No Nā Hale: Developing an Interactive iBook to Promote Learning

Kuʻulei Belveal
Learning Design & Technology
College of Education
The Topics

Hawaiian Immersion

The Problem

The Product

Improvements & Closing
My Occupation
My Occupation

Bilingual
Polling Question

Do you speak another language?

✔ Yes
✖ No
Polling Question

Do you speak another language?

✔ Yes
✖ No
The Topics

Hawaiian Immersion
Hawaiian Immersion
Facts

- 1896 Hawaiian language banned
Hawaiian Immersion Facts

- 1896 Hawaiian language banned
- English mandated as the medium of instruction
Hawaiian Immersion
Facts

- 1896 Hawaiian language banned
- English mandated as the medium of instruction
- Depleted number of Hawaiian speakers
Hawaiian Immersion
Facts

- 1896 Hawaiian language banned
- English mandated as the medium of instruction
- Depleted number of Hawaiian speakers
- 1978 Hawaiian is official State language
Hawaiian Immersion Facts

Decline of Hawaiian speakers

Hawaiian language reinstated as official language
Hawaiian Immersion Facts

- Decline of Hawaiian speakers
- Hawaiian language reinstated as official language

Hawaiian Immersion Schools
Hawaiian Immersion Facts

Currently, there are 22 Hawaiian Immersion Schools.
The Topics

Hawaiian Immersion

The Problem
The Problem
The Problem
Online digital materials
The Topics

Hawaiian Immersion

The Problem

The Product
No Nā Hale

KA MOKUNA 2
KA PUKE

Kākau ʻia na Liina Honda
Kaha kīʻi ʻia na Iokua Alameda
The Product

Paper version

iBook version
The Tool

iBooks Author
The Tool

iBooks Author
Free to download
The Tool

iBooks Author

Free to download

Easy to use
The purpose of this usability study was to design and develop an interactive iBook for elementary Hawaiian language learners.
Polling Question

Have you ever used an interactive iBook?

✔ Yes
✖ No
Polling Question

Have you ever used an interactive iBook?

✔ Yes
✖ No
Interactive iBooks

Electronic books enhanced with interactive features
Interactive iBooks

Electronic books enhanced with interactive features

Keynote presentations
Interactive iBooks

Electronic books enhanced with interactive features

Keynote presentations
Videos
Interactive iBooks

Electronic books enhanced with interactive features

Keynote presentations
Videos
Audio options
Interactive iBooks

Electronic books enhanced with interactive features

Keynote presentations
Videos
Audio options
Photo galleries
Interactive iBooks

Electronic books enhanced with interactive features

- Keynote presentations
- Videos
- Audio options
- Photo galleries
- Interactive images
Interactive iBooks

Electronic books enhanced with interactive features

Keynote presentations
Videos
Audio options
Photo galleries
Interactive images
Chapter review questions
Interactive iBooks

Electronic books enhanced with interactive features

Keynote presentations
Videos
Audio options
Photo galleries
Interactive images
Chapter review questions
Google forms
Audience

- Hawaiian language learners
- Immersion students
- Novice level speakers
Audience

- Hawaiian language learners
- Immersion students
- Novice level speakers
Audience

- Hawaiian language learners
- Immersion students
- Novice level speakers
Audience

- Student
- Teacher
- Parents
Audience

- Student
- Teacher
- Parents
Audience

Student

Teacher

Family
The Product Design

Opposites

Kahiko

He hale kahiko kēia.

Hou

He hale hou kēia.
Opposites

Kahiko

He hale kahiko kēia.

Hou

He hale hou kēia.

Ka Pepeke ‘Aike He

He hale liʻiliʻi kēia.
This is a small house.
Design

Theoretical Frameworks
Design

Theoretical Frameworks

Universal Design strategies
Design

Theoretical Frameworks

Universal Design strategies

Language Acquisition strategies

Mayer’s Multimedia Theory
# Development

## Interactive Widgets

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Media widget
Audio option

He hale nui kēia.
Development

Learning Outcomes

Learn proper enunciation & intonation

He hale nui kēia.
Learning Outcomes

Learn proper enunciation & intonation

Multiple modes of learning

He hale nui kēia.
## Development

### Interactive Widgets

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Interactive glossary

ʻO ka hale pāʻani kaʻu punahele.
Development

Interactive glossary

‘O ka hale pā‘ani kaʻu punahele.
Development

Learning Outcomes

Quick and easy definitions
Development

Learning Outcomes

Quick and easy definitions

Learners can keep focused

‘O ka hale pāʻani kaʻu punahele.
Development

Learning Outcomes

Quick and easy definitions

Learners can keep focused

Images can be used for young learners

‘O ka hāle pā‘ani ka‘u punahele.
# Development

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Development

Image galleries

He Waihona Kiʻi - Nā ‘Ēkoʻa

He hōkū kai nui a me liʻiliʻi.

He aha nā mea nui a liʻiliʻi ʻē aʻe?
Supports both learning objectives
Development

Supports both learning objectives

Images of opposites

He Waihona Kiʻi - Nā ʻĒkoʻa

He hōkū kai nui a me liʻihiʻi.

He aha nā mea nui a liʻiliʻi ʻē aʻe?
Development

Supports both learning objectives

Images of opposites

Captions
Ka Pepeke ‘Aike He sentence structure

He Waihona Ki‘i - Nā ‘Ēko‘a

He hōkū kai nui a me li‘ili‘i.

He aha nā mea nui a li‘ili‘i ‘ē a ‘e?
Development

Learning Outcomes
Visual representation

He Waihona Kiʻi - Nā ʻĒkoʻa

He kakā **nui** a he kakā ʻiliʻili.

