Nexia

You're not limited; you just need our personalized system to unlock your super powers :)

TEAM MEMBERS

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Team Leader

has a track record of internships, experience in fullstack engineering

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Backend & AI

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INTRODUCTION

Google
Learning challenges
All
Images
Videos

Google

Learning Challenges

Back to Results

All filters | Tools | SafeSearch

Touch-type Read and Spell (TTRS)
https://www.readandspell.com/types-of-learning-difficulties

5 Types of learning difficulties and how to help - Touch ...

1. Dyslexia. Dyslexia is one of the most common learning difficulties - also ...
2. Attention difficulties. Attention deficit disorder (ADD) and attention deficit ...
3. Dysgraphia. Children who struggle with dysgraphia have a hard time with ...
4. Dyscalculia. As opposed to dyslexia and dysgraphia which are both language ...

See full list on readandspell.com

Dyslexia # Difficulty Of Learning A Language # **Learning** Problems **In School**

Verywell Mind
https://www.verywellmind.com › learning-disabilities-t...

Learning Disabilities: Types, Causes, Symptoms, and ...

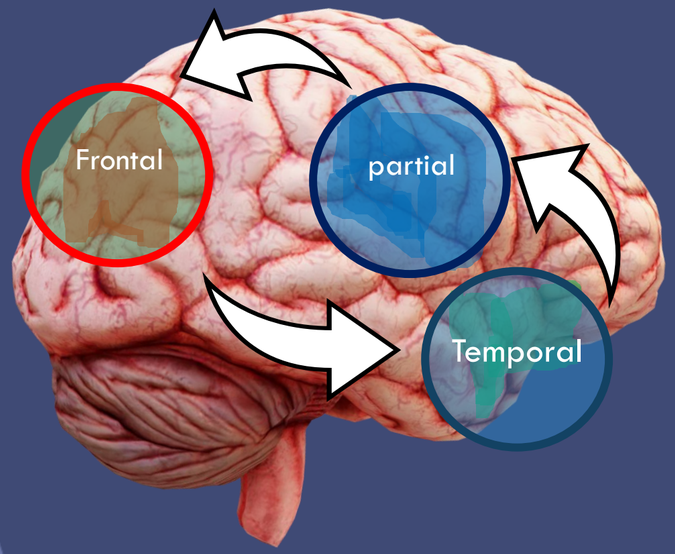
30 Aug 2022 — Types of **Learning Disabilities** ... Dyslexia: Dyslexia is the most common **learning disability**, accounting for 80% of all **learning disability** cases.

Centers for Disease Control and Prevention (.gov)
https://www.cdc.gov › ncbddd › learning-disorder

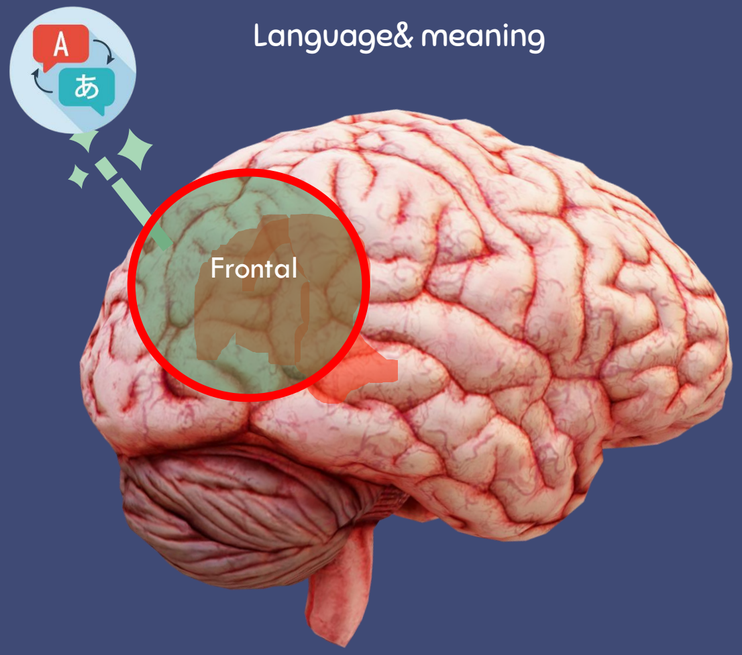
Learning Disorders in Children | NCBDDD

26 Jul 2022 — **Learning Disorders** in Children · Dyslexia – difficulty with reading · Dyscalculia – difficulty with math · Dysgraphia – difficulty with writing.

Typical Learner

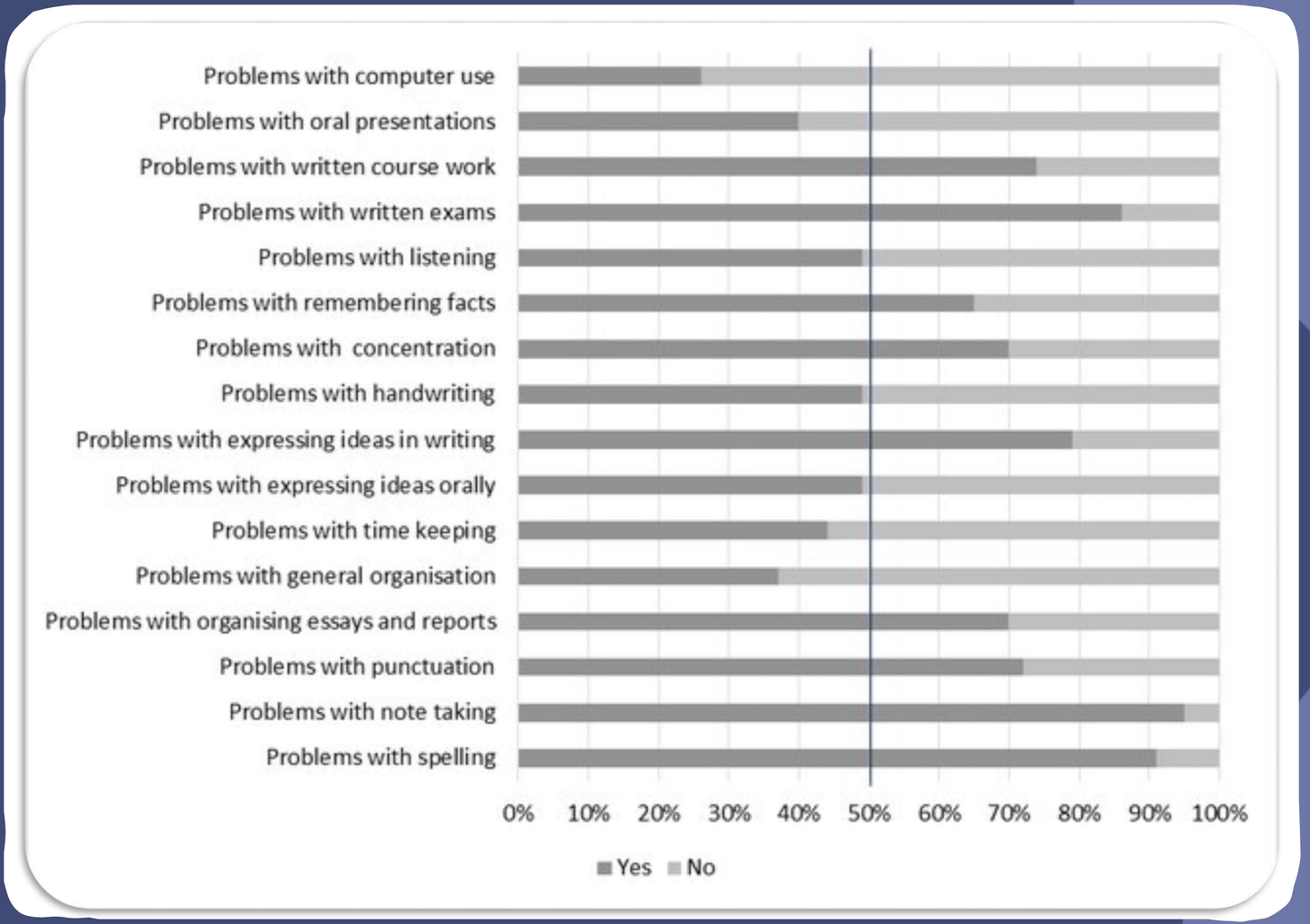


Dyslexic Learner



Negative effects of dyslexia on educational aspects

Research indicates that children with dyslexia and language-related disorders often face significant challenges across various domains of education and learning

