

Life-Oriented Teaching Strategies of Biology Classroom for Students with Intellectual Disabilities—Take Students with Autism

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ABSTRACT

Intellectual disability refers to the disorder of intelligence and cognition, while autism is a serious physical and mental development disorder. The cognitive starting point of students is very different from that of ordinary students. In the middle school biology classroom teaching, the method of teaching according to the characteristics of autistic students directly affects the teaching effect. Proper handling of teaching materials, optimization of teaching process, access to resources through multiple channels, integration of biological theoretical knowledge with the reality of autistic students' lives, placing students in a life-like situation, feeling successful satisfaction, and learning some social communication skills can not only make them happy and acquire knowledge, but also help cultivate their interest in learning. Make their behavior achieve the desired goal.

KEYWORDS

Autism; Biology classroom; Teaching strategy

With the deepening of the educational system reform, the state has issued policies and regulations related to the education of people with intellectual disabilities, which has attracted the attention of all kinds of schools at all levels. Respect the physical and mental needs of students with intellectual disabilities, grasp the cognitive starting point, reduce behavioral problems, implement different forms of teaching strategies, and promote the participation of each student in class. As every mentally handicapped students have a variety of physical and mental defects, their education can not be cookie-cutter, must be taught in accordance with their aptitude. For example, students with autism are more dependent on teachers than normal students, and teachers should abandon the traditional concept of "Teacher's dignity" in biology teaching, let students feel that they are respected, and in the study of biology to obtain recognition and happiness of positive emotions. The cognitive ability and self-care

ability of students with autism are generally poor and can not meet the requirements of social integration ^[1], but they are very fond of the familiar things in life. Biology is closely related to people's life and coincides with the teaching purpose. It can make students with autism better integrate into social life ^[2-3]. Therefore, life-based biology teaching is the best end-result for the education of students with autism ^[4].

1 The significance of life-oriented biology teaching for middle school students with autism

The main characteristics of autism are social and language barriers, narrow interests and stereotyped behavior, and most of them are unable to participate in normal teaching activities. The biology class is characterized by fine observation and practical ability, as well as strong patience and interest, which is exactly what autistic students lack. Therefore, in teaching, teachers should integrate biological knowledge closely with the reality of life, so that students can understand that what they have learned can be used for themselves, learn the basic skills of survival, improve the ability to adapt to society, and reduce the burden for the family and society. According to the characteristics of biology knowledge itself and the actual situation of autistic students, this paper puts forward the corresponding life-oriented teaching model of biology classroom, in order to provide a reference for the biology classroom teaching of autistic students.

2 The life-oriented strategies of biology classroom teaching for middle school students with autism^[5]

Teaching strategy is a series of means adopted by teachers to achieve teaching objectives. The biological teaching strategy of autistic students should be combined with the characteristics of the subject to develop targeted and rational strategies. These strategies should reflect the philosophy that biology is "open to all students, including those with different levels of intelligence." The teaching process guides students to integrate with real life and acquire bioscience knowledge and skills through personal involvement.

2.1 Create classroom life situation to stimulate students' interest in learning

Although there are many differences between autistic students and ordinary students of the same age, special guidance and systematic training by teachers can stimulate their interest in learning, enhance their communication and social skills, and improve their learning effect. So one of the most important principles of biology teaching for autistic students is happiness, and this should be a necessary condition for their learning. Therefore, it is necessary for teachers to flexibly use teaching methods according to the characteristics of autistic students, actively create life-oriented learning situations, and dig relevant materials in life. In the common "plant classification" section, first show the students a variety of colorful fruits and vegetables, such as: apple, broccoli, orange, kiwi, potatoes, bananas and other videos, and then let the students according to "fruit", "vegetable" classification answers. Guide students to use their hands and brains to stimulate students' interest in learning biological knowledge.

The second most important principle of biology teaching for autistic students is successful satisfaction. In the classroom, the appropriate use of praise or criticism can stimulate students' successful satisfaction and help correct the bad behavior of autistic students. Given that autistic students have a strong dependence on teachers, this is precisely the best basis for creating a learning atmosphere. For example, in the teaching design of "Respiratory tract treatment of air", teachers can tell students about cases in their lives during the epidemic prevention and control period, ask students and let them answer, "If you have a cold, you will have nasal congestion and sneezing, and you need to cover your nose with tissue when sneezing." Do you know why?" "Why can't I spit?" These contents are closely related to daily life, so as to arouse students' strong interest in biology learning.

