

High school biology High quality teaching path under double new background

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Abstract: With the rapid development of information technology and the practical application of Internet + technology in the field of education, the teaching quality of senior high school biology course has been significantly improved. Through the in-depth study of technology and theory, teachers can integrate these knowledge into classroom teaching scientifically and reasonably, so as to promote the comprehensive and healthy development of students. Based on the educational background of Shuangxin, it is urgent for teachers to optimize biology classroom, explore various problems existing in biology teaching, and put forward solutions for reference only.

Key words: Shuangxin; Senior high school biology; Teaching paths

With the innovation and development of various biotechnology, the demand for biotechnology talents is gradually increasing in the process of social development, and the cultivation of biological talents cannot be separated from education. There are still many problems in the process of biology teaching in high school. Due to the influence of teaching mode, students lack enthusiasm and enthusiasm for what they learn, which is a common phenomenon in the process of senior high school biology teaching in our country. In order to improve students' interest in learning biology knowledge actively; And the teaching quality of biology class. It is necessary to change the previous teaching methods and innovate teaching methods to enrich the classroom content. Guide students to acquire biological knowledge in a relaxed atmosphere, fully mobilize the enthusiasm of students to learn biological knowledge, so as to achieve the purpose of improving the effectiveness of biology classroom teaching in high school. At the same time, the core quality of biology of high school students has been effectively improved, which lays a good foundation for their future biological knowledge learning.

1. All kinds of problems in high school biology classroom teaching

1. Lack of interaction between teachers and students

With the development of science and technology, more and more teachers begin to abandon the previous teaching concepts, and turn to more advanced technology means, in a more effective form, so that students can better understand and master the knowledge. Especially for biology teaching, teachers pay more attention to innovation and constantly explore new educational concepts. However, over-reliance on traditional teaching modes may make students feel exhausted. Students are often forced to accept the imparts of knowledge and lack the ability to think for themselves, so that they cannot actively explore and solve the doubts in class. Therefore, the infusing teaching model has been proven to be a wrong choice, which neither helps students to deeply understand what is learned in class nor helps students to gain a more comprehensive knowledge of biology. Therefore, teachers need to explore bravely, abandon the old teaching methods, and adopt more flexible and more challenging teaching methods, so that students can better understand the content of biology classroom teaching, and be able to better play their potential, and ultimately achieve better learning results.

2. The relationship between teachers and students in the classroom teaching process is not equal

With the passage of time, the Chinese education system pays more attention to cultivating students' independence, innovation and sense of responsibility, and emphasizes more traditional values such as respect for teachers, dedication, joy for the community and mutual help in the actual teaching process, so that students can better exert their own subjective initiative, rather than relying solely on parents or other outside forces. As a result, students can express themselves more proactively without being oppressed by the outside world. Although teachers, as the instructors of the classroom, can help students understand knowledge, their role is not perfect. Therefore, there may be some deviations in the communication between teachers and students, and there may be some differences in the views of teachers and students, and even contradictions. Therefore, the relationship between teachers and students does not really achieve perfect communication, and there may be gaps in their understanding, and even conflicts. If teachers blindly adopt a single teaching mode, boring knowledge transfer makes students unable to express their inner emotions, and teachers have no way to get the true feelings of students, then it will be impossible to establish a good communication, which will seriously affect the quality of course teaching, and then hinder students' learning and development of biological knowledge, resulting in poor results in biology teaching.

3. Students lack interest in biology classroom learning and can't have the desire to learn

In high school biology class, due to the lack of students' interest and desire for biology learning, the classroom effect is not satisfactory. According to the survey results, the vast majority of students are not very interested in biology class learning, or even do not want to participate in class activities. Due to the classroom environment of "teachers teach in class, students passively accept knowledge transmission" and students' personality development, as well as some students' fear of expressing wrong psychology, the biology classroom teaching mode is limited to a certain extent. However, this limitation can also be alleviated by optimizing the innovative teaching mode and improving students' active participation. High school students are in a challenging stage of mental and physical development, with a deep desire to express their ideas but a fear of being understood by others. In addition, due to high school students' learning pressure and a wide range of biological knowledge, they lack interest in learning biology and their participation in class is not high enough, which is not

conducive to the development of students' core quality in biology.

2. The analysis of high school biology high quality teaching path under the double new background

1. Set up group cooperation to promote students' independent exploration

Under the modern education model, teachers are no longer the only person who imparts knowledge, but require students to participate in diversified discussions, stimulate students' interest, cultivate students' independence, and let students find problems in practice, so as to obtain more harvest. For example, in the discussion of gene mutation, teachers should guide students to discover its specific manifestation in life. The teacher should divide them into several discussion groups and encourage them to explore and think, such as: "Is the gene mutation a potential threat? What are the genetic diseases in humans? How can this be avoided?" Through group cooperation, learners can not only better understand biological knowledge, but also explore more deeply, so as to better grasp the knowledge of high school biology courses, stimulate students' initiative in independent learning, and be better able to express their own ideas and opinions, so as to better cope with unknown challenges. By guiding students to think deeply and integrating their daily experiences with the curriculum, teachers are able to make the curriculum more engaging and make the curriculum more concrete, clear and easy to understand. For example, when the concepts related to enzymes and fermentation are discussed in class, the teacher can encourage students to make "sweet wine" independently based on the technology they have mastered, and work as a team to bring the required raw materials home, thereby stimulating their enthusiasm for learning.

