

The Implementation Strategy of Quality-oriented Education in Botany Teaching Reform

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Abstract: Botany is necessary in the teaching process. With the development of economy and society, a reform in this area become imperative. Quality-oriented education is an indispensable part of modern education. That's why we should apply it to botany teaching as the direction of the reform. This paper aims to briefly introduce what is botany and the importance of quality-oriented education, then to propose strategies of carrying out the reform of quality-oriented education in botany teaching, providing references for the integration of botany and quality-oriented education.

Keywords: Botany teaching reform; Quality-oriented education; Implementation strategy

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As a branch of biology, botany mainly studies plants. Botany teaching extends students' comprehension of the plant kingdom. Rapid development of the world requires more on education, not only to cultivate talents with knowledge, but also to cultivate talents with all-round qualities, so quality-oriented education should not be ignored in botany teaching reform. Blending botany with quality-oriented education will contribute to enriching students' knowledge reserve and shaping their personalities so as to be pillars of the society.

1 Overview of botany

Botany is a basic subject in biology and a fundamental course for biology-related majors.

Botany covers a wide range of aspects, including the morphological structure and classifications of plants as well as relevant life activities, development rules,

and various relations between plants and external environment.

Plants are primary producers in nature, as a result, it is irreplaceable in maintaining the balance of the material circulation on earth. It provides the habitat and breeding place for other creatures. It plays an important role in temperature regulation, water and soil conservation, and the purification of the atmosphere and water quality of the biosphere. Botany learning can help us understand the diversity of the plant kingdom, provide basic theories and knowledge for utilizing and transforming plants, and explore the mystery of plant life and its natural rhythm at a higher level.

2 The importance of quality-oriented education

2.1 education for all students

Quality-oriented education is for all students. Unlike exam-oriented education, it is not exclusive to students having excellent grades. It is an educational idea born at the right moment advocating that all students should be treated equally. Quality-oriented education pays attention to a collective whole, and it will not discriminate on the grounds of students' grades, backgrounds or personalities in order to avoid neglecting the education of most students in favor of a small group of students. Quality-oriented education emphasizes teaching students in accordance with their aptitude and applying different teaching methods to different students.

Education is the cornerstone of social and economic development and a ladder for civilization. At this stage, importance should be attached to both knowledge and quality. Therefore, the implementation of quality-oriented education is such an urgency. It

is the education for all students, having the ability to discovering the differences of each student and laying emphasis in every student's potential. At the same time, it focuses on cultivating students' specialty to lay a solid foundation for their future.

2.2 All-round development is valued

In the exam-oriented education, to help students perform better in various entrance examinations is the only purpose of teaching. The contents of education mostly covers the main focus of the exams, which is also the teaching materials valued by teachers. Being forced to cram those contents, students become examination machines, passively accepting the indoctrination. Under this circumstance, students' other talents and specialties are strangled in the cradle. Quality-oriented education attaches importance to all-round development of students. In addition to grades, students' moral, intellectual, physical, aesthetics, and labor attainments are also valued. In the process of teaching, all these would be combined together through a variety of measures in order to help students make all-round progress.

Given the rapid development in the new era, comprehensive development is an inevitable requirement. Well-rounded people are far more valuable than others and can achieve more than others. Education in the new era must be comprehensive, and according to the requirements of development, it must cultivate students in an all-round way, so as to achieve the goal of quality-oriented education, so that they can better adapt to the development of the society.

2.3 Quality-oriented education emphasizes subjective initiative

Quality-oriented education focuses on exerting students' subjective initiative. Giving play to students' subjective initiative can help them develop a positive mind and develop their capacity for independent innovation. According to the philosophy of quality-oriented education, the development of a student will not only be influenced by individual innate genes, acquired environment and education, but also influenced by his subjective initiative. Students' personal abilities are not the same. Hence, quality-oriented education regards students' subjective initiative as the core idea of teaching, supporting them in developing in an initiative manner by which fully mobilize their enthusiasm, and eventually make them have the consciousness of self-education and achieve goals on their own.

The adoption of subjective initiative is not the same for every student. Different student has different level of development and quality which embodies the difference among human beings.

"It is better to teach people to fish than to give them fish." Quality-oriented education requires teaching students skills of lifelong learning while imparting knowledge to them.

It emphasizes that students should give play to their own subjective initiative, set up the consciousness of innovation and cultivate the ability of creation.

3 The implementation strategy of quality-oriented education in botany teaching reform

3.1 To combine it with the cultivation of practical ability

Botany teaching cannot be separated from practice, so the implementation of quality education should start from developing practical skills. Having laboratory class is a major way to cultivate students' practical skills. When having the courses in lab, students are involved in microscope, operation of anatomic mirror, temporary microscopic slides, freehand section making, and plant specimens, etc. Students need to operate these things by themselves, so it is a good way to cultivate their practical abilities^[1]. The level of hands-on capability can directly reflect the comprehensive quality of a student as they should know how as well as know what. If the cultivation of manual ability is neglected, this kind of educational modal will turn students to typical representatives of high scores and low ability. And they could not fit in the study and life in the future.

3.2 To combine it with extracurricular activities

In botany teaching, except for normal teaching in classroom, it is also imperative to go outdoors. Therefore, taking advantage of extracurricular activities, for instance to organize interest groups, is a good way to practice quality-oriented education and to create more learning opportunities for students who are fond of the plant kingdom. Undertaking activities such as bookmarking, herbarium collection, plant recognition and investigation of local plant resources enable students to get out of the classroom and get close to nature. They will not only help develop students' interests and hobbies, but also cultivate their abilities of observation, practice and exploration, so as to develop their comprehensive quality.

3.3 To combine it with patriotic education

The development of botany has a long history in China, among which there are many excellent botanists. Patriotism education is also a vital part of quality-oriented education. Therefore, it is possible to carry out quality-oriented education through botany teaching. In the area of botany, China has made a series of great progress, which can be used as the material of patriotism education. Besides, China is home to a large number of rare and unique plants and rich vegetation^[2]. All these are of great significance to the patriotism education of students, which can improve their ideological quality and set up correct values.

3.4 To combine it with environmental protection

Environmental pollution has always been a big problem. With continuing development, people are getting higher awareness of environmental protection. It is necessary for every student to have a sense of environmental protection. In botany teaching, blending the knowledge of environmental protection into it can make students fully realize the importance of protecting the planet. The environment is the basis of human's survival and development. If the environment is seriously damaged, human beings will be punished by their own evil deeds. Botany teaching should emphasize environmental protection so as to improve students' awareness of environmental protection and help them grow into a group of people who care about the fate of humanity.

3.5 To combine it with the reality.

There is no teaching work can be divorced from reality, so is botany teaching. In class, imparting knowledge all the time will make students feel boring and finally lose interest in learning, consequently the results of learning

are disappointing. Hence, we should combine quality-oriented education with the reality. According to the content of courses, teachers can have classes outdoors, explaining knowledge with practical, living plants. As for some abstract definitions, multi-media can be used to help students understand as much as possible^[3]. In addition, for some specific concepts, teachers can explain them with the assistance of real production and life in order to improve the interest of students and contribute to the implementation of quality-oriented education.

Conclusion

In the reform of botany teaching, quality education must be valued. By combining with the attention to practical skills, extracurricular activities, patriotism education, and environmental protection, we should lay emphasis on the cultivation of personal quality as well as the teaching of knowledge in classroom.

Implementing quality-oriented education in botany teaching reform ensures students' all-round attainment of knowledge and quality, as a result, they can be contributors to social and economic development.

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