

ABSTRACT

Games can be an excellent learning tool for kindergarten students considering that children are happy to play at that age. For this reason, this research tries to create a maze-type educational game with the theme "Environmental Cleanliness," which teaches children to clean up garbage. This trains children's awareness of the importance of environmental cleanliness.

To create an educational game that is more interesting and fun for children, the creation of this Maze Cleaner game adds several supporting NPCs (Non-Player Characters) and missions that must be completed. This aims to realize the educational goals of this game. In addition, the maze contained in this game is made using the Cellular Automata Algorithm so that the difficulty of the maze can be increased at each level. This algorithm aims to provide challenges, improve strategic skills, and train awareness of direction and spatial awareness by knowing the spaces, paths that must be passed, and their location in the maze game.

The result of this research is that all features in the game design developed have been successfully implemented and functioned properly. Especially ensuring the Cellular Automata algorithm used to generate the maze can work according to the design. The Cellular Automata algorithm is considered adequate by respondents in creating maze wall objects and providing a better gaming experience, with an assessment score of 4.5 out of a maximum score of 5. The generated maze wall object feels random and challenging, with a user assessment score of 4.1 out of a maximum score of 5.

Keywords: *Educational Game, Maze, Wall Object, Cellular Automata*