A multi-agent model for information processing in computational problem solving

ABSTRACT

Problem solving is vital in the computer programming course. It is the earliest topic that is emphasized and more time is allocated to teach the topic. Problem solving requires the problem understanding knowledge that novice students usually lacks. In order to assist novice students in computational problem solving, a multi-agent model is designed.The proposed model is different from existing model in terms of the unique architecture that utilizes agents for information processing, specifically to extract, transform and generate information. Five agents are designed for this purpose namely the GUI, PAC, IPO, Flowchart and Algorithm agents. The model is tested with three different kinds of problem statement and produced correct results.