Overview

INTRODUCTION 1 3 MEDIUM-FI PROTOTYPE

TASKS 2 4 PROTOTYPING
Overview

1. INTRODUCTION
2. TASKS
3. MEDIUM-FI PROTOTYPE
4. PROTOTYPING
Problem & Solution

**PROBLEM**
- Non-ESL middle teachers are ill-equipped to support the learning needs of ESL students.

**SOLUTION**
- AI-powered teacher platform that provides insight on student progress and gives suggestions on teacher lessons based on academic content, cultural understanding, and language abilities of their students.
Mission & Value

MISSION
• To empower non-ESL middle school teachers with academic and cultural resources, so that they can support ESL students to their fullest potential.

VALUE
• Understand ESL student needs beyond academics with culture and language.
Tasks

Task 1 (Simple)
View student profile

Task 2 (Medium)
Analyze lesson and get feedback

Task 3 (Complex)
Send student progress report
Task 1 (Simple)

- **Task:** View student profile.
- **Profile:** home language, cultural norms, contact information, teachers, and class schedule.

![Diagram showing the process of finding and getting student information]
Task 2 (Medium)

- **Task**: Analyze teacher’s lesson materials and get suggestions on difficult vocabulary terms and cultural connections.

- **Updates**: Merged medium tasks for analysis of lesson material.
Task 3 (Complex)

- **Task:** Send progress report to a student and additional contacts (parents and teachers).

- **Updates:** Switched to cumulative progress report over feedback report per assignment.

---

1. Find student
2. View student profile
3. Get analyzed student progress
4. Edit progress report and input custom feedback
5. Send report
Overview

1. INTRODUCTION
2. TASKS
3. MEDIUM-FI PROTOTYPE
4. PROTOTYPING
Design Considerations

- **Users**: Non-ESL middle school teachers
- Technical proficiency
- Ease-of-use and ease-of-access
- Clarity and focus on content
Design System

Color

Typography

Noto Sans JP
Noto Sans JP
Noto Sans JP

Buttons

Icons
Major Design Changes

Access to progress reports in student profile

Student Section

Merged vocabulary and cultural connection suggestions

Analyze Section

Simplified upload process of lesson materials

Upload
Task 1 (Simple)

View student profile
Task 1
View student profile

Select class

My Students
Period 1
- Anjini Karthik (Grade 7)
- Kayla Magid (Grade 7)
- Misbah Surani (Grade 7)
- Kimberly Te (Grade 7)
- Matthew Tan (Grade 7)

Period 2
- Jerry Cain (Grade 8)
- Chris Gregg (Grade 8)
- Cynthia Lee (Grade 8)
- Chris Piech (Grade 8)
- Keith Schwarz (Grade 8)
Task 1
View student profile

Select student
Task 1
View student profile

About Section

Hometown
Manila, Philippines

First Language
English

English Proficiency
Very Proficient

Cultural Norms
Introductory greetings are formal, usually starting with the eldest or most important person first.
Task 1
View student profile

Contacts

Parent(s)/Guardian(s)
Mrs. Tan (Mother) (888) 775-0015 mrtan@gmail.com

Teachers
Ms. Apple
Mr. Pear
Mrs. Berry
Ms. Tealeaf
Ms. Cherry
Mr. Plum
ESL Teacher
Academic Skills Advisor
Guidance Counselor
English Teacher
Math Teacher
History Teacher
apple@school.edu
tpear@school.edu
bberry@school.edu
tkeleaf@school.edu
tcherry@school.edu
tplum@school.edu
Task 2 (Medium)

Analyze teacher's lesson materials and get suggestions on difficult vocabulary terms and cultural connections.
Task 2
Analyze lesson and get feedback

Select file to analyze
Task 2
Analyze lesson and get feedback
Task 2
Analyze lesson and get feedback

View difficult vocabulary terms

**Volcano Basics**

A volcano is a spot in Earth’s crust where molten rock, **volcano ash** and certain types of gases escape from an underground chamber. Magma is the name for that molten rock when it’s below ground. Scientists call it lava once that liquid rock erupts from the ground — and may start flowing across Earth’s surface. (It’s still “lava” even after it’s cooled and solidified.)

