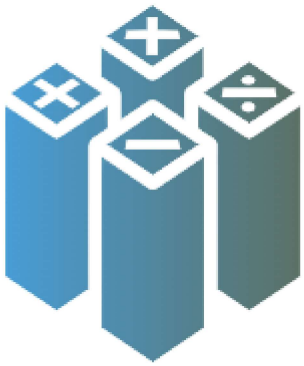

MATHMINDS

WHERE MATH MEETS PLAY

[15 , May]

INFORMATION TECHNOLOGY INSTITUTE

Executive Summary

Our software application offers customizable math games specifically designed for individuals with dyscalculia. The application includes a variety of game formats, such as puzzles, quizzes, and interactive challenges, targeting different math concepts. The key feature is the ability to adjust the difficulty levels within each game, providing a personalized learning experience. The application gradually increases the challenge as the player progresses and incorporates adaptive difficulty to dynamically adjust the level based on performance. With comprehensive progress tracking, customizable settings, and immediate feedback, the application aims to improve math skills, boost confidence, and foster a deeper understanding of mathematical concepts.

In summary, our math games application for individuals with dyscalculia offers a range of customizable games targeting various math concepts. The adjustable difficulty levels and adaptive difficulty ensure a personalized learning experience, while progress tracking, customizable settings, and immediate feedback support the player's development. By providing an engaging and tailored approach to math learning, our application aims to enhance skills, build confidence, and promote a deeper understanding of mathematics for individuals with dyscalculia.

Customer Persona

Bio:

Name: Sarah

Age: 12

Gender: Female

Location: United States

Education: 7th grade

Occupation: Student

Medical Condition: Dyscalculia

Interests: Reading, drawing, playing video games

Goals: To improve math skills, feel more confident in math class, and succeed academically

Motivations: To excel in school, build self-esteem, and have fun while learning

Pains & Concerns: Struggles with math concepts, feels discouraged and frustrated, fears falling behind in school, and worries about future academic and career success

Empathy Map:

-What does Sarah see? Math problems that seem impossible to solve, classmates who seem to understand math easily, and teachers who may not understand her struggles.

-What does Sarah hear? Criticism from teachers and peers, and sometimes negative self-talk.

-What does Sarah say and do? Sarah may try to avoid math tasks, feel embarrassed about her difficulties, and express frustration and discouragement.

-What does Sarah think and feel? Sarah may feel anxious, overwhelmed, and inadequate.

Customer Journey Map:

- Awareness: Sarah learns about the games platform through a friend or online research.
- Consideration: Sarah explores the platform and reads reviews and testimonials from other users with dyscalculia.
- Decision: Sarah decides to sign up for the platform and creates an account.
- Onboarding: Sarah receives a tutorial on how to use the platform and begins playing math games.
- Learning: Sarah plays games that are specifically designed to improve dyscalculia-related math skills, such as number sense, spatial reasoning, and memory.
- Progress: Sarah tracks her progress and sees improvement in her math abilities.
- Support: Sarah receives support and encouragement from the platform's community and staff, and can connect with other users who have dyscalculia.

- Success: Sarah feels more confident in her math abilities and is better equipped to succeed academically.

Our Work Scope

The work scope for our project is to develop a software application that offers customizable math games with adjustable difficulty levels, specifically designed to address the needs of individuals with dyscalculia. The application will encompass various game formats, adaptive difficulty mechanisms, progress tracking, and immediate feedback features to provide a personalized and engaging learning experience.

Opportunities:

1. Growing Market: There is a growing demand for educational technology solutions that cater to individuals with learning disabilities, presenting an opportunity to reach a wider audience.

2. Educational Partnerships: Collaborating with educational institutions and organizations specializing in dyscalculia support can provide opportunities to promote and integrate the application into educational programs and support systems.

3. Technological Advancements: Leveraging advancements in technology, such as augmented reality (AR) or virtual reality (VR), can enhance the learning experience and differentiate the application from competitors.

Jobs to be done:

1. Help individuals with dyscalculia improve their math skills and build confidence in a supportive and engaging environment.