2. Set subject questions rationally to encourage students to think independently

The new curriculum mode change also optimizes the way of teacher-student interaction in biology courses. Besides imparting basic knowledge, teaching also needs to inspire, awaken, encourage and cultivate students' discipline accomplishment and independent learning ability. Teachers can lead students to the school garden or encourage them to spend weekends in parks and other places, To look at the layout of vegetation, to give students a more intuitive sense of what a "population" is and what a "community" is, and to ask them questions when they return to class, such as "Can you generalize and describe the characteristics of the population you observed?" "What are the characteristics of the population you have observed?" "Is there any basic structure to the distribution of communities?" Later in the class, after more in-depth knowledge, the teacher can ask more in-depth and difficult questions, such as "How does community succession happen?" If the students cannot answer, the teacher needs to give appropriate reminders to effectively interact, inspire and answer questions so that the students can avoid the emergence of difficulty fear. At the same time, the teacher can guide the students to think longitudinally in time, or think in cross-sectional comparison, and finally summarize the knowledge points involved in all the above questions. Stimulate their thirst for knowledge, encourage them to interact with teachers and classmates, and discuss and analyze problems more deeply. Through this teaching method, teachers combine knowledge points with related biological problems, so that the teaching process is not only to impart knowledge, but also to teach students how to think, how to invoke and apply knowledge.

3. Reduce the difficulty of understanding and create life situations

Life is a valuable resource, which not only helps students to better understand knowledge, but also to build their own connections with the outside world. For example, when a teacher teaches the course "Aging and Apoptosis of Cells", the teacher can make use of students' daily life experience to help them better understand the course content and be able to help students master the knowledge more effectively. In the class, the teacher can ask a question: when we take a bath, if a certain part of the bath has not been cleaned for a long time, when we take a bath again, we will find that this part will rub out a lot of dirt, then what is this dirt? At this point, the students may answer that it is mud, dust, etc., but the teacher should guide the students more deeply: "These dirty things are made up of two parts, one part is dirt, the other part is apoptotic epidermal cells." In addition, teachers can also introduce the spots on the elderly into the course teaching, in order to improve the effectiveness of the course teaching, so that students can understand and master the knowledge more deeply. By using problem situations in high school biology classes, teachers can help students better understand the course content and provide them with guidance to help them think and learn in a more targeted way to promote their knowledge and abilities.

4. Innovate the classroom format and skillfully use role play

In order to improve the teaching efficiency of high school biology class, teachers should adopt a variety of innovative methods, such as role-playing, so as to make students more deeply involved in class activities, so as to improve learning efficiency and quality. When teachers guide students to learn the content of "Ways of transporting substances across membranes", they may find that although they can understand the structure and characteristics of different cell membranes through the descriptions in the textbook, students will face all kinds of challenges when it comes to transporting substances across membranes and calculating the number of layers of membranes. In order to better help students understand the concept of biofilms, teachers can take a role-playing approach. For example, have students use a table or other tool to simulate different cell membranes and choose substances to represent depending on the number of students. Then, have the students simulate the movement of the cell membrane so that the students understand the number of membranes that different substances have to cross to get in and out of the cell, thus improving the efficiency of the classroom teaching.

5. Let students preview before class in a planned way

As the old saying goes, "Pre-preparation makes good, and unpredictability makes waste", pre-preparation is very important in building a high-quality high school biology course, which can not only help students master the basic knowledge, but also greatly improve the effect of the course, so that students can get good exam results. Through the planned preparation before class, it can help students to know more about the new content, and exercise students' thinking, inference, generalization and application of the learned skills. However, due

to the large number of courses in high school, which are only taught for two days at a time, many students may not be fully familiar with the material they are learning. Therefore, without early preparation by the teacher, students may forget all the material they have learned. However, preview does not just mean going over the course content one by one. It should be reviewed effectively with clear goals and questions as the premise. In order to create an effective classroom, biology teachers must ensure that everyone understands and applies the knowledge. Therefore, a clear goal must be designed to ensure that everyone is able to clearly understand what they are expected to do and can better complete the preview. By designing a clear goal, students can stimulate their enthusiasm for learning, and they can acquire knowledge faster, so that they can better cope with future learning activities.

3. Conclusion

Teachers should strive to find the most appropriate, most suitable and most applicable teaching mode that is most suitable for the current level of students, so as to arouse students' interest in learning, encourage them to challenge bravely, and help them master how to use their wisdom to analyze and deduce, so as to enhance their innovative spirit and master the knowledge and skills necessary for biology. Teachers should encourage students to take the initiative to explore and study biology, so that they can give full play to their potential in class, and provide impetus for their future development, so as to improve the quality of biology education.

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