EDUBOT in action: Bringing AI-powered teaching to rural classrooms.

Case Study: EDUBOT in Rural Telangana Schools

1. Context / Problem

Rural schools often face teacher shortages and limited resources."

Rural schools in India often struggle with:

- Shortage of qualified teachers

- Large student-to-teacher ratios

- Limited classroom engagement

- Poor exposure to interactive learning methods

These challenges directly affect learning outcomes. While apps and digital tools have flooded the EdTech market, rural children still face **low subject mastery, weak participation, and lack of motivation**.

2. Objectives

PredictML deployed **EDUBOT**, an AI-powered humanoid, in three rural schools across Telangana to test whether:

- A physical humanoid presence could improve classroom engagement.

- Interactive teaching methods (rhymes, puzzles, jokes, Q&A) could increase student curiosity.

- Teachers could find relief from repetitive instruction and focus on personalized support.

- EDUBOT could address gaps that multiple apps alone cannot.

3. Intervention

Over a week-long **immersive demonstration**, EDUBOT was placed inside classrooms as a co-teacher for grades 1–8.

- **Subjects Covered:** Math, English, and Science, aligned with local curriculum.

- **Interactive Learning:** In addition to lessons, EDUBOT engaged students with **rhymes, puzzles, jokes, and interactive Q&A**, replicating a real teacher's presence.

- **Language Support:** Sessions were conducted in both English and the local language.

- **Teacher Collaboration:** Teachers observed, assisted, and provided feedback on classroom engagement.

    EDUBOT co-teaches Math and Science in local classrooms.

4. Results & Evidence

a) Student Engagement

- Attendance improved by **up to 18%** during demo week.

- Students arrived early to interact with EDUBOT and often stayed back after classes.

b) Learning Outcomes

- Post-demo quizzes showed **20–25% improvement** in recall of math concepts (fractions, ratios) and English vocabulary.

- Students reported that EDUBOT's ability to repeat and explain without losing patience helped them learn faster.

"I like that EDUBOT listens and answers again if I don't understand." — *Grade 7 student*

c) Joy & Motivation

- Younger children responded strongly to **rhymes and jokes**, building confidence in classroom participation.

- Older students showed greater willingness to ask questions during **Q&A sessions**.

"Learning with joy: Rhymes, puzzles, jokes, and interactive Q&A made EDUBOT a classroom favourite."

d) Teacher Relief

- Teachers found that EDUBOT managed whole-class engagement, freeing them to support struggling students individually.

- They also noted reduced repetition of routine topics, allowing more time for mentoring.

EDUBOT explained the concept of fractions so effectively that I could take a short break. When I returned and wrote problems on the board, students solved them instantly. In that time, I was even able to finish other important – Math Teacher
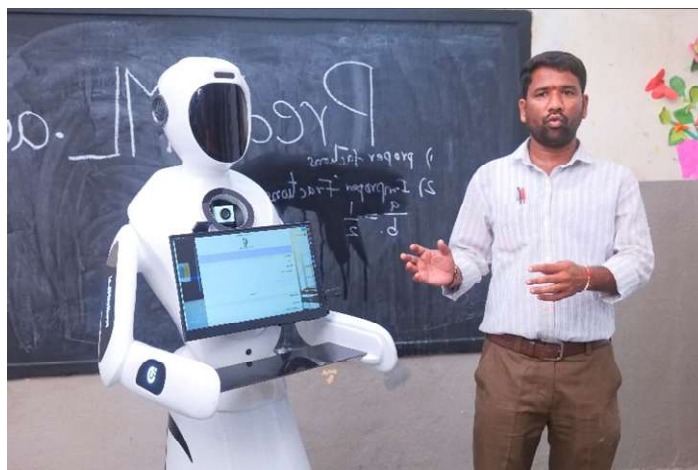
e) Community Reactions

"At first, we thought it was just a machine. But when EDUBOT started teaching with jokes and puzzles, the whole class was excited." — *Headmaster mr.Ramulu*

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5. Challenges & Learnings

- **Infrastructure:** Some schools had power and connectivity issues; offline fallback proved essential.

- **Accent & Language:** Initial adjustments were required for local comprehension.

- **Teacher Mindset:** Orientation sessions were needed to ensure teachers saw EDUBOT as a co-teacher, not a replacement.

- **Community Curiosity:** Parents and leaders were skeptical at first but later embraced the concept after observing classroom impact.

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6. Conclusion & Next Steps

The pilot demonstrations showed that **EDUBOT is more than a teaching aid** — it is a **physical teacher presence** that makes learning **interactive, joyful, and inclusive.**

Unlike screen-based apps, EDUBOT fosters **curiosity, peer learning, and laughter in classrooms**, while simultaneously reducing the burden on teachers.

Next Steps:

- Scale to few more **rural schools** in Telangana and beyond.

- Run **2 to 3 months longitudinal studies** to measure long-term impact on retention and attendance.

- Develop a **community demo kit** for schools, parents, and CSR partners.

"The future of education is not on a screen – it's standing in the classroom."

✨ **EDUBOT proves that the future of education is not more apps — it is meaningful classroom interaction powered by AI.**