

Dental Treatment Orientation for Children using Role Playing Game

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Abstract—Dentistry is the act of practicing the diagnosis, prevention, and treatment of diseases, injuries and disorders of the teeth and surrounding structures of the oral cavity. Some children get too anxious at the mention of dental treatment as well as lack awareness about the importance of dental health making dental visits hard work. The goal of the developed game is to help the children reduce their fear of going to the dentist by demonstrating the procedures via enjoyable orientation using the Role Playing Game. Modified Waterfall Model has been chosen as the methodology for this project thus the project development was flexible as few tasks were conducted concurrently. Game elements such as challenge, rule, reward, theme, and progress are employed in the game. The genre of the game is Role Playing Game where the player controls a character to accomplish a few missions during their trip to the dentist. Usability testing for the developed game involves six participants. The result of the test shows a positive result as most of the participants enjoys the game and satisfied with the content of the game stating that this game managed to reduce their anxiety about going to the dentist. However, the majority of the respondents requested more missions and mentioned that the instruction in this game can be quite unclear. Further enhancements can be added to the game like adding multiplayer function and character customization features. To conclude, the game has been successfully designed, developed and tested therefore achieving all the objectives of this project.

Keywords—*role playing game, game mechanism, dental treatment, anxiety, children*