ABSTRACT

IMPLEMENTATION OF TECHNOLOGY AUGMENTED REALITY IN THE ROLLING BALL GAME

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The implementation of augmented reality technology in rolling ball game designed to train muscle motor neurons children aged 4 years and above. The game is made by using augmented reality technology that games look more real. In playing this game, the game is designed so that players can interact directly with the virtual ball, euler matrix is used as a control game. The game is designed to be in control permainanya using marker or markers that have been provided.

The game is connected with real-time camera that can recognize markers that have been designed. In the introduction of the marker or markers games built using IN2AR then created using papervion3D game objects that will appear above the marker provided. Game consists of a field maze, in the maze, there was 1 balls as a player. Collision detection between the ball and the ball and the ball and the wall of the maze using collision detection techniques in jiglibFlash. This game will detect the movement of the marker so that the ball will move mengelinding to finish the game missions. Movement control using these markers using euler matrix techniques.

Based on the results of testing that has been done, the implementation of augmented reality technology on the rolling ball game can run well. As for making this game as a game that can train children develop fine motor neurons need more in-depth research in the field of child psychology to prove this game can improve children's intelligence level or contrary.

Keyword*: Fine motor: Augmented reality; Papervision3D; Euler; Real-time; collision detection; jiglibFlash*