DYSLEXIA
CAPSTONE PROJECT

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APPENDIX

BUSINESS CASE

THESIS PITCH AND DISCUSSION

THE PROBLEM

As many as 15% of people are affected by dyslexia. Despite being so common, dyslexia is poorly understood. The lack of understanding means that people with dyslexia can go without help. Dyslexia is the number one cause of illiteracy. It can lead to poor self-esteem, disengagement from school, limited income, and poor fiscal stability. Dyslexia correlates to some criminal activity.

GOALS AND OUTCOMES

As primary caregivers, parents have the most potential to help children lessen difficulties associated with dyslexia. We need to help parents understand and recognize dyslexia to guide their children towards solutions.

Public schools, mental health care providers, and private learning institutions would benefit from improved parental awareness, understanding and advocacy.

TARGET AUDIENCE

The parents of grade-school age children who are affected by dyslexia and related learning disabilities.

KEY STAKEHOLDERS

Parents are the primary stakeholders. Other stakeholders are: Public Schools. American schools provide the primary diagnosis for dyslexia. Schools can provide extra support and specialized instruction. Navigating these disabilities relies on parental understanding, advocacy, and consent.

Professional educators, mental health care providers, privately and publicly funded systems can help dyslexia.

ASSUMPTIONS

Dyslexia is a nuanced challenge often accompanied by other disorders, making it difficult to diagnose. When diagnosed, solutions are effective: Digital tools can help individuals overcome reading and writing challenges. Practicing phonics can lead to significant improvement.

Diagnosis varies by country and community. In the U.S., schools primarily provide diagnoses, but their tools are limited. The availability of treatment is limited in public education. Even when dyslexia is identified in children, getting help often requires parental advocacy.

Dyslexia is generally not supported by insurance. Private schools and support training are often too expensive for parents to access, even when dyslexia is identified. Fortunately, digital tools are much more available and accessible.

STAKEHOLDER BENEFITS

PARENTS AND THEIR CHILDREN

Primary stakeholders are the parents of children affected by dyslexia and related learning difficulties. Increased parental competency will reduce time to identify and resolve issues. Short and long term benefits include an improved mental state, increased ability to learn. With a better understanding parents will be able to make better informed financial decisions with regards to education investments.

EXISTING DYSLEXIA SUPPORT SYSTEMS IMPACTED BY DYSLEXIA AWARENESS:

PUBLIC SCHOOLS

Improve parent competency. Parent competency reduces the burden on schools for identifying dyslexia and writing IEP to address the need.

Improved academic performance from children who use dyslexia tools.

PRIVATE EDUCATION

Educate target audience. Education reduces confusion surrounding dyslexia and helps identify dyslexia as something that will benefit from targeted learning. Understanding the need leads to increased use of education resources.

Digital solution to reach new audiences. There is no comprehensive digital tool that teaches phonemic awareness. The development of such a tool would open new markets and increase engagement.

PUBLIC GOOD NON-PROFITS

Address under-served communities through accessible tools delivered in practical, digestible language.

Reduce illiteracy through more targeted efforts. Address dyslexia when it contributes to illiteracy.

Digital solutions offer affordability and access where funding does not support tutors or expensive training and training materials.

PLANNED RESEARCH METHODS

Generative research develops a comprehensive image of dyslexia information. Answering the question: What do people know about dyslexia and related learning disabilities? What don't they know? Evaluative research will test the effectiveness of solutions created to improve conditions for those with dyslexia.

GENERATIVE RESEARCH

USER ENGAGEMENT

User Interviews
Uncover details, large and small, of the impact on an individual's life. What do people understand about dyslexia, how do they diagnose dyslexia, what solutions have they tried?

User Survey
- Collect insights on dyslexia.
- Understand common perceptions surrounding dyslexia.
- Build a holistic understanding regarding individuals' experience with dyslexia.
- What tools, if any, have helped?

DESK RESEARCH

Capture a holistic picture of dyslexia information a person discovering dyslexia may find. Sources to be wide ranging: organizations, articles, commentary. Formal organizations through information opinions.

Various identifiers inform the sources selected for desk research: self-discovery, personal recommendations, and professional recommendations.

EVALUATIVE RESEARCH

USABILITY TESTING
SURVEYS
CARD SORTING

Test and refine the solutions. Do they help the user understand, diagnose and resolve dyslexia?

RESEARCH PARTICIPANTS

- Professionals solving for dyslexia. Teachers, especially special education teachers.
- Parents of children who have dyslexia.
- Individuals with dyslexia.
- Diagnosis to include a full range from self-diagnosis to professional evaluation.

FORCES

What are the demographic, economic, political, ecological, socio-cultural, or technological forces that could potentially affect the project?

DEMOGRAPHIC

Demographic data most commonly suggests that between 5-20% of people are affected by dyslexia, with more conservative estimates falling in the 10-15% range. Dyslexia is not bound to country, culture, language, economics, or gender. It is reasonable to expect that trends will remain constant.

Dyslexia is emerging as a field of interest. As knowledge expands, the demographic data may shift, creating some risk to foundational assumptions.

SOCIO-CULTURAL

Socio-Cultural macro changes could impact dyslexia awareness and funding.

The macro trend of "teach how I learn" could place a greater emphasis on dyslexia-oriented solutions for reading and writing.

Call for social balancing may have an impact in this field. Dyslexia is the primary cause of illiteracy. Literacy impacts earning potential. Traditionally underrepresented groups, poorly funded school systems, and families with limited financial means are all under-served by dyslexia-related solutions. Calls for economic equality could impact dyslexia spending.

Awareness in and understanding of dyslexia may be increasing. This trend would result in improved funding.

ECONOMIC

Spending on dyslexia can be organized into three categories: public education, research, private solutions.

Public education spending on dyslexia is likely to follow macro-trends of public education spending. Noting that special education funding, including dyslexia solutions like speech therapy, already falls short of meeting mandated requirements.

Spending could raise with increased dyslexia awareness. Dedicated dyslexia research funding is also likely to follow conventional research spending. Equally, research dollars may be diverted to other trending topics.

Private funding may be the most subject area of spending. Some studies suggest that education solutions are pretty costly to individual families. Running between tens of thousands to hundreds of dollars.

Economic upturns and downturns could likely see exaggerated effects in private dyslexia spending.

POLITICAL

Political trends are unlike to create significant shifts in dyslexia solutions. Public education spending on dyslexia is likely to follow macro-trends of public education spending. Equally, government research grants are likely to follow existing trends.

