

cARd AI

TEAM: SYNAPTIC



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AR-Based Vocabulary Learning System for Children with Developmental Learning Differences

📍 Syangja / Kathmandu, Gandaki Province / Bagmati Province, Nepal

"Learning that adapts to the child."

Turning physical learning cards into interactive 3D AR experiences with Nepali and English audio, sensory controls, and AI progress tracking.

1. PROBLEM <ul style="list-style-type: none">Children with learning differences in Nepal lack structured, engaging, and culturally relevant learning tools.Static printed cards fail to engage sensory learners, while global AAC tools are English-only and Western-centric.Parents and therapists have no objective way to track progress in word acquisition and retention.	2. SOLUTION <ul style="list-style-type: none">Synaptic pairs physical learning cards with augmented reality to transform abstract vocabulary into interactive 3D experiences.Scanning a card triggers animated 3D models with bilingual (Nepali/English) audio, natural sound effects, and tactile touch interactions.Supports seamless deployment across homes, special education classrooms, and care centers using a simple, routine-based learning flow.	3. UNIQUE VALUE PROP <ul style="list-style-type: none">The first vocabulary intervention system designed explicitly for neurodivergent learners in Nepal.Fuses physical PECS-style communication cards with dual AR visualization, bilingual audio, sensory-friendly toggles, and automated progress reporting.Outperforms English-centric global tools by delivering an affordable, culturally relevant framework tailored to sensory-driven learning patterns.
4. CUSTOMER SEGMENTS <ul style="list-style-type: none">Minimally verbal children aged 3–10 in Nepal.Parents and caregivers in urban and peri-urban households.Therapists, special educators, special-education schools, learning-differences centres, NGOs, and paediatric hospitals.	5. CHANNELS <ul style="list-style-type: none">Therapist and special-educator referrals.Direct partnerships with special schools, centres, NGOs, and paediatric hospitals in Bagmati Province.Website, Facebook groups, influencer partnerships, and social media campaigns.	6. KEY METRICS <ul style="list-style-type: none">Active learning sessions per child per week.Unique words mastered per child.Institutional licences signed and therapist Net Promoter Score.
7. REVENUE STREAMS <ul style="list-style-type: none">Physical card deck sales.App subscription plans paid through eSewa and Khalti.B2B institutional licences, plus grant and donor co-funding to subsidise low-income access.	8. UNFAIR ADVANTAGE <ul style="list-style-type: none">The team already has a shipped prototype in active use by educators, parents, and therapists.Live partnerships with Kathmandu University Health Informatics Lab, Hope Center for Child Development, and Naya Aasha Vidyalaya.A culturally grounded Nepali product built on participatory-design research and local institutional trust.	9. TRACTION & ROADMAP <ul style="list-style-type: none">Early concept stage, pre-revenue and pre-deployment, with a working prototype already shipped.Pilot use is active among 1 educator, 3 parents, and 6 therapists.Next steps focus on converting early adopters, scaling institutional partnerships, expanding content libraries, and securing donor co-funding.

3+

Learning Sessions per Child per Week

1

Prototype Already in Active Use

20-60

Families Served per Institutional License

NPR 1,000

Starting Cost for a Card Set

WHY NOW?

- Families in Nepal still lack affordable, structured tools for early intervention in developmental learning differences.
- Existing AAC and learning tools are either too generic, too expensive, or not culturally relevant.
- With growing awareness and institutional partnerships, this is the right time to bring structured AR-based learning into homes and special schools.

OUR STRATEGIC MISSION

To make early vocabulary learning engaging, culturally aligned, and measurable for neurodivergent learners in Nepal by adapting digital tools to match each child's unique sensory and learning profile.



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