fair and objective. At the same time, the evaluation of students is fed back and analyzed, so as to improve the teaching model and adjust the case base in time.					

5. Peroration

Under the background of new era, in order to make civil engineering students comprehensive technical level and ideological quality are raised, need to be a course education path of exploration, based on Job Course Competition Certificate financing mode, the analysis of the current engineering of the main problems in the ideological construction, from the talent training scheme adjustment, education library construction two aspects has carried on the discussion and research. In this way, the ideological and political ability of teachers of relevant majors can be comprehensively strengthened, and the goal of professional ethics and cultivation can be realized. To provide a guarantee for the healthy development of students, and then lay the foundation for the healthy development of higher vocational civil education.

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