TECHNOLOGICAL

Tech offers great promise in providing dyslexia solutions. Technology platforms like mobile and desktop are widely distributed. Technology-oriented solutions can improve learning and offer assistance to those impacted by technology.

Category disruption is possible in this arena. Current tech solutions are primarily focused on assistance, such as speech-to-text and text-to-speech tools.

Learning tools are in limited use. Phonemic awareness methods use instructors to practice phoneme awareness with students. Tech solutions for this are primarily in the form of online tutors. There is potential for a digital tool to offer similar training.

Improvements in voice recognition and machine learning of human behavior are likely to improve both tools and training.

FINANCIAL AND PROFIT MODELS
TARGETED STAKEHOLDER: PARENTS

UNDERSTAND

Website, books, and similar materials describe dyslexia and learning disabilities. These are range from free to relatively low cost.

DIAGNOSE

Professional diagnosis is an area of high cost offered through private education. Public school does not diagnose students but does describe practical learning issues and creates an education plan to address those issues.
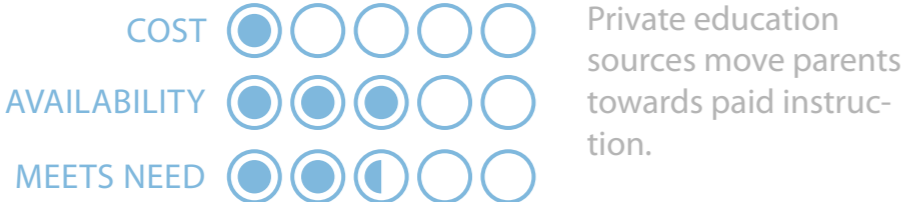
SOLUTION

Parental spending is most significant in private education. Costs are high and out of reach for many parents. Solutions typically rely on expert tutors using specialized materials or private schools.

Assistive tools such as speech-to-text are often free or inexpensive. Tutor-independent learning tools such as online phonemic-awareness training are also free or affordable. However, these tools are exclusive to very young children (i.e., 4-6-year-old age range). Few learning tools consider parents.
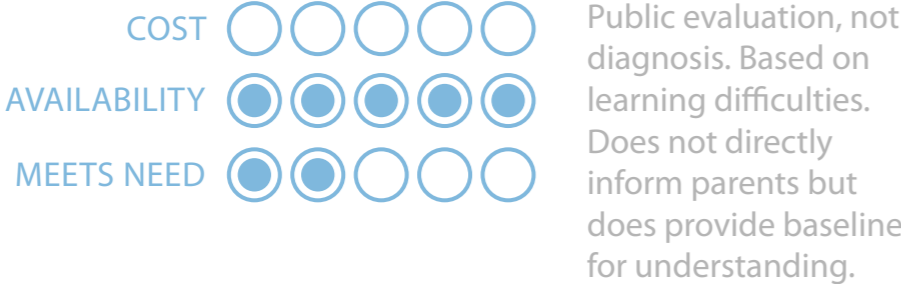
FINANCIAL AND PROFIT MODELS
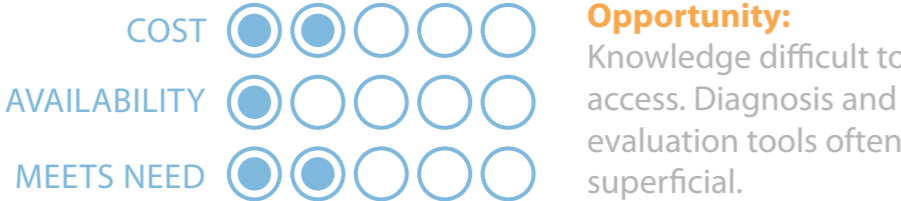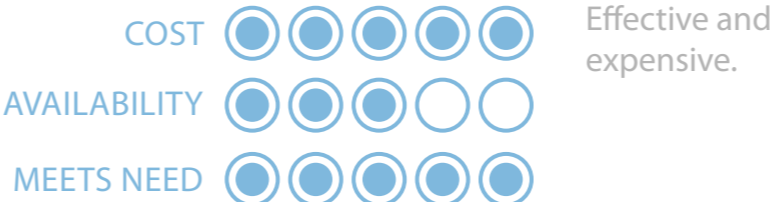
KNOWLEDGE:
UNDERSTAND & DIAGNOSE

SOLUTION:
INFORMING & TEACHING
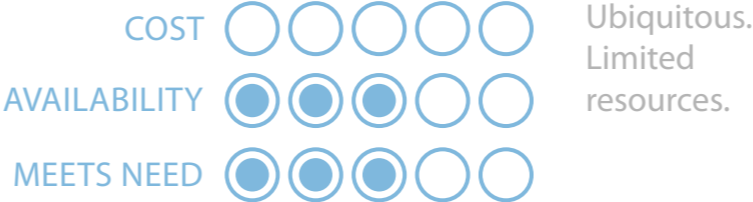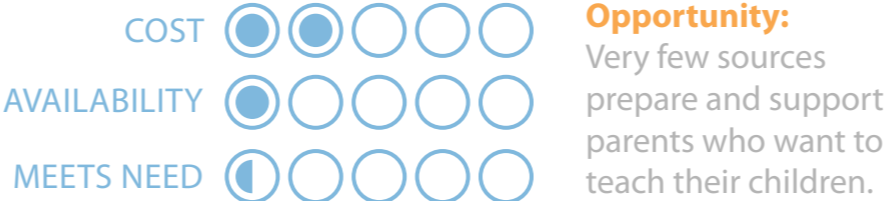
SOLUTION:
ASSISTIVE & EDUCATION TOOLS

PRIVATE EDUCATION

COST
AVAILABILITY
MEETS NEED

Private education sources move parents towards paid instruction.

PRIVATE SOURCES

COST
AVAILABILITY
MEETS NEED

Effective and expensive.

ASSISTIVE TOOLS

COST
AVAILABILITY
MEETS NEED

Free or low cost. Usefulness is mixed.

PUBLIC EDUCATION

COST
AVAILABILITY
MEETS NEED

Public evaluation, not diagnosis. Based on learning difficulties. Does not directly inform parents but does provide baseline for understanding.

PUBLIC SOURCES

COST
AVAILABILITY
MEETS NEED

Ubiquitous. Limited resources.

EDUCATION TOOLS

COST
AVAILABILITY
MEETS NEED

Education tools largely rely on professional instruction. Non-professional tools are mostly digital (online) & are for young kids.

