

CASE 1: Summary

In Ghana, where fewer than 15% of students achieve minimum math proficiency, Rori—an AI-powered tutor accessed via WhatsApp—was introduced to address the shortage of personalized support in under-resourced classrooms. Designed for students in Grades 3 to 9, Rori provides twice-weekly, 30-minute sessions during study hall using shared mobile phones. This mobile-first approach works on low-bandwidth networks, making it viable in contexts with limited infrastructure.

Rori delivers over 500 scaffolded micro-lessons aligned to global math standards. Through conversational AI, it interprets student input, offers hints, gives worked solutions, and encourages metacognitive reflection. Unlike rigid, button-based interfaces, its natural language design fosters active engagement and autonomy.

An experimental study across 11 schools showed that students using Rori achieved significantly greater math gains than their peers, with an effect size of 0.36—comparable to an extra year of learning. The intervention helps overcome challenges common in distance education: lack of feedback, limited access, and learner isolation.

Practically, Rori performs functions such as tutoring, content generation, feedback, and scaffolding—tasks difficult to scale with human teachers alone. Its low cost (~\$5 per student) and ease of implementation mean it could serve broader educational systems, not just individuals. It requires minimal teacher training and fits into existing school schedules.

While the design did not explicitly address long-term safety or fairness, its simplicity and focus on equity position it well for scalable use. For other low-resource settings, including parts of South Africa, such a tool could reshape support for foundational learning—if conditions like mobile access, cultural readiness, and institutional support are in place.

