

Universiti Teknologi MARA

**Kenali Semai: Mobile Game-Based Learning Application
About Semai People**

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ABSTRACT

Current platform for cultural education that teach about indigenous people lacks a sufficient element of gamification. As a result, this project aims to develop a mobile game-based learning application of Kenali Semai through the digital platform by applying gamification elements. This mobile game-based learning application would be aimed at the public to pique their interest in learning about the Semai's cultural element while playing games and the application use Malay language for the content. As for the methodology is use Digital Educational Game Life Cycle (DEG) which consists of four process which are game design, software design, implementation and publishing, and game-based learning and feedback. A few gamification elements have been developed for the features that have been developed, such as progress for the loading page, digital storytelling to teach about the facts of the Semai ethnic, time pressure to reduce the time spent answering questions, and scoring, where the application would save the player's high score through the local storage of the software used. Users may also earn rewards by playing in the bonus game, and they can reset the game. Furthermore, this strategy targeted all residents to use the Kenali Semai smartphone app since they can install through a Google Play Store platform. All of the functionality of the Kenali Semai mobile game-based learning application perform as expected, according to user testing results. The application is simple to use, according to the testers, and all information presented is simple to comprehend. As for future works it is suggested to enhance to iOS platform so that can increase the number of users and improve the feature for the Kenali Semai mobile game-based learning application. Last but not least, the application would be significant for general users by increasing their knowledge in order to preserve the content highlighted.

Keyword: Gamification elements, digital educational game life cycle, mobile game-based learning application, and Kenali Semai.

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CHAPTER ONE

INTRODUCTION

This chapter discuss the review of the project. It covers the subtopic that related with the project such as project background, problem statement, objectives, scope, and significances.

1.1 Project Background

Mobile game-based learning is a new way of communicating knowledge and information to the rest of the world. Creating a mobile game-based learning environment is a technology that most people are familiar with these days. Mobile game-based learning can be used to improve the learning methodology as it transitions from a traditional to a digital platform. However, the development of a mobile game-based learning application would be related to gamification elements.

Nowadays, game-based learning is used as a technique and resource to increase learner interest, because most educationally designed games generate player enjoyment, which benefits educational objectives. In particular, game-based learning will create a symbiotic relationship between gaming and learning elements, laying the groundwork for two critical foundations: a fun component and an educational component. As a result, learners remain competitive in a gaming scenario while attempting to complete a set of learning activities on their own or in groups in game-based learning.