Find-n-Speak

Language Building Thru Play

Introduction

In 2020, 1.3 million children in the US were eligible for speech and language therapy. Today, this number continues to increase due to the rise in Autism diagnoses and the spike in language delays due to the isolation of the COVID shutdown.
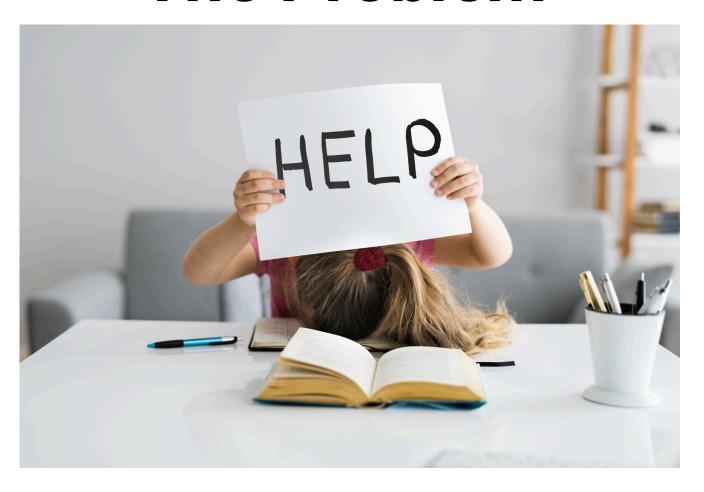
The Problem

A child's ability to understand and respond to language impacts their quality of life, determining the level of independence they can have in life and how they connect with those in their community.

These children are ten times more likely to experience adverse socioeconomic outcomes, such as less education, poorer health outcomes, and higher poverty rates, than other kids.

The Problem

01 Resource Constraints

Schools have limited budgets and cannot afford to hire adequate resources to support language development.

02 Speech Therapist Shortage

There is a critical shortage of qualified speech therapists, with many choosing to work in eldercare facilities instead.

03 Educational Equity

Disparities in access to language support services contribute to wider educational inequities, particularly for students with disabilities and those in low-income communities.

Our Solution

An interactive scavenger hunt that gives children an opportunity to practice language understanding and expression with two simple actions:

- Our app requests that the child finds a specific item based on a category (color, shape, sound, texture)
- Our app asks the child to describe the objects they find with their own words.

Why a Scavenger Hunt?

Language Understanding

INSTRUCTIONS

By correctly interpreting instructions, a child can improve their listening comprehension skills.

FEEDBACK

Our app provides immediate feedback to the child helping them connect the instruction to their response.

Language Expression

VOCABULARY

During the game, students will be asked to find various types of objects which helps to increase the child's vocabulary.

INTERACTION

Encouraging the child to use their voice to describe the object they've found allows them to practice their language expression.

How Does It Work?

Vision

- The child is asked to find an object (e.g., Find something red").
- The child submits a picture of their object.
- Our app uses a vision model to identify the object and its color.

Text Comparison

- The model's output and the initial request are sent to **Falcon** to evaluate if the child's response was correct and to generate a short description of the object.
- Our app responds to the child based on the outcome from Falcon.

Text Generation

- The child is asked to describe the image using their voice.
- Our app uses a speech-to-text model to convert their answer.
- This information is sent to **Falcon**, along with the previous information, to generate a response.

OUR AUDIENCE

Parents are deeply invested in their children's development and education. As primary caregivers, they are acutely aware of the challenges their children face and are the ones who constantly worry about their child's future.

Our Team

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