### **Accepted Manuscript**

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Computers
Education

An International Journal

An Open State of St

PII: S0360-1315(15)30062-2

DOI: 10.1016/j.compedu.2015.10.013

Reference: CAE 2928

To appear in: Computers & Education

Received Date: 16 March 2015
Revised Date: 8 October 2015
Accepted Date: 12 October 2015

Please cite this article as: Hooshyar D., Ahmad R.B., Yousefi M., Fathi M. & Horng S.-J., Applying an Online Game-based Formative Assessment in a Flowchart-based Intelligent Tutoring System for Improving Problem-Solving Skills, *Computers & Education* (2015), doi: 10.1016/j.compedu.2015.10.013.

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#### ACCEPTED MANUSCRIPT

# Applying an Online Game-based Formative Assessment in a Flowchart-based Intelligent Tutoring System for Improving Problem-Solving Skills

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#### **Biographical notes**



**Danial Hooshyar** is a Ph.D. student and research assistant in the Software Engineering Departments at the University of Malaya, where he conducts research on novice programmers and flowchart-based environments for improving problem solving skills. He has already published several articles on aforementioned area based on the conducted experimental studies.



**Associate Prof. Dr. Rodina Binti Ahmad:** She has received a Petronas scholarship in 1984 to pursue her bachelor degree in United States of America. She pursued her master degree in 1989 under Petronas scholarship as well in the Computer Science discipline. She started teaching in University Technology Malaysia in computer science department in 1991. She moved to University Malaya to continue

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