

Research on the 'Three Steps and Three Transformations' Teaching Method Based on Modern Information Technology

Lei Wang

*School of Marxism, Taishan University, Tai'an, 271000, China
Vlan19831108@163.com*

Abstract: *In response to issues in traditional economics education, such as teacher-centered instruction, lack of student initiative, and singular assessment methods, this article utilizes modern information technology and advocates for the "Three Steps and Three Transformations" teaching method. The approach emphasizes a well-designed, diverse, and interactive hybrid teaching environment comprising pre-class, in-class, and post-class steps. Through this method, students are provided with a rich and flexible learning experience, stimulating their enthusiasm for learning, cultivating their abilities for independent study, exploration, and collaboration. The teaching objectives focus on transforming pre-class knowledge into questions, resolving these questions during the class, and showcasing the outcomes after the class. This approach comprehensively enhances students' learning abilities, comprehension, and practical skills. Furthermore, by effectively integrating ideological and political education into the curriculum, students' identification with the core socialist values is strengthened. These innovations have created an advanced learning classroom, significantly improving the effectiveness of teaching.*

Keywords: *information technology; three steps; three modernization*

1. Course Basic Information

"Modern Economics" is a core course offered in university-level economics programs. It covers both microeconomics and macroeconomics, presenting the mainstream economic perspectives on the mechanisms of market economies today. Through this course, students gain a comprehensive understanding of the development of economics as a discipline and the behavioral choices of different economic agents. They are able to construct theoretical frameworks in economics.

In terms of skills, students are equipped to analyze and solve real-world issues faced by market economies using the core values of socialism. They develop practical abilities to apply economic theories to real-life situations.

In terms of competence, students cultivate innovative thinking, enhance their organizational and coordination skills, and develop management abilities. Ultimately, they become adaptable professionals capable of thriving in a socio-economic context.

2. Design Approach

2.1 Definition of "three steps and three changes"

In the practice of exploring mixed and heuristic teaching based on modern information technology, the "three steps" teaching method of "three steps and three modernization" fully reflects the ability of deep integration of modern information technology and education and teaching, which is of great significance for innovating teaching ideas, updating teaching content and optimizing teaching means. The so-called "three steps and three changes" focuses on two and three, the first and three, which refers to the "three steps", that is, all the teaching design should be divided into three steps before class, during class and after class. The second three refers to the "three modernization", that is, from the aspect of the reform effect, the pre-class, in-class and after-class teaching objectives put forward specific requirements. Namely, the goal of pre-class teaching design is to realize the problem of knowledge; the goal of teaching design is to solve the problem; the goal of after-class teaching design is to realize the

demonstration of teaching results.

2.2 Instructional design ideas

First of all, the teaching scheme is designed from three aspects of knowledge, ability and quality. Secondly, relying on the online learning platform of "Learning Pass" and the MOOCs resources of college students, the teacher activities and student activities are divided according to the three links of —class and —after class before class, and then the design purpose degree and evaluation standard are achieved according to each link. Finally, teachers should make good records of post class reflection and teaching feedback, and improve the teaching plan.

2.3 Solve the teaching pain points

Through micro-course guidance, teachers create an independent learning space for students, which can not only meet the personalized needs of different students and stimulate their interest in learning, but also solve the shortcomings of lack of interaction in traditional teaching and improve students' learning initiative through participatory teaching methods such as goal guidance, heuristics, interactive explanations, group discussions, and online testing. Through the data monitoring of online platforms such as Learning Pass and Rain Classroom, the frequency and quality of daily assessment and process assessment can be increased, and the problems of single assessment method and large gap in academic performance can be solved.^[1]By integrating "curriculum ideological and political affairs" into knowledge teaching, teachers can play the value leading role, help students to establish the socialist core values, and correctly understand, describe and explain economic principles and economic problems with a practical and realistic attitude.

3. The Implementation Path of the "Three Steps, Three Transformations" Teaching Plan

3.1 Pre-Class Preparation: Problematizing Knowledge Implementation

This segment design requires teachers to use carefully prepared questions in conjunction with the classroom objectives to guide the pace of the entire class. Tasks and pre-learning materials should be posted on the online course platform, encouraging students to actively participate in learning new knowledge and engage in critical thinking. This approach not only enhances students' initiative in learning but also helps them find a sense of achievement in subsequent classroom teaching. The core of this segment is for teachers to proficiently grasp textbook knowledge and utilize methods such as collaborative lesson planning and refining lessons to design questions that are highly representative and leading, often related to current societal issues.^[2] Students are encouraged to read and contemplate through new media, search for relevant answers, and complete knowledge assessments on the online learning platform.

There are three steps for pre-class preparation:

Step 1: Teaching Preparation

This step includes creating micro-lessons to spark students' interest in learning specific topics. Tasks, discussion questions, and learning materials are sent to students via platforms like Learning Portal and WeChat, allowing students to engage in self-directed learning.

Step 2: Presenting Teaching Objectives

This step involves designing the learning objectives and ideological and political education objectives for the class. It presents the key knowledge points and challenges of the lesson and outlines specific methods to achieve the objectives.

Step 3: Online Guided Learning and Supervision

This step includes supervising students' online learning activities, ensuring they complete their tasks, and building the initial cognitive framework for knowledge.

