ONLINE EDUCATIONAL GAMES TO PROMOTE SELF-LEARNING OF COMPUTER PROGRAMMING

Roslina Ibrahim & Azizah Jaafar

Fakulti Teknologi dan Sains Maklumat, Universiti Kebangsaan Malaysia (UKM), 43600 UKM Bangi, Selangor Darul Ehsan, Malaysia.

Abstract

Studies of using educational games for learning have been widely used because of the belief that such games motivate, engage and are fun. On the other hand, programming is considered a difficult subject. Learning Programming requires skills such as logical thinking, problem solving as well as understanding of abstract concepts. As a result, students found that Programming is a demanding subject, which resulted in low interest on the subject. Such scenarioWelcome raises the need for studies to be carried out on how educational games help to enhance students learning attitude towards Programming. A research was carried out to develop online educational games that promote self-learning as an introduction to Programming. The primary user of this game is first year computer science or IT undergraduates. The games consisted of several mini games based on familiar games genre from UTM’s course syllabus. The games will be available online for students’ easy access in campuses, hostels or homes. The development of the games integrated both design and pedagogical elements for its effectiveness. Pedagogically, the contents of the game are designed based on Bloom’s Taxonomy theory with inclusion of fun elements.

Initial results showed that students are highly motivated in using the games (Rosalina and Azizah, 2010). Among the most significant findings of this study was that using the games makes the programming more interesting. This research hopes to add more empirical evidences about claims on advantages of learning using games.

Keywords: Online educational games, assessment, fun.