PARENT EDUCATION SUPPORT

COST
AVAILABILITY
MEETS NEED

Opportunity:
Knowledge difficult to access. Diagnosis and evaluation tools often superficial.

PARENT SUPPORT SOURCES

COST
AVAILABILITY
MEETS NEED

Opportunity:
Very few sources prepare and support parents who want to teach their children.

EDUCATION TOOLS FOR PARENTS

COST
AVAILABILITY
MEETS NEED   UNKNOWN

Opportunity:
Almost no tools are specific to parents. Some parents use professional sources as a work around.

DESK
RESEARCH
DETAILS

DYSLEXIA CAN BE A FACTOR IN ILLITERACY. ILLITERACY IS ASSOCIATED WITH REDUCED EDUCATION AND IS SHOWN TO BE DISPROPORTIONATELY HIGH IN PRISON POPULATIONS.

70-80% of people with poor reading skills likely have dyslexia.

20-25% of all adults can only read at the lowest level.

In minority and high-poverty schools, 70-80% of children have inadequate reading skills.

62% of non-readers dropped out of high school.

Texas prison study: 48 percent of prisoners were dyslexic and two-thirds struggled with reading comprehension. (Ankey)

"When you can't read, you see no other way out. As a kid, I used to ask God to make me a drug dealer, because I knew in order to be someone in life you have to learn to read, and I couldn't."

**- AMEER BARAKA
ACTOR**

DYSLEXIA IMPACT AND DEPTH: ADDITIONAL DATA AND SOURCES

- 70-80% of people with poor reading skills likely have dyslexia.

- One in five students, or 15-20% of the population, has a language-based learning disability. Dyslexia is the most common of language-based learning disabilities.

- Nearly the same percentage of people from different ethnic and socioeconomic backgrounds have dyslexia.

- Percentages of children at risk for reading failure are higher in high-poverty, language-minority populations who attend ineffective schools.

- In minority and high-poverty schools, 70-80% of children have inadequate reading skills.

- According to the National Assessment of Educational Progress, 38% of all fourth-grade students are "below basic" reading skills. They are at or below the 40th percentile for their age group.

- Nationwide, 20% of the elementary school population struggles with reading.

- 20-25% of all adults can only read at the lowest level.

- 62% of non-readers dropped out of high school.

- Reliable diagnosis begins as early as age 5. Early diagnosis gives the most significant opportunity for improvement. Many U.S. school children are diagnosed late in elementary school.

- 80% of children with an IEP have reading difficulty, and 85% of those have dyslexia.

- Many people with dyslexia have other learning disorders or neurological issues. Both adults and children with dyslexia sometimes have attention deficit hyperactivity disorder (ADHD) or dyspraxia. 30% of children with dyslexia also have at least a mild form of ADHD.

- Dyslexia is a challenge even visually based words, such as Cantonese.

- Observed nonspecific difficulties related to dyslexia include low self-esteem, experience shame, humiliation, or lack of confidence in their ability to perform at work or school.

- Research on dyslexia reveals sometimes contradictory findings.

- In U.S., diagnosis, and treatment can be complicated by lack of governance. Schools are tasked with the diagnosis but are not fully equipped. Insurance largely does not cover. Private tutors are expensive.

- Treatment through schools requires IEP. This step is dependent on identification first and requires school member or parent advocacy.

Dyslexic adolescents in this study also suffered from externalizing and internalizing symptoms withdrawal, somatic complaints, anxiety/ depression, social problems, thought problems, aggression and delinquent behavior that were significantly higher in poor than typical readers. They showed significantly higher scores of depression as assessed by HRSD and anxiety as assessed by HRSA.

COMPETITIVE ANALYSIS

COMPETITIVE ANALYSIS · SCOPE

SCOPE

The analysis reviews over 30 sources in the competitive landscape. Recommendations for these sources selected from:
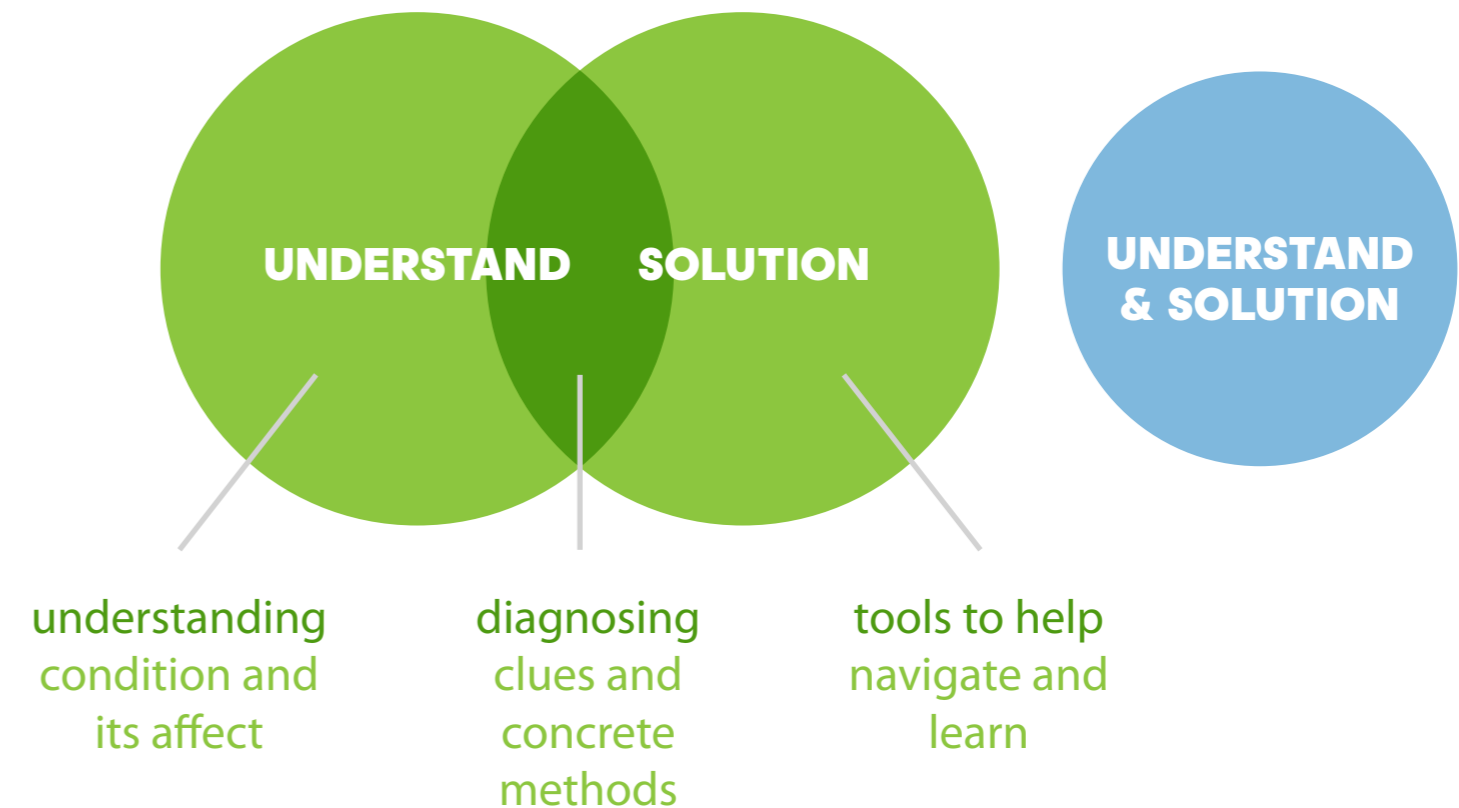• dyslexia and learning disability experts
• those affected by dyslexia
• discovered through independent search

