ABSTRACT

The assessment of children's development is a crucial component in early childhood education to monitor growth and learning achievements periodically. At PAUD Ainun Habibie Semarang, this process is still conducted manually, where teachers create separate documents using a word processing application after class hours. This practice is ineffective as it risks omitting important observational details and is inefficient due to the repetition of student data in every document. This research aims to develop an Android-based student assessment application for teachers at PAUD Ainun Habibie to simplify the assessment creation and monthly report management processes. The application development applies the ICONIX method, which includes the stages of requirements gathering, analysis design, detailed design, and code implementation using Flutter for the front-end and AdonisJS for the back-end, as well as functional testing with black box testing. The research results show that the assessment application was successfully developed and functions well, enabling teachers to manage student data, create four types of assessments—anecdotal, artwork, checklist, and photo series—and automatically generate monthly reports, thereby fulfilling the established functional requirements.

Keywords: early childhood assessment, preschool, ICONIX, Android application, software development