

Participatory Teaching Design and Improvement of Managerial Economics Course

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Abstract: To cultivate innovative and applied talents, it is imperative to carry out participatory teaching. Firstly, this paper discusses the connotation of participatory teaching. After combing the existing research, it is found that there is no attempt of participatory teaching method in the course of Managerial Economics. Based on the analysis of the necessity and possibility of participatory teaching in Managerial Economics, we put forward the specific design of participatory teaching method in this course. Combined with the author's practice of participatory teaching in recent two years, this paper puts forward the existing problems and the improvement direction.

Keywords: Participatory Teaching, SPOC, Managerial Economics.

1. Introduction

In the 1960s, British sociological experts concluded a theory in their research on international aid projects that only by making people participate in the projects as much as possible can the success of the projects be maximally guaranteed. This theory has been introduced into the field of education, which is now widely referred to as "participatory teaching method". It is a teaching method that pays attention to participation, subjectivity and consciousness. Since then, participatory teaching method has attracted extensive attention at home and abroad.

From the theoretical level, domestic scholars' discussion on participatory teaching method is mainly manifested in two aspects: The first, understanding of the connotation and characteristics. Menghewuliji(2015) argue that participatory teaching mode is a set of teachers, students, teaching materials and courseware, discussion and practical at an organic whole, many elements of collaborative interaction the sum total of the new education idea and method of system [1]. Participatory teaching advocates centering students' learning. In the process of teaching, "teachers and students participate in learning activities on an equal basis, discuss problems in learning together, and realize teacher-student interaction in teaching activities and learn from each other." (Chen Shijian, 2014) [2]. Students with different learning backgrounds and characteristics can learn effectively. Role interaction between teachers and students is very important in participatory teaching. It is necessary to continuously improve the ability of role interaction to ensure the realization of the goals of participatory teaching (Fu Zaixue, 2018) [3]. Second, the exploration of the teaching model. For example, Li Haiying et al. (2014) tried to design the teaching model of "three stages and two main lines" based on the understanding that "students main" and "effective participation" are the origin of the participatory teaching concept [4]. Jiang Bo (2017) took Bloom's consciousness domain classification system as the evaluation method of participatory teaching method, and proposed five active participatory teaching modes which including the science and technology method, cooperation method, game method, debate method and situational teaching method[5]. Only by correctly understanding the

connotation of participatory teaching model and designing appropriate forms of participation in combination with the characteristics of subjects, courses and learning objects can we truly improve the quality of teaching and cultivate applied talents (Wu Yuhua, 2016) [6].

More research on participatory teaching comes from the practical level. First, the observation and reflection on the problems existing in the practice of participatory teaching. Dong Wenqi (2013) found that there are some problems in teaching, such as unclear cognition, insufficient overall design of teaching process, less participation of students, weak responsibilities of teachers, single evaluation and feedback system [7]. Yang Daiwu and Ding Xue (2020) also believe that there are still certain practical dilemmas in teaching atmosphere, teaching staff, students' initiative and teaching mechanism. On the whole, the development of participatory teaching method in higher education is not mature at this stage [8]. Second, the teaching design aimed at the problem of less students' participation. Li Rui and Wu Ping (2016) proposed six participation strategies, including reasonable design of teaching objectives, creation of teaching atmosphere, reasonable evaluation and effective monitoring of student effects [9]. Yang Daiwu and Ding Xue (2020) proposed targeted innovation from four aspects: curriculum design, teaching concept, teaching mechanism and teaching content, so as to improve teaching effect and teaching level [8]. Third, the model and application of participatory teaching are discussed in combination with specific courses, such as Real Estate Economics (Xu Shuhong, 2016) [10], Management Science (Zhang Liqing and Cheng Kaiyan, 2016) [11], etc. Fourth, participatory teaching design combined with the characteristics of the course. For example, Li Shibo et al. (2015) designed three kinds of participatory teaching activities for the course of International Economic Cooperation, such as group task, individual speech and participation in teaching[12]. Bao Hongxia (2016) adopted three sections in the teaching of Tourism Economics which including case analysis, scenario simulation and tourism news broadcast[13]. Wang Biying and Li Xiongjun (2020) attempted to carry out in-depth participatory case teaching for the Master of Public Administration (MPA) course. Through several core links such as case acquisition, classroom

organization and case evaluation, the whole process of case acquisition, case debate and case evaluation was completed [14]. Based on the teaching experience of Resource and Environmental Economics, Wu Jian (2020) analyzed and discussed key issues in the participatory discussion teaching model, such as case selection, improvement of students' participation and learning experience [15]. Wang Yiwen (2021) discussed the development of group discussion, case analysis, discussion and other participatory teaching activities in the course of International Economics [16]. Zang Jie(2021) based on the online cloud wisdom classroom under the background of information technology, took the course Optimization Theory as an example to illustrate the practical application of problem-based learning (PBL) teaching method, quick question answering method, peer teaching method and Think-pair-share teaching mode [17].

