

Problems and Thoughts on Mathematics Teaching in Vocational Colleges

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Abstract: With the deepening reform of national education, vocational colleges have gradually become the training base for social skilled talents and service talents. In order to ensure the employment rate and social competitiveness of vocational college students, all colleges and universities are actively implementing the requirements of the new curriculum reform to cultivate students' innovative thinking and logical thinking ability. As the main subject of cultivating students' thinking, logic and analysis abilities, how to stimulate students' interest in learning, improve their cognitive ability and cultivate their comprehensive quality in the process of mathematics teaching has become the focus of mathematics education in vocational colleges. Through the analysis of the current situation of mathematics teaching, this paper puts forward the emphasis and methods of mathematics teaching in vocational colleges.

Keywords: Mathematical quality; Innovation consciousness; Logical thinking; Identity

In recent years, under the background of national education reform, more and more students choose to study in vocational colleges and work in advance. As an indispensable part of China's education system, vocational education will undertake the task of training skilled personnel urgently needed by the society. However, the current situation of vocational education has become the bottleneck of the development of education in our country, social level despise labor creation, despise skills personnel training become the difficulty of vocational education and pain points, the root of the problem is mainly due to the vocational college students knowledge reserve, thinking ability, learning ability is relatively weak, their ability and quality can not quickly adapt to the needs of social development. Mathematics is a basic applied subject. Learning mathematics well is conducive to students' comprehensive development in thinking, skills and other abilities. For vocational education for the purpose of employment, it is very necessary to study and think about the methods and methods of mathematics education, which is the basis to ensure students' social competitiveness.

1. Problems existing in mathematics teaching in vocational colleges

1.1 Student status

Current vocational college students, is growing up in the s of reform and opening up, social transformation makes their mentality and values with great difference, at the same time as the only child, their attention and expectation is higher, no rich amateur life, lead to lack of interpersonal skills, emotional not release. In the process of growing up, some students show loneliness and extreme, lose interest in learning. unsatisfactory learning effect also reduces their confidence in learning. Examination application, almost all students will choose to read high school college, only in the case of not admitted to ordinary high school to choose vocational education colleges, which makes the vocational colleges in passive in terms of students, in addition, under the adjustment of vocational colleges enrollment policy, enrollment threshold, students' mathematical quality is poor, in a deeper study, overwhelmed, gradually lose interest in learning mathematics, lead to mathematics learning stagnation, form a vicious circle.

1.2 Poor study habits, no good grasp of learning methods

In the process of learning, students have not developed good learning habits and methods, and have not formed a systematic mathematical knowledge system. Some students like their major, some sign up for a degree, and some are indifferent. Of course, some students, under the guidance of teachers, realize that mathematics and major have a close connection with each other, and also think that

they have great potential, but such students are too few.

1.3 Lack of the mathematics teaching materials matching with professional courses

In order to highlight the characteristics of "occupation", vocational colleges have opened many characteristic majors, and the corresponding supporting cultural course textbooks should also be prepared. But, at present with each professional form a complete set of teaching materials generally less, basic is the ordinary middle school textbooks, lack of cohesion with professional courses, such as some professional courses used in mathematics knowledge, did not appear in mathematics teaching material, which leads to students to learn difficult, also easy to hurt the enthusiasm of students learning.

1.4 Mathematics subjects and professional courses are independent of each other

Firstly, in terms of teaching content, mathematics courses and specialized courses are a system, and the penetration of knowledge between disciplines is lacking; secondly, mathematics teachers and specialized teachers have different management and knowledge structure communication between teachers; finally, modern teachers have great teaching pressure, and the rest of the time is used to cope with some teaching tasks and inspections, with no time and energy to explore other professional fields, leading to the island effect of mathematics courses and specialized courses. In fact, mathematics is a basic subject, as long as mathematical knowledge is well used, it is of great benefit for students to learn specialized courses. However, due to their limited knowledge and insufficient knowledge transfer ability, mathematical knowledge and specialized course knowledge are not integrated, which affects the study of specialized courses.