Independent searches explored a wide variety of perspectives on dyslexia.
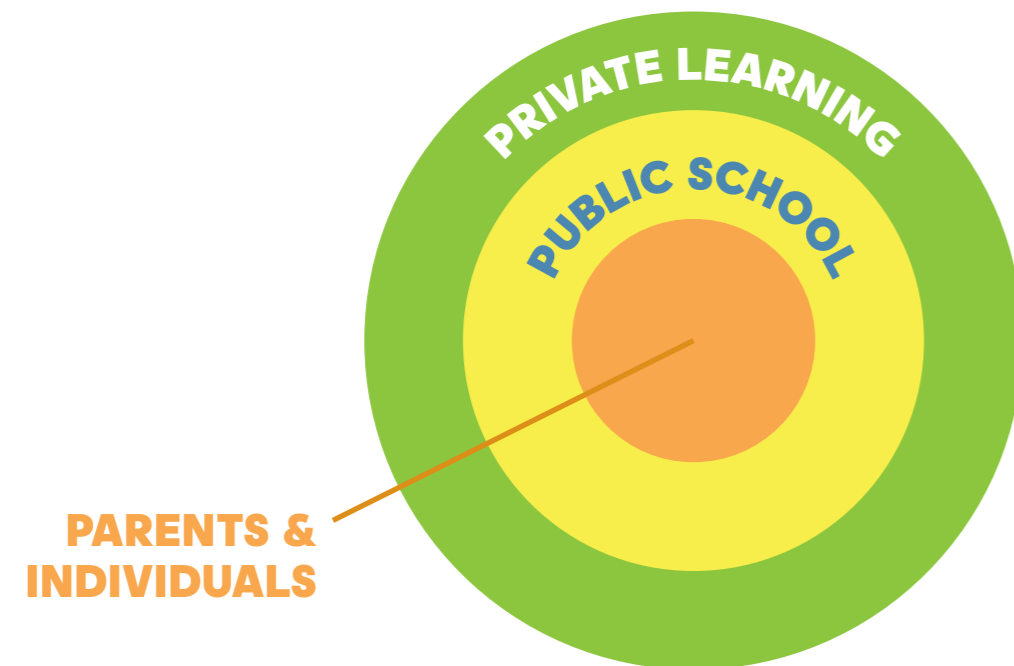
WHAT WE ANALYZED

COMPETITIVE   **COMPARATIVE**

UNDERSTAND   **SOLUTION**   **UNDERSTAND
                                     & SOLUTION**

understanding   diagnosing   tools to help
condition and   clues and   navigate and
its affect   concrete   learn
   methods

COMPETITIVE ANALYSIS · FINDINGS

Dyslexia knowledge, spending, and focus are primarily for professionals.
Few resources target parents or individuals with learning challenges.

PRIVATE LEARNING

PUBLIC SCHOOL

PARENTS & INDIVIDUALS

PUBLIC EDUCATION

PRIVATE & PUBLIC LEARNING ORGANIZATIONS

PARENTS   INDIVIDUALS

PUBLIC SCHOOLS ACROSS THE U.S. PRIMARILY GRADE SCHOOLS

PUBLIC SCHOOL SUPPORT SYSTEMS

SPECIALIZED PROFESSIONALS FOR PROFIT AND NON-PROFIT EDUCATION.

