ABSTRACT

Digitalization has accelerated technology application in every field, including health sector. High rates of underweight, stunting, and wasting in Indonesian children encourage efforts to reduce malnutrition problems. One method to assess nutritional status is using anthropometry, which measures human body dimensions. Anthropometric measurement standards use z-score values as references for nutritional status thresholds according to PERMENKES RI. This research aims to develop mobile applications supporting nutritional health education and monitoring nutritional status in Indonesian children. The method used is extreme programming, which is flexible and fast in handling feedback during development. Application development uses React Native framework, enabling operation on two different operating systems in one development, and utilizes Firebase for data storage. The application scope includes collecting children's anthropometric data, developing nutritional status calculation and monitoring systems, and providing nutrition education information. This application is designed for all Indonesian citizens, including nutrition students, health workers, and general public. Based on valid black box testing results conducted in each iteration and user acceptance testing achieving 83.5%, this application implementation has proven to simplify nutritional status calculation process and determine daily nutritional intake requirements while enhancing nutritional literacy within communities. The application successfully serves as effective tool for supporting children's nutritional status monitoring and promoting public awareness regarding balanced nutrition importance. The research demonstrates that mobile technology integration can significantly improve nutritional health management in Indonesia, providing accessible solutions for addressing malnutrition challenges while empowering communities with essential nutritional knowledge.

Keywords: *Child Nutrition Status, Nutrition Education, Anthropometry, Mobile Application, Extreme Programming, React Native*