

**GAME-BASED LEARNING COURSEWARE FOR PRE-SCHOOL
CHILDREN FOR HEALTHY EATING**

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UNIVERSITI UTARA MALAYSIA

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**GAME-BASED LEARNING COURSEWARE FOR PRE-SCHOOL
CHILDREN FOR HEALTHY EATING**

**A project submitted to the School of Computing in partial fulfillment
of the requirement for the degree Master of Science (Information
Technology) Universiti Utara Malaysia**

By

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Malek Ahmad Theeb Almomani, January 2012.

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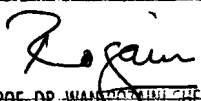
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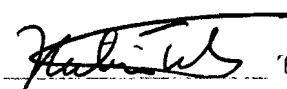
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ABSTRACT

Game Based Learning (GBL) is still one of the most effective teaching strategies to enhance learning. Overweight and obesity are considered as dangerous problem around the world. Moreover, they have a direct relation with many health problems and diseases. This project helps to improve information through a project about overweight and obesity among pre-school children in UUM kindergarten. The project will propose a courseware Happy Healthy Meal (HHM) prototype for healthy eating. Each child can interact with a game to realize which are health and unhealthy food. This project focuses on pre-school in UUM kindergarten. The study will adopt the Vaishnavi & Kuechler methodology and ADDIE model to develop the prototype.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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LIST OF ABBREVIATION

1. GBL: Game Based Learning.
2. HHM: Happy Healthy Meal.
3. ADDIE: the Analysis, Design, Development, Implementation, and Evaluation

CHAPTER ONE

INTRODUCTION

This chapter presents the purpose of this project that is a game based learning courseware for pre-school children for healthy eating, with detail of the background, furthermore, discussion about the problem of study, research question, objectives, scope of the project and project significance are also available.

1.1 BACKGROUND

Children and game are always together. Educational games "are games designed with specific curriculum objectives in mind" (Royle, 2008) often games that have been used in education have been developed to support the practice of factual information. Educational game might be the most suitable game for the pre-school children which bring knowledge to the children. Computer-based education games are the combination of education, entertainment and imitate the real-life environment.

Overweight and obesity are becoming public health problems, concerns in many countries in world. With the change in lifestyle are now occurring in the population, not only is the problem growing among adults, but also the problem now seems to be seen in the children population. The shift toward a more sedentary lifestyle and the consumption of calorie-dense diets, coupled with improving economic base and environmental conditions, is apparently contributing to the transition from the

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