SPENDING PER STUDENT

Market surveys and user interviews reveal that non-public school assistance is the most expensive solutions space. Parents and individuals with learning challenges spend the least on self-guided solutions.
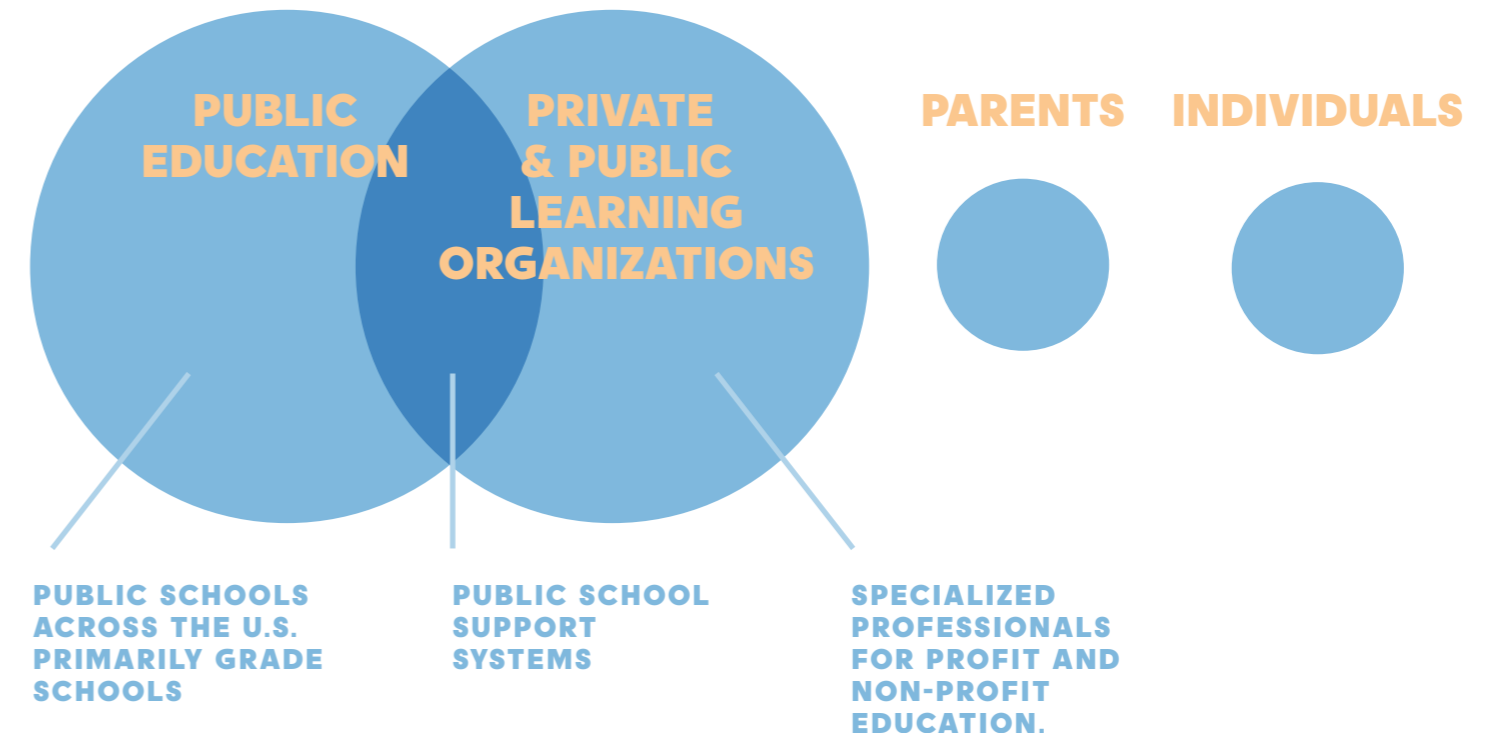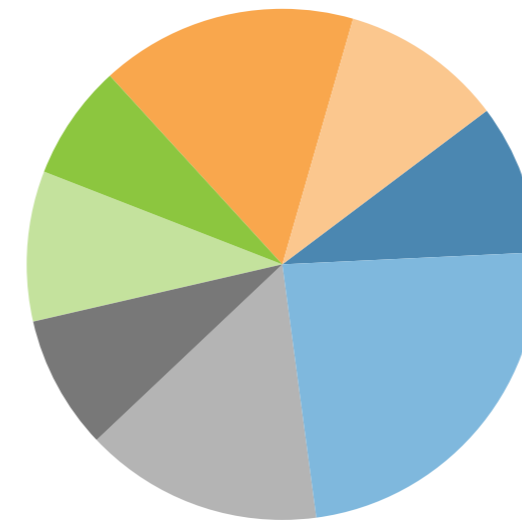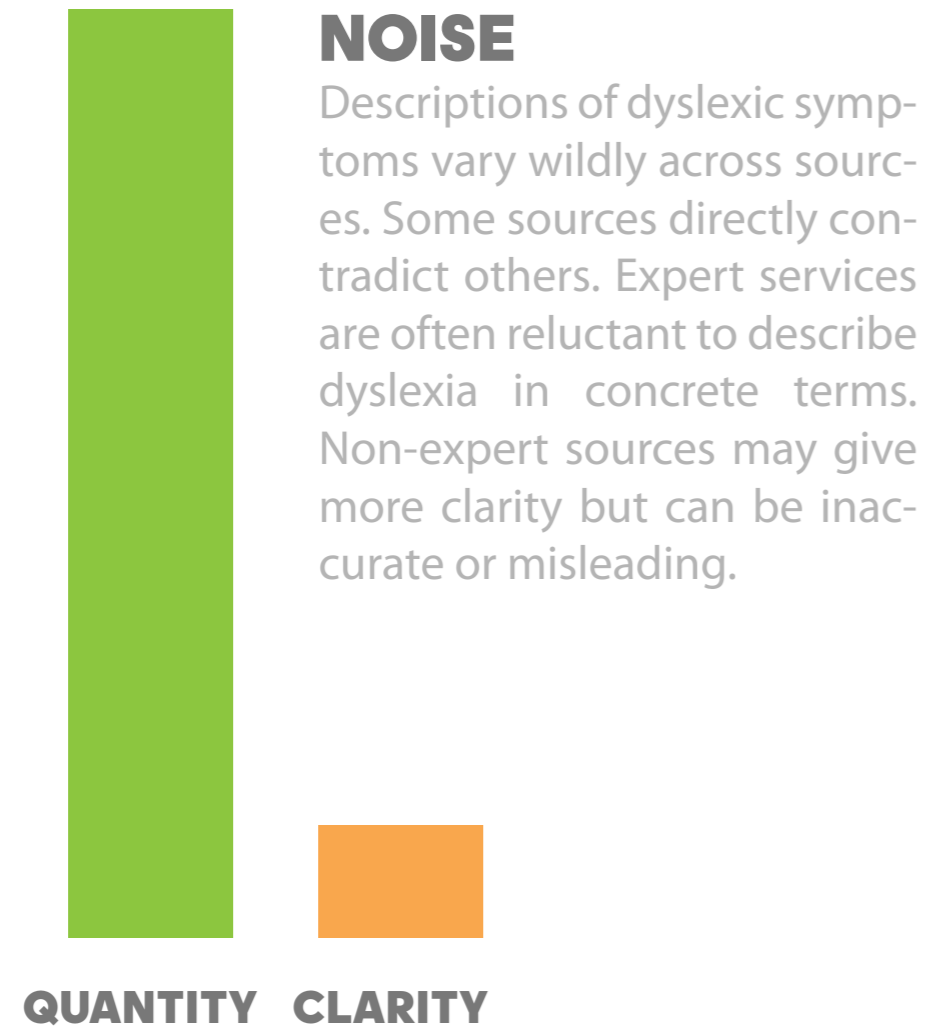
WHO IS THE AUDIENCE?

Dyslexia information and discourse targets the industry. Relatively little directly addresses parents or individuals with learning challenges.

COMPETITIVE ANALYSIS · FINDINGS

The information available is complex for many reasons. Knowledge is not easy to access.

NOISE

Descriptions of dyslexic symptoms vary wildly across sources. Some sources directly contradict others. Expert services are often reluctant to describe dyslexia in concrete terms. Non-expert sources may give more clarity but can be inaccurate or misleading.

QUANTITY   CLARITY

PIE PARTS

When an information source is focused and has a limited scope, tended to be more precise. Broad knowledge bases have difficulty capturing this complex topic that is easy to navigate and parse.

Understanding comes from learning from multiple sources. It is like piecing together slices to build a complete pie.

