

Flipped Classroom in the Practice of Cross-border E-commerce Talent Cultivation — A Case Study of "Cross-border E-commerce Operations"

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Abstract: Flipped classroom, relying on information technology teaching methods, is an attractive teaching model for young students under the background of "Internet Plus", which has a positive effect on skill cultivation. In the cultivation of cross-border e-commerce talents in higher vocational colleges, the flipped classroom can help students understand the fundamental knowledge of cross-border e-commerce practitioners and the operational abilities of cross-border e-commerce platforms more efficiently. "Cross-Border E-commerce Operations" is a core course in the cross-border e-commerce talent cultivation system, and the flipped classroom teaching model has been implemented for two teaching cycles. Through theoretical research and practical exploration of flipped classroom design and implementation, the teaching objective of "Teaching, Learning and Practicing Integrity" has been achieved. It depends on the guidance of "student-centered" principle, integrating information technology into subject teaching, relying on classroom and integrating Post-Course-Competition-Certificate. This paper combines practical teaching to elaborate on the conditions, process, and evaluation design of the implementation of this model.

Keywords: Cross-border e-commerce; Flipped classroom; Innovation

1. Introduction

The course "Cross-Border E-commerce Operations" in higher vocational colleges aims to enhance students' practical skills and employability. Whether it is professional knowledge and skills or ideological education, it often takes the form of teachers lecturing and students listening, which is monotonous and passive. Students often struggle to engage, making it challenging to achieve educational goals. There is a need to shift from passivity to activeness. Students majoring in cross-border e-commerce have a strong interest in emerging electronic products, new media, social software, etc. Moreover, most students are outgoing and lively in personality, and their compatibility with the major is relatively high. However, there are several issues in their professional learning: First, misconceptions, such as expecting overnight wealth through cross-border e-commerce or thinking that selling counterfeit goods is the only way to profit. Second, weak English foundation leads to difficulties and fears in English learning. In addition, inconsistent computer skills hinder smooth operation on cross-border e-commerce platforms. Third, students lack proactive learning, exhibiting weaker interest and initiative. Self-management and motivation are challenges that present significant difficulties in teaching.[1]

On the other hand, the flipped classroom adopts a blended teaching model, based on the process of enterprise operations, to reconstruct teaching content. This approach allows students to take the initiative, completing learning tasks akin to progressing through a game. Simultaneously, the integration of 1+X certificates and skill competition content enhances students' sense of accomplishment within the classroom.

2. The Implementation of Flipped Classroom Teaching

The course adopts a project-based teaching approach, incorporating both theoretical and practical components. It is designed with parallel tracks for in-class and out-of-class activities. The in-class track utilizes virtual platforms to simulate the processes of setting up and operating stores on platforms like AliExpress and Amazon. Students independently complete virtual training tasks. The out-of-class track introduces real cross-border production training projects in collaboration with enterprises. Students work in teams to complete tasks within the cross-border training center established jointly by the school and

enterprises. Throughout the course implementation, thematic education on cultural confidence, innovation and entrepreneurship, integrity in operations, and dedication to work is integrated.

2.1. Theoretical Design

2.1.1. Alignment with Industry Standards and Course Specification

The course "Cross-Border E-commerce Operations" is based on the industry standards of e-commerce models. It aligns with e-commerce professional teaching standards and the national occupational classification dictionary. It incorporates the requirements of the "Online Store Operation and Promotion" 1+X certificate at the primary and intermediate levels. The course design integrates regional economic development characteristics and requirements, as well as the characteristics of students' backgrounds and the school's teaching resources. Following the approach of "broad foundation, major platform, minor specialization, and active modules," the program constructs a structured curriculum system comprising "general education platform courses + professional foundation platform courses + professional specialization courses + professional expansion courses." [2] "Cross-Border E-commerce Operations" is a core module that supports students in understanding and mastering the essential skills of cross-border e-commerce store operations. It is offered in the second semester of the first year, laying the foundation for students to obtain the 1+X skills certificate and develop an understanding of job positions within the cross-border e-commerce industry.

2.1.2. Alignment with Occupational Positions and Content Restructuring

The curriculum content is reconstructed by aligning with typical job positions in cross-border e-commerce enterprises and following the workflow as the main thread. This is done while considering students' learning situations and adhering to the principle of being sufficient and practical. Based on the typical four-step workflow, the course content is modularized and task-oriented. The first module introduces cross-border e-commerce platforms and industry development trends, helping students understand and select platforms. The second module introduces methods and elements of product selection, enabling students to possess the ability to select products on cross-border platforms. The third and fourth modules focus on setting up stores on AliExpress and Amazon, respectively, guiding students to grasp the core competencies of operating on mainstream cross-border platforms. The fifth module combines operational data to introduce data analysis methods, fostering students' awareness of big data and their ability for independent analysis.

