Usability Study of a simplified eLearning design that integrates Google@UH Apps and the Laulima LMS

Koran Munafo
UH Manoa LTEC MEd Program
MEd Learning Design and Technology (Online)

GCERT Learning Design and Technology: Online Learning and Teaching (COLT)
thousands of hours

elearning
Wow!
I wonder how my audience is doing...
The Experience
Building Bridges to Self, College, and the Community
Life Skills for the 21st Century!

Google@UH

to access Google apps

Google+
eIS101 COMMUNITY

to access shared folders

important info

Stay on track with auto reminders. Add this schedule to your Google calendar.

Important Info
- Important class news, updates, and changes posted here.
- Email notifications sent when new message posted.
New to the site? WATCH THIS FIRST!

Landing and Launchpad
New to the site? WATCH THIS FIRST!

Hi! I'm Koran

Landing and Launchpad
e-IS101
LIFE SKILLS 2.0

Building Bridges to Self, College, and the Community
Life Skills for the 21st Century!

Google Play

Google+ students

Contact your instructor

Add this schedule to your Google calendar.

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Welcome to the eIS101 G+ community page!

Take this easy 5 minute quiz. Find out more about yourself!

Multiple Intelligences Self-Assessment

DONE! Here are your results.

- Linguistic: 67%
- Logical-Mathematical: 56%
- Visual-Spatial: 75%
- Intrapersonal: 75%
- Interpersonal: 81%
- Musical:
e-IS101 LIFE SKILLS 2.0

Building Bridges to Self, College, and the Community
Life Skills for the 21st Century!

For updates and announcements, please visit:
- Google calendars
- eIS101 COMMUNITY
- Students

Stay on track with auto reminders. Add this schedule to your Google calendar.
Student Page
Locate the Google Drive folder with your name on it.
Add it to your Drive to save, access, and share your course artifacts.

<table>
<thead>
<tr>
<th>TITLE</th>
<th>LAST MODIFIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>JANE</td>
<td>10/6/15 Koran Munafo</td>
</tr>
<tr>
<td>JENNIFER</td>
<td>10/6/15 Koran Munafo</td>
</tr>
<tr>
<td>JIMMY</td>
<td>10/6/15 Koran Munafo</td>
</tr>
<tr>
<td>JOHN</td>
<td>10/6/15 Koran Munafo</td>
</tr>
<tr>
<td>JOSH</td>
<td>10/6/15 Koran Munafo</td>
</tr>
<tr>
<td>L0 Tech Check Assignment</td>
<td>Jan 31 Koran Munafo</td>
</tr>
</tbody>
</table>

Sharing and Permissions
Who has access?

Individual Artifacts
Attention! Different permissions required (private, instructor & student, group)

Folders
Instructor and (named) student

Need Help with Drive?

- Open e-IS101 Student Section

Laulima
e-IS101

Building Bridges to Self, College, and the Community
Life Skills for the 21st Century!

Google@UH

Google+
eIS101 COMMUNITY

Students

to access shared folders

Contact

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Instructor Info

Ask for help when help is needed!

Koran Munafó
MEd Learning Design and Technology Cert Online Learning and Teaching
koran@hawaii.edu

Join me during office hours.

about me intro

Curious? View my eportfolio site. Or, Google me!

Laulima
New to the site? WATCH THIS FIRST!

Hi! I'm Koran

Important Info
* Important class news, updates, and changes posted here.
* Email notifications sent when new message posted.

Meeting April Fools!
When: Friday, Apr 1, 2016

Add this schedule to your Google calendar.
Building Bridges to Self, College, and the Community Life Skills for the 21st Century!

Meeting April Fool!
When: Friday, Apr 1, 2016

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Add this schedule to your Google calendar.
Add someone else's Google calendar

You can view someone else's calendar if they've shared it with you. You can also request access if they haven't shared their calendar with you yet.

Ways to add someone else's calendar

- Add using an email address
- Add using a link

Hide someone else's calendar

1. Open Google Calendar.
2. On the left side, find the Other calendars section.
New to the site? WATCH THIS FIRST!

Hi! I'm Koran

Important Info:
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Stay on track with auto reminders. Add this schedule to your Google calendar.
Interdisciplinary Studies

e-IS101
IS-101 Building Bridges to Self, College, and the Community
Life Skills for the 21st Century!

Syllabus
Summer 2016

Course Purpose
“...To build academic, technological, social, and personal skills needed to succeed in college and the work world, including goal setting and teamwork.”

For full course description see HawCC Catalog (p. 128).

Course Learning Outcomes

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>Achieved Through</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>• Public and private journal writing and artifact creation</td>
</tr>
<tr>
<td></td>
<td>• Synchronous and asynchronous participation in class community</td>
</tr>
<tr>
<td>Self and Community</td>
<td>• Collaborative projects with peers</td>
</tr>
<tr>
<td></td>
<td>• Synchronous and asynchronous participation in class community</td>
</tr>
<tr>
<td></td>
<td>• Relevant and timely subject matter</td>
</tr>
</tbody>
</table>
Building Bridges to Self, College, and the Community
Life Skills for the 21st Century!

