

Research on the Construction of “Task-driven” Teaching Mode in “Electronic Technology” Course Teaching

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Abstract: Task-driven is a teaching method based on constructivist learning theory. It is an interactive teaching method that transforms the traditional classroom teaching based on teacher narration into designing teaching tasks for students to complete. Based on this, this article takes electronic technology teaching as the research object, and proposes a method of constructing a task-driven teaching model, in order to mobilize students’ enthusiasm for curriculum learning and improve students’ learning ability.

Keywords: Electronic Technology; Task-driven; Teaching Mode; Construction

“Electronic technology” itself is a course that integrates theoretical knowledge and practical operation. It involves a lot of knowledge points and requires high learning requirements for students. In specific teaching, teachers need to mobilize students’ interest in learning and enhance students’ enthusiasm for participating in learning as a starting point to guide students to think and explore. The application of task-driven pedagogy can satisfy this olympic game. Teachers design the knowledge points to be described as a comprehensive task for students to complete. In this way, students can be encouraged to participate in learning activities and analyze problems. Solve problems and achieve the learning objectives of the course.

1. Advantages of task-driven teaching

1.1 Can encourage students to learn actively

The biggest difference between task-driven and traditional classroom teaching methods is that it is an interactive teaching method. In classroom teaching, the teacher’s role has changed significantly, that is, from the main body of classroom teaching, the organizer, to the instructor and participant. And students become the main body of learning, from passive learning to active learning in the past, and truly become the master of the classroom^[1].

1.2 Improved teacher-student relationship

Task-driven and traditional classroom teaching mode is more open and democratic. When teaching new knowledge, teachers do not need to keep telling, but learn together with students, which shorten the relationship between teachers and students, so as to guide students to participate more actively in activities and tasks. In the process of teacher-student interaction, Solve the problems encountered^[2].

1.3 Conducive to the shaping of students' personality and ability

In the task-driven teaching mode, teachers combine students' learning interests and foundations to carry out heuristic teaching, and in teaching activities, promote students' individual development. At the same time, through the interaction between teachers and students, teachers can have a more comprehensive grasp of students' learning situation, and can see students' progress, give affirmation and encouragement, and promote the shaping of students' healthy personality. In addition, task-driven teaching focuses on the cultivation of students' thinking ability and other abilities. In task teaching, communication and cooperative learning among students can be strengthened. In addition, it can also allow students to show their own learning achievements, and teachers will give affirmative evaluations, so that students can experience the joy of success, enhance their self-confidence and satisfaction in learning, and improve their comprehensive ability level.

2. The construction of "task-driven" teaching mode in the teaching of "electronic technology"

2.1 Teachers carefully design tasks

Teachers should combine the teaching goals, carefully analyze the teaching content, integrate knowledge, skills, methods, etc. into specific tasks, ensure that the tasks are manipulable, exploratory, etc., to better adapt to the characteristics of the students' knowledge structure^[3]. For example, when studying the knowledge point of the influence of negative feedback on the amplifier circuit, the teacher can assign the following tasks to the students: First, design the negative feedback amplifier circuit. Analyze the complexity of the circuit to determine the circuit form and parameters; second, design the experimental plan, including the selection of experimental data to be tested and the setting of steps. At the same time, it is necessary to consider the size of the power supply voltage and the specific form of the filter circuit to avoid interference, otherwise there will be self-oscillation problems; third, circuit production, debugging and related data recording; fourth, experimental report writing. There are many methods that students can use when completing tasks, and there will be differences in test data. When students are able to complete the tasks assigned by the teacher, their understanding and mastery of knowledge will be more thorough, so as to find confidence in learning^[4].

2.2 Show tasks to students

After the teaching task has been designed, the teacher will then show the task to the students, hand over the task completion goals, evaluation methods, etc., so as to provide effective guidance to the students. Of course, under normal circumstances, teachers have to arrange tasks for students in advance, so that students can have enough time to prepare, arrange time scientifically, and write experimental preview reports. After showing the task to the students, the teacher cannot directly tell the students how to do it. Instead, they should let them search for relevant materials first, think independently, or work together in a group to explore how to complete it. For example, in the task of designing negative feedback circuits, teachers should ask students to find information by themselves, think about how to set circuit types, component parameters, how to install components, how to debug circuits, and perform performance tests. When students cannot complete it by themselves, they can be allowed to cooperate and discuss in a group to determine the general direction of the design, and then let them try to complete the design task^[5].

2.3 Guide students to complete tasks

Completing the task does not mean that as long as the student can complete the design task in accordance with the teacher's requirements, it is necessary for the student to have a deeper understanding of the knowledge learned when completing the task, and to cultivate the student's innovative ability and operational ability. Therefore, in actual teaching, teachers should guide students to solve problems in a variety of ways and activate students' thinking. In the exchange and learning of each group, teachers should provide guidance in layers to meet the various needs of students. When students encounter problems when completing a task, the teacher should lead the students to analyze the reasons together, and successfully complete the task on the basis that the students know the reasons. For example, in the above-mentioned negative feedback circuit design task, many students have the problem of no waveform at the output when performing performance tests. At this time, the teacher should

guide the students to consider the following aspects: First, whether the components are installed Correct, if the components are not installed correctly, there will be no waveform at the output; second, whether the parameters of the components meet the design requirements; third, whether the circuit connection is correct, whether the circuit structure is complete; fourth, whether there is a false solder in the circuit, Missing soldering and other issues; fifth, whether the negative feedback circuit design is scientific; sixth, whether the triode is damaged, etc. Let the students carefully check the problems in their task design according to the content given by the teacher, so that the problem of no waveform at the output can be effectively solved^[6].

2.4 Evaluate the learning process of students

In task-driven teaching, teaching evaluation is also very important. Teachers can comprehensively evaluate students' task completion and performance. It is also possible to integrate student self-evaluation, mutual evaluation and teacher evaluation. Teachers can allow students to evaluate their own activities, and also allow students to evaluate each other, so that students have a more comprehensive understanding of their own learning. Of course, when making comments, teachers should also explain the shortcomings and make scientific suggestions based on students' usual performance. In the evaluation, it is necessary to avoid focusing on task completion results and ignoring process evaluation, or focusing on the evaluation of excellent works and ignoring the evaluation of works with unsatisfactory results. Teachers should treat every student equally, encourage and support students more, see their shining points, and affirm their progress. For example, when students complete the above tasks, when the content of the circuit performance test is concerned, some students connect an adjustable potentiometer in series in the circuit when the value of the static operating point is not scientific, and use a multimeter to adjust the, Wait for the voltage value to measure, and accurately record the measurement result. In the process of completing the task, I praised the student for this behavior in time. In the comprehensive evaluation, I also praised the student to the class and incorporated his performance into the final score.

3. Conclusion

In summary, the application of task-driven pedagogy in the teaching of electronic technology courses plays an important role, mobilizing students' interest and enthusiasm in learning, and improving students' learning ability through interactive learning between teachers and students, and between students and students. Practical ability and other aspects of ability and level. In the future teaching, the majority of teachers will continue to work hard to apply task-driven teaching methods to teaching activities more effectively to achieve classroom teaching goals.

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