

ABSTRACT

Educational games are very suitable for learning for kindergarten children because the gameplay is not so heavy and is based on the same conditions as everyday life, which certainly does not contain bad elements that are inappropriate for children. The output of educational games that will be used for learning must really be considered because the age of kindergarten children is the age at which children's character and manners are formed.

In this research, the writer will develop a game with a labyrinth concept which carries the theme "Caring for the Environment". The author adds the Non-Player Character (NPC) feature in the game which requires behavior design using the Finite State Machine algorithm with three working principles State, Event (happening), Action.

The result of this research is that all the features in the developed game design have been implemented and function properly, especially the finite state machine method which is applied to NPC behavior. NPC successfully patrols automatically when the game starts and chases player when players approach, with an average score based on respondent's answers are 4.5 and 4.4 (maximum value = 5). NPC behavior shifts go well with an average score is 4.1 (maximum value = 5), the room restart feature and reducing the player's life when caught by an NPC are going well by getting an average score is 4.6 (maximum value = 5) from respondents who have played Game Maze Cleaner.

Keywords: *Game, Educational Game, Non-Player Character, Finite State Machine*