

An Exploration of Teaching and Learning Reform in Critical Thinking Courses

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Abstract: Innovation is the display of social progress, but also the basis of the power of educational development. This paper studies and analyzes the teaching and reform of critical thinking course, through the teachers' teaching experience, teaching mode of in-depth investigation and analysis, for effective improvement. Nowadays, in the "teacher-oriented, student-supported" teaching mode, students play a listener, and more to form a "what the teacher teaches, what the student learns" tendency of education, unchanging, which is the role played by the teacher in the teaching process. This is the role played by the teacher in the teaching process. For the students, the class is just a form, only need to listen carefully, take good notes, and even class cannot study, can also be muddle through a class. And this rigid teaching method is not only not beneficial to the development of students, but also seriously hinder the development of students' innovation, thinking and logic ability, so that the demand for talent is not balanced, and finally not conducive to the direction of students' employment. The significance of this paper is to provide a feasible teaching mode and method for educational practice, aiming at elaborating an introductory course based on "point line surface" as the small class teaching mode, guiding students' hands-on practical ability, cultivating students' innovation ability, and stimulating students' enthusiasm in the classroom.

Keywords: Teaching Reform; Teaching Method; Innovation.

1. Introduction

Introduction to Critical Thinking is a basic course to train students in critical thinking and innovative thinking, and this course focuses on cultivating students' ability to analyze and solve problems in logical, critical and innovative thinking. In the process of analyzing and solving problems, the basic core ability is to analyze, evaluate and construct arguments, so it is destined to be a highly theoretical course. It has become a common phenomenon for students to show slackness and dullness in such a highly theoretical course.

In order to make students adapt to the fast-developing society and avoid the phenomenon of "unemployment upon graduation", it is necessary to reform the traditional teaching mode and improve the students' enthusiasm, classroom participation, practical ability and innovative consciousness.

1.1. Background of the Subject Study

In traditional teaching, the teacher plays the role of the transmitter, and the students are the listeners. For students, class is just a formality, only need to listen carefully and take good notes, and even class can be no pre-study, can also be muddled to waste a class.

As for the course "Introduction to Critical Thinking", one of the tabooest problems is to treat it as a course of indoctrination by reading from a textbook, or even if there is a part of discussion, it does not become a real guiding and feedback guiding practice, but rather become a tangible but not real, and equally ineffective "water class". Therefore, there is a need to change the previous teaching model, which is step-by-step, conformist and not creative and proactive.

1.2. Purpose and Significance of the Subject Research

Introduction to Critical Thinking is not only a mystery in content, but also a novelty in form for freshmen. Based on "point, line and surface", the introductory small class breaks

the traditional teaching mode, in the classroom, it is no longer the teacher standing on the podium and unilaterally instilling, but trying to let every student become a participant in the classroom, i.e., "point", so that they communicate with each other, i.e., "line", so that the students will be able to communicate with each other. Instead, it tries to make every student a participant in the classroom, i.e., a "point", to communicate with each other, i.e., a "line", and to interweave into a "surface" when they communicate in multiple directions.

Under this model, students have changed from the traditional mode of just listening and taking notes in class to actively participating in the discussion in class, or even leading the classmates in the briefing. Which requires not only a change of mindset in class, but also the corresponding ability to enhance the teacher to do the classroom back to the students. In the past, you could not study in class, but now if you do not study in advance without thinking in advance, it is difficult to participate in the classroom discussion, many activities in the classroom and discussion sessions also make the students active or passive participation in the classroom, effectively enhancing the classroom activity.

2. Programs and Plans for Reform

2.1. Content of Reform

Change the teaching from the previous mode of indoctrination to the "points, lines and surfaces" based on the introduction of small class teaching. Points--Students need to prepare in advance, think in advance, understand the content of the chapter in the textbook, and find some relevant extracurricular materials to make briefs and organize class discussions. Line - In the classroom, in addition to collective discussion, from time to time, students can also be allowed to form groups with neighboring students to complete the topic. Surface - at the same time the teacher also needs to increase the teaching software to assist, and students with a variety of

ways to communicate classroom issues, not only verbal questions and answers or questions answered on the PPT, which also allows students to increase the enthusiasm.

2.2. Objectives of the Reform

The content form of this course puts relatively high demands on students, so not all of them can adapt quickly. Especially since they themselves have more class load and campus activities, how to mobilize them to read before class and speak actively in class is a difficult problem in front of them. Different classes and different students have their different interests and characteristics, so at the beginning, we can pitch in and start with the contents related to critical thinking such as horoscopes, philosophy, life, politics, etc., and broaden the surface of the topics in order to find out which topics they are interested in; and then gradually narrow down the topics to talk about as much as possible about the aspects they are interested in, so as to stimulate the enthusiasm of their discussion.

