

Teaching Idea of “Bisection Classroom” and the Application in Economic Mathematics Teaching in Higher Vocational Colleges

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Abstract: With the gradual development of China’s economic construction and development, the level of education and teaching has been improved to a certain extent. As far as the teaching of Economic Mathematics in higher vocational education is concerned, its theoretical knowledge requires students’ rigorous logical thinking. While, students of higher vocational education are often not interested in learning. In view of this problem, it is quite important for us to consider that how to improve the traditional teaching mode, attract students’ attention and improve teaching efficiency by effective application. Therefore, this paper will give the main contents of this teaching idea and its application in the teaching of Economic Mathematics in higher vocational education. This paper gives a brief introduction to the teaching concepts of “bisection classroom” and teaching application in Economic Mathematics of higher vocational colleges, thus providing specific application strategies in the course of teaching for reference.

1. Introduction

Higher vocational colleges provide effective talents to China’s social development and construction, so their development has an important impact on the future construction of our country. In the traditional teaching mode, educational work is mostly carried out by teachers and students just listen, which not only fails to conform to the process of promoting students’ autonomous learning required by the reform of contemporary teaching system, but also easily leads to the loss of their interest in learning and teachers’ low classroom teaching efficiency. All these problems seriously restrict the further development of China’s education. In this context, it becomes particularly difficult to promote the efficiency of Economic Mathematics teaching in higher vocational education. On this basis, it is very important to promote the application of teaching concepts of “bisection classroom”, realize students’ ability to study independently, promote their independent exploration and improve learning efficiency.

2. Bisection Classroom

2.1 Specific Contents of Teaching Idea

“Bisection classroom” is a new type of teaching mode proposed in China in recent years. It mainly refers to the promotion of original teaching time, which is divided into two parts, half for teaching and the other half for students to learn autonomy and discussing. However, it should be noted that this teaching process must follow the rule of teaching before learning, which means that teachers should first carry out teaching, then students are offered with full self absorption time, and lastly let them do group communication, which is conducive for students to promote thinking exchange, ensure the completion of learning process, and effectively absorb knowledge.

2.2 Application Significance of Teaching Idea

According to the current teaching situation of Economic Mathematics in higher vocational colleges, there are certain deficiencies in the specific development process. First of all, for higher vocational students, their own quality and learning enthusiasm are relatively poor. In addition,

theoretical knowledge of Economic Mathematics requires students' rigorous logical thinking, which makes their learning particularly passive, and teaching efficiency particularly low in the teaching process. Besides, in the course of teaching activities, teachers can not define their own positions, and carry on rigid as well as inculcate teaching under the influence of traditional teaching ideas, which leads to relatively low teaching efficiency. This kind of teaching fails to conform to the new curriculum standard which requires teachers to realize student-centered teaching idea. On this basis, students always lack interest in learning and insufficient participation in teaching activities. This is not conducive to the development of students, and reduce classroom teaching efficiency of Economic Mathematics.

In promoting the application of "bisection classroom" to the teaching of Economic Mathematics in higher vocational education, it can solve this problem effectively. In realizing efficient teaching process, it ensure students to be the master of class, improve traditional teaching mode, promote students to actively participate in teaching activities, enhance their learning enthusiasm, active classroom atmosphere, and ensure learning efficiency through students' active discussion. In addition, the application of this teaching method requires teachers to explain knowledge first, let students take full absorption, and then carry on group discussion. This is conducive to guarantee students' learning effectiveness and promote their comprehensive absorption of Economic Mathematics knowledge.

2.3 Characteristics of Learning

When the teaching idea of "bisection classroom" is applied to the teaching of Economic Mathematics in higher vocational colleges, it has certain application characteristics, which are mainly manifested in three aspects. Firstly, it is with subjectivity. "Bisection classroom" reflects students' main position to a great extent. In the process of learning, students take the initiative to analyze and absorb information involved in the classroom, so as to carry out group discussion and master solidly the knowledge of Economic Mathematics in the course of continuous exploration. Secondly, it is with exploratory characteristic. In the process of learning, students really play the role of subjectivity, independently collate learning materials, independently explore, and personally experience the process of knowledge generation under the guidance of teachers. Therefore, we can see that the division of teaching process has a strong exploratory nature. Lastly, it is with cooperative nature. During "bisection teaching", there is a very obvious characteristic, that is, cooperation. The completion of "bisection classroom" teaching requires not only a student, but also all students' cooperation, group exchanges and brainstorming. Here, students in the class are divided into different groups for discussion, and in fact, discussion is the process in which students cooperate with each other.

3. Application of "Bisection Teaching" in the Teaching of Economic Mathematics in Higher Vocational Education

Economic Mathematics occupies an important position in natural science, and it is a very basic subject, which covers a wide range of contents. The main research contents of Economic Mathematics is that related prospects of economic market development promote the application of mathematical knowledge in it, so as to ensure the good economic construction of our country and promote the process of market economy. This subject is of great significance to the development of society. Among all mathematics subjects, Economic Mathematics enjoys a fast updating speed with strong variability. Therefore, in order to master the knowledge of Economic Mathematics, higher vocational students must have strong logical thinking ability and independent inquiry ability^[5].