It can be seen that there have been in-depth theoretical discussions on the connotation, mode and method of participatory teaching, and extensive attempts have been made on the application of participatory teaching in various courses, but the course of Managerial Economics has not been covered. Managerial Economics is a professional course for senior undergraduates of economics and management major, which has its own particularity. This paper will elaborate the necessity of participatory teaching reform and the specific course design of Managerial Economics.

2. The Necessity of Carrying Out Participatory Teaching

2.1. Improve the Classroom Teaching Effect

Constructivism learning theory holds that the learning process of students is not a process of passive acceptance, but a process of students actively constructing knowledge within themselves. Students are responsible for their own learning attitude. Students can participate in various participatory teaching activities such as discussion, speech and role play, and then they can deeply understand various kinds of knowledge and internalize and construct their own knowledge system. Participatory teaching method is an effective practice of constructivism learning theory. Participatory teaching can fully mobilize the enthusiasm of students and obtain better teaching effect. Therefore, in order to improve the quality of higher education, it is necessary to take classroom construction as the starting point, reform the traditional teaching form, widely carry out inquiry, personalized and participatory teaching, promote the new teaching model, and improve the classroom teaching effect.

2.2. Improve Students' Comprehensive Quality

There are many ways to realize participatory teaching, such as case analysis, individual presentation, group discussion, scenario simulation and so on. The design of participatory teaching activities can not only help students better understand the learning content and clearly build their own knowledge system, but also exercise their independent thinking ability, problem analysis ability, self-expression ability, communication ability and teamwork ability (Liu Ting, 2014) [18]. This is the essential quality of comprehensive, applied and innovative talents. Therefore, participatory teaching method can improve students' multi-dimensional ability and comprehensive quality, and application-oriented and innovative talents are exactly what the market needs in the new era.

2.3. Meet Students' Learning Intention

Learning can be divided into receptive learning and discovery learning according to whether students' autonomy in learning is exerted (Chen Shijian, 2014) [2]. Under the traditional teaching mode, the classroom is dominated by teachers and supplemented by students. The teaching content is transmitted from teachers to students in one direction, and the teaching method and teaching progress are completely controlled by teachers. Participatory teaching emphasizes that teachers and students should participate in the learning process together, pay attention to the differences of students and give play to the autonomy of students. As equal subjects, teachers and students can communicate with each other, discuss with each other and make progress together in the teaching process. Students prefer this kind of equal communication. According to the results of the questionnaire, the question "Would you like to participate in classroom teaching activities?" 9.82% of the students are very willing to participate in the classroom teaching, 59.82% of the students are more willing to participate in the classroom teaching, 20.54% of the students hold a neutral attitude, so that most of the students are willing to participate in the teaching activities in general.

In the questionnaire survey for the students of Managerial Economics course, the question "Do you think you have a high participation rate in the class?" 64.29% of the students had a normal participation rate in the classroom, but most of them were willing to participate in teaching activities. It can be seen that despite the strong willingness of participatory learning, the current participation rate in the classroom is not high, indicating that there is a large space for participatory teaching.

3. The Possibility of Carrying Out Participatory Teaching

3.1. Nature of The Course

Managerial Economics belongs to the category of applied economics, which applies microeconomic theories and optimization methods to the decision-making practice of enterprises and institutions, and helps enterprise managers and public sector managers efficiently allocate scarce resources. Nature of the course requires students to apply microeconomic theories and methods to solve practical problems. We can use participatory teaching methods in class to fully mobilize students' learning enthusiasm through case analysis, group discussion, scene simulation. then cultivate students' autonomous learning ability, thinking ability and innovative ability to solve problems.

