NIEARA: GAMIFIED LITERACY APP FOR CHILDREN WITH LEARNING DISABILITIES

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NieAra is a literacy mobile app that holds true to the primary purpose of promoting vocabulary acquisition for children with learning disabilities such as dyslexia. Derived from the Swahili word of "niara", which means with utmost purpose, NieAra aims to assist children in the process of recognizing letters and words formation. The application is designed and developed based on theoretical foundations of gamification and language acquisition in aiding the learners to learn words effectively beyond the "fun" factor. It uses several localised metaphors in creating suitable learning paths for learners to learn words as they complete well-designed learning missions. As they complete each mission, they are able to learn multiple sets of contextualised words. In addition, the review of previous similar games shows that limited considerations were given in incorporating a learning analytics component. In NieAra, however, parents would be able to track their child's learning through a visualized map with specific details of the child's performance in each level. For example, parents can identify which letters their child have problems recognizing. The game will then provide more options for practice with meaningful drills.

Through the gamification approach, the app contains missions for children to master specific sets of skills. Each mission focuses on specific learning content as follows:
Mission 1: Waterfont Wheelers - Matching confusing letters
Mission 2: Darul Hana Disks - Matching words and pronunciations
Mission 3: Cats Conquest - Joining words to form simple sentences
Mission 4: Merdeka Moves - Pictorial descriptions
Mission 5: Grand Finale - Writing a short paragraph

The app is in its final phase of development with more levels to be incorporated. Further evaluation is also being conducted to check on its effectiveness.