HIGH DIFFICULTY

Explaining dyslexia and learning difficulties is difficult.

Few sources effectively reduce the complexity to be understood by the uninitiated.

COMPETITIVE ANALYSIS · FINDINGS

There is a gap between expert knowledge and common knowledge. This gap makes it difficult for non-experts to learn. It is difficult for parents to find the information to help their children.

The support network for dyslexia and learning is expansive. Public schools provide a catch-all evaluation intended to capture all students with dyslexia. There are many additional support structures in knowledge bases, trained professionals, and private learning resources.

A minority of sources provide transparent information. Of those sources, most focus on a single aspect of the problem rather than the holistic narrative. Despite the wide net of dyslexia information, it is difficult for non-professionals to understand what dyslexia means as a disorder or its implications.

30+ MODELS

Emphasis
UNDERSTANDING

The competitive analysis considered over 30 sites and articles oriented towards understanding dyslexia and related learning disabilities.

The five following sites are the most effective models.

OBSERVATIONS · ALL MODELS:

- Descriptions of dyslexia symptoms vary from source to source. Some information is contradictory.
- Targeted users for most models are either public education or trained professionals.
- Language targeted towards professionals is difficult for non-professionals to parse.
- Diagnosis is built on loosely defined models of behavior. There is not a clear yes/no test except those administered by professionals.
- Most sources assume some familiarity with the topic.
- Many sources are not for profits. Whether that be a 501(c)3 non-profit, publicly funded, or donation-based.
- Sources pointing users towards a paid solution may over emphasize the peril of disorders.

UNDERSTOOD

Emphasis   **Financial Model**
UNDERSTANDING   **NON-PROFIT**

Users use drop-down menus to create a problem statement that directs them to likely causes. Written and visual tone is supportive and easily understood.

STRENGTH
- Simple, clear messaging
- Excellent engagement tool
- Multiple perspectives offered to solve for issue, audience, desired solution.
- Exploratory interface makes suggestions for people who don't have labels.
- Quick engagement with suggested articles and advice

WEAKNESS
- Problem sentence interface may make incorrect assumptions
- Difficult to navigate through the full set of tools.
- Emotional language navigation can lead to confusions
- Lack of thematic grouping: dyslexia, dysgraphia, etc., mean that search results are not well-targeted.
- Advise, not a solution.

NCID.ORG

Emphasis   **Financial Model**
UNDERSTANDING   **NON-PROFIT**

Articles like "Understanding Learning and Attention Issues" are easy to understand and use simple visualizations of demographic data to enhance understanding.

STRENGTH
- News article easy to follow with digestible infographic summaries.
- Action plan steps inadvertently provide an overview of steps required to engage state resources.

WEAKNESS
- Broad scope can make it difficult to find a specific topic.
- First tier of access targets donations and describes the organization, not providing solutions.
- News articles provide useful information but are hidden in layers of sit navigation
- Only partners with three states

DYSLEXIAHELP.UMICH.EDU

Emphasis
UNDERSTANDING

Financial Model
NON-PROFIT

Broad database of dyslexia resources.

STRENGTH

- Comprehensive list of resources = one-stop launch pad for dyslexia and learning disability resources.
- Encourages in addition to providing "just the facts."

WEAKNESS

- Site navigation is difficult to understand in places.
- Localized content is not valuable for a national audience.
- Tool and resource links not subdivided by category. Users can not browse by solution type.

WWW.DYSLEXIA-READING-WELL.COM

Emphasis
UNDERSTANDING

Financial Model
TBD

Easy entry point for users learning about dyslexia.

STRENGTH

- Information hierarchy is well balanced for those learning "the basics" about dyslexia
- Site navigation is easy to browse.
- "Is""Is Not" comparative lists help speed broad understanding.
- One o fa few resources to describe the popular Orton Gillingham method.

WEAKNESS

- Aesthetics do not look professional.
- Information not detailed or nuanced as sites for learning professionals.
- Extra details, such as providing history, sometimes distract from the information.
- Identified resources, such as private schools, limited and outdated.

DYSLEXICADVANTAGE.ORG

Emphasis
UNDERSTANDING

Financial Model
501(C)3

Comprehensive keyword searchable knowledge base. Newsletter format addresses diverse and valuable topics. Difficult to fully evaluate because of paid content restrictions.

STRENGTH

- Self-test assessment is easy to take. Providing framework for possible dyslexia signs.
- Homeschooling dyslexia tool.
- Clock-hour resource tools for easy parent-led training. Individual coursed are affordable.
- Some informative, easily understood, free content. Increased knowledge.
- Keyword searchable

WEAKNESS

- Almost no free content.
- Self-assessment test gives a score but not a method to translate the score to the likelihood of dyslexia.
- Difficult to validate the effectiveness of teaching tools.
- Paid access, heavy self-promotion, feels like a profit model in a 501(c)3 entity. Confusing.

WIDELY RANGING TOOLS

Emphasis
SOLUTIONS

Dyslexia solutions are either assistive or learning tools. Assistive tools help those with learning disabilities navigate the environment. Often through a mechanism that aids in overcoming their learning difference.

Learning tools minimize users' cognitive differences through learning. Often this includes repetitive practice.

OBSERVATIONS FROM ALL MODELS:

- Many tools are targeted towards either public education or trained professionals.
- Language targeted towards professionals is difficult for non-professionals to parse.
- The majority of tools appear to be for-profit, privately-held organizations.
- Sources that point users towards a paid solution often emphasize success stories to engage users.
- Assistive tools tend to be digital (apps or web browser-based) or sometimes physical devices such as a hand-held scanner.
- Professionals, not parents, primarily teach learning tools.
- Non-tutor phonemic training apps almost exclusively target younger students in the 1st-4th grade range.

HEGGERTY.ORG

Emphasis   Financial Model
LEARNING TOOL   PRIVATE ED

One of very few learning tools parents can reasonably use independently.

STRENGTH
- Simple, clear messaging
- Excellent engagement tool
- Multiple perspectives offered to solve for issue, audience, desired solution.
- Exploratory interface makes suggestions for people who don't have labels.
- Quick engagement with suggested articles and advice

WEAKNESS
- Problem sentence interface may make incorrect assumptions
- Difficult to navigate through the full set of tools.
- Emotional language navigation can lead to confusions
- Lack of thematic grouping: dyslexia, dysgraphia, etc., mean that search results are not well-targeted.
- Advise, not a solution.

WWW.NESSY.COM

Emphasis   Financial Model
LEARNING TOOL   PRIVATE ED

Kid-friendly apps intend to make learning fun and approachable.

