



Empowering People and Communities



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NCERT SAHAYAK - AI DOUBT SOLVER

An AI-powered educational assistant that instantly solves student doubts by retrieving information from official NCERT textbooks and generating accurate, cited explanations in the student's native language.

The Reality

260M

Students affected nationwide (Grades 5-10)

₹24,000

Annual tutoring cost per student

24 hrs

Average doubt resolution time

0%

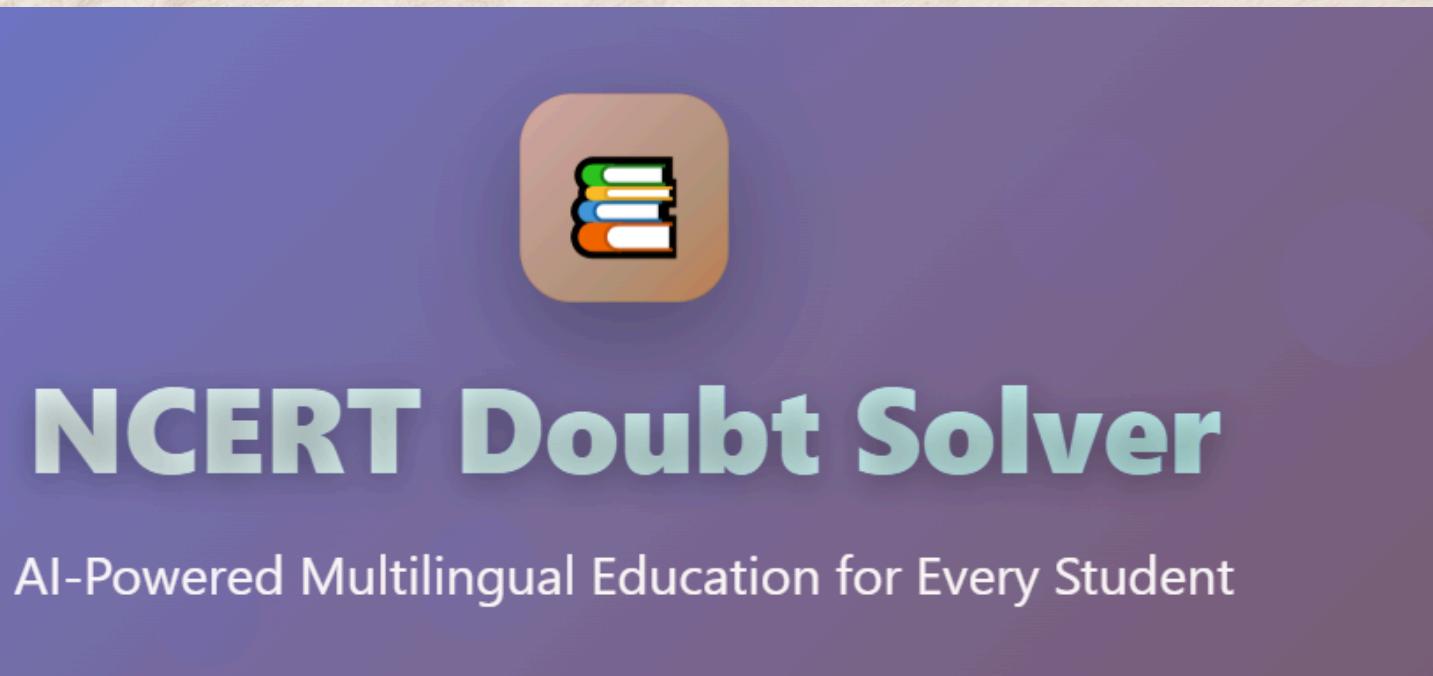
Citation accuracy in existing AI tutors

Problems Faced

- Limited Access to Help
- Language Barrier
- Economic Exclusion
- Unreliable AI Tutors
- NCERT Specific Challenges

How it Helps

- Students type their NCERT-based question into the input box provided
- The AI analyzes the question using natural language understanding to identify the topic and key concepts.
- It searches through NCERT content and trained data to find the most relevant explanation or solution.
- The AI generates a clear, step-by-step answer — often including reasoning, formulas, or examples for better understanding.
- The solution is instantly displayed on the screen, allowing students to clarify their doubts without waiting for a teacher.



Before vs After

Before	After
24+ hours wait for doubt resolution	Instant answers 24/7
₹24,000/year tutoring costs	100% FREE forever
English-only resources	8+ Indian languages supported
AI hallucinations, no citations	Accurate with NCERT citations
Learning gaps keep growing	Confidence & grades improve

Our Solution

Features



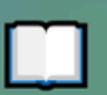
Smart RAG Pipeline

OPEA architecture retrieves exact NCERT content, then generates accurate explanations with citations



8+ Languages

Hindi, English, Tamil, Telugu, Marathi & more. Native language support, not just translation



Citation-First

Every answer linked to NCERT source page. No hallucinations. Builds student trust in AI



Conversational

Multi-turn chat with context memory. Ask follow-ups naturally like talking to a tutor



Adaptive Learning

Adjusts explanation difficulty based on student comprehension level



Voice-to-Voice

Speak your doubt in any language, get spoken explanations back. Accessible to all



Success Metrics

If implemented:

10 million students using it in first year

90%+ accuracy in responses (with citations)

₹6,000-24,000 saved per student annually

50% reduction in learning gaps for rural students

8+ languages supported, expanding to 20+

GitHub Repo :

[https://github.com/bhoomika1705126/NC](https://github.com/bhoomika1705126/NCERT-AI-Doubt-Solver)

ERT-AI-Doubt-Solver



Built with Advanced Tech

OPEA Framework

RAG Pipeline

Vector Databases

OCR + LayoutLM

LLM (GPT-4/Claude)

Multilingual NLP

