STELARR
Vision Document

Grant Pinkham, Jan Ras
CSCI 4600, Project - Phase 1

1 - Introduction (Purpose, Scope)

1.1 Purpose

The purpose of this document is to describe, analyze, and define the needs and features of the Standalone Teaching, Learning, And Retention Resource (STELARR).

1.2 Scope

This Vision Document applies to the STELARR program and its stakeholders. The developers of STELARR will make the platform available for Windows OS users and focus on features that make learning challenging, relevant, and available for all.

2 - Positioning (Business Opp., Problem St.)

2.1 Business Opportunity

As we progress into the Information Age, computer literacy has become a prerequisite for most professional work. The current global pandemic has forced school systems to utilize remote learning environments as an alternative to classroom instruction. A standalone teaching resource, such as STELARR, can bridge literacy efforts in remote locations. STELARR can also augment classroom learning for young students or be an independent learning resource for homeschooled children.

2.2 Problem Statement

The problem of	not having a standalone learning platform for early education students.
affects	schoolchildren requiring special accommodations or are residing in remote locations, and parents and teachers who prefer homeschooling children due to health and safety concerns.
The impact of which is	students requiring special accommodations or are remotely located can often only be accommodated at a cost unattainable to the student; also, parents that have concerns over public school curriculums and/or have limited educational background can benefit from a structured learning platform, resulting in a more sustainable homeschool experience while preventing burnout.
A successful solution would be	An inexpensive, guided, self-paced learning platform that can teach young students' basic math, reading, and writing skills that can be deployed at home of which progress can be measured and feedback can be provided.

3 - Stakeholder and user descriptions

3.2 Stakeholders

NAME	REPRESENTS	PROJECT ROLE
Jan Ras	Project Team Lead Software Architect	Leader / Organizer Design & Implementation
Grant Pinkham	Project Team Lead Software Architect	Leader / Organizer Design & Implementation

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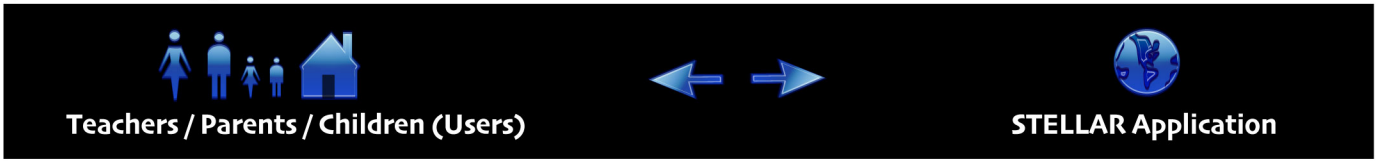
3.3 Users

NAME	DESCRIPTION	RESPONSIBILITIES	STAKEHOLDER
Children	Primary End-User	Uses application to learn, practice, and test math and language skills	Self
Teachers	Primary End-User	Uses application to customize or modify lesson plans and provide feedback to other users	Self
Parents	End-User	Configures application for use and monitors progress	Self

4 - Product Overview

4.1 Product Perspective



4.2 Summary of Capabilities

CUSTOMER BENEFIT	SUPPORTING FEATURES
Accessible for all user types	At home or in-classroom usage
Measurable results	Tracks and logs student progress
Customizable user experience	Learning catered to the individual vs. group

4.3 Assumptions and Dependencies

1. In using the application, it is assumed that the user has access to a laptop or computer using a windows OS.
2. It is assumed that when interacting with the application a user can operate a mouse, keyboard, or trackpad.
3. The default language in STELLAR shall be in English.
4. It is assumed that teachers and parents have a basic familiarity with menus and icons.

5 - Product Features (10)

5.1 Feature 1 Multiple Account Setup
Multiple users can create accounts on a single computer to maximize resources.

5.2 Feature 2 Writing Tablet Support
Usability can be improved with the use of plug-and-play writing tablets or native tablet PC functionality.

5.3 Feature 3 Customizable Lesson Plan
Modules can be customized based on grade level, mastery, learning style, and time.

5.4 Feature 4 Progress Tracking and Recording
Users can track and receive real-time feedback on their progression. A record can be printed or stored in a desired format.

5.5 Feature 5 Tutorial Feature

A tutorial mode can be accessed at any time for users to gain familiarity with the environment. The tutorial will go over basic actions such as, but not limited to, the use of menu options, window modes, and keyboard and mouse functions.

5.6 Feature 6 Accessibility features

Accessibility features such as text-to-speech, captions, magnification, and audio feedback can be enabled to accommodate user needs.

5.7 Feature 7 Adaptive Learning

Users take an assessment quiz at the end of each lesson or to test out of certain modules. Test difficulty adjusts in real time based on right or wrong answers. The gradual change in difficulty aims to challenge and improve user confidence.

5.8 Feature 8 Autosave

Progress is automatically saved as backup file after predetermined intervals. Backup can be retrieved to resume progress after unanticipated interruption.

5.9 Feature 9 Print Modules

Modules can be converted to a printable format to accommodate user needs.

5.10 Feature 10 Built-in Break Periods

To prevent eye strain and stagnation, break periods are built-in between modules. The program can let users skip break periods as appropriate.

6 - Constraints

The major constraint is it is platform-dependent (Windows only) and the executable file must exist before operation. Other constraints are design restrictions which target the effectiveness of the programs usability. A child-friendly interface is key, and restrictions on the amount of mouse clicks and icon design could positively impact a child's engagement.

9 - Other Product Requirements

Applicable Standards

Department of Justice's Americans with Disabilities Act (ADA) Standards for Accessible Design
American Council of the Blind
eSSENTIAL (All-In-One Compliance)

System Requirements

Recommended Configurations

Processor (CPU)	Intel Core i3 or equivalent
Operating System	Microsoft Windows 10 x64
Memory	8GB RAM
Storage	500GB internal storage device
Monitor/Display	15" LCD Monitor
Other	Keyboard
	Mouse