1.5 The teaching mode is single

Teachers' teaching methods, knowledge level, professional skills and so on are the core factors of mathematics teaching. In the current mathematics teaching in vocational colleges, the teaching mode adopted by teachers is relatively traditional, which cannot effectively improve the efficiency of students' mathematics learning. Traditional mathematics teaching for the choice of teaching content is still given priority to with teaching material, teaching methods for concentrated teaching, some mathematical theorem and principles are using the way of direct teaching, students in the classroom in the passive mode, not only for mathematics thinking initiative, and lack of independent analysis of ability, learning innovative thinking, independent thinking ability is limited, always say we are to "learning skills", from the thought realize the importance of mathematics learning, the main reason is that they feel mathematics and professional contact, lead to employment.

2. Some Suggestions on mathematics teaching in vocational colleges

2.1 Principle of equality and mutual trust

Vocational education is for the employment of students, with the social development and progress, in the vocational mathematics teaching process, teachers must not conformist, scripted, requires students to the teacher, teachers should get rid of the mind-set, with open, inclusive, respect attitude in the face of mathematics teaching, through rich teaching content, let the students feel the charm of mathematics culture.

2.2 Improve the method of mathematics teaching

The teaching goal of vocational colleges is mainly to cultivate students' practical ability in a certain professional field. Mathematics, as a basic course, serves for the specialized courses. Vocational college students' mathematical theory accomplishment determines the mathematics teaching direction should be practical application rather than theoretical principle, in daily mathematics teaching teachers need deep thinking, carefully study mathematics teaching method, reduce the mathematical principle of cramming, through multimedia, micro classroom, mathematics experiment, mathematical puzzles, the basic knowledge of mathematics combined with real work and life, improve the students' interest in learning, specific can use the following methods:

(1) Problem teaching method. Socrates once said, "The most effective way to educate them: not to tell them the answer, but to ask them questions." Effective questions in class can play the role of attracting jade, questions can arouse students' curiosity, stimulate their interest in learning, guide students to actively explore the solution methods with questions, and finally get the answer. In this process, students not only master the knowledge, but also master the skills of solving problems. Therefore, in teaching, teachers should be good at using students' curiosity to skillfully design questions to achieve our teaching purpose.

(2) Conknowledge the knowledge points into logical reasoning to improve students' desire to explore. Students in vocational colleges lack the interest and self-drive in learning mathematics. Teachers, the classroom atmosphere and effect can not reach the desired effect. Teachers can convert complex formulas or mathematical operations into logical reasoning questions like Sherlock Holmes, set up several key levels, and students can pass the keywords if they answer them correctly. Such as in the keywords if they answer them

correctly. Such as in the difference of a chapter, a city concert, the students to attend, because has not been to the location, the teacher has a few concert location pictures, let the students analyze the concert seat order, so gradually guide the students to analysis exploration, enhance the students learn a sense of achievement and exploration.

2.3 Combine teaching with major to improve students' practical level

In view of the problem of textbook selection and the independence of mathematics and professional courses, we can adopt the combination of "basic teaching module+professional teaching module". The basic teaching module aims to enable students to master the basic mathematical knowledge and skills at this stage, while the professional teaching module should select the most targeted and practical content according to the differences of students' majors. If teachers can combine mathematics teaching in vocational high schools with specialized course teaching, it can not only improve students' interest in learning and improve classroom teaching, improve the quality of mathematics teaching in vocational high schools, and lay a good foundation for students to learn the knowledge of specialized courses. This puts forward higher requirements for teachers, teachers need to process the content of the textbook twice, in order to adapt to the learning of students in different majors.

3. Summary

Overall, vocational education and compulsory education the biggest difference is the teachers in teaching students mathematics knowledge at the same time, need to improve the students' logical thinking force, innovation consciousness and interpersonal skills, to respect students in vocational teaching individual differences, innovative teaching methods and ideas, according to the teaching material content design teaching plan, attaches great importance to the students in cognitive demand and future employment demand, innovation teaching mode, make them feel the charm of mathematics in learning, improve students' comprehensive quality and ability, help students better and faster to adapt to the social corresponding job demand.

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