

Universiti Teknologi MARA

Shape Drawing Game Using Points as Edges

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ABSTRACT

A shape is the form of an object or its external boundary, outline, or external surface, as opposed to other properties such as colour, texture or material composition. Children learn shapes in their early years to understand how things or objects look like with their names. In using points as the edge of a shape, children will learn on how many edges a shape type has thus, making them knowing shapes better and more exposed. The aim of this project is to teach kids learning shapes with classification according to number of edges by placing points that connects with lines into making a certain type of shapes. This project uses Construct 2 software as a platform for the application to create an understandable game. The evaluation of this project is conducted by validating a shape type as the output after the user inputs the points and then connecting them. It is not necessary to make a perfect shape as the user can move the points freely. The significance of this project is it helps to boost children's creativity by placing points on their own to produce any type of shape.

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CHAPTER ONE

INTRODUCTION

This chapter describes the general introduction of this computing project. This chapter covered the topics for background of the project, problem statement, objectives, scopes and significance. This chapter is very crucial in order to properly understand this project.

1.0 Background

Shapes are the form of an object or its external boundary, outline, or external surface. Shapes are also a form of art, where arts can function as symbolic language, as such, can be considered to the process of early learning (C. Thompson & L.Bresler, 2002). Gaining knowledge about shapes is as good as training before getting to know alphabets. Studies show that playing educational games can help people to learn about certain subjects, expand concepts, reinforce development, understand a historical event or culture, or assist them in learning a skill as they play. This project focuses on gamification of shapes as an educational game.

According to Wouters et al. (2013), text-based learning and game-based learning leads the same result when immediately tested. However, it is proven when tested a few days later, game-based learning is better to retain. Gamification uses game elements, game mechanics, aesthetics and game learning that can certainly cause people engagement, cultivate action, enhance learning and figure out the problem (Kapp, 2013). Making an educational game of shape learning is the main idea of this project.