

ABSTRAK

Salah satu ciri bangsa maju adalah bangsa yang memiliki tingkat kesehatan, kecerdasan, dan produktivitas kerja yang tinggi. Ketiga hal ini dipengaruhi oleh keadaan gizi. Pola makan merupakan perilaku paling penting yang dapat mempengaruhi keadaan gizi. Untuk itu dengan mengamati suatu permasalahan diatas bahwasanya perkembangan *game* saat ini belum dimanfaatkan secara optimal di dunia *game* maka muncul sebuah gagasan untuk membangun suatu *game* edukasi yang dapat memberikan suatu pembelajaran yang menarik bagi penggunanya, *game* yang akan dibangun ialah sebuah *game* edukasi yang memadukan antara unsur *game* dengan *genre platform adventure* ,dan informasi mengenai makanan sehat dengan interaksi *player character* yang menarik di implementasikan nya suatu *behaviour* pada karakter NPC, pada penelitian ini diterapkan *algoritma quadtree* untuk memeriksa proses tumbukan objek (*collision detection*) antara dua buah objek yang berbeda. Dan *game* ini akan menyajikan *game play adventure* yang diisi dengan konten-konten yang bermuatan edukasi dan *game* yang akan dibuat dengan judul *The Adventure of Kang Ujang*.

Keywords : *Android* , *Algoritma Quadtree*, Edukasi, *Game*, *The Adventure of Kang Ujang*.

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One characteristic of developed nations is a nation that has a high level of health, intelligence, and work productivity. These three things are influenced by nutritional conditions. Diet is the most important behavior that can affect the nutritional state. The method used in this study is the Game development Life Cycle method, where this method is a method of developing multimedia and using Construct2 for its development. The result of this research is the completion of the Android-based educational game "The Adventure of Kang Ujang" which is expected to provide information to users in a fun and not boring way. For that, by observing a problem above that the current development of the game has not been used optimally in the game world, then an idea emerged to build an educational game that can provide an interesting learning for its users, the game to be built is an educational game that combines the elements game with platform adventure genre, and information about healthy food with interesting player character interaction implemented by a behavior on the NPC character, in this study a quadtree algorithm is applied to examine the collision detection process between two different objects. And this game will present a play adventure game that is filled with educational content and games that will be created under the title The Adventure of Kang Ujang.

Keywords: Android, Quadtree Algorithm, Education, Game, The Adventure of Kang Ujang.