

Research on the Reform and Practice of “Integration of Specialization and Innovation” in Vocational Innovation and Entrepreneurship Courses in the Digital Age - Taking “Innovative Thinking” as an Example

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Abstract: Innovation and entrepreneurship education is an important part of vocational education. Taking foreign language majors in higher vocational colleges as an example, this paper expounds the digital transformation design of “creative integration” of the course “Innovative Thinking” from five aspects: teaching content, learning situation analysis, goal design, teaching means and methods, and teaching evaluation. Based on the implementation practice and experience reflection of the German major in SZPU, it provides a specific case for reference for the reform of Innovation and entrepreneurship courses in higher vocational colleges.

Keywords: Innovative thinking; Entrepreneurship and innovation curriculum; Teaching reform; Innovation and integration

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1. Necessity analysis

Innovation is the primary driving force for development. In response to the development needs and technological empowerment conditions of the digital age society, we must adhere to innovation driven development, comprehensively shape new development advantages, and lead and create new demands with innovation driven and high-quality supply. This puts forward new requirements for the innovation and entrepreneurship education of vocational education. On the basis of professional education, we should closely follow the core function of higher education talent training and vigorously cultivate innovative talents in combination with majors, so as to gain a foothold in the higher education system^[1].

“Professional innovation and integration” is an effective curriculum solution for higher vocational colleges to solve the “two skins” dilemma of entrepreneurship and innovation education and stimulate the creativity of talent training^[2]. Taking foreign language majors in higher vocational colleges as an example, this paper introduces the design and practice of the course under the background of the digital era and the concept of “special innovation and integration”.

2. Reform background

2.1 Course information

“Innovative Thinking” is a public basic course of innovation and entrepreneurship enlightenment for vocational college students. It is offered in the second semester of the first grade, with 2 credits and a total of 32 credit hours.

2.2 Case background

The School of Commercial Foreign Languages of SZPU has started to build this course since 2018, striving to integrate innovative education with foreign language education, cultivate students' creative thinking, creative consciousness, innovative ability and entrepreneurial spirit, and cultivate their responsibility and responsibility to serve the "Belt and Road" initiative.

Based on the development trend of the times and the development and change of the industry, the course carries out digital transformation, and explores the digital leading, ideological and political first education mode of "special creation and integration".

3. Transformation path

3.1 Refactoring the teaching content based on enterprise research

In view of the problem that the current content of innovative thinking courses is not closely related to professional knowledge and skills and future job practice, and in combination with the earlier data research on the "the Belt and Road" China Europe Express to deliver best-selling products, the course teaching content has been reconstructed into six progressive projects, namely "understanding innovative thinking", "looking for development goals", "collecting effective information", "output promotion prototype", "forming rich creativity" and "landing creative projects". With the creative implementation of China's latest brand product "Robot" for export as the main thread, it has integrating innovation and entrepreneurship education, foreign language professional education, and cultural quality education.

Teaching resources include the national standard textbook, the national vocational education innovation and entrepreneurship education teaching resource library, micro courses, CCTV's "Entrepreneurial Heroes Collection" program segments, and comprehensively utilize Learning apps, Kahoot! Gamified Q&A platforms, Tencent Meeting, and so on.

3.2 Draw portraits of students and accurately analyze the learning situation

The course is designed for students majoring in Applied German in 2021. After half a year of college life, students have a certain understanding of German language skills and business-related knowledge. They have gained a preliminary understanding of the main process of business marketing and the cultural background of Belt and Road countries along the routes, and have certain cross-cultural communication skills. The understanding of innovative thinking courses varies greatly, while the awareness of innovation and entrepreneurship needs to be developed.

In terms of cognitive ability, students have good image thinking and imagination, and generally show strong expression and communication skills, but they lack the ability of comprehensive thinking. Students generally like lively and interesting activities and visual teaching resources. Some of them are good at writing and analysis of information.

3.3 Determine the teaching objectives, and draw up the key points and difficult points

In response to the "Belt and Road" initiative, according to the training plan of applied German professionals, the curriculum standards of "Innovative Thinking", and the knowledge and ability of core positions required to engage in international business professions, the teaching objectives are established.

Among them, the teaching focuses on how to let students find the problems and have an insight into the needs behind the problems. The difficulty of teaching lies in how to find solutions and transform creative ideas into value creation.

3.4 Be student-centered and optimize teaching strategies

Adhering to the teaching philosophy of "student-centered", teaching implementation is task-based. During the process of completing tasks, students learn various types of innovative tools, from which they "feel innovation-discover innovation-create innovation-transmit innovation", establish the concept of daring to innovate and loving labor, and achieve the goal of combining morality and technology.

Mixed online and offline teaching is adopted. According to the actual teaching needs, use teaching methods such as game competition and role-playing, as well as learning methods such as group collaboration and self-directed learning. Students are guided to experience the potential problems they may encounter in their future work process in advance according to the entire process of problem-solving in reality, from discovering problems to analyzing problems to solving problems, transforming the classroom into an export robot creative studio, and changing passive acceptance to active input.

3.5 Pay attention to the growth of students, and assess the whole process

The course focuses on assessing students' ability to train innovative thinking, break through fixed thinking patterns, and expand their thinking perspectives. The course score (100%) is equal to the process assessment (50%) plus the final exam (50%), which promoting learning through evaluation. The learning process involves multiple evaluations, including group evaluation, student

evaluation, teacher evaluation, and corporate mentor evaluation. In addition, the course team has constructed a personal evaluation model of “process value-added” to measure the quality growth and changes of each student in the learning process, and to praise and encourage students who have significantly added value.

In order to facilitate and effectively carry out process evaluation, we utilize online teaching platforms and mobile apps to assist in daily classroom activity organization, task release, interactive Q&A, class management, grade management, and other work. Most of the evaluation data is automatically recorded by the platform, forming reliable process learning evaluation data, which is collected and analyzed uniformly, making teaching management more intelligent and efficient.

4. Reflection and suggestions

The course transformation of "Innovative Thinking" has achieved good results, but it is still necessary to continue to strengthen the construction of innovative teacher team and creative environment. Some students are not enthusiastic about their participation in public courses, almost all of them lack social work experience, and the application of innovative thinking is difficult to find a foothold in daily life.

In view of the above situation, teachers have formulated a series of improvement measures: first, lead students to visit local innovative enterprises and hold a variety of post experience activities, such as post experience sharing of enterprise mentors and seniors. Second, continue to improve the case resource base, compile, build and develop the innovative cases and other resources used in teaching, and regularly go to relevant enterprises to study to promote the sustainable development of the resource base. Third, teachers will focus on the students with weak level, guide students to set growth goals, and at the same time strengthen the supervision and guidance among team members, promote the whole group to participate in activities, and help students to make progress together.

5. Conclusion

The reform practice of “Innovative Thinking” course explores the specific realization method of the path of “special innovation and integration”, responds to the demand of The Times for talent innovation ability under the background of digital economy, and integrates ideological and political education elements, promoting the implementation of mass entrepreneurship and innovation education.

In the future, "special innovation and integration" can be taken as an important starting point for comprehensively deepening the reform of innovation and entrepreneurship education in an all-round way. Curriculum transformation will further highlight the "student-centered" and "learning output", focusing on contemporary tasks and ensuring information-based teaching, into the big data, cloud computing, VR / AR / MR, innovation content, innovation methods, boost vocational education by scale expansion to the quality improvement, connotative development, cultivate high-quality applied talents.

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