2.2. Implementation of Flipped Classroom Teaching

2.2.1. Utilizing the "Inquiry-Based" Classroom Teaching Model to Emphasize Student-Centered Learning

The implementation of the course adopts the "inquiry-based" classroom teaching model, divided into three stages: pre-class exploration, in-class guidance, and post-class extension. Prior to the class, tasks are used to stimulate student interest. In-class activities utilize the "Five-Step Teaching Method" and information technology tools. These include teacher demonstrations, video presentations to help students overcome difficult points, and enhance their ability to solve problems independently. After class, real enterprise projects are introduced, and students work in groups to complete assigned tasks, improving knowledge transfer and application. The overall approach aims to achieve student-centered inquiry-based learning through arousing interest, assigning tasks, teaching rules, learning methods, practicing skills, evaluating outcomes, summarizing, and expanding perspectives.

2.2.2. Utilizing Information Technology-Assisted Teaching to Address Teaching Difficulties

Diverse smart learning environments are constructed by fully utilizing teaching software, online open courses, AliExpress University video resources, Amazon Seller Central, and cross-border e-commerce operational training platform systems. These environments help students understand cross-border platform operational rules and master the basic skills of opening and operating cross-border e-commerce platforms. Students are guided to independently seek strategies and suggestions to complete corresponding difficult tasks, effectively addressing teaching priorities and overcoming challenges.

2.2.3. Adjusting Teaching Strategies Timely and Diagnosing for Immediate Improvement

Prior to class, teachers analyze students' learning situations based on data from video views, video stoppage durations, and feedback from training platforms. They promptly adjust teaching goals and focus areas. In-class activities include quizzes, discussions, voting, and distributing questionnaires to enhance

students' class participation, expression, and communication skills. Teaching strategies are adjusted based on students' responses in real-time. After class, teaching strategies are refined based on students' productive training performance. Teaching diagnosis and improvement are integrated into pre-class, in-class, and post-class stages, adhering to the combination of self-diagnosis and external diagnosis, ensuring immediate diagnosis and improvement.

2.2.4. Integrating Character Education Immersively into Classroom Activities

"Moral education and nurturing talents" is the fundamental mission of higher education institutions. In accordance with China's requirement that "all universities, all teachers, and all courses undertake the responsibility of educating people and fulfill the mission entrusted," and considering industry-related laws and regulations such as the "E-commerce Law," knowledge learning, skill development, and character cultivation are integrated. This achieves organic unity among the three aspects, guiding students to find their role positioning, establish correct values, and develop into individuals with profound subject knowledge, technical skills, national and international perspectives, innovative spirit, and a sense of duty for the great responsibility of national rejuvenation. In this course, thought education resources embedded in the curriculum and teaching model are thoroughly explored. Taking the workflow as the main line, these are subtly conveyed to students through teachers' silent classroom activities, achieving the immersive integration of character education into the classroom.

2.3. Evaluation and Effectiveness of Flipped Classroom

2.3.1. Diverse Teaching Evaluation

The evaluation process is characterized by diverse evaluation subjects, varied assessment methods, multidimensional outcomes, providing a comprehensive display of students' learning achievements. Evaluation subjects encompass students, teachers, and industry mentors. Assessment methods encompass various techniques such as online learning platform tests, practical software scoring, and group presentations, collected throughout the process. Evaluation outcomes comprehensively consider students' self-assessment of professional knowledge, skill acquisition, self-exploration, learning abilities, teamwork, summarization, innovative thinking, and entrepreneurial skills. Course evaluation data is linked to the student's vocational competency profile platform. Through steps like data cleansing and analysis, it forms a comprehensive profile of students' course learning, laying a foundation for developing their vocational competence profile.

2.3.2. Classroom Teaching Effectiveness

The flipped classroom approach transforms traditional teaching and practical methods by effectively integrating simulated and actual cross-border e-commerce operational platforms. Leveraging techniques such as micro-course videos, smart classrooms, educational platforms, and class QQ groups, it effectively tackles teaching difficulties, monitoring and recording the entire learning process. The classroom exhibits high management efficiency, fostering strong student interest and participation. Post-class productive training projects advance through task-based progression, with students showing strong enthusiasm and high levels of engagement, significantly enhancing classroom vitality.

Flipped classroom methodology emphasizes the integration of skills competition and practical training, aligning instructional content with exam preparation. In recent years, during the course implementation, students have excelled in various competitions such as the National Cross-Border E-Commerce Skills Competition, the National eBay Cross-Border E-Commerce Innovation and Entrepreneurship Competition, and the "Shopee Cup" Cross-Border E-Commerce Innovation and Entrepreneurship Public Welfare Competition. This approach significantly enhances students' practical capabilities. Concurrently, the curriculum promotes the integration of education and certification, as students proactively acquire the 1+X certificate for online store operation and promotion, leading to an increased pass rate. Teachers also undergo synchronous professional skills enhancement, achieving a 100% certification rate. Moreover, the course team accumulates experience, compiles achievements, and has won awards in consecutive years by participating in provincial vocational college teacher teaching ability competitions during the course implementation process.