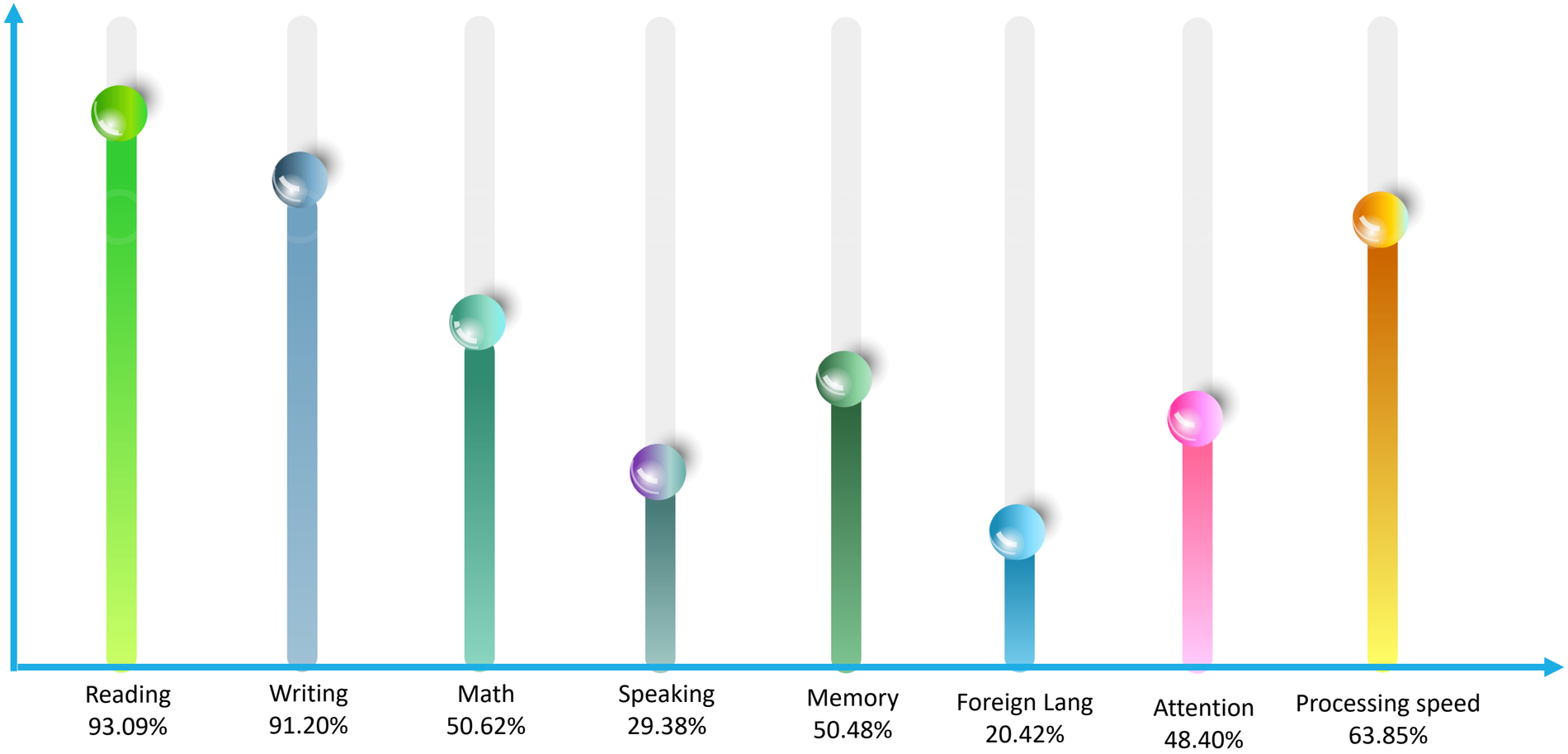


SURVEY

- Publishing Date: 2022
- Total Responses: 4633
- Done in: Public & Private schools
- participants: 92% parents, 9% teachers, 4% other professionals, 7% other

SURVEY

Q14: My student has challenges with:

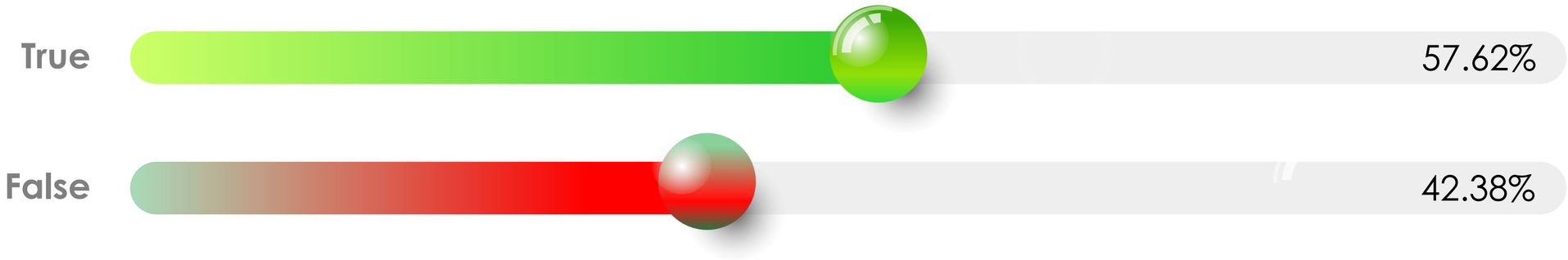


SURVEY

Q22: My student's teacher was prepared to teach dyslexic students.

SURVEY

Q40: My student was not taught at his/her appropriate intellectual level



PROBLEM STATEMENT

Are Traditional Language Tests Sufficient for Assessing Children's Potential in Learning a New Language?

- Shen & Park (2020); using reading speaking questions are not enough for assessing kids' language capabilities
- They recommend a comprehensive approach for understanding kids' language abilities as they might have disorders

Problem statement

- Children with language, reading disorders encounter challenges in education, hampering their ability to excel and achieve good grades

Without tailored educational intervention strategies, these difficulties persist into adulthood

Consequently, the productivity of the population suffers as a result of these unaddressed issues

Problem statement

Moreover, the repercussions extend beyond academics and seep into various facets of their lives. The stress can:

- disrupt their sleep
- This turmoil may escalate into depression
- further eroding their self-esteem

Problem Statement

Problems

Diagnosis now targets dyslexia subtypes, not just the binary classification issue.

Inadequate support for dyslexic individuals in education

Interactive education through engaging games and activities is overlooked.

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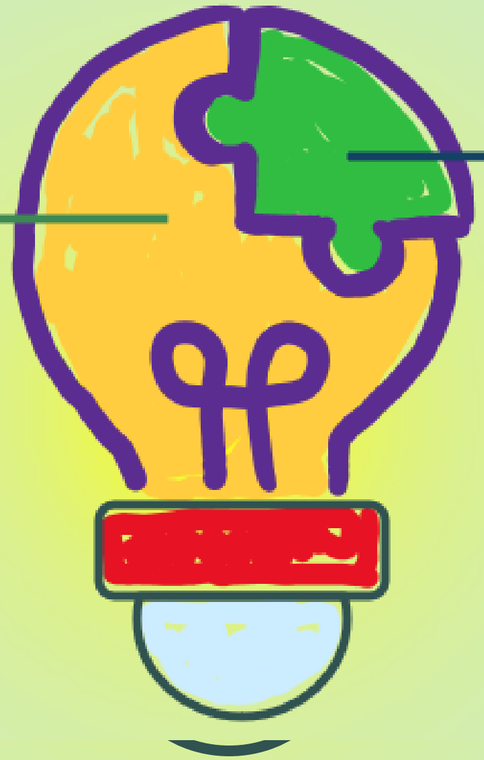


Solution

Diagnosing & category reporting

Customized recommendations for each case

Interactive environment with feedbacks

OBJECTIVES

Our Aim

Making the world more fun and interactive while personalizing the environment for kids! Studies showed that:

- Technology
- 1 to 1 tutoring
- Fun activities

help!

