ABSTRACT

The game has various genres, one of which is horror. The horror game adopts a third-person side-scrolling perspective and is equipped with Dynamic Difficulty Adjustment to prevent monotony and adjust the difficulty level of each level. By leveraging player emotions and the Dynamic Difficulty Adjustment system, the game's content remains engaging and adapts the difficulty level based on the player's performance.

This research aims to enhance the quality of horror game players' experience by adjusting the obstacles present in the game levels. The adjustments are made by analyzing the facial emotional data of players during gaming sessions. The methodology employed in this research is the waterfall model, where all processes must be carried out sequentially, starting from the basic game creation to processing data from the MoodME library, followed by White Box and Black Box testing. The game is evaluated using a questionnaire given to players who have experienced the game with adapted obstacle designs. The questionnaire design includes collecting data on how well the game can adapt obstacles to the player's performance and the attractiveness of the designed game.

Based on questionnaire data from 27 individuals, 100% of players agree that someone's emotions can be read through facial expressions. According to player data who successfully completed 1 level, with a total of 18 players, 44% agree that obstacles with a 'Beginner' difficulty score become easier in the next level. Players who achieve an 'Expert' score on a specific type of obstacle agree that the difficulty of that type of obstacle increases, with a percentage of 55.6%. Meanwhile, 47.4% of players agree that obtaining a 'Normal' score, the generated obstacles maintain their difficulty level and progressively become more challenging linearly until the player achieves a 'Beginner' or 'Expert' score, at which point adjustments are made again.