Game-based Collaborative Learning System

張文智,周育民,陳坤祺
Information Management
Computer Science and Informatics
earnest@chu.edu.tw

Abstract

Running a program needs correct program commands, no key-in error, familiar with the development environment, the solution to the problem and reasonable logic. When learning programming languages, beginners often encounter repeated failure until they become familiar with the programs. Some learners will give up learning when facing the compile, debug, and program problems. A visual and interactive learning environment can help learners enjoy the learning. The proposed game-based learning environment designed most concepts in introductory C programming language and could be used in the formal teaching/learning process. Learners can solve coding problems by controlling the movement of the character in the Bomberman game. Some collaborative learning activities are designed in the game. Learners can study from group's collaborative learning by communicating and discussing.

Keyword：Game-based Learning, Collaborative Learning