Let's take a closer look at our objectives

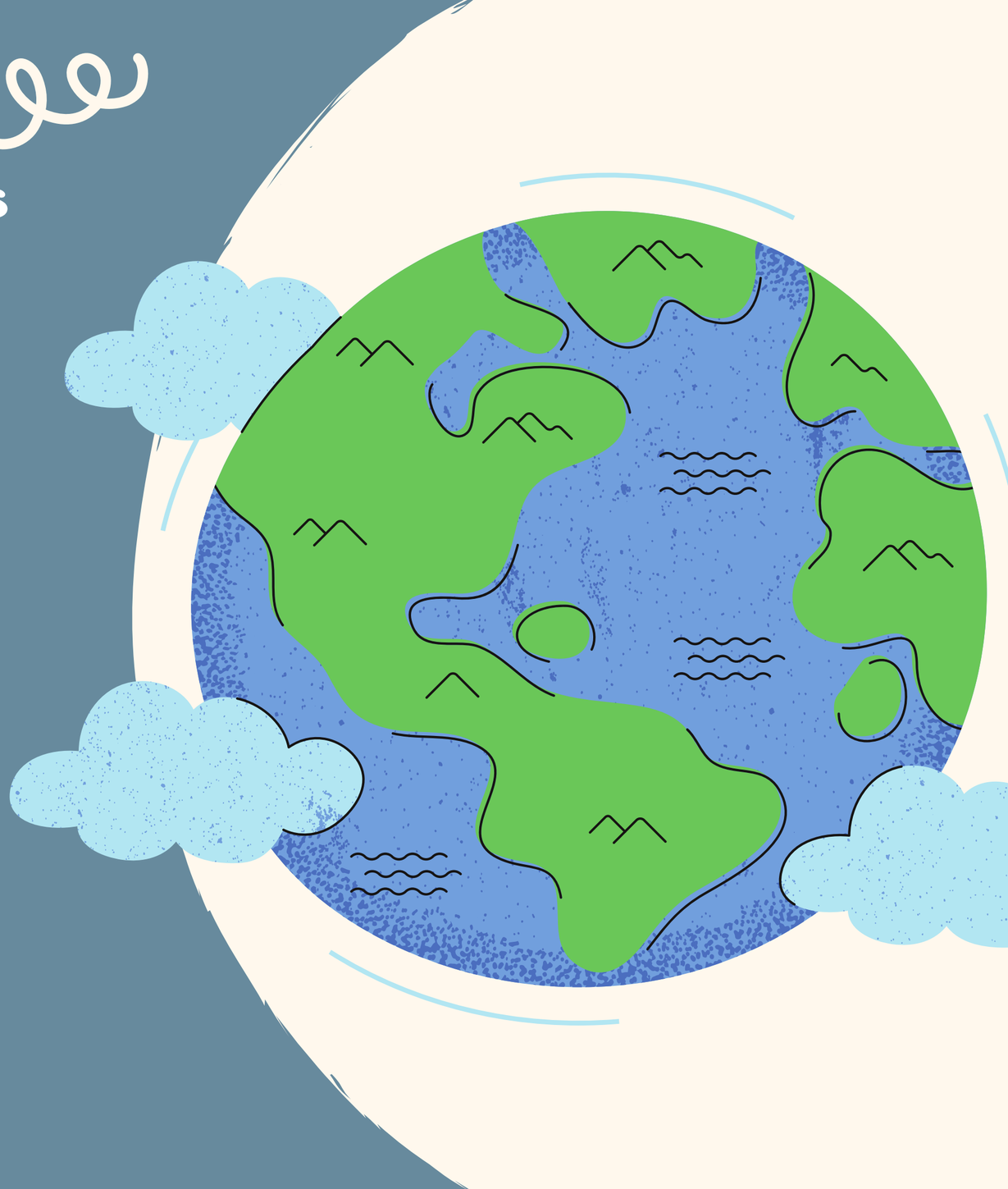
Our Objectives

Uncertainty about having specific areas of weaknesses caused by the disorders they have	Address and classify reading and linguistics challenges in children through a screening test
Lack of guidance on the specific areas of weaknesses	Generate detailed reports to guide users on actions and strategies for addressing identified challenges
Limited availability of personalized educational resources tailored to individual needs	Generate personalized games and activities for tutoring sessions based on the child's case

Sustainable Development Goals

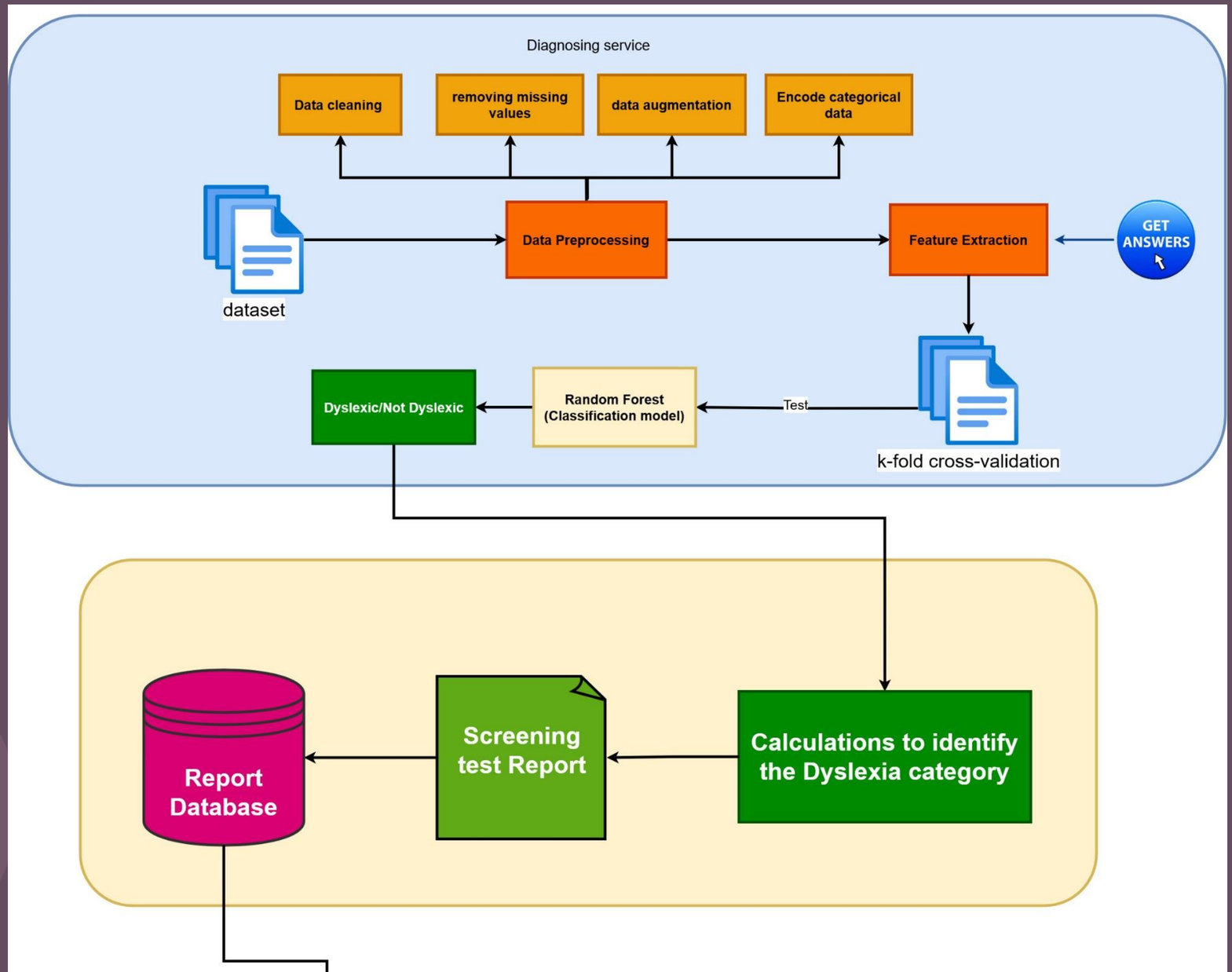
Our Solution targets **3** of the UN sustainable development goals

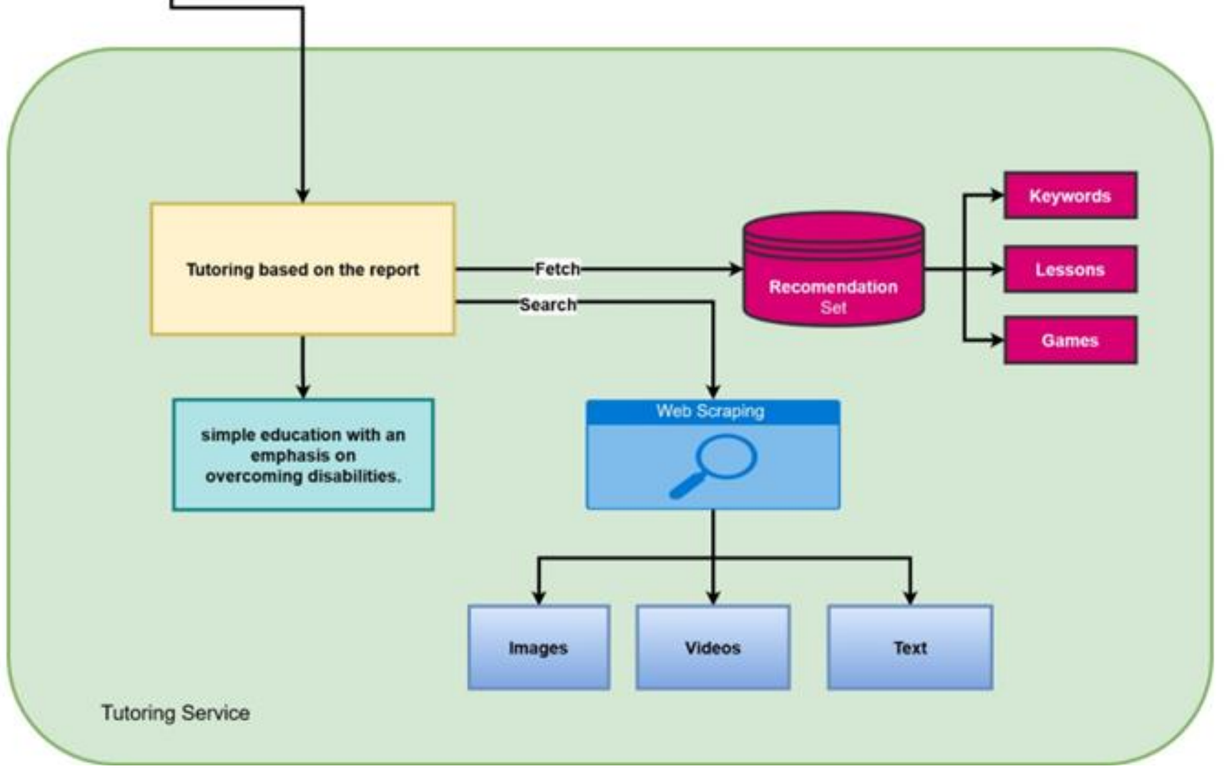
- **Education** by 80%
- **Health** by 20%
- can also be considered targeting **“Reduced Inequalities”**



