

Exploration and Practice of Integrating Curriculum Ideology and Politics into the Teaching of “Urban Railway Operation Equipment”

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Abstract: Organic integration of ideological and political education elements into the teaching of professional courses is an urgent task for the construction and reform of professional courses under the new situation of current vocational education. The article takes curriculum ideology and politics of Urban Railway Operation Equipment as the main body of analysis. Firstly, analyzes the necessity of implementing curriculum ideology and politics, secondly analyzes and digs out the elements of ideology and politics contained in the course, and finally puts forward the strategy of implementing curriculum ideology and politics in the course. It provides a reference for the construction of the elements of ideology and politics into the classroom for the transportation operation management majors of the current higher vocational colleges.

Keywords: Curriculum ideology and politics; Urban rail transit; Operation equipment; Core course

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1. Introduction

The cultivation of talents in higher education is a process of unifying the cultivation of people and talents. In the past, ideological and political education in colleges and universities mainly relied on ideological and political courses to carry out ideological and moral guidance and education. It was difficult to connect the ideological and political work system to the entire talent training system^[1].

There were “two skins” problems in ideological and political education with professional education. To thoroughly implement the important exposition of General Secretary Xi Jinping on education and the spirit of the National Education Conference, to carry out ideological and political education throughout the talent training system, to comprehensively promote the construction of curriculum ideology and politics in colleges

and universities, to play a good role in educating people in each course, and to improve the quality of talent training in colleges and universities, the Ministry of Education issued the “Guidelines for the Construction of Curriculum Ideology and Politics in Colleges and Universities” on May 28th, 2020 in the Curriculum Ideology and Politics Construction Guidance Program. Starting from the goal requirements, content focus, teaching system, quality evaluation system, and other aspects of curriculum ideological and political construction, it clarifies the work ideas and points out the direction of work for comprehensively promoting the construction of college curriculum ideological and political.

The main form of curriculum ideology and politics construction is to integrate elements of ideological and political education, including theoretical knowledge, value concepts, and spiritual pursuit of ideological and political education into various courses, and subconsciously influence students’ ideology and behavior^[2]. In the process of curriculum ideology and political construction, teachers of specialized courses should assume the hidden education function, each of them should “keep a good canal and plant a good responsibility field,” dig deep into the ideological and political education elements of the major and the course, and organically integrate the elements with professional knowledge, and teach with virtue teaching and moral education in classroom teaching^[3,4].

2. Analysis of the need to implement curricular ideology and politics in this course

2.1. Rapidly developing urban rail transit industry needs value leadership

Urban rail transit has become the preferred mode of public transportation for urban residents with its large capacity, high speed, safety, reliability, punctuality, and comfort, and is the backbone of China’s comprehensive urban transportation system. At present, China’s urban rail transit has entered a period of rapid development.

According to the official statistics of the Ministry of Transportation and Communications, as of the end of October 2024, a total of 54 cities (excluding Hong Kong, Macao and Taiwan) have opened and operated 313 urban rail transit lines, with an operating mileage of 10,455.3 km, and 3.49 million trains in service, with a total passenger volume of 2.77 billion, and an inbound volume of 1.65 billion. Currently, Chongqing has opened 12 urban rail transit lines, with an operating mileage of 538 km. According to the plan, by 2050, Chongqing Municipal Rail Transit will build 18 rail transit lines with a total mileage length of about 850 km. The rapidly developing urban rail transit industry is in urgent need of a large number of passenger service personnel.

General Secretary Xi Jinping in the party’s twentieth congress made a report proposed that we should carry out the project of citizen moral construction and promote the traditional Chinese virtues. We will speed up the building of a strong transport country, we should promote the spirit of hard work, struggle, dedication, creativity, diligence, and frugality in the whole society, and foster a new style and appearance of modern times^[5]. How can such a large demand for urban rail transit passenger service talents adapt to the talent needs of the new era? In the case of busy and large passenger flow, how do passenger service personnel ensure the safety and efficiency of passenger service work? In addition to excellent professional knowledge and skills, under the guidance of socialist core values, they also need to form sound personality qualities, love for the rail transit industry, the professional orientation of the rail transit industry, as well as the firm professional ethics of “serving the people” and “putting passengers’ needs first.”

