PRESENTATION OVERVIEW

- Background
- Design & Development
- Usability Study
- Moving Forward
- Personal Reflection
Who am I and why did I choose this project?

- Educational background in computer science and second language studies
BACKGROUND

Who am I and why did I choose this project?

- Educational background in computer science and second language studies
- PTT, NB-ELL Project Assistant

- Interested in mobile language learning, app development, user interface design and the user experience
BACKGROUND
Who am I and why did I choose this project?

- Educational background in computer science and second language studies
- PTT, NB-ELL Project Assistant
- Interested in mobile language learning, app development, user interface design and the user experience
- Ilokano background

AUDIENCE POLL
Do you have any experience with any language learning apps?

A. Yes
B. No
C. Maybe?
Do you have any experience with the Ilokano language?

A. Yes
B. No
C. Maybe?

Background

- Ilokano (or also Ilocano) is one of several languages spoken in the Philippines
**BACKGROUND**

- Ilokano (or also Ilocano) is one of several languages spoken in the Philippines
- Considered the language of Philippine diaspora

- 90% of Philippine population in Hawaii is Ilokano
Ilokano (or also Ilocano) is one of several languages spoken in the Philippines.

Considered the language of Philippine diaspora.

90% of Philippine population in Hawaii is Ilokano.

Ilokano classes offered at the University of Hawaii.

Very few web tools or mobile apps available.
Ilokano is currently being offered as a language course at the University of Hawaii

Follow a structured program
**BACKGROUND**

- Ilokano is currently being offered as a language course at the University of Hawaii
- Follow a structured program
  - Textbook

Develop a user friendly language learning mobile application

- Navigability
- Aesthetics
- Usefulness
BACKGROUND

- Develop a user friendly language learning mobile application
  - Navigability
  - Aesthetics
  - Usefulness
- Understand the process of and complete a usability study

DESIGN & DEVELOPMENT

- Development Tool Search
DESIGN & DEVELOPMENT

- Development Tool Search
- Criteria

- Create and package applications to Android devices
**DESIGN & DEVELOPMENT**

- Development Tool Search
- Criteria
  - Create and package applications to Android devices
  - Free, or low-cost

**DESIGN & DEVELOPMENT**

- Development Tool Search
- Criteria
  - Create and package applications to Android devices
  - Free, or low-cost
  - Low learning curve
DESIGN & DEVELOPMENT

◇ Development Tool Search
◇ Criteria
   ◇ Create and package applications to Android devices
   ◇ Free, or low-cost
   ◇ Low learning curve

MIT App Inventor
Design & Development

Wireframe

Paper Prototype

Working Prototype
ABOUT

Ilokano To Go! is a mobile app designed to assist Ilokano language learners.

PLAY ABOUT
DESIGN & DEVELOPMENT: PAPER PROTOTYPE

DESIGN & DEVELOPMENT: WORKING PROTOTYPE I
DESIGN & DEVELOPMENT: WORKING PROTOTYPE 1

USABILITY TEST

Create Working Prototype
Conduct Usability Test 1
Revise/Edit Prototype
Conduct Usability Test 2
Revise/Edit Prototype
USABILITY TEST

- Pre-test Survey
- Usability Protocol
- Observation Checklist
- Post-test Survey

USABILITY TEST: DEMOGRAPHICS

- 6 participants total
USABILITY TEST: DEMOGRAPHICS

- 6 participants total
- 2 Male, 4 Female

USABILITY TEST: DEMOGRAPHICS

- 6 participants total
- 2 Male, 4 Female
- Age range: 22-31
USABILITY TEST: DEMOGRAPHICS

◊ 6 participants total
◊ 2 Male, 4 Female
◊ Age range: 22-31
◊ All participants of Ilokano descent

◊ Exposure to Ilokano ranged from a few days a month to every day
USABILITY TEST: DEMOGRAPHICS

- 6 participants total
- 2 Male, 4 Female
- Age range: 22-31
- All participants of Ilokano descent
- Exposure to Ilokano ranged from a few days a month to every day
- All participants owned a smartphone, but only 2 had experience with language learning apps

USABILITY TEST: NAVIGABILITY

How easy was the app to navigate?

<table>
<thead>
<tr>
<th></th>
<th>Iteration 2</th>
<th>Iteration 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Very difficult | Very easy
USABILITY TEST: NAVIGABILITY

◇ Things were “nicely/appropriately labeled”

USABILITY TEST: NAVIGABILITY

◇ Things were “nicely/appropriately labeled”
◇ “everything was self-explanatory and easy to navigate to”
**USABILITY TEST: NAVIGABILITY**

- Things were “nicely/appropriately labeled”
- “everything was self-explanatory and easy to navigate to”
- “Search bar to enter a question. Or faq screens”

**USABILITY TEST: AESTHETICS**

- Increase font size (vocabulary list)
USABILITY TEST: AESTHETICS

- Increase font size (vocabulary list)
- Add images to vocabulary words

USABILITY TEST: AESTHETICS

- Increase font size (vocabulary list)
- Add images to vocabulary words
- Add border to flashcards when they are flipped over
USABILITY TEST: AESTHETICS

- Increase font size (vocabulary list)
- Add images to vocabulary words
- Add border to flashcards when they are flipped over
- Green background for correct answers, red background for incorrect answers
USABILITY TEST: AESTHETICS

USABILITY TEST: USEFULNESS

How useful is the content of this application to you?

<table>
<thead>
<tr>
<th></th>
<th>Iteration 1</th>
<th>Iteration 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very useful</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Very useful</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Very useful</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Very useful</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Chart shows a comparison between Iteration 1 and Iteration 2, with Iteration 2 rated higher across all categories.
USABILITY TEST: USEFULNESS

How useful is the content of this application to you?

Most requested features to increase usefulness:

- Audio
- Images

USABILITY TEST

How likely are you to use this app?
**USABILITY TEST**

How likely are you to recommend this app to your friends?

- **Iteration 2**
- **Iteration 1**

![Bar Chart](chart.png)

**MOVING FORWARD**

- Addition of audio files and pictures
Moving Forward

- Addition of audio files and pictures
- Addition of content, dialogues, and other resources
- Mascot
PERSONAL REFLECTIONS

What worked...

◇ Critical friends, class, and instructor feedback
◇ Ilokano 101 and 102 textbooks
◇ Timeline/milestones to set work pace
◇ MIT App Inventor

What didn’t work...

◇ Having $0 – no participants
◇ MIT App Inventor
Interface on computer VS. Actual interface
New Screen

Screen name: Screen4

WARNING: The number of screens in this app might exceed the limits of App Inventor. Click here for advice about creating apps with many screens.

Do you really want to add another screen?

Do Not Add  Add

LESSON 1: GETTING TO KNOW YOU
TEST YOURSELF

Question 1
Which of the following words has the meaning "afternoon"?

rabii
aldaw
bigat
malen
PERSONAL REFLECTIONS

Next time...

◇ Start earlier

◇ Better time management
PERSONAL REFLECTIONS

Next time...
◇ Start earlier
◇ Better time management
◇ Explore more app development environments

THANK YOU!

LTEC Instructors
Dr. Fulford
Critical Friends (Dean & Rick)
Classmates
QUESTIONS

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