Universiti Teknologi MARA

Persuasive Game on Obesity Awareness

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ABSTRACT

Obesity has turned into a worldwide common health problem, but the most worrying are the fact that it arrives from the childhood obesity and the number of it is growing at an alarming rate every year. Inactive lifestyles and unhealthy diets are the main causes that lead to childhood obesity. These problems exist since most of the time children does not really know what they are consume and they are not even aware of the implications of their bad food habits in long term. The aim of this project is to design and develop a persuasive game that can influence children to leave unhealthy foods and evaluate the children's knowledge on obesity awareness based on their action and decisions on the game. Procedural Rhetoric persuasive model is used to build the persuasiveness in the game. This project was done based on Agile Model that includes requirements, architecture and design, development and, test and feedback of the project. The platform of the game is web-based application that will be build using Unity software in C# language. Ten children aged 6 to 12 years old have been chosen randomly to test this project prototype and based on the pre-testing and post-testing that have been conducted, it shows that the element of persuasive that had been included were able to gives impact on the increasing level of awareness on obesity after playing the game. The functionality of the game also worked well and functions as desired.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

Obesity has turned into a worldwide common health problem, but the most alarming fact arrives from the childhood obesity. Due to the cultural and social changes, parents these days have less time to set up and prepare healthy meals, which results in children opting for more processed and fast foods that are usually less healthy than home-cooked meals. Furthermore, the food sold in supermarkets is processed, high in fats and is containing too much sugar. In the past 30 years, this has more than doubled in children and tripled in adolescents. Most of the time children really do not know what they are consume and they are even not really aware of the implications of their bad food habits. (Pannese,2014) Childhood obesity is a chronic disease that is growing at an alarming rate. Inactive lifestyles and unhealthy diets are the main causes that lead to childhood obesity (Husain et al.,2013).

1.2 Problem Statement

Childhood obesity affects over 17% of children in the United States, leading to short- and long-term health risks, high healthcare costs, and negative impacts on national productivity (Putnam et.al,2018). In Malaysia, the prevalence of childhood obesity (as defined by the American National Centre for Health Statistics), was 6.0% to 7.8% (11,12). However, in a study by Anuar Zaini et al (2005), the prevalence of obesity was 6.3%, using the International Obesity Task Force definition (13,14). The prevalence of obesity among primary schoolchildren whose mean age was 8.91 years within the three schools was 9.5% (Shariff et.al,2007). There are so many alternatives that had been done such as campaigns, banners, talks and events on obesity awareness but the number of obesity children in is still growing each year. The reason why these alternatives are not effective is because there is no element of fun in them that