2.2. Course introduction and construction objectives

Station equipment management is a typical work task of urban rail transit operation, one of the core works of urban rail transit passenger transportation organization, and the key to ensuring the operation and production revenue and operation service quality. The course “Urban Railway Operation Equipment” is the professional core course of the urban railway operation management major, and it is opened in the second semester when the professional quality is gradually formed.

To fully implement the spirit of national ideological and political work and carry out the work of curriculum ideology and politics in depth, the teaching team of the course, according to the job requirements, after determining that the core competence of the job is the operation of operation-related equipment, such as passenger equipment, ticketing equipment, and traveling equipment, has deeply explored the ideological and political elements of the course and reorganized the quality objectives of the course teaching. This will cultivate students’ serious and responsible work attitude as well as rigorous and meticulous work style, establish teamwork, communication, and coordination awareness, enhance green awareness, and the spirit of innovation, develop the service consciousness of “wholeheartedly for the people,” the dedication consciousness of “dutifully for the traffic” and the spirit of “who goes ahead without me,” cultivate students’ “four all” dynamic security awareness of “all staff, all process, all round, all weather,” enhance the sense of achievement, sense of responsibility and sense of professional identity to serve the community, enhance patriotic feelings and national pride for the course of the ideological and political education objectives.

3. Practices and case studies of integrating ideological and political elements into the teaching of this course

3.1. Analysis of teaching objects

The target of this course is the first-year students majoring in urban rail transit operation and management, and the teaching time is the second semester. At this time, the students have already received the “enlightenment” of the professional basic course “Introduction to Urban Railway Transportation,” but they do not have a systematic and comprehensive understanding of the core position of urban rail transportation passenger service - station equipment management position. In terms of professional quality, they have not established a sense of service, a sense of responsibility, and a sense of safety for station clerk positions, and they are not enthusiastic enough about the urban rail transit industry and do not have a strong sense of mission for transportation power.

3.2. Developing teaching strategies

To better achieve the above training objectives, combined with the characteristics of rail transit operation management, this course adopts the contextual teaching method, sets up a typical work situation of urban rail transit equipment management, adopts the online + offline hybrid teaching mode, and creates a system of ideology and politics that integrates the psychological education, labor education, and skills. The curriculum focuses on the main line of “keeping the original heart, cultivating originality and cultivating confidence,” completes the construction of curriculum ideology and politics resource library, and integrates the spirit of 5S education—focusing on organization, discipline, and continuous improvement— as well as love and dedication to work, excellence and transportation into the curriculum through enterprise cases, task implementation, and classroom competitions. In this way, students can develop the skills of emergency

response to abnormal situations, so that the ideological and political implementation can complete the dual training of students' skills + qualities.

Table 1. Integration of curriculum moral education objectives and ideological and political education elements

