

ABSTRAK

Beban kerja administratif guru di Raudhatul Athfal (RA) Al-Islam Gunungcupu tergolong tinggi, mencakup penyusunan RPPH, presensi, dan surat resmi yang masih manual. Digitalisasi melalui aplikasi konvensional kerap terhambat oleh rendahnya literasi digital pendidik terhadap antarmuka *Graphical User Interface (GUI)* yang rumit, padahal mereka terbiasa menggunakan aplikasi pesan instan berbasis teks. Berdasarkan kondisi tersebut, diperlukan sistem informasi manajemen administrasi guru dengan pendekatan *Conversational User Interface (CUI)* berbasis *Chatbot* yang terintegrasi dengan *Large Language Model (LLM)* untuk mempermudah operasional sekolah.

Penelitian ini bertujuan merancang, mengimplementasikan, dan menguji sistem AISYA-RA (*Artificial Intelligence System* untuk Administrasi Raudhatul Athfal) berbasis web. Pengembangan sistem menerapkan metode *Agile* melalui tahapan *Plan, Design, Develop, Test, Deploy, Review*, hingga *Launch* dalam tiga iterasi utama. Iterasi 1 membangun fondasi sistem dan *Chatbot* dasar, Iterasi 2 mengotomatisasi modul administrasi inti (RPPH format baku, presensi siswa, dan surat keluar) serta editor visual *Canvas Modal*, sedangkan Iterasi 3 merealisasikan manajemen *Data Master* dan Basis Pengetahuan RAG berbasis GUI bagi Administrator, presensi GTK harian, *Dashboard*, serta deployment ke server VPS.

Hasil *Black Box Testing* membuktikan seluruh modul berfungsi dengan status lulus. Setelah sistem beroperasi mandiri selama 30 hari, evaluasi efisiensi waktu mencatat pemangkasan durasi kerja administratif harian secara signifikan. Pengukuran *System Usability Scale (SUS)* menghasilkan skor kategori penerimaan tinggi, yang membuktikan antarmuka percakapan AISYA-RA berhasil meruntuhkan hambatan literasi digital serta meningkatkan efisiensi tata kelola madrasah.

Kata Kunci: Administrasi Guru, *Agile*, *Chatbot*, *Large Language Model*, Raudhatul Athfal, Sistem Informasi Manajemen.

ABSTRACT

The administrative workload of teachers at Raudhatul Athfal (RA) Al-Islam Gunungcupu is demanding, encompassing the manual preparation of RPPH, attendance, and official letters. Digitalization via conventional applications is often hindered by educators' limited digital literacy regarding complex Graphical User Interface (GUI) menus, despite their familiarity with text-based messaging applications. Therefore, a teacher administration management information system using a Chatbot-based Conversational User Interface (CUI) integrated with Large Language Model (LLM) technology is needed to streamline school operations.

This study aims to design, implement, and evaluate the web-based AISYA-RA (Artificial Intelligence System for Raudhatul Athfal Administration). Software development applied the Agile methodology through Plan, Design, Develop, Test, Deploy, Review, and Launch across three main iterations. Iteration 1 built the system foundation and basic Chatbot; Iteration 2 automated core administrative modules (standardized RPPH, student attendance, and official letters) alongside the visual Canvas Modal editor; while Iteration 3 implemented GUI-based Master Data and RAG Knowledge Base management for Administrators, staff attendance, an executive Dashboard, and VPS deployment.

Black Box Testing verified that all modules operated with a passed status. Following 30 days of autonomous operational use, time efficiency evaluation demonstrated a significant reduction in daily administrative workloads. User acceptance measurement using the System Usability Scale (SUS) yielded a high acceptability category score, proving that the AISYA-RA conversational interface successfully eliminated digital literacy barriers and enhanced madrasah operational efficiency.

Keywords: Agile, Chatbot, Large Language Model, Management Information System, Raudhatul Athfal, Teacher Administration