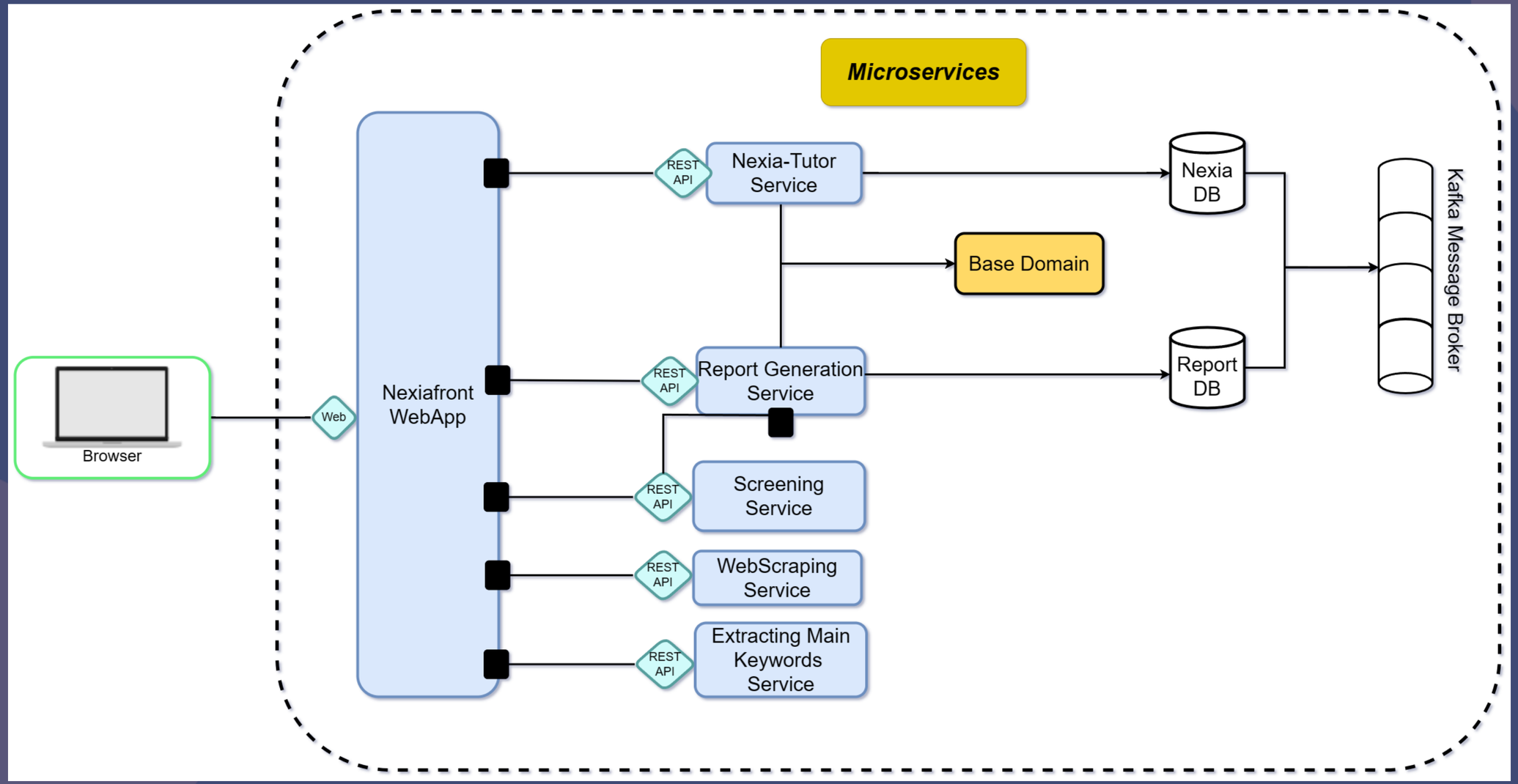
SYSTEM OVERVIEW & TECH STACK

System Overview




Tutoring based on the report
Fetch
Search
Recomendation Set
Keywords
Lessons
Games
simple education with an emphasis on overcoming disabilities.
Web Scraping
Images
Videos
Text
Tutoring Service

Architecture Diagram



AI Technologies used

BERT

Web Scrapping

APIs

Text - speech

Speech - text

Dall-E

Software Technologies used

Spring Boot

For BackEnd
API services

Flask

For AI API
services

NextJS

For Frontend
UI service

PROSPECTS

Prospects

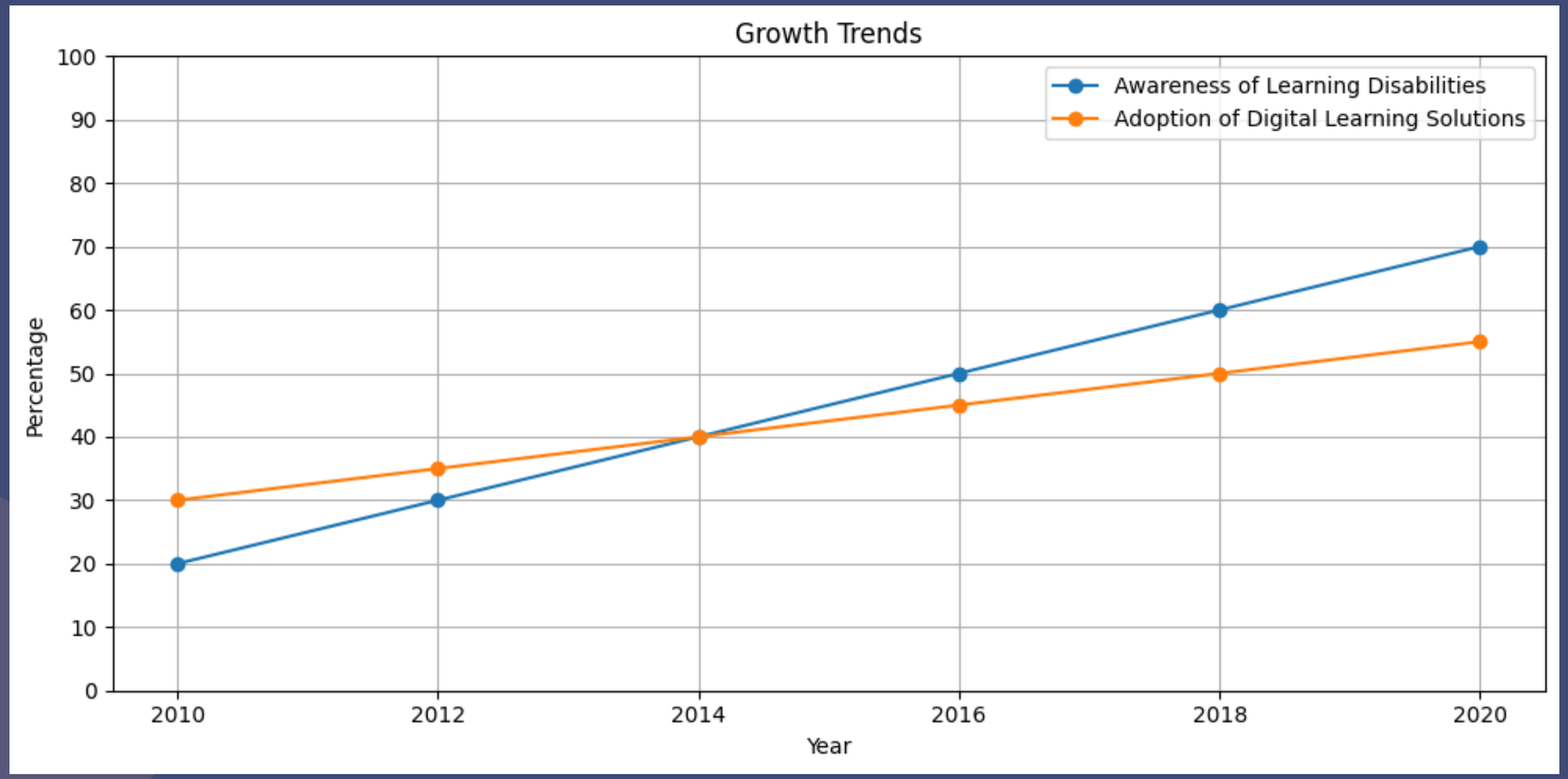
Prospects:

Education Sector: Schools, learning centers, and educational institutions can integrate Nexia Tutor to support students with learning disabilities.

