

Study on the quality control system of experiment teaching of Applied Chemistry Specialty

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Keywords: Experimental teaching, Quality control system, Teaching process, Quality standard.

Abstract. From the four aspects of the experiment teaching rules and regulations, experiment teaching, experiment quality standards, the teachers quality standards need to build a high quality of Applied Chemistry Specialty Experiment teaching quality monitoring system. The experimental teaching quality standard is the specific requirements of the experimental teaching, which includes teachers, students respectively meet the requirements of corresponding teaching and monitoring all aspects of teaching and learning quality assurance. The formulation and seriously implement the quality monitoring system of experiment teaching, the school experiment teaching quality to rise sharply, students hands-on ability and skill obviously improved to applied chemistry specialty talents training goal.

1. Introduction

To cultivate the applied talents with innovative spirit and ability of experiment is the goal of the training of the talents in Colleges and universities. Experimental teaching as a combination of theory and practice, knowledge and ability, we must adhere to the comprehensive training of students' innovative consciousness and innovative ability from the aspects of experiment, practice and training. And the construction of experimental teaching quality monitoring system is the only way to realize the goal of training applied talents and to improve the quality of talent training.

The core of construction experiment teaching quality monitoring system is to guarantee the normal operation and quality of experimental teaching. The core issue of quality assurance is to provide trust. To obtain external trust, you must first establish a internal trust, which need to plan, system to carry out quality activities, not only to ensure that quality requirements, and must be able to provide sufficient evidence to prove. Quality assurance of essence is confirmed, prevention, system, reaction ability, a good quality assurance system, should be able to respond quickly to influence to meet the quality requirements, and the strong leadership and full commitment to get effective corrective and preventive. Through the study of ISO90001 quality assurance system, combined with the actual situation of our college, we set up the experimental teaching quality monitoring system to ensure the quality of the experimental teaching and the normal operation.

2. Experimental teaching rules and regulations

According to the talent training objectives, according to the teaching plan, the teaching program, the research and reform of the experimental teaching, the construction of experimental textbooks, experimental teaching management, developed a more scientific and complete rules and regulations of the experiment teaching process strict management, plays an important role in experiment teaching quality monitoring and evaluation. On the procedural norms of sound and standardization of management of laboratory teaching program and the experimental teaching work of every link are done rule-based, forming a mutual coordination and mutual promotion and mutual restriction of experimental teaching activities, students code of conduct and teachers, laboratory personnel

experiment teaching behavior norms and experimental teaching management personnel service behavior specification.

3. Improve the quality standard of experiment teaching

According to the guiding ideology of running school, combined with chemical engineering and technology professional education and personnel of the cultivation objective orientation, we on all the major professional experiment teaching developed reasonable, perfect quality standards, including classroom experimental teaching, examination, examination. For experiment teaching in class, all experimental curriculum has complete experiment teaching syllabus, which clearly stipulates the teacher preparation experiment teach instruction, the selection of experimental teaching materials, lesson preparation, teaching, tutoring, correcting experimental report of examination, link quality standards.

4. Quality standard and evaluation of experimental teaching

Experimental teaching process should include the following seven links. The teachers and their students should meet the requirements of the corresponding teaching, to ensure the quality of all aspects of the teaching and learning.

4.1 Preparation before teaching

The teacher must strictly according to the teaching plan and teaching program requirements and strictly regulate the contents of experimental teaching. Must be carefully prepared. Before experimental classes and make the experiment required instrument, equipment, drugs and materials inspection and preparation work, and pre experiment, in order to ensure the normal; focus on clarifying the content and requirements, equipment operation procedures and methods, steps and the matters needing attention. Pay attention to train students to have a rigorous scientific attitude and realistic style of work, strict norms of students in terms of equipment, the phenomena and data observation of training, for students in the field of operation were observed and recorded, at any time to correct the students incorrect operation, answer difficult questions.

4.2 preview before the experiment

Require students to experiment content review materials in accordance with relevant content, clear the purpose and principle; carefully read the experimental guide books, to master the requirements of experimental projects and content, on the basis of the principle and the measured data. To controlled laboratory specific experimental setup for live preview: understand the experimental device, find out the experimental process, test, operation control and the use of detection equipment, meter, finally according to the experimental group discussion and develop a proposal to experiment, well in advance of the division of labor.

4.3 the evaluation before the experiment.

Teachers should to the team as a unit, careful examination of the team develop experimental program, the team members are random questions, let the students answer with the device structure, process, operation and the principle of the, understand the experiment preparation, experiment preparation, qualified to arrange the next step of experiment.

