

The Application of Interactive Teaching in Higher Vocational Mathematics Class

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Abstract: With the continuous development of the economy, the society has an increasing demand for applied talents, and higher vocational education has been paid more and more attention. Mutual aid teaching is developed on the basis of cooperative learning theory. It is a new form of teaching organization. It is inextricably linked to cooperative learning, but with significant differences. Cooperative learning is generally based on the overall performance of the group in the process of achieving goals, while interactive learning emphasizes the overall performance and also pays attention to the individual performance of members. This article explores the "mutual aid" learning method in the mathematics classroom of higher vocational education, in order to attract some ideas.

1. Introduction

At present, affected by the source of students, quite a number of students in higher vocational colleges have weak mathematical foundations, lack enthusiasm and initiative in mathematics learning, and are even tired of mathematics learning. Indoctrination teaching can no longer meet the teaching requirements. How to allow students to accept mathematics courses, learn mathematics courses well, and better serve professional courses, is a problem that mathematics teachers in higher vocational colleges urgently need to explore and solve.

2. The Concept of Interactive Teaching

The so-called interactive teaching method refers to a teaching method in which teachers and students communicate, communicate, negotiate and discuss in teaching. On the basis of equality, mutual listening, mutual acceptance, and mutual honesty, through rational persuasion and even debate, different viewpoints can be collided and integrated to stimulate the enthusiasm of both teaching parties, expand creative thinking, and improve teaching effectiveness.

Interactive education emphasizes: as a teacher, not only should we instill knowledge to students, but also take students as the main body and teachers as the leading role to achieve "interaction", which aims to make teachers learn, learn, and teach them well in the teaching process. At the same time, through the information feedback of students, the teachers' understanding of knowledge is

further deepened, thereby achieving a win-win situation.

3. Advantages of Mutual Aid Teaching

Mutual aid teaching has changed the authoritative position of teachers in the classroom in traditional teaching, from the original strong knowledge instillation to guiding and participating in students' learning, making full use of the interpersonal resources in the classroom, and making full use of the students' learning subject status, which is beneficial to improve students' autonomous learning ability.

In the process of group mutual aid learning, students are often grouped according to different learning foundations, learning abilities, different growth environments and personalities, and combine students with different academic levels to make them relevant information in learning, which is benefit. Promote the common progress of academically outstanding students and students with learning difficulties.

In the process of mutual aid learning, students experience a sense of achievement in the process of acquiring knowledge, and at the same time, they can give full play to their individual and collective potential, make students' thinking more active, and stimulate students' curiosity and interest in learning, which is conducive to cultivating Students' innovative ability and innovative consciousness.

4. Difficulties in Interactive Teaching

As higher vocational math teachers, they face problems such as poor math foundation, weak self-control, lack of concentration, loose discipline, unwillingness to use hands and brain power. At times, even normal teaching activities can be difficult to maintain. On the one hand, new teaching methods are urgently needed to mobilize students' autonomy, and on the other hand, students are allowed to follow the teacher's active learning and asking questions. There are certain difficulties in the implementation of interactive teaching. Therefore, most of the current mathematics classrooms still use the traditional instillation teaching method, which directly inputs the textbook knowledge into the students' brains. Students learn passively, knowledge is difficult to digest and remember, and it is not easy to master.

5. Approaches to the Application of Interactive Teaching in Higher Vocational Mathematics Classrooms

5.1 Scientifically Design Questions to Enhance Students' Self-Confidence in Learning

In mathematics learning, students need to use their minds and think deeply. Through reasonable inquiry, students can effectively improve their thinking ability and master mathematical thinking. There is a deep connection in the learning of mathematical knowledge. In order to fully ensure students' self-confidence in learning, teachers should pay attention to the principle of "from the shallower to the deeper", gradually increase the difficulty of classroom teaching, and fully ensure the students' interest in inquiry. In the design of classroom teaching, teachers should fully consider the use of problems, so that students can maintain a certain degree of curiosity in the learning process, and carry out classroom education step by step to avoid students being afraid of difficulties.

For example, when learning the teaching content of "trigonometric functions", because the

content of this course has always been the focus of the exam. In order to fully enhance students' learning awareness, teachers should pay attention to gradually carry out classroom teaching when designing teaching activities, give students a certain space for thinking, and allow students to interact with teachers. For example, teachers can first introduce simple acute-angle trigonometry formulas, then double-angle formulas, and finally acute-angle trigonometry formulas. By subdividing the teaching content into knowledge points in the morning, teachers can fully improve students' memory and ensure students' self-confidence in learning.