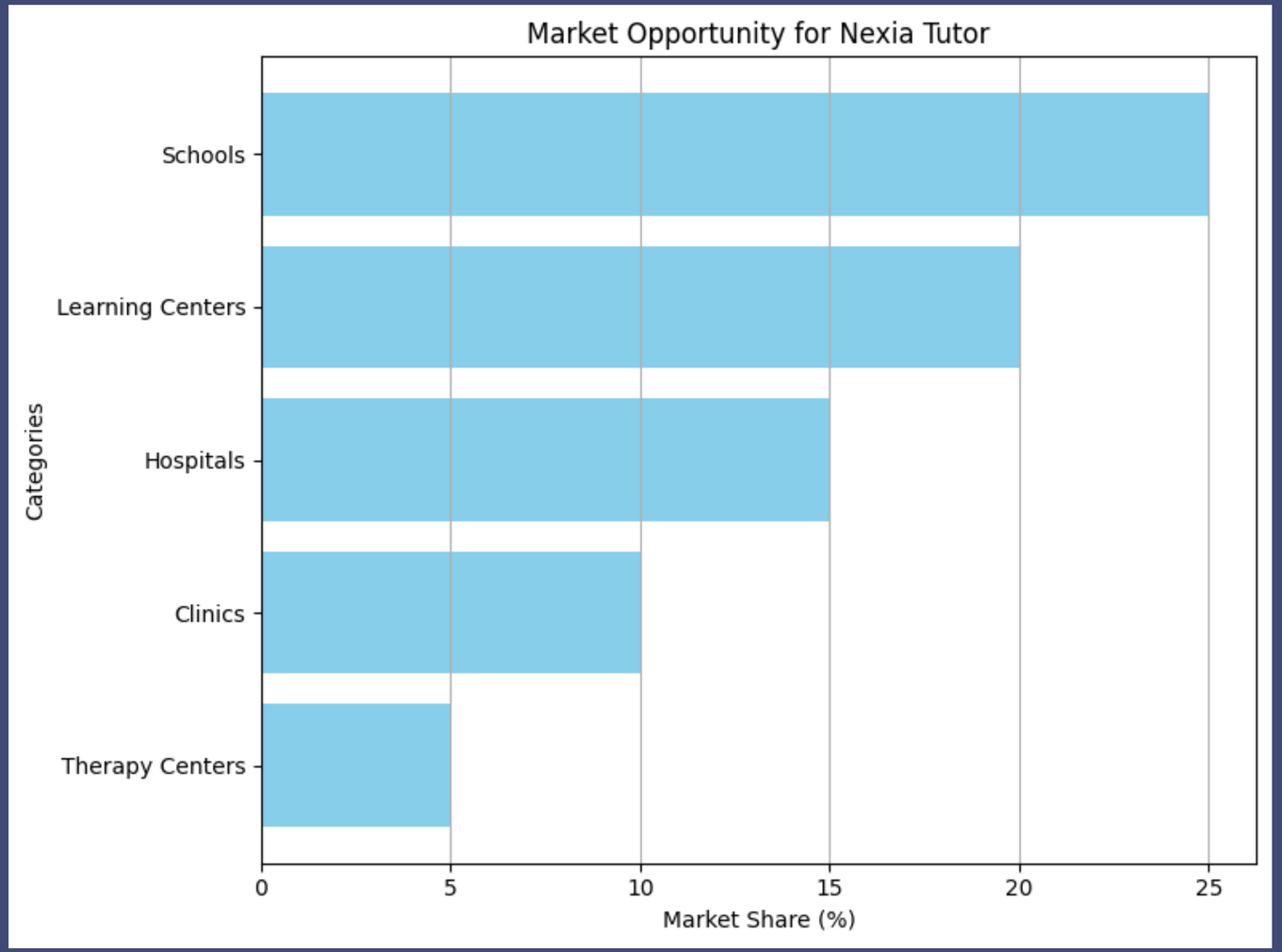
Healthcare Sector: Hospitals, clinics, and therapy centers can utilize Nexia Tutor as part of their intervention strategies for individuals with learning disabilities.

MARKET OPPORTUNITY

Market

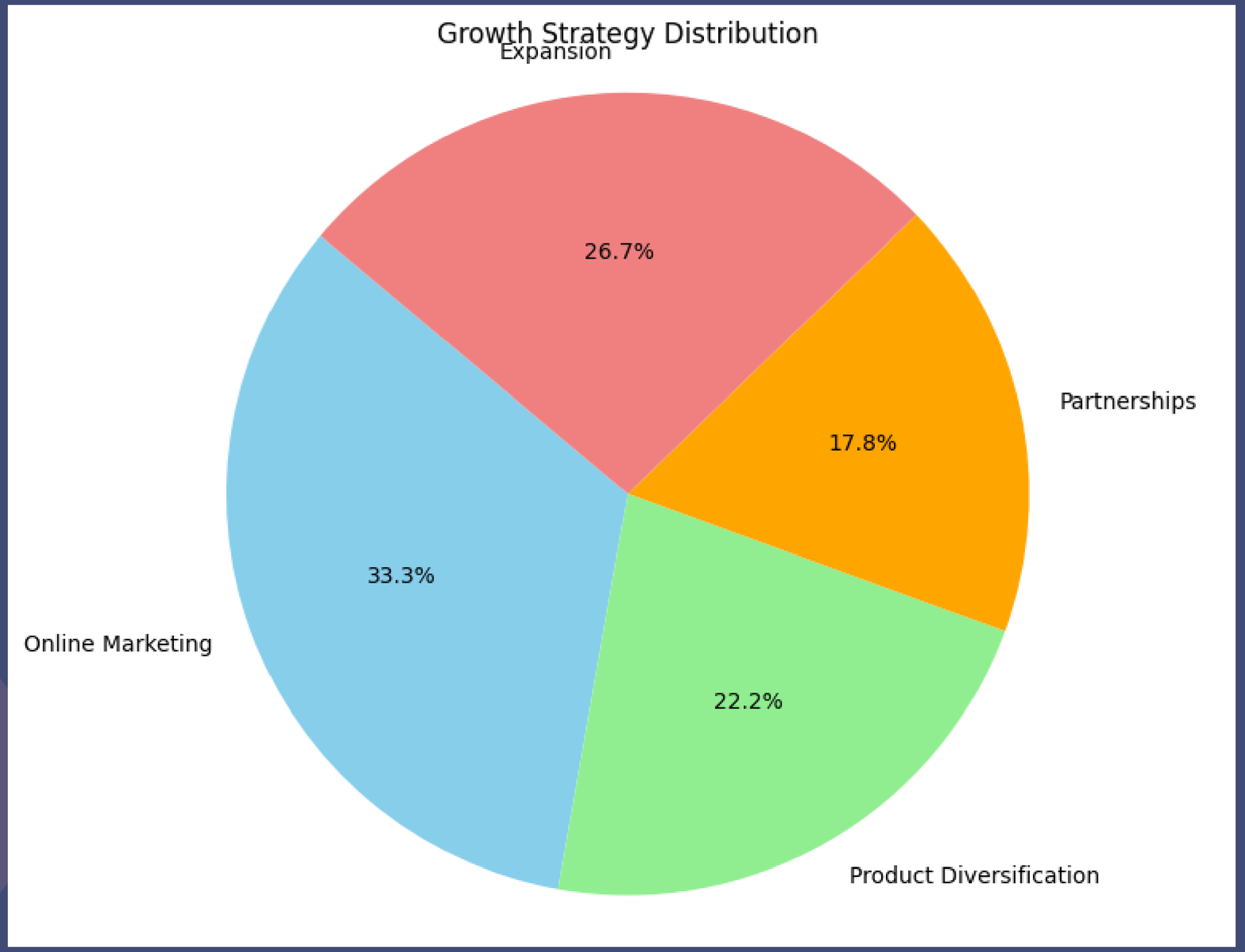

Growth Trends
Awareness of Learning Disabilities
Adoption of Digital Learning Solutions
Percentage
Year
0
10
20
30
40
50
60
70
80
90
100
2010
2012
2014
2016
2018
2020