3. Innovation and Reflection

3.1. Innovative Design

The exploration of the flipped classroom in "Cross-Border E-Commerce Operations" is driven by several innovative concepts. The establishment of the "two-pronged" philosophy involves actively transforming traditional teaching perspectives, guided by the "Outcome-Based Education" (OBE) teaching philosophy. A steadfast commitment to the "student-centered, competency-based" teaching philosophy redirects the classroom focus towards continuously enhancing each student's learning and skills, effectively fostering their growth and development. The cultivation of a "threefold" awareness integrates elements such as patriotism, integrity, dedication, teamwork, and excellence into the curriculum, instilling a sense of national pride, personal responsibility, and collaborative teamwork while nurturing a sense of compassion, responsibility, and consideration for others in students. Incorporating "four new" elements involves infusing emerging industry standards into teaching, leveraging innovative teaching methods such as simulation platforms to address challenging areas, integrating contemporary industry knowledge into teaching resources to ensure up-to-date content. The integration of industry and enterprise job skill requirements into the curriculum effectively enhances students' skills and eliminates knowledge and skill gaps between theory and practice. Implementing a "five-step" teaching approach innovatively employs a "three-stage, five-step" teaching model comprising pre-class exploration, in-class guidance, and post-class expansion. This approach encompasses self-research and exploration, addressing queries and inquiries, enhancing practical training, multi-dimensional evaluation, and summarizing and expanding knowledge, fostering students' innate curiosity and a spirit of continuous exploration. Advancing "dual-quality" education aligns with the requirements of the "Reform and Implementation Plan for Building a High-Quality Faculty with a 'Dual-Teacher' Model in Vocational Education in the New Era." It encourages professional teachers to engage in industry learning or participate in course training, aiming to source teaching cases directly from industry materials. Additionally, experts from different positions within deeply cooperating enterprises are selected based on teaching content needs, facilitating collaboration between educational institutions and businesses, enabling the establishment of structured teacher-mentor teams, and fostering a favorable ecosystem for continuous improvement in vocational education teaching quality. Promoting "dual-quality" education effectively enhances the quality of training for versatile technical and skilled personnel. Engaging in "multi-dimensional" evaluation shifts away from the conventional approach of solely assessing students based on academic performance. This approach involves multiple participants such as teachers, self-assessment by students, peer assessment among students, and evaluations from industry mentors, evaluating students' knowledge, abilities, and qualities across diverse dimensions. This facilitates the development of a more positive and objective student evaluation system, nurturing students' holistic development.[3]

3.2. Reflection and Exploration

Through the implementation of the flipped classroom, certain challenges and considerations have emerged. While the alignment with the "1+X" certificate's skill requirements has been proactive in the course implementation, there is room for further contemplation regarding the integration's effectiveness and student pass rates. Enhancing students' proactive engagement and enthusiasm for certificate assessment remains a priority. Additionally, it is observed that not all students are equally motivated to participate in skill competitions, which often fail to encompass the entirety of the professional student body. Furthermore, during the course implementation, the utilization of teaching software, cross-border e-commerce practical training systems, and productive training projects from enterprise platforms has facilitated the collection of student learning process data. However, a technical constraint exists in terms of the compatibility and sharing of data across these platforms.

The "1+X" certificate's diverse skill requirements span multiple courses within the curriculum. Advancing curriculum integration should involve collaboration with multiple courses. Prioritizing the enhancement of students' practical skills while cultivating their abilities for self-directed learning and critical thinking is essential. Currently, consolidating and analyzing data from various platforms during teaching can be suitably applied. Nevertheless, addressing data interoperability among these platforms necessitates the use of scientific data organization and statistical tools. In the future, it is imperative to seek more optimal approaches and pathways for process management, ensuring the comprehensive monitoring and management of the learning journey.

4. Conclusion

In summary, for vocational colleges aiming to cultivate practical skills, especially in fields related to the evolving landscape of internet technology, the exploration of flipped classroom strategies is highly imperative. Based on considerations of student learning situations, curriculum standards, teaching content, and available resources, the theoretical research and practical exploration of flipped classroom design are essential. This approach serves to enhance students' practical skills and professional qualities. Simultaneously, when it comes to students in vocational colleges, igniting their interest in learning and exploring effective learning methods is of paramount importance. Throughout the practical learning journey, it is crucial to emphasize students' engagement and learning outcomes. Adaptations to teaching emphasis, difficulties, and methods should be timely and appropriate, catering to students' learning characteristics. This process will nurture students' capacity for independent learning and critical thinking.

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