Project Name: Smart Stroke: Learn Ease Smart AI Pen

Big Idea: Education and Literacy

Essential Question: How can we bridge the “decoding gap” to transform reading from a passive crutch into active phonetic mastery for dyslexic learners?

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Experiencing the visual jumble

For many dyslexic and ELL students,
reading is not a tool; it is a **chaotic puzzle**.

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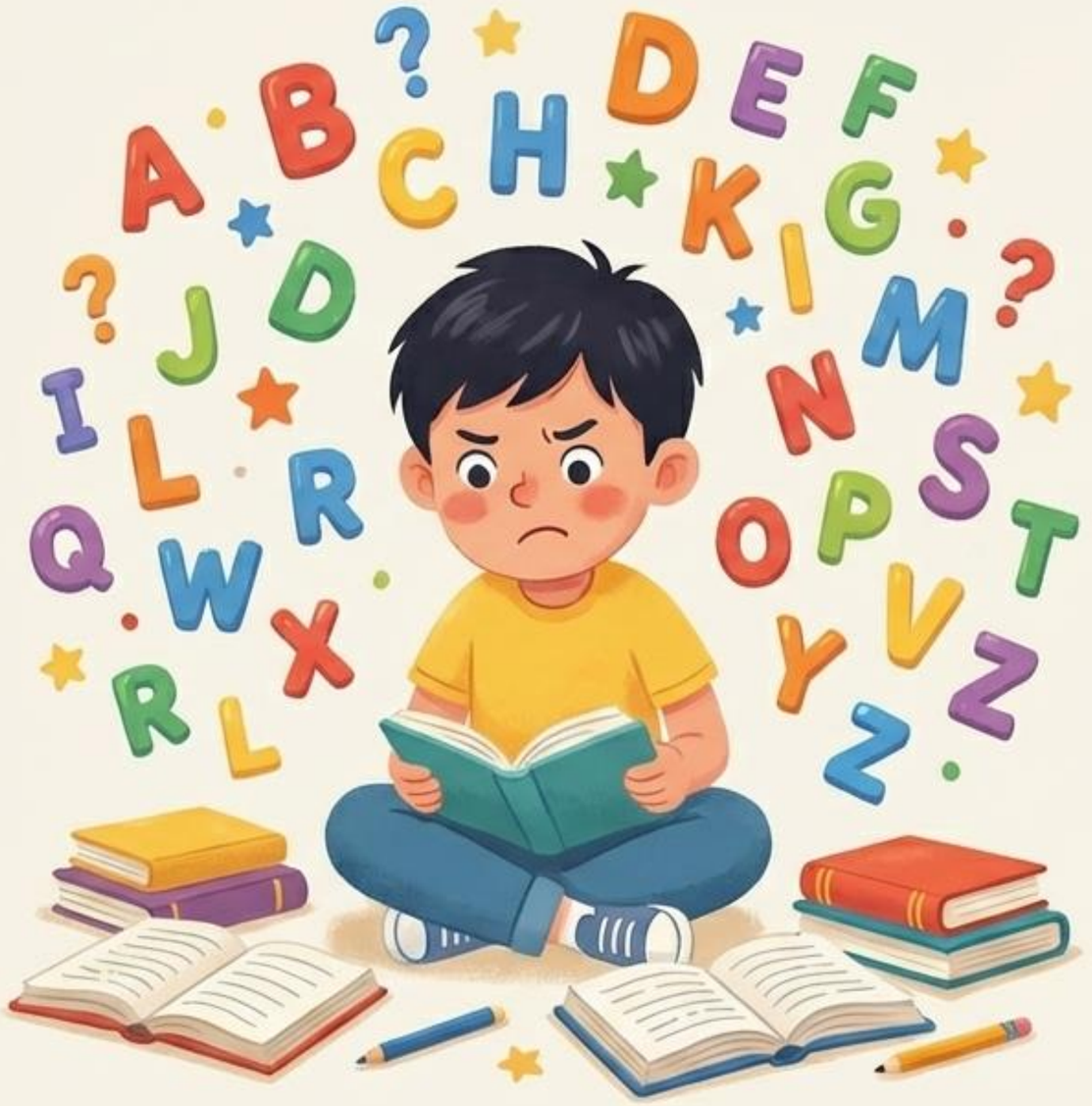
Struggle

The decoding gap isolates the reader

The primary hurdle isn't intelligence; it's the missing critical link between **seeing** a physical word and **hearing its component syllables.**



Dyslexic and neurodivergent students struggle to map visual letters to spoken sounds. This gap turns independent study and homework into overwhelming obstacles.

