A Preliminary Exploration of Comprehensive Interventional Methods for Cultivating National Confidence in the Teaching Process

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Abstract. The professional English course for undergraduate students majoring in Electrical Engineering and Automation is one of the important foundational courses. In order to fully utilize the educational function of the curriculum, combined with the characteristics of the curriculum itself and the corresponding learning stages of students, this paper explores the method of integrating "professional confidence, national confidence" ideological and political elements into professional knowledge learning in the course teaching process. On the basis of elucidating the necessity of "cultivating national confidence spirit" as an ideological and political element reflected in this course, this paper discusses the specific methods of integrating this ideological and political element into the classroom from the perspectives of knowledge, skills, and emotions. The aim is to improve the educational effect of electrical engineering English classroom teaching, stimulate students' learning motivation to "serve the country professionally", and enhance their professional confidence and national pride.

1. Introduction

According to the instructions of President Xi, the Ministry of Education issued the "Implementation Outline of the Quality Improvement Project for Ideological and Political Work in Universities" in 2017, which clearly pointed out that the ideological and political education elements contained in each course should be fully explored in order to achieve the goal of joint education of professional education and ideological and political education. Under the guidance of these guiding documents, the construction of ideological and political education in the curriculum has become increasingly in-depth and systematic, becoming an indispensable and important component of curriculum construction.

The course of Electrical Engineering Professional English in our school is designed to cultivate and improve the listening, speaking, reading, writing, and translation abilities of undergraduate students majoring in Electrical Engineering and its Automation in professional literature. The ideological and political content of its course covers many aspects, such as the scientific outlook on development, the spirit of national confidence, the achievement of the "dual carbon" goal, a rigorous academic attitude, and the belief in contributing to China's electrical engineering industry. Among them, the cultivation of national confidence spirit is one of the indispensable key links. This article will explore how to effectively incorporate elements of national confidence into the process of ideological and political education in the curriculum. By introducing this ideological and political element, we aim to guide students to pay attention to the achievements made in the field of electrical engineering in China, feel the mission and responsibility of engineering and technical personnel, stimulate their professional and national confidence, and encourage them to contribute to the strength of the country and the rejuvenation of the nation in their future careers.

Although English courses play the role of general education courses, they are indispensable in university courses. Under the concept of ELF, as a global lingua franca, English not only needs to learn from foreign knowledge, but also needs to explore cultural values related to our own country in the original content. Since the reform and opening up more than 40 years ago, the academic community has made improvements in various aspects of public English teaching models, content, and methods. However, many teachers still focus only on the cultivation of hard language skills in listening, speaking, reading, and writing, and neglect the attention to the ideological aspects of the learners. Although the English subject mainly focuses on explaining language, like ideological and political education theory courses, college English courses need to educate students in a subtle way. As the main channel for college students to access Western ideology and culture, it is necessary to carry out appropriate ideological and political education activities in English courses. If there is a lack of moral education in English teaching, it is difficult to cultivate high-quality talents who possess English communication skills, demonstrate good moral conduct in external
communication activities, and calmly face the fiercely competitive market environment. In addition to improving the foreign language proficiency of college students and cultivating their ability to communicate internationally to meet the demand for international talents in the new era, educators also need to provide patriotic education to them. This can help students dialectically view foreign culture, establish confidence in their own culture, and form values that closely follow the trend of socialist development in China.

2. The necessity of highlighting national confidence in professional English classrooms

The spirit of national confidence is the driving force for a country to promote national progress[1-2]. In the process of socialist modernization and national rejuvenation, the cultivation of national confidence, especially for young people's national and institutional confidence, is one of the core tasks of curriculum ideological and political education.

Ideological and political education exists in various stages of human development, and China is no exception. However, its name was not initially ideological and political education, and it only entered the stage of systematic construction in the 1980s. Ideological and political education refers to a society or a certain group in society, which exerts a certain influence on its members through the adoption of certain concepts, political perspectives, and social moral norms. This influence is purposeful, planned, and organized, and their ultimate goal is to enable members to meet the social ideological and moral requirements of the time and transform them into action.

The course of Electrical Engineering Professional English revolves around the basic knowledge of electrical engineering, including circuit theory, electrical engineering, power systems, and more. Most of the texts are based on classic foreign textbooks and scientific papers in journals. Faced with knowledge expressed in English and based on the development of modern Western science, beginners can easily fall into the misconception that "these are all contributions of Westerners, and our country has played the role of imitators in this field.". This misunderstanding not only deviates from objective reality, but also hinders students from establishing professional confidence and firm determination to work in their field.