5.2 Group Cooperation and Mutual Communication to Establish a Correct Learning Concept

In order to fully ensure students' interest in participating in mathematics classroom teaching, teachers should pay attention to changing the classroom teaching form, so that students can experience the fun of mathematics learning and fully meet the individual needs of students. In the mathematics classroom of higher vocational colleges, by choosing the form of group cooperation, students are reasonably grouped and given corresponding learning space, so that students can complete a series of processes such as raising questions, exploring questions, and thinking in groups, and fully promotes students and students . exchanges between. At this time, teachers need to play their guiding role, supervise students to carry out higher vocational mathematics learning, and provide students with necessary help. In group study, students can get answers through mutual exploration, make students realize the importance of group cooperation, and help students establish a correct learning attitude.

For example, when learning trigonometric functions, in order to fully improve students' learning efficiency, teachers can ask students to discuss function formulas in groups. During the discussion, if there are problems that cannot be solved, you can give feedback to the teacher in time, and the teacher will give a unified answer. This method can effectively improve students' learning efficiency, give full play to the flexibility of mathematics learning, and ensure the quality of students' mathematics classroom learning. During the discussion, teachers should allow students to explore step by step to ensure that the difficulty of exploring the problem does not exceed the student's ability.

5.3 The Application of Mutual Aid Teaching in Higher Vocational Mathematics Classroom

In the classroom teaching of higher vocational education, some research-based and exploratory questions can be set in advance to create a certain problem situation for students, and students can be guided to communicate and cooperate with each other in the form of mutual learning groups, so that they can wipe out their wisdom in the discussion. The fire, give full play to the collective strength to solve the problem. For example, when learning the content of arithmetic sequences, we can guide students to use reasoning, analogy and other methods to explore related problems through cooperative and mutual teaching methods. In the process of self-study, through effective preview of textbooks, information acquisition, cooperative analysis, etc., make students realize that the arithmetic sequence starts from a series of second semesters, and the difference between each item and the previous item is equal to the same constant, which is arithmetic Sequence tolerance. Then, when summarizing the general term formula of arithmetic sequence, they gave the first term and tolerance of their arithmetic sequence, and then let them guess the general term formula through discussion and exploration, which not only cultivated their sense of cooperation, but also solved the problem. difficulties in teaching. Finally, the superposition method is used to verify the results of

students' conjectures to improve the rigor of students' mathematical knowledge. In this way, students have a deep understanding of the knowledge they have learned in the process of inquiry, not only know what is, but also know why, so that students can enhance their ability to communicate and cooperate with others in the process of discussion, and also inspire them initiative and innovative mathematical thinking.

5.4 Respect Individual Differences of Students and Meet Diverse Learning Needs

In the process of implementing interactive mathematics classroom teaching, there are still the following issues that deserve our consideration and exploration. First, "personality publicity" has been paid attention to, but the normative development of learning behavior has been neglected. Classroom interaction is no longer a teacher's "one word", Rather, it is an open and free "Quanyantang". In order to avoid making demands on students in class, some teachers may restrict students' personalities and allow them to perform as they wish. Without order and standards, teaching is inefficient. Second, many teachers attach great importance to classroom evaluation, and the language of evaluation is often more motivating, but they should have a clearer understanding of classroom evaluation. Should evaluation be "appreciation", "motivation", or "guidance"? Some situations in classroom evaluation are worthy of our reflection: some teachers can't evaluate students yet, can't grasp the time of evaluation, the language of evaluation is flat, lack of emotion; teacher evaluation The language lacks individuality; the evaluation method is single, and there is a lack of multiple interactive evaluations. Every teacher must learn to evaluate students and take evaluating students as a basic skill in their own teaching.

6. Conclusion

To sum up, the adoption of a new "mutual aid" teaching mode in higher vocational mathematics classrooms can effectively realize the complementarity of advantages among students, enable students to collide with each other in continuous exchanges and discussions, and form more and more novel teaching methods. It can effectively improve students' ability and awareness of independent inquiry. Therefore, as a higher vocational mathematics teacher, we must strive to improve our comprehensive quality, and constantly inject fresh blood into "mutual aid" learning, so as to achieve the purpose of teaching and learning.

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