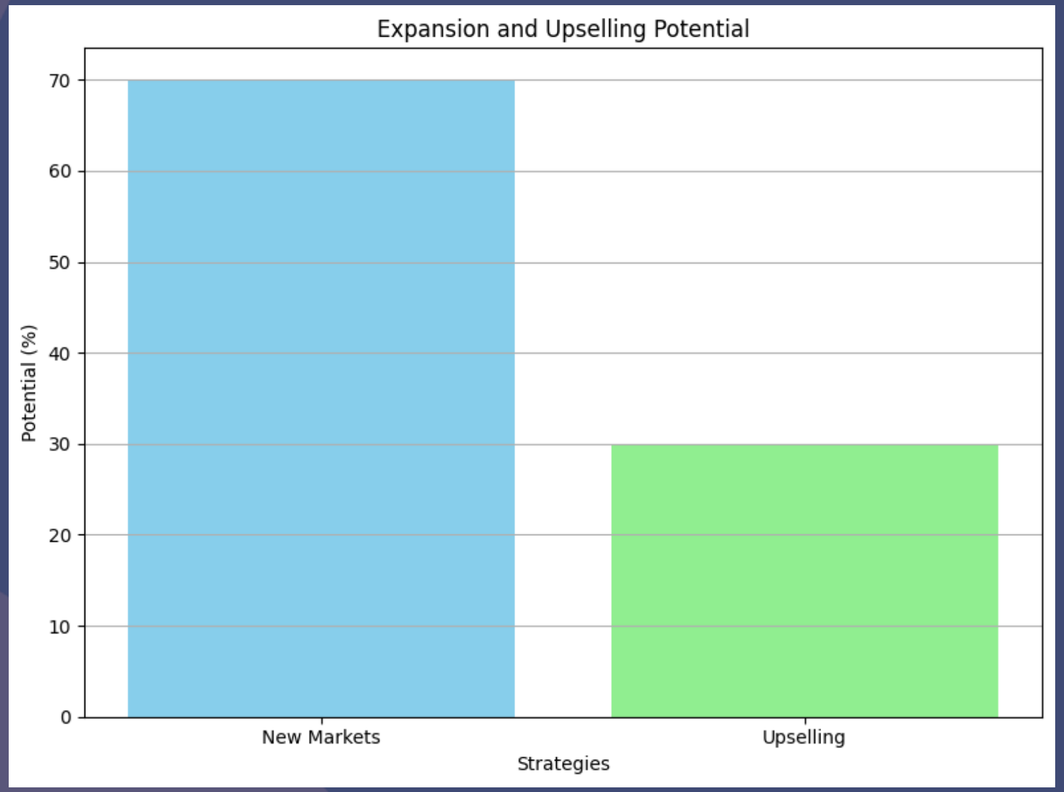
Market

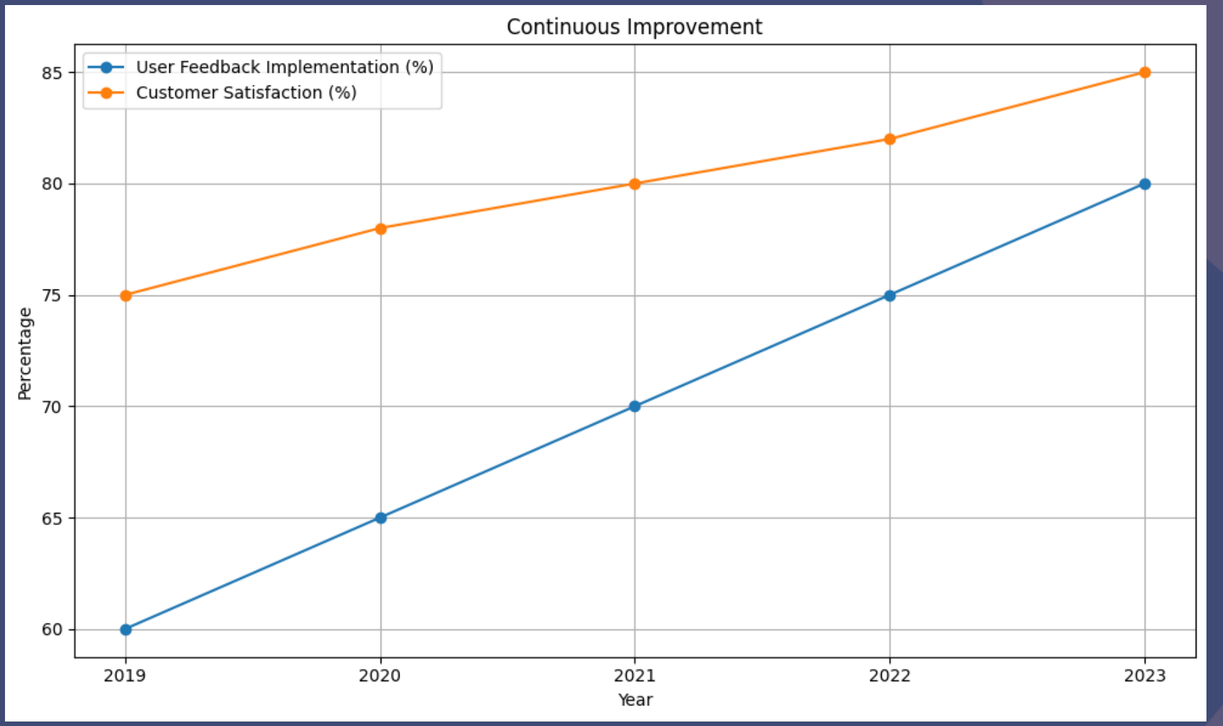

Market Opportunity for Nexia Tutor
Schools
Learning Centers
Hospitals
Clinics
Therapy Centers
Categories
0
5
10
15
20
25
Market Share (%)

REVENUE

Sample Growth Strategy Distribution




Expansion and Upselling Potential
Potential (%)
0
10
20
30
40
50
60
70
New Markets
Upselling
Strategies


Continuous Improvement
User Feedback Implementation (%)
Customer Satisfaction (%)
Percentage
60
65
70
75
80
85
2019
2020
2021
2022
2023
Year

COMPETITOR ANALYSIS

SIMILAR SYSTEMS

1. Screening Service

Google

Dyslexia Screening

All Images Videos

Google

Dyslexia Screening

Back to Results

Dytective is a Spanish system for binary screening of Dyslexia

Detection of Dyslexia ✓
Detection of Dyslexia subtypes ✗
Available in other Languages ✗

Since: 2020

Age Range: 7–17 years old

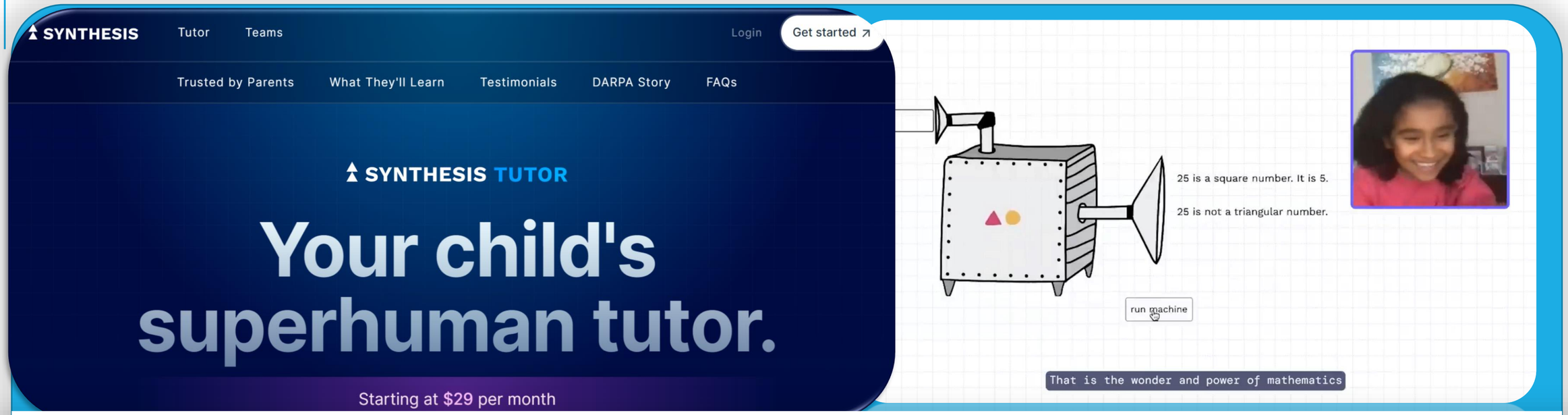
SIMILAR SYSTEMS

2. Tutoring Service

Google

AI tutor

Back to Results



Synthesis Tutor is the first AI tutor for math supporting games

Explains using simple games and visual aids ✓

Supporting any topic ✗

Supports personalized plans for people with Learning Disabilities ✗

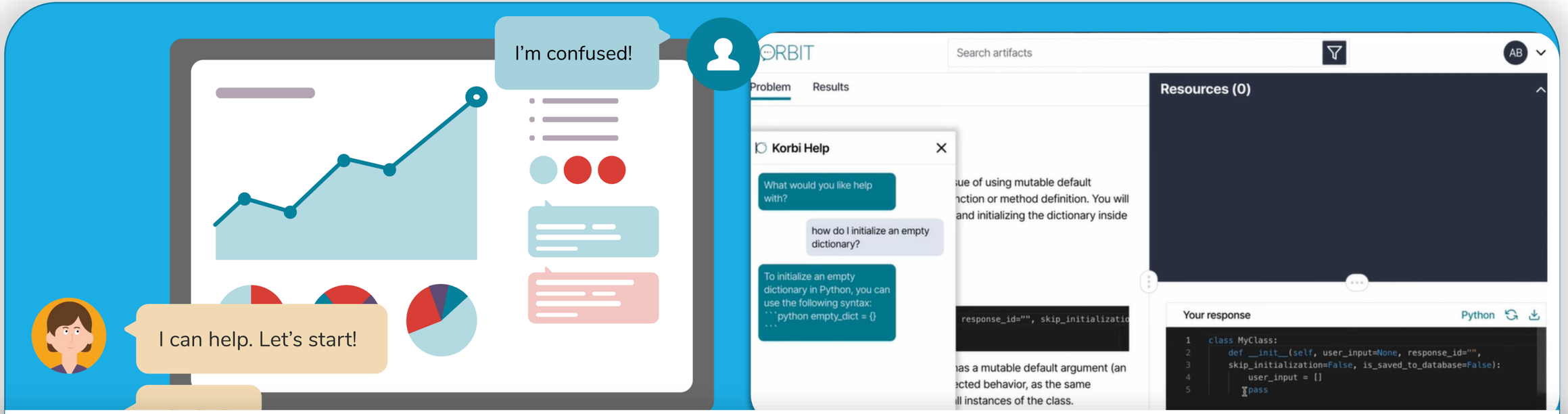
Since: 2022

Level: Kids only – basic topics

Google

AI tutor

Back to Results



Korbit AI is An AI tool acts as a tutor for coding

Providing guidance ✓

Explaining any topic ✗

Personalized explanation ✗

Pre-defined curriculum ✗

Since: 2022

Web Interface

https://www.behance.net/gallery/192710979/Nexia-Tutor

Nexia Tutor

personalized Language Learning System for children with learning disabilities & dyslexia

Mr. Potato will be your
Journey's support system !