Based on the above practical issues, in the course of Electrical Engineering Professional English, the element of "national confidence" must be explicitly and intuitively reflected in the ideological and political education of the course.

3. Design of ideological and political elements

The elements of ideological and political education in the curriculum can only achieve the goal of educating[3-4] students and shaping their souls by seamlessly connecting the course content and training objectives. Starting from the knowledge, skills, and emotional goals of the course, the ideological and political elements of "national confidence" should be carefully designed and fully involved in the "Electrical Engineering Professional English" course, combining knowledge learning, "listening, speaking, reading, and writing" skill cultivation, and emotional cultivation.

Course ideological and political education has the characteristic of subtle influence. In the teaching process, ideological and political education in the curriculum is not directly and openly aimed at students, and there is no external guidance of moral concepts. Instead, it silently integrates ideological and political elements such as political identity, value guidance, and moral education into professional courses, allowing the ideological and moral education function of the curriculum to achieve a subtle and silent effect. Professional course teachers are also a process of concealing the values they advocate while implementing ideological and political education in the curriculum, making it difficult for students to perceive the ideological and political education activities carried out by the teacher when receiving professional knowledge. This invisibly affects students' thinking, reflecting the concealment of ideological and political education in the curriculum. At the same time, ideological and political resources in professional courses also penetrate into the textbooks and teaching knowledge of the course. Subject knowledge is the visible content, and ideological and political elements are hidden in professional knowledge.

3.1. Combining knowledge learning with real-life cases to introduce the achievements of China in the field of electrical engineering

One of the most important criteria for selecting ideological and political materials is authenticity. To convey the confidence in the classroom that we are proud of our achievements, we must base our arguments on real and reliable facts. Only in this way can we be persuasive, infectious, and convince students. In recent years, China's electrical engineering industry has made significant progress, especially in the development of new energy and the construction of high-speed electrified railways, with increasing international influence. Many representative engineering projects have been carried out overseas. In the teaching process, objective facts in this regard can be introduced as teaching cases into the classroom, as a starting point for the ideological and political elements of "national confidence".

3.2. Centered around the cultivation of "listening, speaking, reading, and writing" skills, fully integrating "national confidence" ideological and political elements

The skill goal of electrical professional English is mainly reflected in striving to improve students' comprehensive
English application ability and striving to cultivate international professional talents that adapt to the new situation. Correspondingly, it is necessary to fully integrate the ideological and political elements of "national confidence" into the process of developing various skills such as "listening, speaking, reading, writing, and translation".

First of all is "listening". When arranging listening content, attention should be paid to content selection. Each unit should select at least one positive comment from foreign media on China's electrical industry, allowing students to practice listening while subtly enhancing their national confidence.

The second is "speaking", identifying leading and publicly available topics in China's international field, organizing students to debate in professional English, distinguishing right from wrong, practicing professional English speaking, and instilling national confidence through facts.

The third is "reading". In the process of developing students' reading skills, combined with the course content, select papers published by domestic scholars in high-level foreign journals, international standards formulated by Chinese experts, and international patents applied for, and strengthen national confidence through literature reading.

The fourth is "writing". In order to develop students' language communication and professional expression abilities, extracurricular exercises are arranged to require students to introduce their achievements in the field of electrical engineering in China on professional forums or self media platforms. By actively consulting literature and posting debates, students can intuitively experience the development process of electrical engineering in China, and also strengthen their confidence in the achievements of China's development.

3.3. Focusing on emotional goals, exploring ideological and political elements in current affairs news in the electrical engineering industry, and combining with student interests to stimulate national confidence

College students have abundant energy and curiosity, a high level of attention to current affairs and hot topics, and also have a certain ideological and knowledge foundation. They have personal thoughts on understanding hot topics. Fully utilizing the above characteristics in teaching and exploring the ideological and political elements in current affairs news in the electrical engineering industry can arouse students' interest in learning and stimulate their national confidence.

4. Practice and effectiveness

In the spring semester of 2022, the course was taught in accordance with the carefully designed and fully involved design concept, and the "national confidence" ideological and political practice in professional English teaching was carried out, achieving certain results.