2. Provide personalized learning experiences that adapt to the individual's abilities and progress, ensuring appropriate challenge levels.

3. Assist users in tracking their progress, setting goals, and celebrating achievements to enhance motivation and engagement.

4. Deliver immediate feedback and support, guiding users in understanding their mistakes and developing a deeper understanding of mathematical concepts.

Problem Statement:

The problem we aim to address is the lack of accessible and engaging educational tools for individuals with dyscalculia. Many existing resources do not adequately cater to their specific needs, hindering their math learning progress and overall confidence in the subject. Our objective is to develop a software application that provides personalized and adjustable math games, empowering individuals with dyscalculia to overcome challenges, improve their math skills, and foster a positive learning experience.

SWOT Analysis

Strengths:

1. Personalized Learning Experience: The adjustable difficulty levels and adaptive difficulty feature offer a customized learning experience, catering to the individual needs and abilities of individuals with dyscalculia.

2. Engaging and Varied Game Formats: The application offers a range of game formats, providing a diverse and engaging learning experience. This helps maintain interest and motivation among users.

3. Progress Tracking and Achievement System: The comprehensive progress tracking and achievement system allows users to monitor their improvement over time, providing a sense of accomplishment and motivation to continue learning.

4. Immediate Feedback and Support: The provision of clear and immediate feedback, along with hints and step-by-step solutions, helps users understand their mistakes and learn from them, fostering a deeper understanding of mathematical concepts.

Weaknesses:

1. Accessibility Considerations: Ensuring the application is fully accessible to individuals with various disabilities or learning challenges may require additional development and testing to address specific accessibility requirements.

2. Technical Challenges: Developing a software application with adjustable difficulty levels and adaptive features can be technically complex, requiring robust algorithms and a user-friendly interface. Technical expertise and resources may be required to implement these features effectively.

Opportunities:

1. Growing Demand for Educational Technology: The increasing adoption of educational technology presents an opportunity for the math games application to reach a wider audience and make a positive impact on the learning outcomes of individuals with dyscalculia.

2. Partnerships with Educational Institutions: Collaborating with schools, educational institutions, or organizations specializing in dyscalculia support can help promote the application and enhance its visibility among the target audience.

Threats:

1. Competitive Landscape: There may be existing or emerging competitors offering similar math learning applications for individuals with dyscalculia. Differentiating the application through unique features, quality content, and user experience will be crucial.

2. Technological Advancements: Rapid advancements in technology may require continuous updates and improvements to stay current and meet user expectations. Failure to keep up with technological advancements could result in the application becoming outdated.

Overall, the math games application has the potential to provide a valuable learning tool for individuals with dyscalculia. By capitalizing on its strengths, addressing weaknesses,

exploring opportunities, and mitigating threats, the application can carve a niche in the educational technology market and make a positive impact on math learning for individuals with dyscalculia.

Products and Services

Our product is a games platform designed to improve math ability for individuals with dyscalculia. The platform offers a variety of math games that target dyscalculia-related math skills, such as number sense, spatial reasoning, and memory. The games are designed to be engaging and fun, while also providing users with opportunities to practice and improve their math abilities.

Competitive Advantages:

Our product has several competitive advantages that set it apart from other math learning tools. First, it is specifically designed for individuals with dyscalculia, which means the games are tailored to address the unique challenges faced by this population. Second, the games are designed to be engaging and fun, which can help motivate users to practice and improve their math skills. Third, the platform offers a supportive community and staff who can provide encouragement and guidance to users.

Competitive Disadvantages:

One potential disadvantage of our product is that it may not be as widely known or established as other math learning tools. Additionally, some users may prefer more traditional learning methods, such as one-on-one tutoring or classroom instruction.

Pricing Structure

Our product will be priced on a subscription basis, with users paying a monthly fee to access the platform and its games. The pricing will be competitive with other math learning tools and will be designed to be affordable for individuals with dyscalculia and their families. We may also offer a free trial period to allow users to try out the platform before committing to a subscription.

Fee and Leasing Structure

Users will pay a monthly fee to access the platform and its games. There will be no additional fees or charges for accessing specific games or features. Users can cancel their subscription at any time without penalty.