Literacy becomes a bottleneck for education

The inability to decode leads directly to severe Academic Anxiety.

Classroom Panic

Induces severe anxiety during read-aloud sessions.

Lifelong Barrier

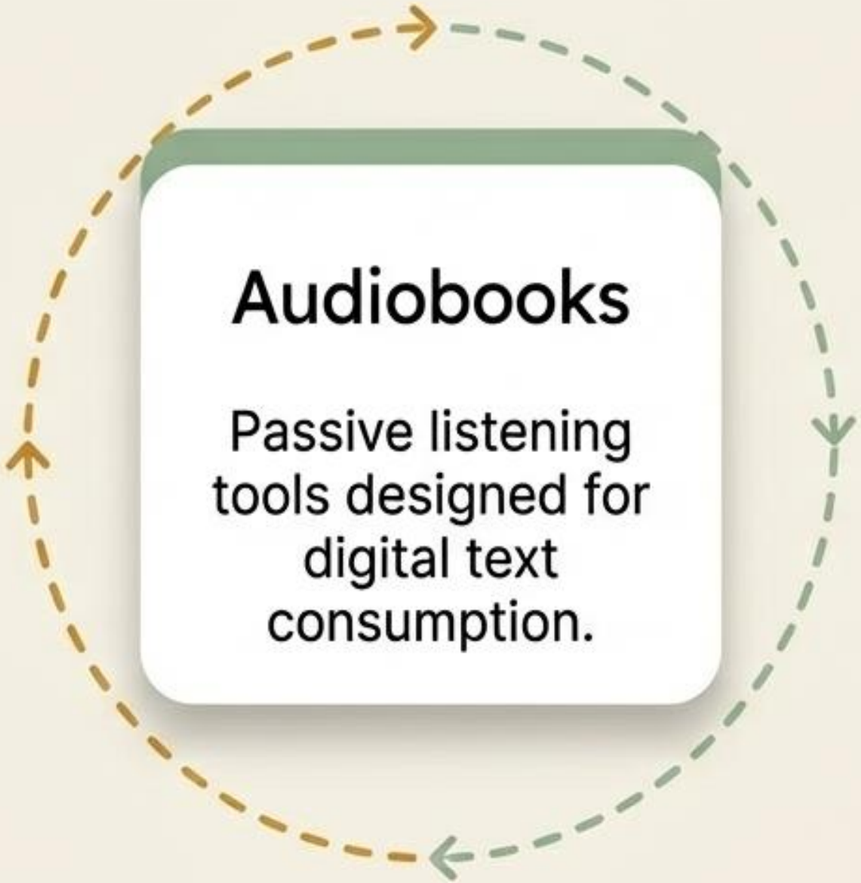
Affects comprehension in every single subject, not just reading.

Heavy Reliance

Creates deep dependence on special education support teachers.

Evaluating the cycle of help

Our investigation evaluated the three primary existing solutions, revealing a plateau in reading progression.



Standard Reading Pens

Devices that simply read full words or complete sentences aloud.

Audiobooks

Passive listening tools designed for digital text consumption.

Colored Overlays

Plastic sheets meant to steady “moving” letters on a physical page.