It's very easy !

Take the screening test now

After a comprehensive research

About the best colors, themes and fonts for kids with learning disabilities and visual impairments

Style Guide

Main

#D7F8CE

#D7F8CE

Secondary

#87B17C #8AC53E #347AE2 #FFD233 #EA2114 #BB8008

Font Used

Aa Open Dyslexic Bold

Aa Inter Semibold

Heading

Heading1 Heading2 Heading3 Heading4 Heading 5 Heading 6

Heading 2 / Bold / 40px

Heading 3 / Bold / 32px

Heading 4 / Bold / 24px

Heading 5 / Bold / 20px

Heading 6 / Bold / 18px

Heading 1 Heading 2 Heading 3 Heading 4 Heading 5 Heading 6

Heading 2 / Bold / 40px

Heading 3 / Bold / 32px

Heading 4 / Bold / 24px

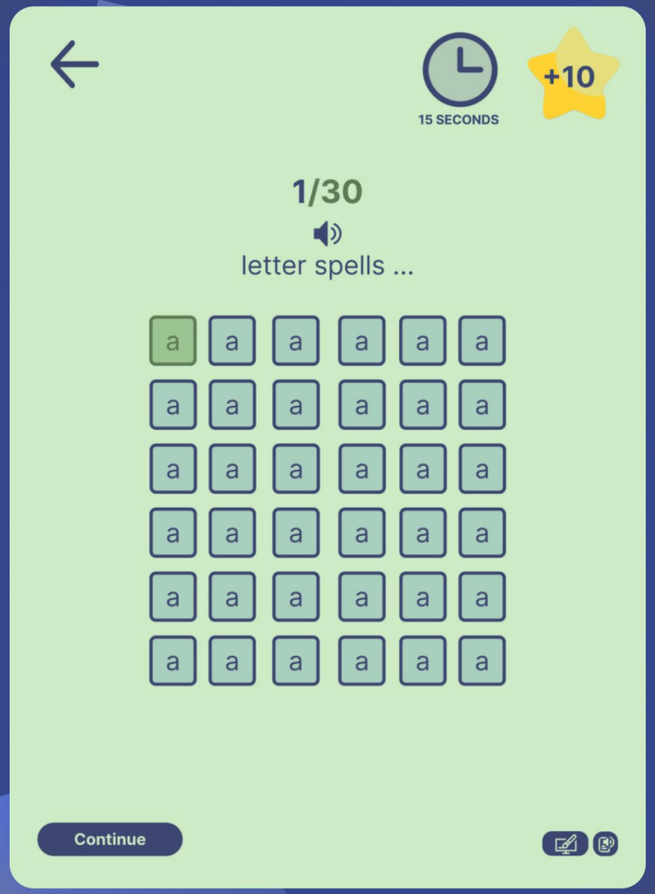
Heading 5 / Bold / 20px

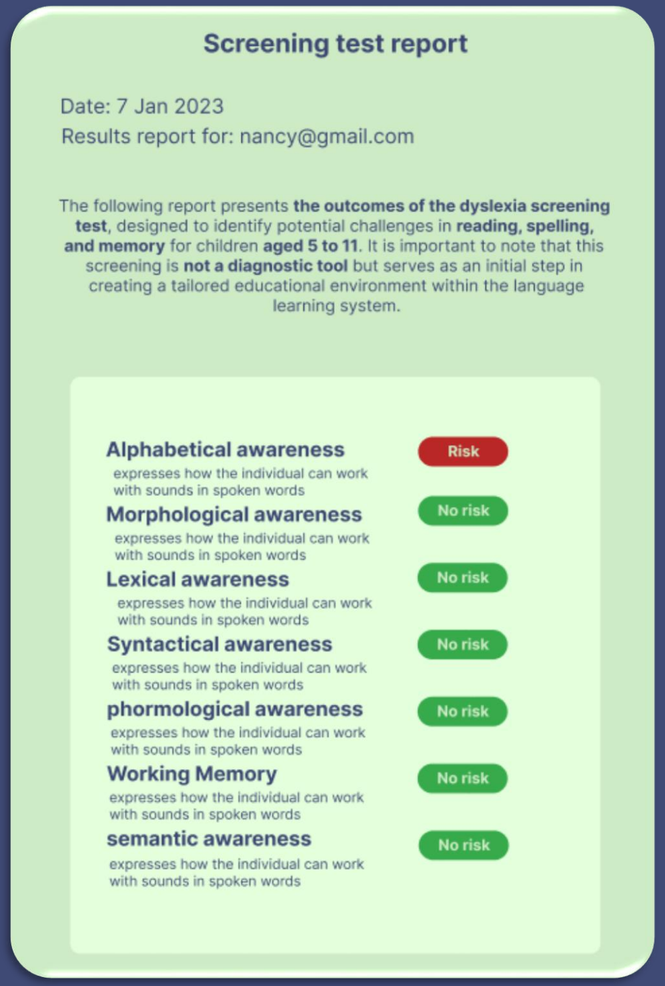
Heading 6 / Bold / 18px

Home Screen

Yes,
It’s Responsive
and Adaptive,
Just for You

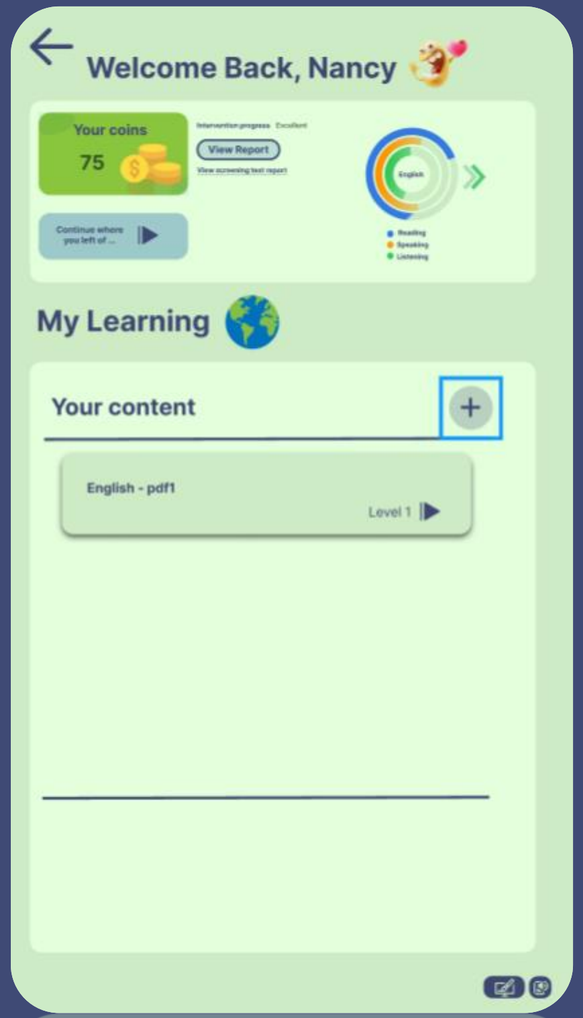
Take the Screening test now!





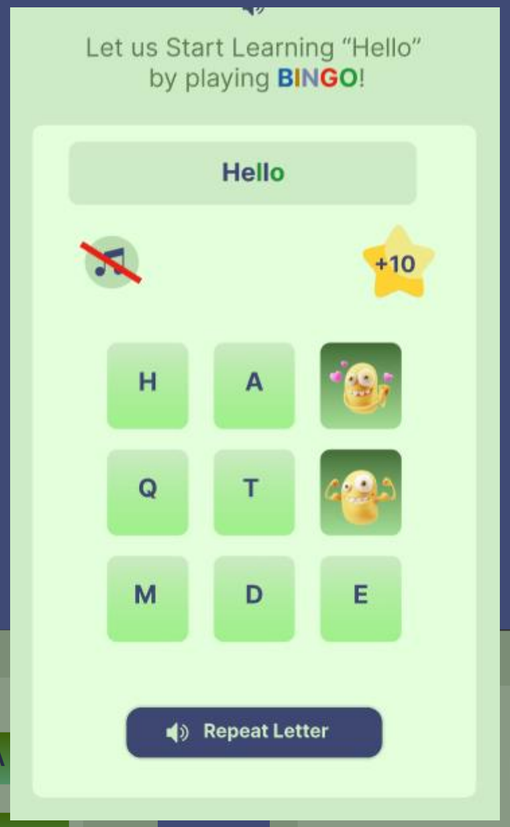
A problem well stated is a problem half solved ! :)