STRENGTH
- Kid friendly design draws interest from young learners.
- Works independently: Does not require a tutor for engagement.

WEAKNESS
- Not applicable for those past seven years of age.
- Older learners who might benefit from learning will be turned off of juvenile presentation.

BOOKSHARE.ORG

Emphasis
LEARNING TOOL

Financial Model
NON-PROFIT

Ebook library with highlighted read-along text accompanied by audiobook text.

STRENGTH
- Simple learning tool for independent reading.
- Appealing to adults and kids.

WEAKNESS
- Can only read content that is available through bookshare.org

LEARNINGTOOLS. DONJOHNSTON.COM

Emphasis
LEARNING TOOL

Financial Model
PRIVATE ED

Easy entry point for users learning about dyslexia.

STRENGTH
- Diverse set of tools.
- Snap&Read can read "anything" and create highlighted read-along text on the fly.
- Cowriter suggests words to overcome spelling and word recall.
- Evaluation tools

WEAKNESS
- Snap&Read's mechanical voice does not have an engaging tone, disinteresting to some students.
- Cowriter suggestions slow. Requires a certain level of reading skill.

COMPARATIVE ANALYSIS FINDINGS

Insights from sources that do not solve for dyslexia or learning disabilities.

WWW.WHATTOEXPECT.COM

Emphasis	Financial Model
UNDERSTANDING	**PRIVATE/PROFIT**

Encyclopedia of knowledge acts as a launching point that stays relevant through years of child development.

STRENGTH
- Encyclopedia of knowledge surrounding pregnancy and parenting.
- Well organized given the extent of information.
- Information applies through maturing experience. Engages users for many years.
- Well structured hierarchy of knowledge

WEAKNESS
- Quantity of information can overwhelm visitors.

WWW.SCARYMOMMY.COM

Emphasis	Financial Model
UNDERSTANDING	**PRIVATE/PROFIT**

Lighthearted style eases discussion of serious topics—engagement through humor.

STRENGTH
- Current, topical, content
- Articles are light and easy to engage
- Blog format makes it easy to browse for ideas that resonate.
- Entertaining, "I'm here because I want to be" vibe.
- Well-targeted. Proper scope.

WEAKNESS
- Articles not clearly targeted. Difficult to find specific information.

WWW.GETBOOBER.COM

Emphasis	Financial Model
UNDERSTANDING	**PRIVATE/PROFIT**

Connecting those with a need to the experts with the knowledge. The right brand voice and scope.

STRENGTH
- Inviting brand voice lowers inhibition to access.
- Connects parents to health professionals targeted to their needs.
- Filters include budget, certification, language, and level of experience.
- Smart, professional design.
- Well-targeted. Proper scope.

WEAKNESS
- Requires some existing knowledge of issues typical for dyslexia.
- Doesn't provide a diagnosis.

EDUCATION APP COMPARISONS
How do instructional apps deliver information?

KHAN ACADEMY

Emphasis
LEARNING TOOL

Financial Model
PRIVATE/NON-PROFIT

Web and app learning site. Broad knowledge resource.

STRENGTH
- Easy navigation across complex and different learning topics.
- Consistent, intuitve, format.
- Explanation in video format gives clear audio instruction with visual of instruction.
- Intended for autonomous, independent, learning.
- Easy selection of difficulty level.
- Course challenges test learning
- High reliance on video constrains learning and delivery speed.

WEAKNESS
- Some programs navigate out of the app to a web browser.
- Delivery style isn't suited for all audiences.
- Reliance on keyboard limits access for some.
- Manual topic progression: User decides appropriate challenge level.

IXL

Emphasis
LEARNING TOOL

Financial Model
PRIVATE/PROFIT

Popular instruction tool oriented towards younger children.

STRENGTH
- Playful visuals engages younger learners.
- Intended for autonomous, independent, learning.
- Various methods of input. Doesn't require a keyboard.
- Automatic progression: gets harder with demonstrated topic proficiency.

WEAKNESS
- Some mismatch between learning content and delivery = can feel too young for some students. Implies they are behind their peers.
- Pacing and navigation can feel slow.
- Missing just a few questions can stop progress. Creates frustration when a student knows the topic but is stuck on a single answer, or two.

LUCID

Emphasis
LEARNING TOOL

Financial Model
PRIVATE/PROFIT

Uses visualizations and simple text to explain complex topics.

STRENGTH
- Simplifies complex content through simple, digestible, format.
- Use of visuals minimized need for proficient learning.
- KISS (Keep it simple, stupid) perfected.

WEAKNESS
- Topics are usually high level explanations. Does not explain "how" as much as "why."
- Interface potential is under utilized.

USER
RESEARCH

USER RESEARCH METHODS AND PARTCIPANTS

User Survey

☑ **Survey Goals**   ⛓ **13 participants**

Establish baseline understanding of dyslexia. What are common assumptions, attitudes and awareness?

Dyslexia Survey
https://docs.google.com/forms/d/1feUmH0JtzMUV8laABGj6i9EO0bzJVVwDaQR21uBj-jo/edit

User Interviews

☑ **Interview Goals**

Survey dyslexia through in-depth interviews with people impacted by dyslexia. What insights are learned through their experience?

5 participants interviewed

2 parents of dyslexic children
2 adults identifying as dyslexic
1 subject matter expert

Personal User Interview Script
https://docs.google.com/document/d/1TK2hMZwLSpkH3mZb3L1HBxWjX_OyUvJwt8TEoDZWK6s/edit#heading=h.rlimjjnp2r33

Professional User Interview Script
https://docs.google.com/document/d/1ymeH-Cy5mFEPz2G25IKG8AxXpjiuzkVR7-UjkQVKCMY/edit

DYSLEXIA SURVEY FINDINGS

"I REALIZED I DON'T KNOW MUCH ABOUT DYSLEXIA"
- survey respondent with a dyslexic family member

MOST PEOPLE TO NOT KNOW WHAT DYSLEXIA MEANS.
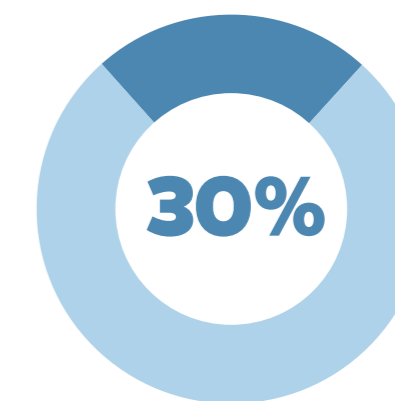
People without expert knowledge have a vague and inconsistent understanding about dyslexia.

