

ABSTRACT

Student stress is a common issue that can impact academic performance and mental health if not addressed early. This research aims to design and build a web-based system to help students independently measure their stress levels using Certainty Factor, while the Waterfall Model was employed, development stages included data collection through questionnaires, expert interviews to construct the knowledge base, system design using use case and activity diagrams, interface development with React and Next.js. The system features stress level assessment, assessment result management, authentication, and user and admin dashboards. Testing was conducted using functional and usability tests, demonstrating that all main features operated as expected and achieved an average usability score of 81,94. This system is expected to be a valuable tool for students to practically and structurally recognize potential stress they may be experiencing.

Keywords: *stress level, certainty factor, waterfall model, black box testing, system usability scale*