3.2. The Foundation of Reality

Managerial Economics is an optional course for junior students majoring in economics and management. Students have studied Microeconomics and other courses before, so they have a certain theoretical foundation and a foundation for carrying out applied research. To some extent, senior undergraduate students also have the ability to think independently, express themselves, make PPT, etc., and have the ability to carry out participatory classroom teaching. Senior undergraduate students also have higher requirements for teaching content and methods. Generation Z is a group with attitudes and opinions, and has the desire and ability to express themselves, which also constitutes the objective

demand for participatory teaching.

3.3. Technical Conditions

Internet, big data, cloud computing, VR, AR and other technologies are developing rapidly and are also widely used in the field of education. As a high-quality resource sharing course, Managerial Economics has built an online teaching cloud platform with complete syllabus, courseware, videos, cases and other teaching materials, which lays the foundation for carrying out SPOC (Small Private Online Course). Teachers and students are also familiar with the access to network resources of a variety of methods and ways to lay a technical foundation for the development of participatory teaching in Managerial Economics class.

4. The Selection and Application of Participatory Teaching Methods

4.1. The Choice of Participatory Teaching Method

There are various participatory teaching methods. In the targeted questionnaire, about the question "Which kind of participatory teaching method do you think is better?" 25% of the survey respondents chose classroom discussion, 15.18% of them chose group presentation, 3.57% of them chose individual speech, 24.11% of them chose scenario simulation and 32.14% of them chose case analysis. The following is an illustration of the most popular three kinds of participatory teaching process design in Managerial Economics class.

4.1.1. Classic Case Analysis

(1) Preparation link. There are about 6 students in a group. Each group has a leader, who is responsible for the division of team member, group discussion and other matters. According to the syllabus design and the arrangement of teaching content, teachers would choose representative companies such as Alibaba, Huawei, Tencent as a case, the students select one topic, learn the content through the network cloud platform and determine the preliminary perspective of key decision-making events of well-known enterprises within two weeks. Teachers arrange the presentation time according to the content selected by students, and publish corresponding notices on the online teaching platform.

(2) Presentation link. Each group will make a PPT according to the selected enterprises and the perspective determined by the group discussion, which will be presented by the group speaker in class and supplemented by other group members. After the presentation is complete, other students can ask questions about what they don't understand, or question the formulation they think is problematic, and any member of the team can answer on the spot, if the group can't answer the question, the teacher can prompt or guide. The teacher can also ask questions or give some comments based on the situation of the presentation, can also extend the questions raised by other students to broaden their knowledge.

(3) Evaluation link. One representative from each group will be chosen to score the non-group presentation activities, the average score will be calculated on the spot as the score of each student in the presentation group in this link and will be included in the ordinary grades. Teachers should summarize and comment on the presentation group's overall performance, including areas worthy of praise and areas for

further improvement. They should not only evaluate the presentation group's report, but also point out the general direction for other groups.

4.1.2. Class Discussion

Although there are many versions of the textbook Managerial Economics at home and abroad, the construction of the textbook generally lags behind the economic reality, and the content of the textbook cannot be closely combined with the current situation of economic and social development. The practical guidance needs to be strengthened, which requires teachers to guide and expand students' thinking in class. For example, the wave of "Internet +" has swept across the country and exerted an impact on all walks of life. This is also a major problem that cannot be bypassed in the resource allocation and decision-making process of enterprises. However, this part is not included in the textbook, so it is necessary to guide students to think about the following issues: "What impact does the development of the Internet have on the allocation of enterprise resources?" "What impact does 'Internet+' have on corporate decision-making?" "What changes are taking place in the business model of enterprises under the background of 'Internet +?'" and so on. Whether inform the discussion question in advance or not depends on the difficulty of the question. Simple questions can be asked in class to start the discussion immediately. If the problem is more complex, teachers can prepare notice on network teaching platform, also the teachers can decorate a task at the end of the last lesson to let the students to prepare ahead of time. If there existing complex and controversial issue, teachers can also use the form of debate competition to inspire the students' inspiration and enthusiasm and realize mutual promotion of teaching and learning finally.