Roughly 1,500 potentially active volcanoes exist across our planet, according to scientists at the U.S. Geological Survey, or USGS. About 900 volcanoes have erupted since humans have been keeping records. Of all volcanoes that have erupted in the past 10,000 years, roughly 20 percent reside in the United States. Most of them exist in Alaska (particularly in the Aleutian Island chain), in Hawaii and in the Cascade Range of the Pacific Northwest.

The edge of one tectonic plate may begin sliding beneath a neighbouring one. This process is known as subduction. The downward-moving plate carries rock back toward the mantle, where temperatures and pressures are very high. This disappearing, water-filled rock melts easily. Because the liquid rock is lighter than the surrounding material, it will try to float back up toward Earth’s surface. When it finds a weak spot, it breaks through. This creates a new volcano.

Translations of tricky words:

- volcano
- ash
- el volcán
- la ceniza
Task 2
Analyze lesson and get feedback

Select cultural connections to view
Task 3 (Complex)

Send progress report to students and additional contacts (parents and teachers)
Task 3
Send student progress report

Enter through student profile
Task 3
Send student progress report

Matthew Tan
Grade 7

Participation: 90%
Homework: 65%
Exams: 85%

Strengths
- Understands the term “tectonic plates”
  - Description: used this term correctly
- Knows where main tectonic plates are located
  - Description: was able to draw tectonic plates on the map for HW

Areas For Improvement
- Thought lava and plasma were the same thing
  - Description: lacked vocabulary to distinguish objects
  - Suggestion: clarify states of matter
- Confused by the various stages of the rock cycle

Create progress report
Task 3
Send student progress report

Matthew Tan
Grade 7

Strengths
- Understands the term tectonic plates
  Description: used this term correctly
- Knows where main tectonic plates are located
  Description: was able to draw tectonic plates on the map for HW

Areas for Improvement
- Thought lava and plasma were the same thing
  Description: lacked vocabulary to distinguish objects
  Suggestion: clarify states of matter
- Confused by the various stages of the rock cycle
  Description: lacked vocabulary to understand the stages
  Suggestion: use more visuals to show what the rocks look like at each part
Task 3
Send student progress report

Matthew Tan
Grade 7

Strengths
- Understands the term tectonic plates
  Description: used this term correctly
- Knows where main tectonic plates are located
  Description: was able to draw tectonic plates on the map for HW

Areas For Improvement
- Thought lava and plasma were the same thing
  Description: lacked vocabulary to distinguish objects
  Suggestion: clarify states of matter
- Confused by the various stages of the rock cycle
  Description: lacked vocabulary to understand the stages
  Suggestion: use more visuals to show what the rocks look like at each part

Input custom text and edit form
Send complete report
Task 3
Send student progress report

Select contacts and send options
Task 3
Send student progress report

Send progress report!
Overview

INTRODUCTION 1

TASKS 2

MEDIUM-FI PROTOTYPE 3

PROTOTYPING 4
Prototyping Tools

- **Tools:** Figma

- **Tool limitations**
  - Display options
  - Repetitive interaction connections
Limitations & Tradeoffs

- **Assumptions**
  - Teacher completed sign-up process
  - All student data pre-loaded

- **Limited functions**
  - Interaction limited to task use cases
  - No "Edit" option for student profiles
  - No file storage management system

- **Wizard of Oz**
  - Analysis of lessons
  - Progress report generation
Next Steps

● Future tasks
  ○ Enable teacher sign-up process
  ○ Upload student data
  ○ Manage file storage system

● Improvements
  ○ Color and layout
  ○ Homepage
  ○ Toolbar
  ○ Toggle display options
  ○ “Edit” options
Thank you!
Questions?