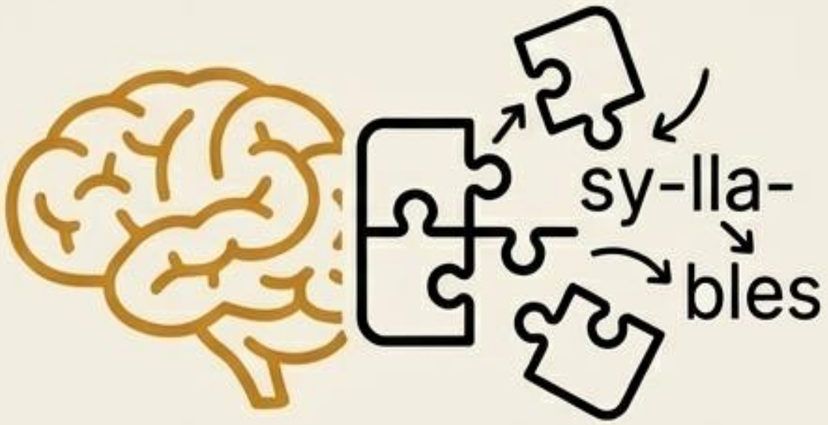
The passive crutch effect

Current tools act as loudspeakers that read FOR you, not TO you.

The Answer

Provides the whole word, keeping the student reliant on audio.

The Formula



Fails to teach phonetic sounds or help the brain break down syllables.

Shifting from passive tech to active learning

Our mission is to transform the reading experience for students who see text as a barrier.

We must **bridge the gap** between visual confusion and phonetic mastery, actively reducing teacher dependency and eliminating reading anxiety entirely.

Meet the Learn Ease Smart AI Pen

An interactive phonetic coach built to build long-term reading independence.

Instead of just playing audio, the pen uses AI to instantly deconstruct scanned words into clear, syllable-based chunks. It bridges the visual-to-sound gap in real-time, turning a confusing wall of text into a manageable learning exercise.

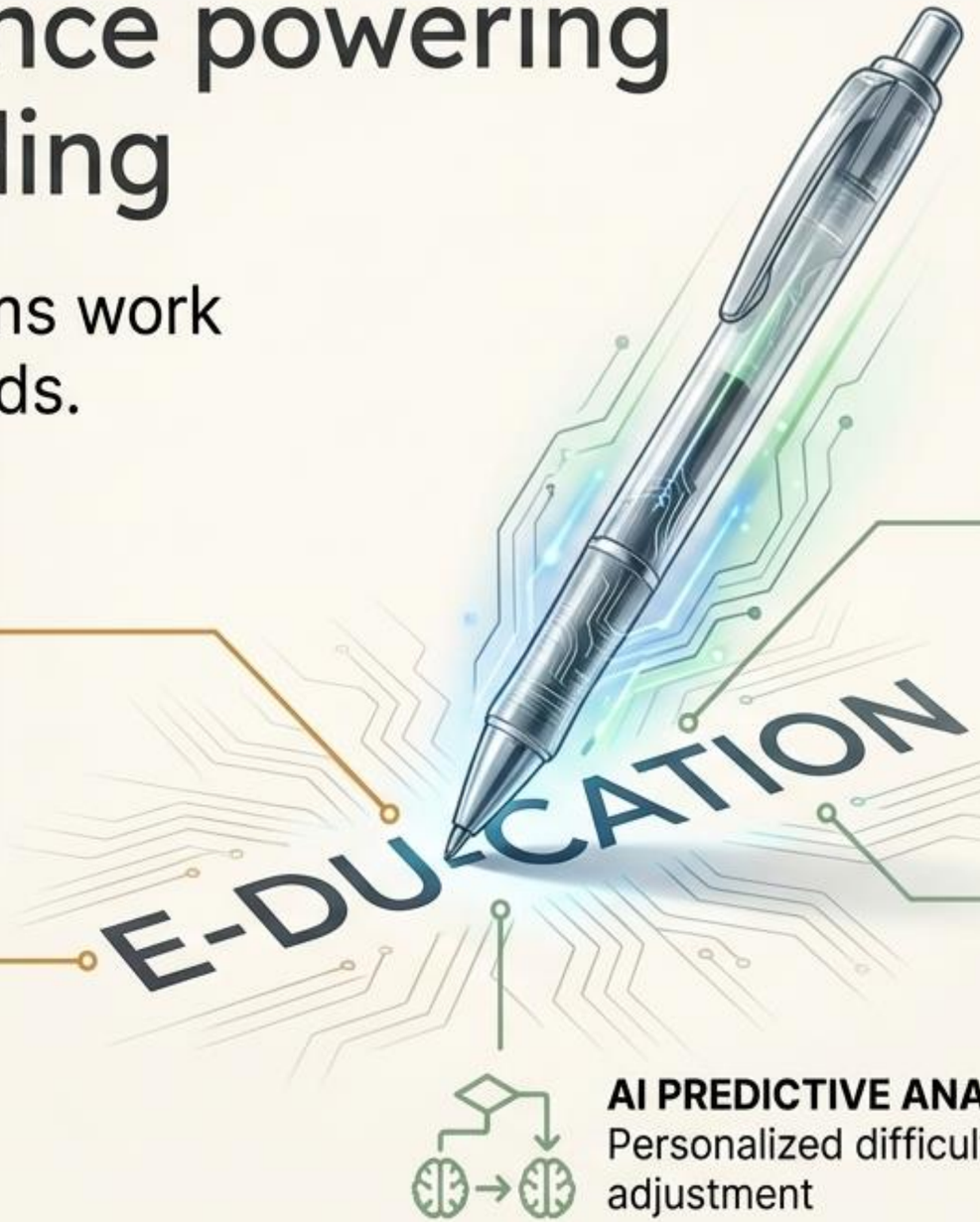
Accessible hardware engineered for the classroom