In a user research survey non-expert participants were asked to select descriptors matching dyslexia.

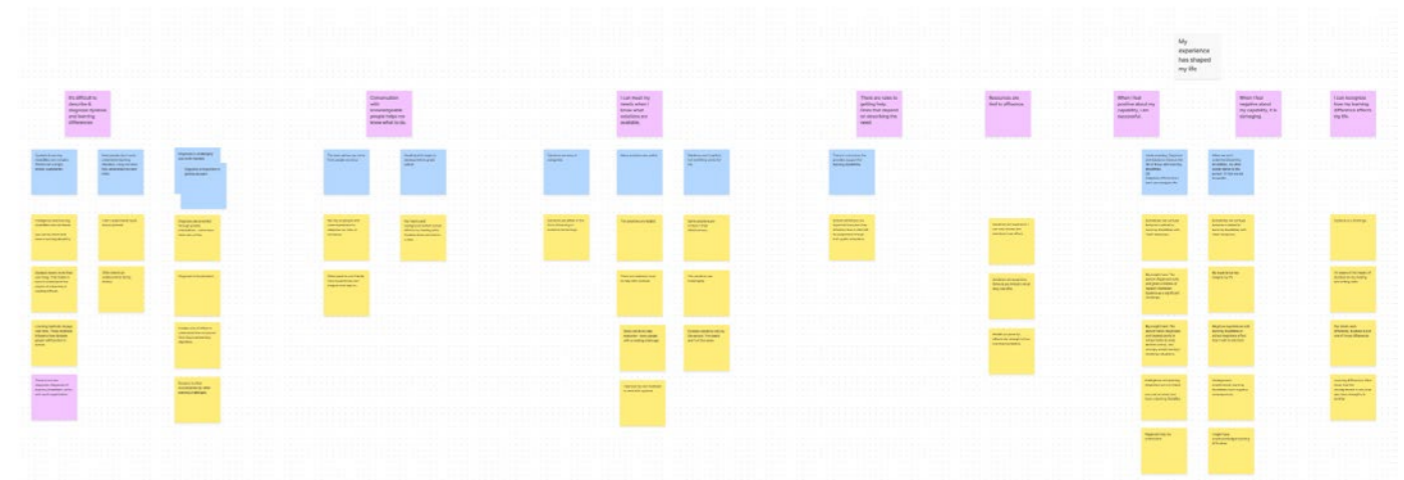Inaccurate definitions scored nearly as high as accurate definitions.

WHAT DEFINES DYSLEXIA?

30%

30% "DID NOT KNOW, OR WERE NOT SURE"

AFFINITY MAPPING

AFFINITY MAPS

RESULTING ASSUMPTIONS

Link to FigJam map data

https://www.figma.com/file/Vb86mED9LxF0qsD0kySjBp/Dyslexia-Project-Overview?node-id=5%3A40

PROTOTYPE AND TESTING

PROTOTYPES AND TESTING

Balsamiq low fidelity prototype
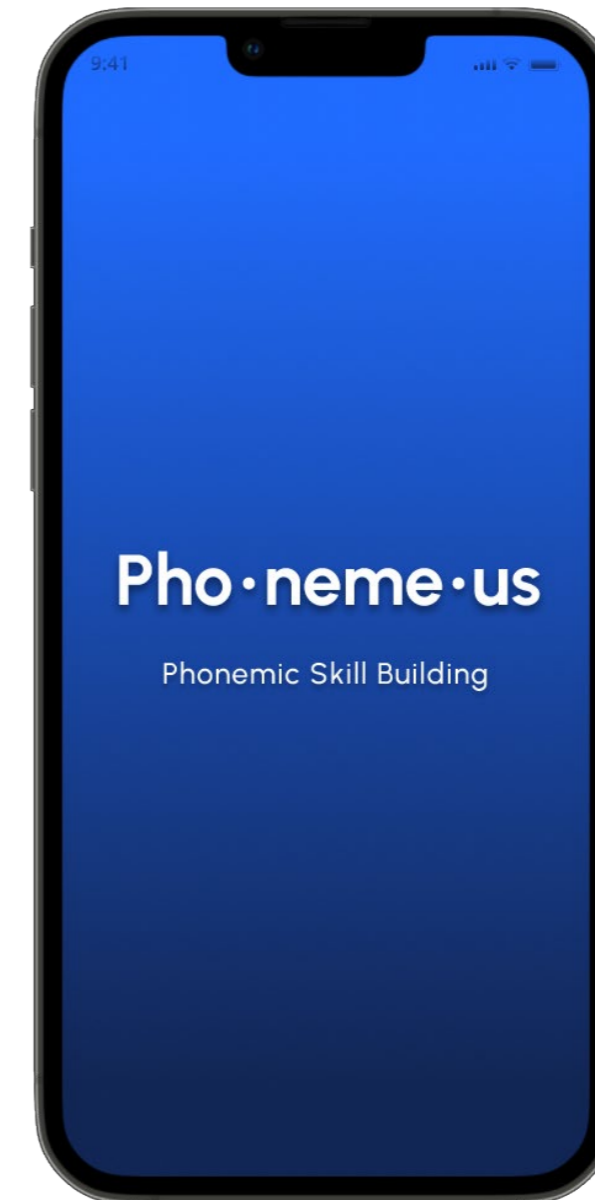https://balsamiq.cloud/sfk1w9u/pnix1bf

Figma high fidelity prototype
https://www.figma.com/proto/fq7hYSP1i95pfB9SmgEwTb/Phonemeus?-
page-id=278%3A10353&node-id=278%3A11635&viewport=409%2C48%2C0.05&scaling=scale-
down&starting-point-node-id=278%3A11635&show-proto-sidebar=1

Maze.co test 1
https://t.maze.co/88227881

Maze.co test 2
https://t.maze.co/88636058

REFERENCES AND TOOLS

REFERENCES

DOCUMENT REFERENCES

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DEVELOPMENT TOOLS

TOOLS USED:

- Affinity Mapping: FigJam
- Maze.co: Product Testing
- Mindmeister: Mind Mapping
- Presentation Design: Adobe Illustrator
- Project tracking, research and progress notes: FigJam
- Prototyping, LoFi: Balasmiq
- Prototyping, HiFi: Figma
- Transcription: Otter Ai
- Task Flow, User Flow: FigJam
- Video Conferencing: Zoom
- Wireframes: Hand sketch