4.4 specific operations in the experiment

Teachers require students to must be hands-on operation and operation to linking theory with practical thinking, and from time to time inspects the student, study student's operation and the data obtained, instrument use and troubleshooting and so on, in order to understand the students experiment with the real situation, including the source of the experimental data, the student's practical ability, problem solving ability, so that the performance evaluation as possible and students true experiment coincide.

4.5 the preparation of the experimental report

To collate, summarize, calculate the experimental data measured in the experiment, and write the experiment report. Ask the students to truly reflect what you want to do? How to do? What are the

results? And existing problems. To reflect the ability of students to apply knowledge, analyze the problem and solve the problem of ability, reflect the creativity and exploration.

4.6 the theoretical examination of the experimental course

At the end of the course of the experiment, we must carry on the corresponding theoretical examination. Teachers should according to the key and difficult experiment of a certain number of questions, let the students be written.

4.7 performance evaluation of the experimental course

Experiment of course of the final result by four parts: experimental achievements of preparation, accounted for 30%, including preview experiment report results and experimental performance evaluation; experimental operation results, accounted for 30%, source to teacher to student's site inspection; grade of test report, accounting for 20%; experimental course theory written examination achievement, accounting for 20%.

5. The experimental guidance teacher quality monitoring system

5.1 Experimental Teaching System

First tell experiment class teachers, poor teaching effectiveness of teachers, new classes or open new curriculum of teachers and work for a long time away from teaching post again classroom teachers must to trial. Try to simulate the general form of formal lectures, chaired by the director of ___ practice center, all the teachers to review. Lecture courses in general according to experimental lecture 10-20 minutes, 10-20 minutes to prepare guidance, the lecture content is gonna teach experiment course content, at the end of the trial, the faculty Senate proposed problems or suggestions for improvement, commenting, director of the center, with a final vote to determine the trial whether teachers through the lecture, through the lecture, the teacher can be formal lectures. Does not meet the requirements of trial teacher must listen carefully to the views proposed by faculty Senate, according to the specific arrangements of the practice center, to prepare for trial. After the trial before the trial and formal lectures before, the experimental teaching must be by the curriculum responsible person or designated speaker teachers review, modify, until satisfied, can be formally taught.

5.2 experimental class collective lesson preparation system

The professional experiment experimental lessons by the director or deputy director of the center for practice presided over, the teachers and is responsible for the preparing work of laboratory personnel to participate in the discussion, clear objective, do a good job the unified content, experimental operation is unified, do materials prepared, instrument and equipment intact. Adhere to the experimental class to do the system, by the experimental preparation and experimental guidance teacher, the pre experiment must achieve the desired effect, in order to carry out experimental teaching.

5.3 experimental class system

The director or deputy director of the center for practice each semester must be on each of the experimental class lectures, and understand the professional practical teaching status, analysis and research and solve specific problems existing in the process of experiment teaching, and in a timely manner to give advice and feedback to the laboratory and the guidance of teachers in order to carry out the experiment teaching activities. The teachers must listen to each other and learn from each other, exchange experiment teaching method, improve teaching effect, improve the level of experiment teaching and the experiment teaching quality, each teacher each semester class no less than 5 times.

5.4 assessment system and requirements of teaching and learning

Each semester to set up courses in the assessment of teaching and learning, in the middle of the middle of the semester, in addition to the students to seek the views of the experimental class, but also requires students to put forward reasonable proposals. Views on students' feedback to humbly accept, and prompt improvement experiment teaching method and solve the problems appearing in the experimental class, put forward opinions and suggestions on students' learning attitude and learning method, prepare evaluation of evaluation of teaching learning activities of the records, and made a summary.

6. Summary

In experimental teaching, through the lecture, collective preparation for lessons and old teachers set an example, of young teachers pass, side, belt, enable young teachers teaching level continues to increase. For some teachers in lectures speed faster, improper teaching methods, evaluation of the students is low, in collective lesson preparation, director of the lectures, staff room teacher have of their recommendations for, until the teacher's teaching skills and methods has been recognized by the students and colleagues, scores and higher in students evaluation. Teaching work is the central task of the school, and the reform of experimental teaching is an important part of the whole teaching reform, and it is the key step to cultivate the applied talents. The formulation and seriously implement the quality monitoring system of experiment teaching, make the experiment quality of teaching in our hospital increased substantially, students' practical ability and skills improved significantly, make the experimental teaching demonstration center, work always healthy and orderly of.

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