Interest Guide, Task Driven, Careful Examination---Educational Reform of the course of Computer Network Technology

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ABSTRACT

In recent years, the computer science and technology specialty in our school has experienced several teaching reform in the course of network courses in order to inspire the students’ learning interest. Continuous exploration and research on the practice of curriculum, formulate the relevant experimental teaching outline and implementation plan. At the same time, in the continuous efforts of teachers, and gradually formed a skill type and research combined with the teacher team.

Keywords: Experiment, Innovate, Network technique, Reform in education

INTRODUCTION

The course of Computer Network Technology is separate from the course of Computer Network .it will help students to understand and develop the computer network knowledge and improve students' ability of computer network operation and application. The separation of experiment and theory course .This course will help students to understand and develop the computer network knowledge. Under the condition of keeping the original class hours, we have compiled the teaching outline, the implementation plan and the achievement assessment method. In the experimental content, teaching methods, assessment methods and other aspects of a bold reform, received a better effect. Through computer network experimental teaching, more emphasis on students' comprehensive network practical ability, the network related applications have the right skills [1]-[3]. Students can effectively explore in practice to find problems, solve problems, improve the ability of application technology, cultivate the ability to solve problems, so as to improve the quality of teaching and teaching effectiveness. This course is based on the computer network theory teaching experiment. It is divided into the basic of computer network, network server, network equipment, network architecture, etc.

THE DESIGN OF "SPECIALTY EXPERIMENTS" TEACHING

Based on the experimental platform of Ruijie professional network, the experimental environment is superior. There are 8-group experiment tables,6 machines in each group. Equipped with a set of more perfect student experiment system. The experiment is abundant in content. According to the characteristics of the students of our school, the teachers' team has been carefully selected by the teachers' team. The proportion of verification, design and comprehensive experiment should be scientific and reasonable[4].

Selecting and Reforming Experimental Teaching Contents

Drawing on some experimental items of certification training, we should pay more attention to the practicability of the experiment when formulating the experiment content[5]-[6]. In addition, the topic of discussion is added to the course, and some comprehensive discussions are made for the phased experiment, which will help students understand the contents of the previous experiments. The content of the experiment can not be fixed, and it should be constantly updated and improved according to the development of network technology and market demand.Fig.1.shows teaching design.
Increased Thematic Discussion

In order to better achieve the experimental teaching objectives, the teacher team carefully designed the following 4 parts of the thematic discussion:

(a) The network server is mainly discussed and implemented according to the comprehensive application and analysis of the network server.
(b) VLAN case mainly for virtual LAN and how to divide the VLAN to discuss and practice.
(c) Static and dynamic routing cases mainly focus on static routing and dynamic routing.
(d) The comprehensive network case mainly aims at the analysis and practice of complex complex cases.

Reform of Experimental Organization Form

Previously, the computer network experiment relied on the experimental syllabus, and the students basically followed the outline of the experiment step by step. The experiment is not comprehensive and restricts the students' thinking. Now, some basic experiments have been set up. According to the experiment instruction, the teacher guides the students and completes them according to the procedures, so as to achieve the purpose of being familiar with the network server, the network equipment and the network environment.

The 4 special topic discussion experiment, the teacher only gives the experiment goal and the request, the experiment process is formulated by each group itself. Before each experiment, each group was required to have a
group discussion in advance to write the experiment plan, and give the experimental process and expected experimental results. The program group after approval of experimental architecture and test, teachers in the experiment to check the expected experimental results is achieved, if not achieve the experimental effect, and the students did not reach the expected effect cause analysis.

**EXPERIMENTAL ORGANIZATION REFORM**

The experiment is mainly to individual students or a group experiment. In the experiment is easy to cause the person to complete a large network case for small project team personnel and the phenomenon of excessive lead role of these devices in the network part of the students can't understand. After the reform of experiment organization course have also been adjusted according to the experimental environment, the students will be divided into several groups, each person in charge of the experimental group to implement the rotation system, each student will be responsible for the implementation of an experimental project.

Each group is responsible for setting up LAN according to different experimental items, and is responsible for network interconnection with other lan. Each experiment is done according to the size of the project and divided into different numbers. This will not only train students' understanding of the network system, but also improve their ability of teamwork and organization. Fully mobilize the enthusiasm of the group students, try to avoid one-sided phenomenon.Fig.3.shows experimental organization.

<table>
<thead>
<tr>
<th>Project category</th>
<th>Basic inspection item</th>
<th>Design and synthesis projects</th>
<th>Seminar project</th>
<th>Test item</th>
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**Fig. 3: Experimental Organization**

**CONCLUSION**

In order to arouse the enthusiasm of students, encourage students to participate in various disciplines, improve the academic level and comprehensive quality of students, and create a strong atmosphere of academic, academic and cultural environment on campus. Our school adopted the following measures.

1) Set up a network technology group to attract students interested in network technology and strong practical ability, and select excellent students to participate in provincial and municipal network competitions. The team's regular activities, students' team spirit and technical level have been improved. In the joint efforts of teachers and students' network technology team achieved better results in nearly two Ningbo city "Ruijie " competition in the network technology and information security. The network technology team not only provides a wide space for students with network expertise, but also drives and stimulates the enthusiasm of other students to learn network technology.Fig.4.shows teaching and competition.

**Fig.4.Teaching and competition**
2) Since the beginning of the course reform of experimental single, so we proposed to build a platform for the development of curriculum, provide a separate experiment course syllabus, lesson plans, exercises, experimental guidance, references, and the creation of online discussion.

3) At present, the reform has gained some experience, but it needs further exploration and research. Try to stimulate students' interest in competition, develop the habit of self study, train creative thinking and train team spirit.

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