

Game-based digital learning system assists and motivates C programming
language learners

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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. Programming language beginners will face failures again and again until they are familiar with the programs. Some learners will give up learning when facing the compile, debug, and program problems. 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 formal teaching/learning process. Learners can solve problems with C codes and control the movement of the Bomberman in the game. Some collaborative learning activities are designed in the game. Learner can study from group's collaborative learning by communicating and discussing.

Keyword : Programming Language, Game based learning, Bomberman