A look under the hood at the cost-effective, powerful components driving the pen.

Utilizes phone-app integration to offload heavy processing and drastically lower total hardware cost.

The intelligence powering active decoding

Five distinct AI systems work together in milliseconds.



AI VISION (OCR):
Real-time text & handwriting recognition

AI PHONETIC ENGINE:
Automated syllable-splitting logic

AI NEURAL VOICE:
Natural, rhythmic syllable pronunciation

AI PATTERN TRACKING:
Error identification & progress reporting

AI PREDICTIVE ANALYSIS:
Personalized difficulty adjustment

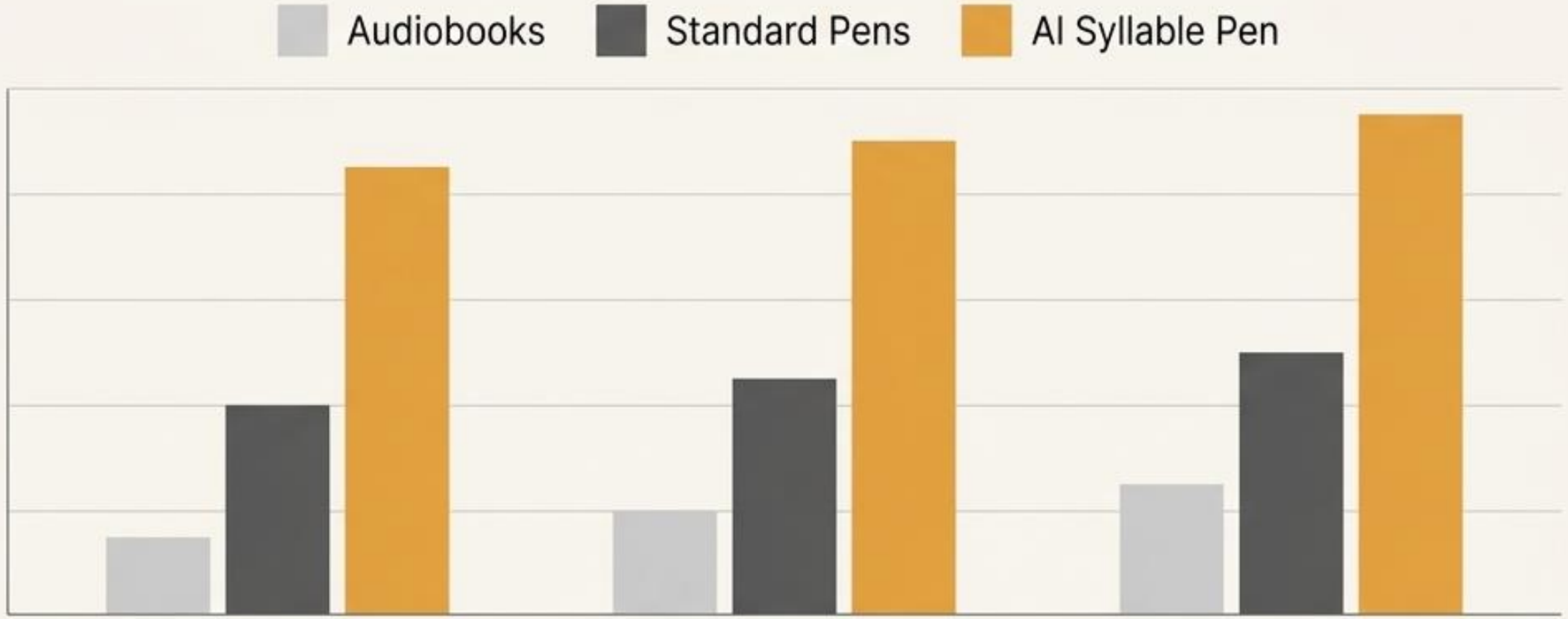
How the AI thinks and teaches

Slicing scary words into breathable chunks.

1. The **AI Phonetic Engine** visually and audibly breaks complex words into phonetic chunks.
2. The **Neural Voice** acts as a human coach, using rhythmic tones rather than flat robotic speech.
3. **Offline Privacy Mode** ensures the pen functions securely anywhere without requiring internet access.

Outperforming standard assistive tools

Active decoding beats passive listening.



While traditional tools plateau because they don't teach decoding, our AI actively increases student phonetic capability over time.

Measuring meaningful classroom success