2.2 Provide learning goal support to help students have a successful experience

Biology is a compulsory course in junior high school. For the teaching of autistic students, the teaching objectives of each chapter should be based on the starting point of learning, and more effective teaching strategies should be explored. For example, when talking about the common biological name word "rose" flower, the teacher first provides color and colorless "rose" flower, for students with strong cognitive ability, they are required to directly read; Students with weak language ability are required to be able to identify; Students with poor literacy skills are required to read "rose" with the teacher. The teacher can also set different goals in advance, for example, ask the first group of students to draw a "rose" with a color pencil; The second group cut the "rose" flowers with scissors; A third group of students colored colorless "rose" flowers. Finally, every student gets a "rose" flower, which not only helps students experience success, but also enhances their confidence in learning.

2.3 Make use of life materials to promote students to master biological knowledge

The significance of biology is to educate students to apply what they have learned. Teachers can give students in the way of homework, so that students usually observe the campus and their homes inside a flower and grass, a tree, a tree, plants and animals, and let students to observe the plants and animals to the classroom, the knowledge of teaching and learning into nature, into society, and then apply to life. Let students truly experience the value of biological science knowledge and society. For example, when talking about the "transport of substances in plants" section, the teacher cut a poplar branch before class, inserted a bottle with diluted red ink to cultivate for 1-2 days, moved to the classroom teaching, the scene with a knife to cut the branch, let the students observe, the students immediately have questions, why there is red in the branch, and the more red to the top of the branch is lighter? Using such demonstration means to create life scenes, so that students can spontaneously find problems, promote students to master biological knowledge, and let students feel the real and interesting life.

2.4 Combining biological knowledge with life through biological experiments

Experiment is an indispensable part of biology teaching. Biology will make people feel the breath of life. In this regard, experimental teaching should create a real life environment, so that students can truly integrate into life, and carry out small experiments with materials in life, which has the advantages of convenient materials, diverse contents and simple operation. Students can carry out experiments anytime and anywhere, and the effect is very obvious. It has the characteristics of high success rate and good effect. In this process, students have a strong sense of participation, which just makes up for the inattention of autistic students. Teachers should be good at encouraging students to live in study, practice in life, and establish a perfect concept of biological science development in life practice. For example, in the experimental teaching of "The life of Plants", teachers send students home to plant, observe and analyze in the form of homework, and let each student do hands-on practice. They can make detailed records from the planting, germination, growth, flowering and fruit of a seed, and students can draw a series of data to realize practical learning of knowledge in daily life. In the process of understanding the life of plants, not only to establish a scientific life science education, but also to cultivate students' experimental spirit.

2.5 Based on biological life classroom, lead students to a better life

Many problems in life involve biological knowledge, can not be limited to paper talk, do a few

questions to get good grades, then our education is meaningless. When students have mastered certain knowledge, let students solve practical problems in life. For example, when talking about the part of "photosynthesis of green plants", if you insert the number of blue sky and white clouds announced by the local meteorological station every month, explain that the formation of haze is mainly due to the environmental pollution brought by the improvement of people's living standards, educate students to regulate their own behavior with a scientific mind, respect and protect nature, and do not litter at ordinary times, starting from me. Teachers introduce hot issues in life into the classroom, so that students can learn to observe society with a scientific perspective, cultivate students' awareness of valuing and protecting human living environment, establish the concept of teaching as life and life as teaching, and consciously bring autistic students to real life, so that special children can also feel the beauty of life.

3 Conclusion

The overall ability of middle school students with autism is weak, most students lack interest in learning. However, teachers should do their best to adopt flexible and diversified teaching in the classroom, which aims at students' practical and biological knowledge. It can enhance their enthusiasm for learning biology, from boring to interesting, in order to give full play to the subjective initiative of students, to promote the overall development of healthy growth of students.

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