(1) Establish a three-dimensional teaching model based on "point, line and surface" in combination with the characteristics of the course "Introduction to Critical Thinking". By participating in various activities in the classroom, students can turn passive into active, improve their own quality and ability, and at the same time, strengthen their comprehensive ability.

(2) Through the introduction of critical thinking, to build interactive classroom teaching methods, which mainly includes: students' pre-study before class, teacher-student classroom discussion and after-school Q&A.

2.3. Key Problems to be Solved

(1) Establish a three-dimensional teaching system of "point, line and surface", breaking through the traditional teaching mode, aiming to fully guide students' learning autonomy and thinking enthusiasm. Transform "passive learning" into "active knowledge".

(2) Focus on inquiry-based teaching methods, create a good classroom atmosphere, improve the effectiveness of classroom teaching, and establish a new mode of questioning, questioning, and exploring between teachers and students, so that they can realize the joy of discovery and exploration.

(3) Focus on ability cultivation and establish an assessment method that emphasizes both ability and way of thinking.

2.4. Implementation Program, Implementation Methods

(1) In view of the characteristics of the course, adopt the "point line surface" as the basis of introductory small class teaching, lead the students to do a good job of pre-course data collection, classroom interaction and exploration, post-class summarization, project-driven, interest-driven forms, and establish a critical thinking learning team, in order to cultivate the skills of collective work, the sense of teamwork.

(2) In classroom teaching, the inquiry-based teaching method is used. In the classroom, for the existing conclusions, encourage students to boldly question, boldly ask questions, students of the proposed problem group sorting, through the review of information and literature, to give the answer to each group.

(3) Combined with the "point line surface" teaching mode, the assessment of students' ability as the focus of the assessment object, reform the assessment method, focusing on their way of thinking and their own ability. At the same

time, students' enthusiasm in asking questions, initiative in seminars, authenticity of reports, and teamwork should be evaluated. This multi-dimensional assessment method, compared with the previous results assessment, can guide students to learn to think independently, to avoid blind obedience, so that they can realize that independent thinking lies in the process rather than the conclusion, which is conducive to expanding the students' sense of innovation and breadth of thinking.

(4) Supplemented by the "micro-teaching" online teaching tools for daily preparation, class check-in, classroom interaction and discussion, online instant tests, homework arrangements and post-class discussions. The specific implementation plan is as follows:

1) Pre-lesson preparation

With the help of the micro-teaching platform, the teacher can upload the courseware in advance, and the students can do the pre-study by understanding the content of the course. Teachers can check the time of students' pre-study on the platform, and they can also set the pre-study status on the micro-teaching platform as the students' usual grades, which helps to improve the initiative of students' pre-study.

2) Teaching process

a. Class check-in

Teachers can set up a GPS check-in function 10 minutes before class on the micro-teaching assistant, and there will be a message to remind students to check in before class, which can effectively prevent students from being late and absent from class.

b. Tests in the classroom

For those who need to take instant tests in class, the system provides a question-answering area where time can be set so that students can answer the questions and take the tests via cell phone or PC. The system will automatically recognize the number of answers and the number of answers, automatically review and calculate the scores, which will be included in the grades and used in the evaluation of semester grades.

c. After-class arrangement

Teachers set up after-class assignments on Micro-Assistant, with timely reminder function to remind students to answer as well as submit. The system can automate the grading of objective questions, such as multiple choice, fill in the blanks, judgment and other types of questions, which greatly reduces the workload of the teacher and allows the teacher to have more energy to design higher quality teaching courses. The homework will be used as part of the final grade assessment while consolidating students' knowledge.

In addition, Micro-assisted Teaching has another function - discussion forum. Here, students who have questions about what they have learned in class can ask questions here, which greatly improves the initiative of students to answer questions.

2.5. Expected Results

(1) Establish a teaching mode of introductory small class based on "dots, lines and surfaces".

(2) Enhance students' interest in learning through inquiry learning and group discussion.

(3) Effectively cultivate students' group work skills and sense of teamwork.

(4) By incorporating students' outstanding achievements and teaching effects into the teaching resource library, the program can be promoted to teachers and students, which helps to cultivate students' comprehensive application ability.

(5) Improve students' initiative and motivation with the

help of network tools

3. Summary

Adopting the teaching mode of "point, line and surface" introductory small class, improving students' interest in learning, establishing a critical thinking learning team in order to cultivate their collective working skills and sense of teamwork, encouraging students to take the initiative to raise questions in class and carry out seminars, sorting out the contents in groups, consulting the information after class, and answering the questions by groups, and establishing the assessment methods that emphasize both ability and way of thinking. Thinking way of assessment changes the previous way of assessment by one final grade, combines individual and group quantitative assessment, improves the breadth of students' thinking and innovation ability, and is supplemented by certain network means to improve the initiative and enthusiasm of students' learning.

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