Universiti Teknologi MARA

Kembara Matematik Game For Primary Education

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KEMBARA MATEMATIK GAME FOR PRIMARY EDUCATION

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This thesis was prepared under the supervision of the project supervisor, Mazliana Hasnan. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Computer Science (Hons).

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Mazliana Hasnan

Project Supervisor

JULY 24, 2017

STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

Mathematics subject is a basic and necessary knowledge that play a big role in people life. Problem arise in learning mathematics when students are disengaged to study mathematics. Based on previous research, there were some students were uninterested with reading text and full of exercise learning approach, they have Lacks of encouragement for self-learning and they claimed that Mathematics is a tough subject to learn compared to other subject. Today, Mathematics subject can be implemented in computer game as Game-Based Learning in order to help primary school students to learn. Kembara Matematik Game for Primary Education was developed as an alternative learning methods which are interactive and fun way for primary school students to engage in mathematics subject. This Game-Based Learning consists of sound, animation, text, graphic and 3D game environment. The game project was developed by using Waterfall methodology. The methodology used Requirement Analysis, System Design, Implementation and lastly Testing in order to develop a quality Game-Based Learning. The Game-Based Learning were developed using Unity3D software and Unity3D build-in C# language compiler which is called Monodevelop. Testing are done with 10 participants which are around 11 to 12 years old in order to test the usability of propose system via game engagement test, using adapt Game Engagement Questioner to the 10 participants. The result of testing was found that the game was able to give engagement to primary school students. The game project is consider prototype and recommended to make enhancement for heightening the user engagement and learning experience towards the game project.

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