4.1. Application of Examples in Knowledge Learning

Taking Chapter 8 "Generators" of the course "Electrical Engineering Professional English" as an example, this chapter mainly introduces the basic knowledge and application scenarios of generators, so that students can master professional terms such as "synchronous motors, induction motors, water turbine units", etc. At the same time, combined with the increasing attention to environmental issues, it briefly introduces environmental protection issues related to power generation equipment and facilities. During the teaching process, after learning the expression methods of professional vocabulary and complex sentence patterns, the article "BRI hydropower projects around the world focus on green construction" reported by the Global Times (English version) on the "the Belt and Road" hydropower project was introduced as an expansion material for students to consolidate their knowledge in class. In this article, the green development concept and measures of over 80 hydropower projects invested and constructed by China in six continents around the world are specifically introduced. The article mentions that Chinese enterprises represented by Three Gorges Group actively participate in the activities of the United Nations Industrial Development Organization and its technical consulting agencies, contributing Chinese wisdom and strength to "clean energy" and "sustainable development". The article also presents a picture of a hydroelectric power station constructed by China printed on West African country banknotes as an accompanying image for readers.

These vivid and authentic materials have increased students' interest in learning and played a subtle role in enhancing national confidence. After class, students not only feel surprised and proud of China's achievements, but also take the initiative to search for Chinese and English materials to verify and learn.

4.2. Flexible integration in skill training

In the process of developing students' reading skills, two standardized documents related to "tram electrical equipment safety" were provided as comparative reading materials for students, combined with the course content. One is the IEC[5] international standard "Safety Requirements and Current Collection Systems for Electrical Equipment of Rolling Stock and Tramways in Rail Transit" written under the leadership of the National Railway Administration, and the other is "Railway Applications - Vehicles - Electrical Equipment in Tramways - Safety Requirements and Current Collection Systems" written by the German Institute of Electrical Engineers. By comparing and reading the above literature, students can independently compare the similarities and differences between the above standards in terms of "power supply system voltage, voltage level classification of on-board electrical equipment, test methods, and acceptance criteria". Through comparison, it can be found that China's technical standards in this field have reached or even exceeded Western standards.
in many details, and technological development has achieved a transition from "following the trend" to "leading the way". This discovery can enhance the professional and national confidence of students, greatly inspiring their enthusiasm for learning knowledge.

In the process of developing students' abilities in speaking and writing, students are required to introduce their achievements in the field of electrical engineering in China on professional forums or self media platforms. During the process of completing homework, students not only need to independently consult materials to obtain relevant information, but also need to consider how to process the content in order to arouse the interest of the audience. In the process of reprocessing these advances and achievements, students can intuitively experience the development process of electrical engineering in China. After these contents are disseminated online, some may raise questions for readers. While students defend their views as "up hosts" or "building hosts", they practice comprehensive English application skills and strengthen their confidence in China's development achievements. The most important thing is that this confidence is independently drawn by students through methods such as data, analysis, generalization, and induction, rather than being forcefully imparted by teachers through preaching.

4.3. Interest stimulation in emotional cultivation

In recent political news, it has been mentioned that the West is "abandoning its carbon reduction targets": Germany is preparing to revise a draft law to cancel the goal of "achieving carbon neutrality in the energy industry by 2035", and countries such as the Netherlands, Italy, and Austria have also lifted restrictions on coal-fired power plants. The Annual Development Report on China's Electrification, compiled by the China Electric Power Enterprise Federation, points out that "electrification development is an effective way to achieve carbon peak and carbon neutrality. In the context of accelerated electrification, the proportion of electricity to terminal energy consumption is steadily increasing. By building a diversified clean power supply system, deepening the implementation of industrial, construction, and transportation electricity substitution, energy efficiency levels are significantly improved.". In the chapter on "Power System" in the course of Electrical Engineering Professional English, a discussion on the above issues is introduced to guide students to recognize the fact that "China's commitment to carbon neutrality is firm, and the development of technology and industry is constantly advancing. China is a responsible big country", which can play a positive role in stimulating national confidence and pride.

5. Conclusion

The comprehensive introduction of ideological and political education in the teaching process is of great significance for students to establish a correct worldview, outlook on life, and values. The teaching of professional courses is the fundamental foundation for students to develop key abilities and cultivate subject literacy. The method of introducing ideological and political elements related to "professional confidence and national confidence" into the teaching process of electrical engineering English as described in this article helps students to actively discover the achievements of our country in this field through their own exploration, stimulate the motivation to learn professional knowledge, and provide a beneficial path exploration for the alignment and formation of synergistic effects between professional courses and ideological and political theory courses. In the specific implementation process, teachers need to carefully plan, comprehensively consider the knowledge background and cognitive development process of students, gradually deepen in a form that students can understand, avoid rigid preaching, in order to achieve the best effect, stimulate students' enthusiasm for learning professional knowledge, and cultivate students' professional dedication to the country.

References