Optimization of Botany Teaching Based on the Cultivation of Interest

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Abstract: Structure botany is a fundamental course in biotechnology. In order to improve the quality of structure botany teaching, this paper studies on the teaching management of structure botany in classrooms, the teacher’s passion for work, and the standardization in teaching, so as to mobilize students’ enthusiasm and initiative for learning, to develop their imagination and the ability to analyze and solve problems, and finally optimize the teaching patterns in classrooms. The paper aims to optimize teaching methods based on the existing problems of classroom botany teaching with developing students’ learning interest as its core, and as a result, to help students master effective methods of botany learning.

Key words: Botany; Teaching management; Strategy

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1 Current problems in botany classes

Botany is a basic course of great importance in biotechnology. Most of the theoretical knowledge of other professional courses is based on the comprehension of botany. Therefore, having solid knowledge of botany or not will directly affect the students’ learning and application of other professional knowledge. Basically all the botany courses start in the first year of college, but as the students just to come into universities which require very different methods of learning, most of them could not get used to the teaching style in university classrooms in the short term which involves a large number of knowledge and fast-paced teaching. At the same time, botany contains complexed and detailed points which are closely linked to each other, especially the micro and abstract stuff such as plant tissues and internal structures of the organs. A composition of them can be extremely boring for the students learning botany for the first time. This kind of situation will greatly cut down the students’ learning enthusiasm and confidence, what’s more it will make them give up or feel tired of learning, and also bring great difficulties to the teacher’s teaching process. If this situation continues for a long time, the botany classroom teaching will become lifeless and the quality and effect of the teaching will decline rapidly.

2 Optimizing method of botany teaching

2.1 Developing sound classroom teaching

Structure botany is taught in the class teaching system. Due to the popularity of mobile phones and the increasing number of games, mobile phones are not only a communication tool in this era, but also play a role like a PSP. Lots of students are unable to resist the temptation of various entertaining contents and games on mobile phones, so they unconsciously scroll their phones although it has nothing to do with the class. Barely words and gestures done by teachers are not enough to avoid it in the classroom. This makes the class lifeless and the students look dull and boring. In order to improve the quality of teaching, as well as students’ learning interest and consciousness, in the classroom, teachers should adopt a teaching strategy of asking students more questions and let the students take turns to answer them. Teachers can also make advance notices about who will be on turn at what time, but the
questions will involve knowledge mentioned throughout the lecture, by which attracting the attention of students, improving their learning interest, and guiding them to focus on the lecture to enhance their learning efficiency.

2.2 The requirements of learning

Structure botany is rich in content containing a wide range of knowledge from physiological functions to morphological structures and development ways, which are explained in both macro and micro angles. Relevant knowledge tends to jump from one point to another while there is little consistency between these points, as a result, it takes time for some students to understand. This feature of structure botany requires students to preview before given the lecture, then they will have a general impression of the new lesson. It will help prevent students having no interest in or getting bored of the lecture led by their incomprehension. At the same time, the students should write down things confusing them when making the preparation in order to listen to the coming lecture with specific questions. They are supposed to answer teachers’ questions actively. It would be better to take notes of the key points in the lectures in case they may encounter the same questions one day which is also a good way to review. Students should ask questions boldly and discuss more with teachers and fellow students to understand the knowledge better. After class, students are supposed to take the initiative in doing homework, so as to turn the knowledge learned to their own skills and ability and to improve their learning interest. This is the right way of cultivating talents for our society.

2.3 The methods of teaching

Teachers should actively make preparation before giving a lesson, including analyzing and concluding the key points and difficult parts of the lesson. For the difficult parts, they should find out the reason why the students have difficulties in understanding the knowledge. In this way, it can not only improve teachers’ teaching ability and teaching level, but also make students understand more easily the key and difficult points of the knowledge in the lecture. When preparing lessons, teachers should also try to combine theories with practices, and give examples related to the reality or things that students are interested in order to explain things vividly by which draw students’ attentions and make the relevant knowledge more impressive to them. Teachers should timely correct homework after class, pointing out students’ shortcomings while praising their advantages, so as to let students develop good learning habits and learning interest.

2.4 Cultivating students’ good learning attitudes

In the theoretical teaching of structure botany, it is also very important to cultivate students’ learning mentality. We must let the students understand that learning is not simply rote, but to apply knowledge to solve problems closely related to people’s livelihood. It aims to further understand the nature and transform it, and consequently contribute to the construction and development of our planet. Learn plant structure botany requires hard work in order to cover the shortage of required knowledge. Students should take an active part in teachers’ scientific research projects to cultivate their own analytical ability, interest in botany learning and their research capability.

2.5 Reform of examinations

Generally, students’ performance in experimental classes are scored according to their experimental report, but this cannot truly reflect the experimental skills, ability of analysis and innovation of a student. Therefore, various factors should be considered in the assessment of their performances in experimental classes, on the contrary, practical skills are the most important thing. Experimental skills, the results of experiments, and attitudes should all be included in the assessment. In addition, in the final exam, the usual performance should account for a part of the final exam, so as to urge students to treat every exam seriously.

2.6 Applying knowledge to practice

Botany is a course closely related to the environment. Therefore, in order to give full play to professional knowledge, show talent and consolidate what students have learned, we should provide corresponding services. Only through asking students to participate in practical activities, can we make teaching and learning complement each other. For instance, the listing of flowers and plants in the campus can be carried out, and the varieties and structures of flowers and plants can be recorded in detail, or the planting in the park near the primary school can be investigated and analyzed. On the one hand, students’ practical ability can be enhanced and their professional knowledge can be consolidated. On the other hand, after these practices, searching for flowers and plants they do not know will greatly
enhance their interest in botany.

3 Summary

Interest is the best motivation for students to learn about the world, yearn for knowledge and explore the world. The optimization of question setting and the creation of teaching situations are effective ways to stimulate students’ interest in learning. The experimental practice of botany can enhance students’ interest in this course. It can not only consolidate students’ theory framework, but also train their practical ability and cultivate their thinking ability. At the same time, learning botany well will also help lay a solid foundation for learning other courses. It will be much easier for the students to learn other courses. Hence, the optimization of botany teaching plays a crucial part in stimulating students’ interest in learning.

References