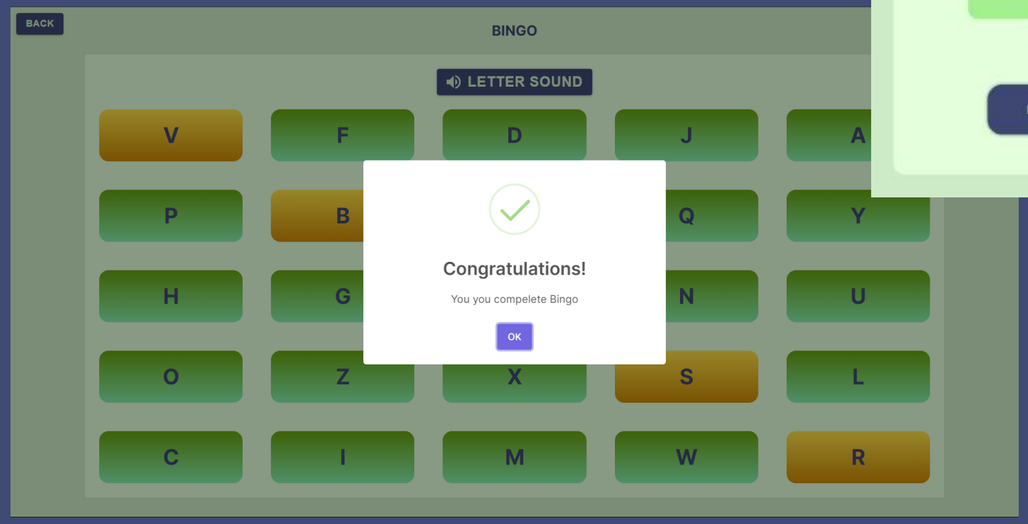
Upload your content

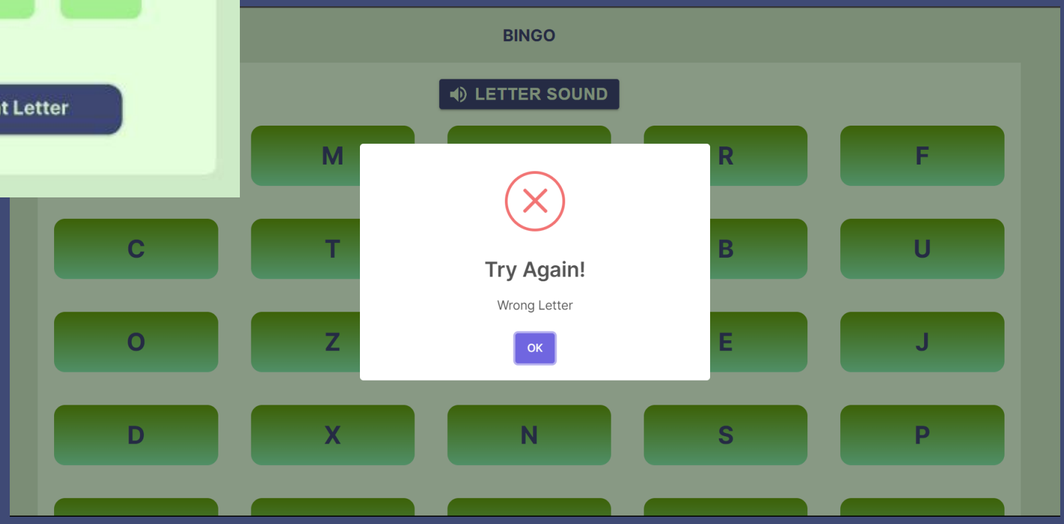


Interactive Journey

Alphabetical Awareness

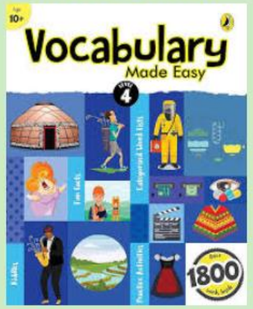






Alphabetical Awareness

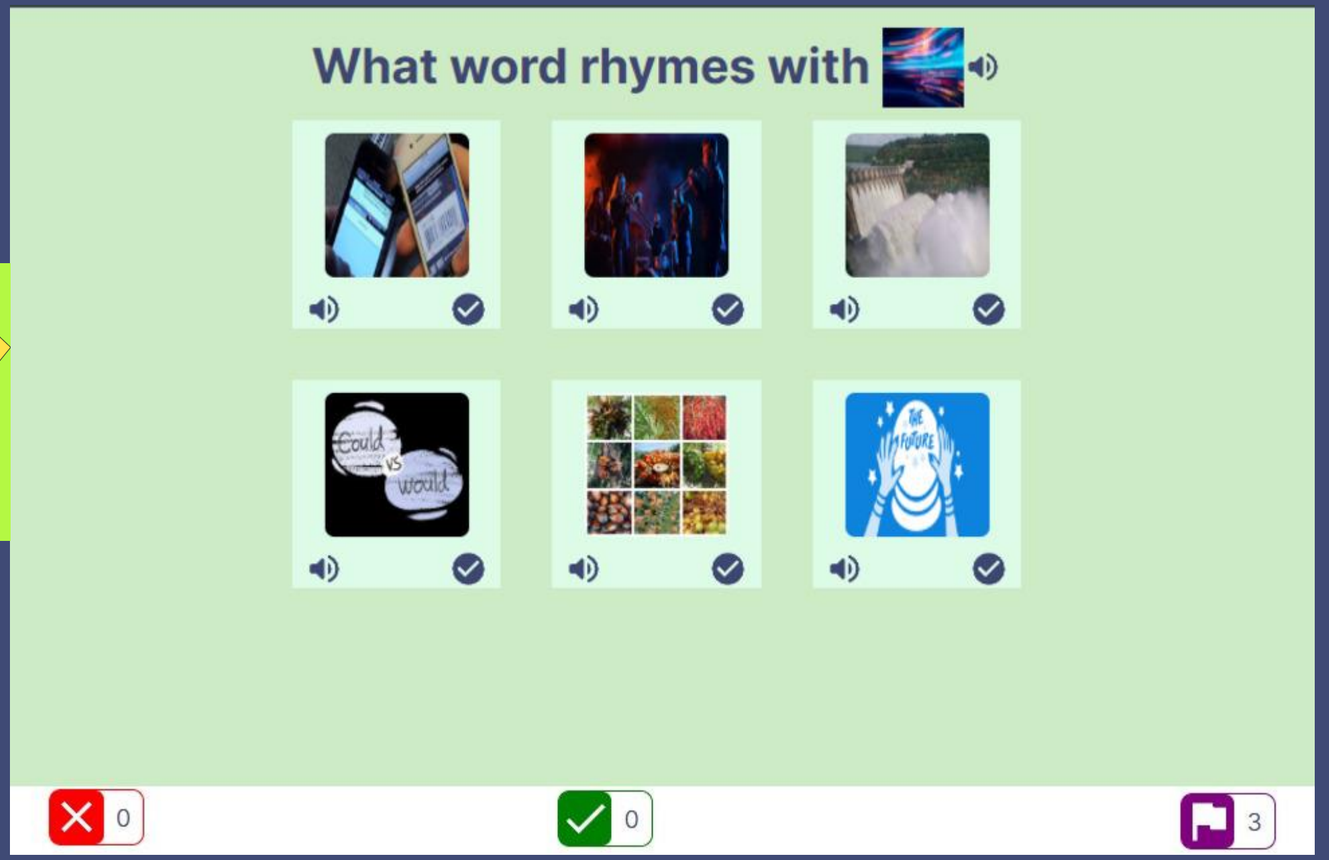
Hunt Game



LISTEN

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Phonological Awareness



memorize

Visual Working Memory

1

Memorize the Pictures

2

Where was this image?

1 2

3 4

3

Correct!

1 2

3 4

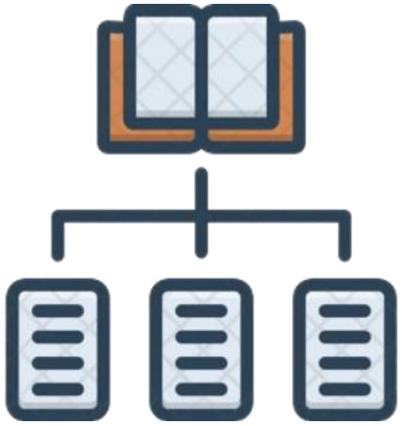
What's Next?

- Generative AI for classifying content into chapters
- Making the system function on all linguistic challenges
- Complete Screening Test
- Allow Theme changing & style customization
- Usage Tiime Tracking Feature
- Learning Curve Feature using Gamification
- GAN Chatbot for learning support and feedbacks

What's Next?

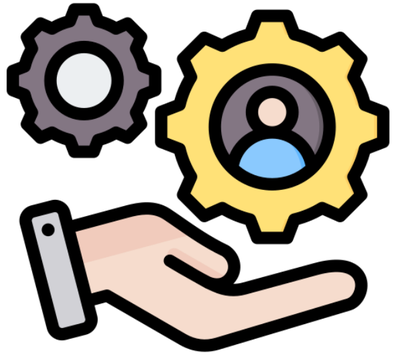
- Utilizng Cloud services for storage and performance and using DevOps
- Performance tracking
- Using automated testing & acceptance testing

Results



Categorization ✓

Personalized Games ✓



Accessibility & AI services ✓

Demo Time!