3.2 In-Class: Implementation of Problem-Solving Approaches

This section is the classroom teaching part of the blended teaching mode. The specific operating steps are for the teacher to display the learning content to students through various teaching output

forms, such as multimedia PPT display, learning tool APP, blackboard writing, etc. The students communicate with the teacher through voting, questionnaire, check-in, group discussion, brainstorming, and other methods to discover their own problems in knowledge learning and conduct targeted learning. In order to improve learning efficiency. It specifically includes the following links:

Firstly, teachers need to build a new knowledge system that will be learned based on reviewing old knowledge.^[3] For example, when explaining the application of the law of supply and demand, students need to first review what the law of supply and demand is called. Then, in the case of introducing the law of supply and demand, new knowledge points are introduced: the application of the theory of grain price hurting farmers in equilibrium price theory, allowing students to draw their own analytical conclusions and propose any other phenomena that do not comply with the law of supply and demand around them.

Secondly, the teacher raises questions on-site and analyzes and explores the knowledge points. The teacher first uses group discussions to ask students to think about three questions: (1) What are the manifestations of price imbalance? (2) The impact of price failure on the market? (3) What measures should the government take? Students are required to submit answers on-site, and the teacher conducts on-site evaluations. Based on the ideological and political goals of the curriculum, the teacher summarizes the key points using a summary method.

Thirdly, the teacher has deepened the impression on students through analysis and summary. First, the teacher describes the application of equilibrium price theory in concise language. Then, students are organized to carry out group discussion, group mutual evaluation and other activities, and teachers can improve and supplement the discussion results. Finally, the teacher checks the accuracy of students online to understand their mastery of knowledge, and arranges homework and post class review for them.

3.3 After-class: achievement display

The teaching goal of this link is to show the learning effect. Teachers arrange online, offline or oral homework, so that students show the visual and intuitive learning effect through interactive modes such as problem solving and free discussion. At the same time, students find problems in students' feedback and make targeted review. Specifically, it includes the following contents:

First, teachers assign learning homework, students submit. Online submission: subjective question: What are the areas where the price mechanism fails? What are the supply and demand results? How to solve such problems? Objective question types include single item questions and multiple choice questions. The homework submitted after class is the calculation of equilibrium price theory. Choose one from the expanded reading list: "Price Theory and Its Applications," "Principles of Economics," and "Market Failure and Government Regulation," to write a reading note.

Second, the teacher shows the students' answers, including collecting students' video learning time, task point completion rate, online homework accuracy, average score and other indicators, showing in WeChat group, and select some individual cases for analysis, to explain the problems existing in students.

Third, teachers reflect on the shortcomings and put forward improvement measures. In general, students have a good grasp of the content of "application of balanced price theory" and evaluate the teaching methods such as mixed teaching, group discussion and group discussion.^[4] Specifically, the vast majority of students have mastered the analytical tools of equilibrium theory, and can draw inferences from one example and comprehensively evaluate many fields of market failure. However, there are also some students who are slow to accept new knowledge and need to deepen their understanding, focusing on one-to-one tutoring and insufficient understanding, to help students clear the learning obstacles.

4. Distinctive Teaching Features and Promotional Value

4.1 Teaching characteristics

The feature of this course is to build a mixed teaching model of SPOC online learning + small class. In teaching, the teaching concept of "student-centered" is emphasized, and on the basis of teaching theoretical knowledge, students' ability to choose economic tools to analyze and solve economic

problems. Specific characteristics are shown in the following aspects:

(1) The deep integration of modern information technology with course content has enhanced students' awareness of participation and innovative abilities

In terms of hybrid teaching design, this case makes full use of online platform resources such as Learning Tong, Rain Classroom, WeChat group and MOOCs to optimize and integrate modern information technology and economics courses, so that students can speak freely in a relaxed online learning atmosphere. Each student is not only a learner, but also the creator of classroom learning resources. Teachers should leave students with the right to choose their own course learning resources based on their actual needs.^[5] Teaching design applies modern teaching tools to traditional teaching through teacher-student interaction, human-machine interaction, and other means to enhance students' learning enthusiasm.

(2) The three-step "three-step" student-centered teaching design "improves students' knowledge level and practical skills

The three-step "three-step" student-centered " teaching method better creates a student-centered and teacher-led interactive learning environment, and effectively cultivates students' independent thinking, different thinking, innovation ability and team spirit. Through micro-class guidance, goal presentation and group introduction before class, the problem of knowledge is realized, so that students can build a new knowledge system for the application of balanced price theory. ^[6]In the class, through raising questions, in-depth exploration and summary, the problem is solved, so that students can consolidate the knowledge system and deepen the key understanding. After class, through platform detection, expanding reading and review homework, we realize the display of learning results, and imperceptibly cultivate students' ability to find and solve problems.

4.2 Promotion value

The implementation of the aforementioned reforms has led to a noticeable improvement in students' learning efficiency and enthusiasm. Fragmented time has been fully utilized. According to the performance data from the Learning Management System, students are actively engaged in the learning activities set by the teachers, participating punctually and with high quality. They excel in various aspects such as attendance, discussions, video viewing, classroom performance, and assignments. Additionally, the assessment approach advocated by the course, emphasizing the process over the results, has gained students' approval. ^[7]Their feedback indicates that this assessment reform not only alleviates the pressure of final exams but also allows them more time to explore topics of their interest. This approach broadens their horizons, enhances their economic literacy, and is well received.

5. Conclusion

By implementing the "three steps and three transformations" teaching method, teachers have built a self-learning platform for students. Students can fully utilize modern information tools to achieve self-learning and reading, and their learning efficiency has significantly improved compared to before. The enthusiasm of students and teaching for learning and research has also greatly improved.

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