

Research on the Path of Reform and Innovation of Biology Teaching Mode in Middle School

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Abstract: With the development of society, people's demands for education are getting higher and higher at this stage. In the biology teaching of middle schools in our country, the traditional teaching mode has been unable to meet the needs of the society for education at this stage. Therefore, certain reforms and innovations must be made in the teaching methods of biology teaching in middle schools, with the main purpose of improving students' scientific literacy and focusing on training students' autonomous learning ability and autonomous thinking ability. This article focuses on the analysis and discussion of the reform mode and innovation path of biology teaching in middle schools.

With the deepening of the new curriculum reform, it also puts forward higher requirements for middle school teaching. In the process of teaching, students not only need to improve their academic performance and knowledge mastery, but also need to pay attention to the cultivation of students' ability. As a part of middle school teaching, biology teaching faces very severe challenges. In the current biology teaching, students generally have problems such as low attention to the curriculum, low interest and poor teaching quality, which makes the current biology teaching unable to meet the requirements of the new curriculum reform.

1. Current Situation of Biology Teaching in Middle Schools in China

In recent years, China's education has been reforming, and biology teaching in middle schools is also one of them. Students' mastery of the curriculum content is too one-sided, unable to realize independent learning and independent thinking, and often have more than enough energy to solve problems. After many investigations, there are the following main problems in biology teaching in our country:

(1) The concept of classroom teaching has stagnated and the teaching methods are too monotonous. Many teachers still regard the memory of knowledge as everything in teaching, ignoring the students' interest in learning.

(2) The experimental teaching is weak, lacking complete experimental equipment, and the utilization rate is extremely low, resulting in a very backward experimental teaching form.

(3) Teachers' knowledge is old and outdated, and the update is slow. Teachers in middle school biology teaching often deviate from the curriculum concept. The teaching cases are getting worse and worse day by day. They are old and do not meet the development requirements of the times. Moreover, some teachers do not approve of new teaching methods and means. It makes the students unable to attend class and arouse their interest in learning, which leads to the students' weak ability to solve problems alone.

(4) Students' extreme psychology, do not agree with and attach importance to the discipline. As passive learners, students always think that those with high scores are important subjects, such as mathematics, Chinese and English. Biology has never occupied an important position in the minds of students. Students have put most of their energy into subjects with higher scores.

2. The Necessity of Carrying out Innovative Mode of Biology Teaching in Middle Schools

(1) It provides a good objective environment for the growth of students. The perfect teaching

system and teaching mode play a very strong guiding role in the teaching of middle schools. It provides students with a good objective environment and will have a good impact on their learning. To carry out the research on the innovative mode of biology teaching in middle schools can not only provide a very relaxed environment for students to develop their imagination and creativity, but also guide students to explore new learning methods. As a very important subject in science curriculum, biology curriculum in middle school requires students to be good at thinking, develop their innovative ability and find ways to solve problems.

(2) It reforms the existing quality education. The reform of quality education should first explore a mode with guiding ideology, that is, the innovative mode of biology teaching in middle schools that we always say. Both teachers and students should strengthen the cultivation of innovative ability. In this process, we should learn from each other and make common progress. People-oriented, all-round improvement of students' overall quality and all-round abilities are the core ideas of quality education. When we carry out innovation reform on biology teaching in middle schools, we also provide many methods for quality education reform to help other disciplines carry out innovation reform.

3. The Path Research of Biology Teaching Reform and Innovation in Middle Schools

(1) Using Multimedia Teaching to Improve Teaching Quality

With the development of information technology, information technology has been integrated into all aspects of people's life at this stage. In the process of teaching, biology teachers can use multimedia software to tell the content of the classroom. Multimedia technology can transform the theoretical knowledge in textbooks into more intuitive forms. Through pictures and videos, students can better accept biological knowledge, thus effectively improving the quality of teaching.

(2) To Cultivate Students' Interest in Learning

Einstein once said, "Interest is the best teacher for students." Therefore, in biology teaching, teachers need to pay attention to cultivate students' interest in learning, and can adopt the following methods. First, professional terms can be used for teaching. At present, the teaching situation of biology in middle schools is not optimistic, and students often do not listen carefully and wander off. Therefore, teachers urgently need to combine professional terms with interesting languages to catch students' attention. Secondly, the inquiry teaching method is adopted which means teachers need to improve the arrangement of practical courses to enable students to participate in biological learning through inquiry.

(3) To Strengthen the Teaching Staff

High-quality and high-level teaching staff is an important prerequisite for promoting middle school biology teaching reform and stimulating students' enthusiasm. First of all, the school should pay attention to the construction of the teaching staff, from the actual situation, examine the disadvantages of biology teaching, and adopt targeted strategies to solve the problem of weak teaching staff, strengthen the construction of the school's own teaching staff. Secondly, a group of professional and open-minded young teachers should be introduced to provide a platform for their development. Finally, some potential biology teachers should be selected from the existing teaching team to carry out professional teaching skills training to improve the teaching quality and meet the actual needs of biology teaching under the background of the new curriculum standard.

(4) To Improve the Assessment and Evaluation

In order to make it scientific and fair, it is necessary to formulate a theoretical and practical biological comprehensive assessment and evaluation mechanism, and in the process of making it, it is necessary to clearly define the purpose, thoughts and principles of assessment and evaluation. On the one hand, teachers should evaluate students' mastery of theoretical knowledge in the teaching process. On the other hand, teachers should make scientific evaluation on students' practical operation ability, interaction performance between teachers and students, students' creativity, independent problem-solving ability, so that students can fully realize the importance of combining theory with practice and stimulate students' enthusiasm in learning biology. In addition, students should also give feedback and evaluation to teachers' performance in teaching activities, especially

to the evaluation of teachers' teaching effect. Teachers should pay special attention to this and carefully understand students' feedback and evaluation information, so as to continuously improve themselves in the future biology teaching. Under the background of the new curriculum standard, it is of great practical significance to analyze various problems encountered in middle school biology teaching reform and to explore the appropriate path to be chosen for teaching reform in order to improve the quality of middle school biology teaching and promote the development of teaching reform. Therefore, China's education major needs to intensify the research on the reform of biology teaching in middle schools under the background of the new curriculum standard to promote the smooth development of China's current education.

4. Conclusion

In a word, teaching innovation is a long-term process. Teachers and students should cooperate in an all-round way and actively find the best teaching method. It should not only meet the needs of the new curriculum reform, but also conform to the formation of a new situation and adapt to the development of the times. To strengthen the experimental teaching and broaden the curriculum areas, these are only part of the innovation in biology teaching. I believe that in the near future, through the joint efforts of teachers and students, better innovative means and the best way to improve students' learning efficiency will be found.

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