Universiti Teknologi MARA

Brain Training via Mobile Board Game Application for ADHD Children using Gamification

QISTINA BINTI YAHYA

Final Year Project Report submitted in fulfilment
of the requirements for
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SUPERVISOR'S APPROVAL

BRAIN TRAINING VIA MOBILE BOARD GAME APPLICATION FOR ADHD CHILDREN USING GAMIFICATION

By

QISTINA BINTI YAHYA
2016352053

This report was prepared under the supervision of the project supervisor, Encik Zaaba Ahmad. 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).

Approved by

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Zaaba Ahmad
Project Supervisor

JANUARY 8, 2019

STUDENT'S DECLARATION

I certify that this report 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.

QISTINA BINTI YAHYA
2016352053

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ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) or commonly known as ADHD is a mental disorder that can affect children or adults. There are three types of ADHD, inattentive, hyperactive and impulsive. ADHD is classified as the most common neurobehavioral condition of childhood. Children with ADHD shows symptoms such as not being able to sit still, having troubles in focusing on a task and easily distracted. Children with ADHD usually do not know how to differentiate between good and bad behaviours. Sometimes, their actions can lead to serious injuries due to their behaviours. Through an observation that has been conducted, there are a few problems regarding this matter. First, the children have troubles in differentiating whether a behaviour is good or bad. Next, the children have problems in working their coordination and attention effectively. Moreover, it has been found out during the interview conducted that the teachers do not have an interactive medium to teach the children regarding their cognitive functions and their behaviours. The significance of this project is to assist children with ADHD to develop the cognitive skills better. This project would also teach the children on good and bad behaviours. Moreover, this project would be able to assist the teachers to teach their students in a more interactive manner. Recent studies also showed that mobile games can help the development of ADHD children as a pedagogy. This project will act as a teaching tool in an interactive way. The methodology used to assist this project is Mobile Application Development Life Cycle (MADLC) which consisted of five phases: concept phase, requirements analysis phase, design phase, development phase and testing phase.