3.1 Define Inquiry Goals

The teaching of Economic Mathematics fully plays the subjective role of students by means of "bisection teaching". Students are able to solve the contents of Economic Mathematics through independent thinking, independent communication and brainstorming. In this process, it is conducive to enhance students' independent thinking ability and logical consciousness. During

“bisection teaching”, we should first make clear the goal of inquiry. In the process of drawing up teaching goal, we are required to take the actual teaching textbooks as the basis, extend knowledge range and provide a space for students to think independently^[6]. Secondly, teachers need to effectively master teaching contents and design classroom teaching process. On this basis, we can guarantee the effective solution of knowledge within a certain period of time, ensure that students have enough thinking and discussing time^[7]. For example, when explaining the relationship between traffic and development of Economic Mathematics, teachers are proposed to choose some extracurricular materials, make effective analysis of these data to explore the influence of traffic and economy, and help students to solve problems in the way of mathematics. On this basis, it is necessary to ask some questions related to the relationship between mathematical economy which is common in daily life and communication, so that students are able to make conclusions and promote their ability to draw inferences.

3.2 Group Learning Process

By introducing “bisection teaching” into the teaching of Economic Mathematics in higher vocational colleges, we are capable of effectively cultivating students’ logical thinking ability and comprehensive ability which enable them to better adapt to society after graduation. However, this teaching method requires not only students themselves but also all students’ collective wisdom through brainstorming. In “bisection teaching”, every student will get enough exercise and ample thinking space^[8]. In this process, all students will be inspired. Therefore, it can be seen that the best learning method is to teach in groups. Prior to classroom discussion, teachers need to select appropriate questions for students to think about and develop appropriate themes. They can be divided into groups according to their learning achievements and learning ability which ensures each team be evenly distributed and suitable person as the headman of each group. During group discussion, the headman is asked to keep a detailed record of the ideas of each member of the group. When the discussion is over, headman need to make a related report. At the same time, in the group learning process, students’ cooperation ability can also fully mobilized.

3.3 Learning Results

After “bisection teaching”, students need to sort out the results of inquiry learning and form a new thinking pattern on a certain problem in Economic Mathematics in their minds. From this, we can see that it is necessary to summarize the results of learning after “bisection teaching”. In the process of reporting learning results, we can clearly see the knowledge structure of students themselves. At the same time, teachers should also play a leading role, actively test whether students’ learning results meet requirements and try to discover students’ existing problems directly in the learning process by sorting out group discussion results, and then guide them to correct shortcomings.

3.4 Construct An Appropriate Teaching Evaluation System

In order to apply “bisection teaching” method to Economic Mathematics in higher vocational colleges, a reasonable teaching evaluation system should be established according to the characteristics of this teaching method. In this way, it will help to play a better role in the teaching of Economic Mathematics. In the traditional teaching mode, examination-oriented education has been adopted all the time. This kind of education seriously restricts students’ thoughts and logical ability. From this, we can see that it is very necessary to construct a new evaluation system. In the process of establishing evaluation system, we should pay attention to the following problems: (1) Pay attention to the evaluation of students’ performance in the process of practice; (2) Pay attention to the evaluation of students’ ability to solve practical problems; (3) Pay attention to the evaluation of students’ mastery of basic knowledge of Economic Mathematics. At the same time, the evaluation system should also have the characteristics of diversity and flexible evaluation methods.

4. Conclusion

In view of the teaching idea of “bisection classroom” and analysis process of its application in the teaching of Economic Mathematics in higher vocational education, it is necessary to have an effective understanding of “bisection classroom” mode first, and promote its effective application in the teaching process on the basis of clear understanding of its positive significance, enhance students’ interest in learning, stimulate their enthusiasm for learning, and ensure the further development of higher vocational education in China.

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References

- [1] Wang Shiji, Huang Mingxian. Bisection Classroom Teaching Mode and University Chemistry Teaching [J]. *Guangzhou Chemical Industry*, 2016,44 (05): 211-212.
- [2] Du Yanfei, Zhang Xuexin. “Bisection Classroom”: Practice and Reflection on the Reform of Classroom Teaching Mode in Colleges and Universities [J]. *Continuing Education Research*, 2016 (03): 116-118.
- [3] Zhu Pinwen. Five Parts of the Implementation of Bisection Classroom [J]. *Journal of Kaifeng Institute of Education*, 2016,36 (04): 117-118.
- [4] Yang Shuping, Wang Dewei, Zhang Lijie. Analysis of Bisection Classroom Teaching Mode and the Role of Teachers and Students [J]. *Journal of Liaoning Normal University (Social Science Edition)*, 2015,38 (05): 653-658.
- [5] Che Ping, Yue Geni, Chen Lin. Internalization Process of Bisection Classroom Knowledge Based on the “Duifene.com” Teaching Platform [J]. *Industry and Technology Forum*, 2017,16 (04): 174-175.
- [6] Zhang Chunxia. Investigation and Research on the “Micro Class + Bisection Classroom” Based on the Self Media Platform [J]. *Adult Education in China*, 2017 (05): 55-58.
- [7] Sun Yanhui, Wan Jun. Teaching Idea of “Bisection Classroom” and the Application Research in College Classroom Teaching [J]. *Shandong Chemical Industry*, 2017,46 (21): 134-135.
- [8] Wen Yamin. Practice Research of Split Class in Calculus Teaching in Finance and Economics Colleges and Universities [J]. *Journal of Nanchang Education College*, 2018,33 (01): 52-55.