

Analysis on the Dilemma and Countermeasures of Chemistry Teaching in Senior Middle Schools in Viet Nam

Thanh Pham Thi Ha¹

¹ Thai Nguyen University of Education, Thai Nguyen, Viet Nam
Corresponding Author: Thanh Pham Thi Ha

Submitted: 25-01-2022

Revised: 05-02-2022

Accepted: 08-02-2022

ABSTRACT: In Viet Nam, high school chemistry is a subject that integrates theory and practice, and it is also a subject with strong application. Since the advancement of the new curriculum reform, high school chemistry teaching is gradually changing the shortcomings of the previous traditional mode of teaching and moving towards the goal of the new curriculum reform. Of course, in this process, some problems in high school chemistry teaching have also appeared to be solved urgently.

KEYWORDS: Chemistry Teaching Method; Chemistry Teaching Theory; High School Chemistry.

I. INTRODUCTION

High school chemistry is a subject that integrates theory and practice, and it is also a subject with strong application. Moreover, the knowledge points in high school chemistry are closely related, which is a highly systematic subject. Since the advancement of the new curriculum reform, high school chemistry teaching is gradually changing the shortcomings of the previous traditional mode of teaching and moving towards the goal of the new curriculum reform. Of course, in this process, some problems in high school chemistry teaching have also appeared to be solved urgently.

II. PROBLEMS IN HIGH SCHOOL CHEMISTRY TEACHING

1. Teachers misunderstand the concept of the subject

Under the traditional teaching model, teachers sometimes catch up with the teaching progress in order to achieve the teaching goals and complete the teaching tasks; they also pay more

attention to the explanation in the classroom, ignoring the initiative of the students; the classroom teaching is also based on the teacher, and the "instillation" teaching is carried out. , Does not consider the thoroughness of the students' understanding of the knowledge points; ignores the students' own knowledge base, resulting in low participation in the classroom and increasing the difficulty for students to understand the knowledge points. All these have caused students to gradually lose interest in chemistry, and over time, chemistry has become a shortcoming in high school learning.

2. The teacher pays attention to the explanation of the subject theory and ignores the importance of the experiment

High school chemistry is a subject that cultivates students' exploratory and practical skills, and requires students to explore and draw conclusions in experiments. However, some teachers nowadays ignore the importance of experiments. In class, they pay attention to the explanation and derivation of theories. Students cannot fully understand some of the abstract knowledge. The inability to understand the experimental principles during the exam leads to the failure of the whole question to calculate the result. In addition, some schools have outdated laboratory equipment and some chemical agents have failed. The classroom effect is poor when doing experiments, misleading students' thinking, and even some schools do not offer experimental classes at all. This makes students have poor hands-on skills and are not interested in finding answers through experiments on their own. It even solidifies students' thinking and cannot predict the multiple results of complex reactions when doing questions.

3. Students' neglect of chemistry subjects

High school chemistry occupies a relatively small proportion of the college entrance

examination papers, which makes some students focus on language, mathematics, foreign language and other major subjects, and do not pay much attention to the study of chemistry. The learning attitude of students directly determines the effect of learning. Students' neglect of chemistry learning leads to more and more loopholes in the chemistry discipline of students. In the end, even if they want to make up for it, it will be more difficult.

III. TARGETED STRATEGIES FOR HIGH SCHOOL CHEMISTRY TEACHING

1. Teachers change teaching concepts and let students become the main body of the classroom

Teachers should change their teaching concepts, let themselves act as guides, helpers, and facilitators in the classroom, give the classroom to the students, and let the students become the main body of the classroom. On the one hand, it can stimulate students' interest in learning, and there will be no sleepiness, lack of concentration, and brain failure; on the other hand, let students become the main body of the classroom, and it can also increase students' classroom participation and receive good results. Classroom effect. For example, teachers can ask more questions to give students a direction for thinking, and guide students to understand and use knowledge points; they can set up some reasoning games and let students participate in groups. In the course of the competition, teachers can not only see the proficiency of students in mastering knowledge points, but also improve students' classroom participation and enhance students' interest in chemistry classrooms.