*He aha nā mea nui a ʻiliʻili ʻē aʻe?*
Development

Learning Outcomes

Visual representation
Descriptive Vocabulary
Sentence structure

He Waihona Kiʻi - Nā ʻĒkoʻa

He kakā **nui** a he kakā **liʻiliʻi**.

*He aha nā mea nui a liʻiliʻi ʻē aʻe?*
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Development

Introduction

Video

Orient the reader

Provide some context
Development

Animated Slideshow Presentation

Keynote slides

Animated transitions

Quicktime

iMovie
Development

Learning Outcomes

States learning goals & purpose
Development

Learning Outcomes

States learning goals & purpose
Focuses learner attention
Reference point
Development

Learning Outcomes

States learning goals & purpose

Focuses learner attention

Reference point

Caters to various learners
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Ke Kuisa Naʻana
Ka Pepeke ‘Aike He

He aha ka Pepeke ‘Aike He pololei?

A. Kēia kaʻa he hou.
B. Kaʻa he kēia hou.
C. Kēia kaʻa hou he.
D. He kaʻa hou kēia.
Development

Ka Pepeke
‘Aike He

Ke Kuisa Na‘ana
Ka Pepeke ‘Aike He

Question 3 of 7
He aha ka Pepeke ‘Aike He kūpono no ke kī‘i?

A. Kiniʻopoʻo hou he kēia.
B. He kiniʻopoʻo hou kēia.
C. Hou kiniʻopoʻo kēia he.
D. Kēia kiniʻopoʻo hou kēia.

Check Answer
Development

Ka Pepeke ‘Aike He

Ke Kuisa Naʻana
Ka Pepeke ‘Aike He

Question 3 of 7
He aha ka Pepeke ‘Aike He kūpono no ke kiʻi?

- A. Kinipōpō hou he kēla.
- B. He kinipōpō hou kēla.
- C. Hou kinipōpō kēla he.
- D. Kēla kinipōpō hou kēla.

Check Answer

Opposites

Ke Kuisa Naʻana
Nā Paʻa ʻĒkoʻa

Question 2 of 5
He aha ka ʻēkoʻa no ke kaʻa ma kēla kiʻi.

- A. ke kaʻa pūpuka
- B. ke kaʻa pāʻani
- C. ke kaʻa hou
- D. ke kaʻa puke

Check Answer
Development

Learning Outcomes
Retention
Generalization
Reflection
Autonomic learning
Feedback

Ke Kuisa Naʻana
Ka Pepeke ‘Aike He

Question 4 of 7
He aha ka Pepeke ‘Aike He pololei?

- A. Kēia kaʻa he hou.
- B. Kaʻa he kēia hou.
- C. Kēia kaʻa hou he.
- D. He kaʻa hou kēia.
Development

Learning Outcomes
Retention
Generalization
Reflection
Autonomic learning
Feedback

Ke Kuisa Naʻana
Ka Pepeke ʻAike He

Question 4 of 7
He aha ka Pepeke ʻAike He pololei?

- A. Kēia kaʻa he hou.
- B. Kaʻa he kēia hou.
- C. Kēia kaʻa hou he.
- D. He kaʻa hou kēia.
Ke Kuisa Naʻana
Ka Pepeke ʻAike He

Question 4 of 7
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A. Kēia kaʻa he hou.
B. Kaʻa he kēia hou.
C. Kēia kaʻa hou he.
D. He kaʻa hou kēia.

Check Answer
Ke Kuisa Naʻana
Ka Pepeke ʻAike He

Question 4 of 7
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- A. Kēia kaʻa he hou.
- B. Kaʻa he kēia hou.
- C. Kēia kaʻa hou he.
- D. He kaʻa hou kēia.
Development

Learning Outcomes
- Retention
- Generalization
- Reflection
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- Feedback

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C. Kēia kaʻa hou he.
D. He kaʻa hou kēia.
Development

Popover Help Widget

Ke Kuisa Naʻana
Ka Pepeke ʻAihe He

Question 4 of 7
He aha ka Pepeke ʻAihe He pololei?

A. Kēia kaʻa he hou.
B. Kaʻa he kēia hou.
C. Kēia kaʻa hou he.
D. He kaʻa hou kēia.
Development

Learning Outcomes

Autonomous learning

Promotes language growth

User friendly
Development

Learning Outcomes

Autonomous learning

Promotes language growth

User friendly
Development

Learning Outcomes

Autonomous learning

Promotes language growth

User friendly
## Improvements

### Additions

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Ka Hoʻolauna: Ka Hoʻohana ʻAna i Kēia Puke

Ka Hoʻolauna: Ka Hoʻohana ʻAna i Kēia Puke

Penei e loelele aia i mua.

Penei e loaʻa aia ke kōkua.

Penei e loelele aia i hope.

Penei e hoʻolohe ai nā huaʻōlelo.

Penei e ʻike ai inā pololei kāu hāʻina me ke kuisa

Ua pololei kāu kohō.

Ua hewa kāu kohō.

Penei e ʻike ai i ke kīʻi o ia huaʻōlelo ʻāhinahina.
What’s Next?

- Format iBook for iBook Store
- Continue developing Hawaiian language iBooks
What’s Next?

- Format iBook for iBook Store
- Continue developing Hawaiian language iBooks
What’s Next?

Graduation!
Closing

Thank you!

TCC Team

Learning & Design Technology
‘ohana

The Hale Kuamo‘o

Ke Kula ‘O ‘Ehunuikaimalino

Kumu Nai‘a Dayton

Special Thanks to my Family

The Belveal ‘Ohana, Kailua-Kona Hawai‘i
Questions?