Real results for students, teachers, and school budgets.

Student Impact

30% increase in the student's ability to read words WITHOUT the pen after 3 months. Higher confidence scores.

Teacher Impact

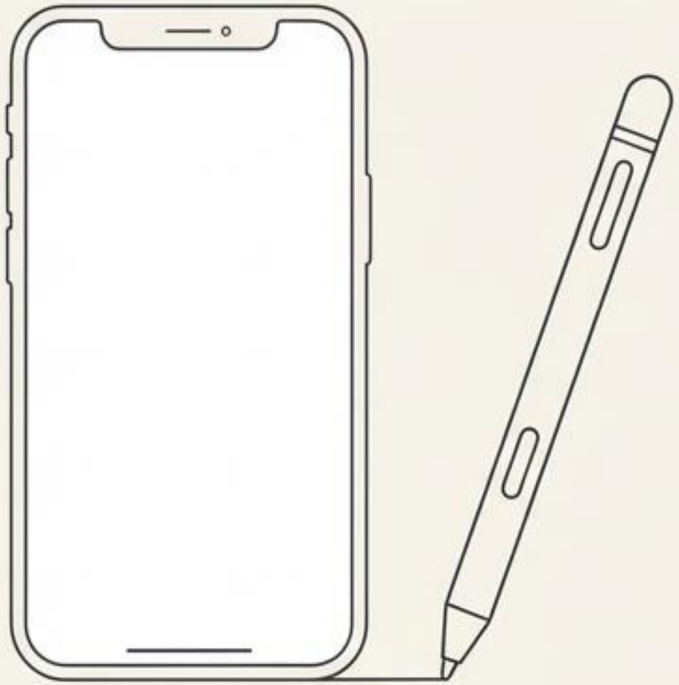
Saves 5+ hours of 1-on-1 time per week. Drastic reduction in times a student asks for help during independent study.

Economic Impact

Lowers educational costs by drastically reducing the need for expensive 1-on-1 human shadow teachers.

Scalability and economic accessibility

Making phonetic mastery affordable for everyone.



Our scaling strategy relies on phone-app integration to process the heavy AI models, keeping the physical hardware costs minimal.

Bulk Price

₹4,500 per unit

Designed for B2B school integration to encourage classroom-wide adoption.

Retail Price

₹5,999 per unit

Designed for direct-to-consumer individual purchases by parents for home study.

The support we need to scale

- **Technology:** We require cloud infrastructure and localized linguistic datasets to adapt the pen for native Indian languages.
- **Social Welfare & NGOs:** We are seeking partnerships to help mobilize the product, raise local awareness, and conduct wider pilot testing with parents.

Empowering every learner, one syllable at a time.