2. Pay attention to experimental teaching

Experimental teaching is to let students do experiments to verify their hypotheses. During the experiment, not only can the students' exploration ability be exercised, but also the students' practical ability and innovative thinking can be exercised. Moreover, there are always successes and failures in experiments. We can draw conclusions from successful experiments and learn from the lessons of failure. Schools should update chemical experiment equipment and chemical agents in a timely manner to prevent misleading students or danger during classroom experiments if they fail to achieve the original effect when used in class. Teachers should pay attention to the novelty of experiments when setting up experiments. They should not copy old and outdated experiments. Students should be exposed to new experiments, conform to the requirements of the new curriculum

reform, and cultivate students' reaction ability, overall planning ability and innovation. Thinking makes the chemistry class full of challenges, rather than simple experiments that people can see through at a glance.

3. Using multimedia to teach high school chemistry

Teachers can use multimedia to stimulate the brain with visual and auditory sensations. At the same time, they can also use pictures and pictures to give people an intuitive feeling. Moreover, high school chemistry has many teaching tasks that require experiments. Not all experiments can achieve the expected results, and some experiments are dangerous. Teachers can use multimedia to play videos of successful experiments, so that students can intuitively and vividly see the changes in the medicament during the experiment, the changes in the reaction products during the experiment, etc.; they can also use multimedia to show some chemical equipment, chemical substances, and chemical element movements. And so on; you can also use multimedia to make some exquisite courseware to attract students' attention. This can not only achieve the classroom goals and effects, but also mobilize students' learning enthusiasm, stimulate their interest in learning, form learning initiative, and truly fall in love with chemistry classrooms.

4. Check students in time and check classroom efficiency through feedback

Teachers should check the classroom efficiency of students in time. There are teachers' guidance and reminders from other students in the classroom, which is not the true level of students. Only during the test, the students are in a state of independent thinking, analyze and synthesize some knowledge points by themselves, and the final test results obtained can reflect the true level of the students. Through testing and getting feedback from students, teachers can see the classroom efficiency of students and their mastery of knowledge points, so as to provide a reference for the preparation of the next class.

IV. CONCLUSION

Under the new curriculum reform, although high school chemistry has many problems and faces many challenges, we must actively explore effective teaching methods, correct our deficiencies in the teaching process, learn from the successful experience of some excellent teachers, and make our own Classroom becomes efficient. Teachers should pay attention to putting students in a dominant position in the classroom. They are only guides and students are participants. It is

necessary to change one's own teaching methods, mobilize students' enthusiasm as much as possible, stimulate their interest in learning, let students change from passive learning to active learning, and form the habit of active learning. At the same time, we should also pay attention to the connection between the various knowledge points of chemistry and the performance and application of chemistry knowledge in daily life, and pay attention to the application of the chemistry knowledge learned by students.

REFERENCES

- [1]. Chien Hoang Thi, (2013). High School Chemistry Experiment Course. Published by the Ministry of Education of Vietnam.
- [2]. Cuong Nguyen, (2007). University and high school chemistry teaching methods-some basic issues. Published by the Ministry of Education of Vietnam.
- [3]. Nham Hoang, (2000). Inorganic Chemistry-Volume 1. Vietnam Education Press.
- [4]. Nham Hoang, (2000). Inorganic Chemistry-Volume 2, 3. Vietnam Education Press.
- [5]. Oanh Dang Thi, Suu Nguyen Thi, (2014). High School Chemistry Teaching Method. Vietnam Normal University Press.
- [6]. Quang Nguyen Ngoc, (1994). Chemistry Teaching Theory. Headquarters of Education Office in Hanoi, Vietnam.
- [7]. Rang Do Dinh, Dinh Nguyen Huu, et al, (2006). Organic Chemistry-Volume 1. Vietnam Education Press.
- [8]. Rang Do Dinh, Dinh Nguyen Huu, et al, (2008). Organic Chemistry-Volume 2. Vietnam Education Press.
- [9]. Vietnam Ministry of Education Press, (2018). Chemistry-High School Education Course. <https://data.moet.gov.vn/index.php/s/iiCh4ymI9vd9RP1#pdfviewer>.