4.1.3. Scenario Simulation

The problem of resource allocation and decision-making runs through the course of Managerial Economics, so it is necessary to design a certain scenario simulation link, set a specific situation, guide students to think, refine and summarize their own ideas and views. The questions designed in the scenario simulation should be the extension of the existing theoretical knowledge points and the specific application of theoretical knowledge in reality, and there may be no authoritative standard answer. For example, we can design the following scenario when discuss the theory of market supply and demand. "In 1967, a massive snowstorm has paralyzed traffic in downtown Chicago and made it difficult to get outside the necessities of life. There are two grocery stores near Jack's house that sell basically the same groceries. If you were the owner of one of these grocery stores, how would you decide to respond to this extreme environment and market demand?" You can make individual decisions, also you can make a group of 3-4 students to discuss and give a response plan. In this process, teachers should play the role of moderator, control the pace of the audience and the direction, encourage students to put forward different views, make appropriate comments on the views and guide the in-depth discussion of the problem.

4.2. The Application Guarantee of Participatory Teaching Method

The application of participatory teaching method is a systematic engineering, which not only includes the flexible application of various participatory teaching methods, but also includes a series of supporting measures.

4.2.1. Preparatory Work

In order to play the role of participatory teaching method, mobilize the enthusiasm and initiative of students and reconstruct their own knowledge system through the process of "learning by doing", we should prepare all the learning materials, learning arrangements and other preparatory work firstly. Before the classroom teaching, the teaching materials such as courseware, teaching video and case on the network cloud platform should be moderately improved according to the teaching design, the supplementary information beyond the knowledge point should be updated in time according to the development of the economy and society. The list of students will be imported into the network teaching system, ensure that elective students have the right to access the system to view the teaching materials uploaded in the early stage and the supplementary discussion topics in the later stage, complete part of the homework on the platform, communicate with teachers and classmates on the platform, and timely receive the relevant notice of activities, etc.

4.2.2. Reform of Assessment Methods

Managerial Economics is a comprehensive, applied and professional course. Considering the characteristics of the nature of the course, we should mobilize the enthusiasm of the students, pay attention to the process of assessment and carry out the reform of the Managerial Economics assessment mode. For example, we can set the usual grade and final grade of the course as 50% of the total grade respectively. Among them, 50% of the usual grades are evaluated by attendance, class discussion and group presentation. Teachers can use different forms of attendance methods according to the size of the class. If the class size is small, we can use the comprehensive attendance method, and if the class size is large, we can select points. Class discussion can also be an important supplement to attendance. Students are encouraged to actively express their views in the class discussion, which will be included in the grades according to the degree of participation in class discussion and the accuracy of their views. The group presentation is mainly based on classic cases, and scores are scored comprehensively according to the selection of case content, PPT presentation, presentation design, question answering and other aspects. The final examination accounting for 50% and the questions are essay questions. The final examination tests students' ability to comprehensively grasp the knowledge points of the course.

5. The Effect and Improvement of Participatory Teaching Method

The participatory teaching mode reform carried out in the course of Managerial Economics is based on the existing network teaching cloud platform, which is also the application of SPOC to a certain extent. The teaching work has been carried out according to the current teaching method for two semesters, but it is still in the stage of continuous exploration, continuous improvement and continuous perfection. At present, the application of participatory teaching method brings significant effect. The change of course assessment method and the redesign of teaching links improve the attendance rate of students and enliven the classroom atmosphere. The activities carried out in groups such as classic case presentation were highly completed. The students' abilities in data collection, data integration, opinion extraction, PPT production, on-site presentation and other aspects were improved, and the

completion effect of individual groups was far more than expected. Among the 112 students surveyed, 59.82% of them thought that this way exercised their ability of independent thinking, flexible application of knowledge and innovative thinking, 24.11% of them thought that this way improved their ability of teamwork, and 12.5% of them thought that this way exercised their ability of expression.

The original intention of participatory teaching design is to realize the student-centered and teacher-led teaching concept, abandon the traditional education method and make students actively participate in teaching activities through the network teaching platform tools, so that students become the master of learning, and truly cultivate the ability of innovation and development. But from the point of the effect of participatory teaching reform, the biggest problem is that the passive participation, which is embodied in some classmates in group work link is still in a state of "free rider", or did not put in enough effort to carefully prepare for the related work, as a result, the content depth of the work presented is lacking. This requires teachers to further improve the assessment system and reduce the possibility of "free riding" from the system. At the same time, we should strengthen the communication with students and the guidance of students in order to further improve the cognitive ability and level of students. We also should help them optimize their own knowledge construction. It will be our direction of the participatory teaching method reform.

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