Cognitive Knowledge status of Learning Path in C++ Programming Language based on Rule Space Model for College Students

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Abstract

Programming Language is a practical course, which trains students' logical thinking and problem solving. It involves logical design, problem analysis and problem solving. Therefore, to promote students' programming, debugging and basic concepts understanding is an important issue. Programming Language is one of the basic courses. Students learn the information planning, managing and manipulation from variable declaration, data processing, and flow control and output progress. This study applied Rule Space Model to generalize, analyze and study the C++ teaching concepts. Students are evaluated and found out the cognition mistakes. This study assisted find out the learning routes and help learning actively. The experimental objectives are 100 freshmen of the Information Management Department, who studied Programming Language (I) course. The experiment result showed the Knowledge attributes which students mastered and the two learning routes in programming language. According to the student learning analysis table from the knowledge structure, students can realize the weakness and follow teachers' instructions and suggestions. Based on the analysis result, teachers design the appropriate learning route for students and provide sufficient practical practice, engage team competitions and motivate students to promote the learning performance.

Keyword：Education , Programming Language