| Teaching situation | Goal of curriculum moral education | Ideological and political education elements into the point |
|---|---|---|
| Learning scenario 1: Urban rail transit lines and station equipment | <ol style="list-style-type: none"> 1. Introduce industry characteristics and typical achievements of local rail transit to form industry identity and stimulate industry pride. 2. Integrate rail transit and local red education spirit to enhance patriotic feelings and national pride. 3. Analyze the significance of transportation modernization and form a sense of mission of transportation power. | <ol style="list-style-type: none"> 1. Chongqing Rail Transit official Douyin video — track knowledge (lines, why can't rail transit trains be like buses, etc.). 2. Accident cases — Nanjing Metro train collision inspection gate incident, Chongqing rail ring line collision accident, etc. 3. Snippet of "Flying Across Mountain City" from the documentary "Journey Through China." 4. The largest subway station in Asia — Nanjing Xinjiekou Station. 5. China's first TOD project — Shapingba Station, China's deepest station from the ground — Hongtudi Station, the first straddle monorail elevated station co-built and co-existing with commercial and residential buildings in China — Liziba Station, and the characteristic culture of Chongqing rail transit "ten lines and one ring" line. |
| Learning scenario 2: Urban rail transit vehicle equipment | <ol style="list-style-type: none"> 1. Introduce the achievements of China's rail transit vehicles and the characteristics of local rail transit vehicles to further form a sense of identity and inspire pride in the industry. 2. Introduce vehicle-related videos, as well as the cognition and operation of real equipment, to enhance students' care for equipment, love, and dedication to the spirit of Lao Song. | <ol style="list-style-type: none"> 1. Clip of "Chinese Car" from the documentary "Super Project." 2. News report "The first mountain AS train in China, Solving the particularity of mountain cities." 3. Chongqing Rail Transit official Douyin video — safe ride, no storming the door. 4. Emergency equipment for subway cars. |
| Learning scenario 3: Traction and power supply equipment for urban rail transit | <ol style="list-style-type: none"> 1. Introduce the achievements of local rail transit vehicles to further form a sense of industry identity and stimulate industry pride. 2. Analyze the advantages of electric power transmission, energy saving, and emission reduction in the rail transit industry, and enhance the awareness of green environmental protection. | <ol style="list-style-type: none"> 1. News report "Fill the technology Gap! China's first double-flow system urban (suburban) railway opened." 2. Emergency handling case of power supply tripping fault of Shanghai Metro Line 1. |
| Learning scenario 4: Urban rail transit signal and communication system | <ol style="list-style-type: none"> 1. Integrate the spirit of model workers and cultivate the professional spirit of practical work and dedication of students. 2. Integrate China's achievements in signal and communication, as well as relevant policies of transportation power and science and technology power, and cultivate students' innovative spirit of pursuing excellence. | <ol style="list-style-type: none"> 1. Ordinary post with unusual job — subway signal worker. 2. Lanzhou Weiwu train derailment case. 3. China breaks foreign monopoly, develops and puts into production a Communication-Based Train Control (CBTC) signal system with completely independent intellectual property rights. 4. Shanghai Metro Line 10 has for the first time realized a fully automated driving mode with the highest automation level (GoA4 level). 5. Interpretation of relevant policies of the Outline for Building a Strong Transportation Country and the Outline for Digital Transportation Planning and Development. |
| Learning scenario 5: Urban railway station equipment | <ol style="list-style-type: none"> 1. Analyze the rapid development of station equipment in modernization, and further enhance students' innovative spirit of pursuing excellence. 2. Integrate negative cases of station equipment operation to warn students to abide by laws and regulations. | <ol style="list-style-type: none"> 1. Chongqing Rail Transit official Douyin video — track knowledge (station equipment). 2. Clips of "Beijing Subway Network" and "Traffic Network" from the documentary "Super Project." 3. A case of carelessness leading to incorrect ticket payment. 4. History of subway ticket media. 5. Alipay scan code behind the gate secret. |

3.3. Teaching case analysis

Take the teaching task of Learning Scenario 5: Urban Railway Station Equipment, Task 2. Automatic Ticket Vending System as an example. At a time when electronic payments such as code payment and NFC payment are prevalent, the number of passengers using automatic ticket vending machines has decreased significantly. When receiving and dealing with passengers using automatic ticket vending machines, station attendants are prone to be inactive and slack in the work process. Firstly, through the negative case of “a passenger transport service negligence and carelessness leading to the damage of passenger interests,” students are awakened to the alarm, and initially realize the importance of a rigorous, meticulous, standardized work style. Secondly, theoretical teaching helps students to form a standardized operational awareness, and simulate similar situations in small groups to consolidate and deepen understanding. Finally, through the Chongqing Rail Transit official Douyin video— “Wearing the same red badge, all striving to do ordinary things extraordinarily” they all share a common name: members of the Communist Party of China, as well as themes like “Ordinary positions, extraordinary persistence” and “Travel with warmth, bringing comfort to every place,” students are guided with positive influences. The power of role models helps students to establish the work style of “creating extraordinary in the ordinary” and cultivate the sense of “serving the people wholeheartedly.”

4. Summary

Curriculum ideology and politics are the main way for college students to realize all-round, all-staff, all-process education, and it is a long-term systematic project to integrate elements of ideological and political education into professional courses ^[6]. The article takes the transportation operation management of Urban Rail Transit Operation Equipment course as an example and explains that according to the job requirements and talent training objectives to determine the objectives of the course of ideological and political education, combined with the characteristics of the students in the context of the new era. Fully explored the ideological and political elements corresponding to the various lecture scenarios, in a form that is pleasing to the students. Subtly, it assists students in establishing the correct values—such as a strong service consciousness, responsibility, risk awareness, and safety consciousness—required in the rail transit passenger service industry. It also trains qualified talents for the rail transit passenger service industry and provides valuable examples for the ideological and political education of other professional courses in traffic operation management.

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Disclosure statement

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