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e-IS101
LIFE SKILLS 2.0

Lessons

Features

Course content presented in sequence
Complete a lesson, level up to the next.
Assignments and assessments are embedded as you progress.
Navigate in a lesson with "Back" and "Next" buttons

Start with Lesson 0

- Lesson 0
- Lesson 1
- Lesson 2
- Lesson 3
- Lesson 4
- Lesson 5
- Lesson 6
- Lesson 7
- Lesson 8
- Lesson 9
What's Happening in Lesson 0?

In this step by step process you will:

1. INSTRUCTION - learn about e-Learning readiness and tech requirements
2. ASSIGNMENT - gauge your e-Learning and tech readiness by submitting a simple assignment
3. INSTRUCTION - become familiar with the syllabus
4. ASSESSMENT - gauge your understanding of the syllabus

Step 1:
- [Link] Step 0 Instruction - Are you ready for e-Learning?

Step 2:
- [Check] Lesson 0 Assignment - Tech Check

Step 3:
- [Check] Lesson 0 Assignment - Syllabus Walkthrough

Step 4:
- [Check] Lesson 0 Assessment - Syllabus Check

Back
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**Step 1:**

Lesson 0 Instruction - Are you ready for e-Learning?

**Step 2:**

Lesson 0 Assignment - Tech Check

**Step 3:**

Lesson 0 Instruction - Syllabus Walkthrough

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Laulima assessments
New to the site? WATCH THIS FIRST!

Hi! I'm Koran

Important Info:
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Google Apps Help

Google Apps Learning Center

Or Get started in 7 easy steps!

Research
Search up information from credible sources.

Mookini Library

Need Help?
- How do I use the Mookini Library?
- Top 10 Research Tips for Distance Learners.

Powered by Sakai

Unauthorized access is prohibited by law in accordance with Hawaii Revised Statutes. All use is subject to University of Hawaii Executive Policy E2.210. Laulima - Release - Sakai 2.9.3 (Kernel 1.3.3)- Server sak30
e-IS101
LIFE SKILLS 2.0

Building Bridges to Self, College, and the Community
Life Skills for the 21st Century!

Google@UH

Google+
eIS101 COMMUNITY!

Students

to access shared folders

Contact

Stay on track with auto reminders. Add this schedule to your Google calendar.
Unpublished Site

Grade Report for Koran Munafao

Course Grade: Not yet available

<table>
<thead>
<tr>
<th>Title</th>
<th>Due Date</th>
<th>Grades*</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>LI Syllabus Assessment Summer 2016</td>
<td>-</td>
<td>2/2</td>
<td>from Tests &amp; Quizzes</td>
</tr>
<tr>
<td>Lesson 1</td>
<td>-</td>
<td>2/2</td>
<td>from Lesson Builder</td>
</tr>
</tbody>
</table>

Legend:
*Grades in parentheses () are not included in the course grade calculation.
New to the site? WATCH THIS FIRST!

Hi! I'm Koran

Important Info
- Important class news, updates, and changes posted here.
- Email notifications sent when new message posted.
Hey Team!

Let's meet up in hangouts and work on our group project.
Wow!
I wonder if the coqui frogs are loud in the background...
The Design
Existing UH services

HawCC
IS-101
F2F course

Combined into eLearning design

User perception
Efficiency
Ease of use
Modular Design

eLearning course shell

Laulima LMS

Google@UH

Course Content customization
eLearning course shell

Laulima LMS

New Content

Google@UH

Easily Replicated

Course Content
Disabled Native navigation and page titles

Custom graphic navigation only
Design Creation Process

- Backwards Design
- CASA
- Mobile Design Principles
- Rapid Prototyping
- Intuitive Design Principles
- CRAP!
Backwards Design
multimedia
multimodal

authentic rubric based assessment
self assessment

Content
Assessment

CASA

Synchronous
Collaborative Virtual Learning Environments
F2F

Asynchronous
just in time feedback
web 2.0 tech
moderated SNS discussion
Mobile Design
Hm, I wonder what I should do?

Oh, I was right!

Intuitive Design
Design Aesthetics

- Contrast
- Repetition
- Alignment
- Proximity

- Custom graphics
- Native text
- Matching typeface
- White space & color
The Tools
Wow!
Framework to Support Learning
Digital literacy

Asynchronous

- just in time feedback
- web 2.0 tech
- moderated SNS discussion

Google+

Google@UH

Synchronous

- Collaborative Virtual Learning Environments

CASAA

Content

Assessment

multimedia
multimodal
authentic rubric based assessment
self assessment
Scaffolding

Google Apps learning success!

Lesson 9 Staying on course to your success
Lesson 8 Developing emotional intelligence
Lesson 7 Adopting lifelong learning
Lesson 6 Gaining self awareness
Lesson 5 Employing interdependence
Lesson 4 Mastering self management
Lesson 3 Discovering self motivation
Lesson 2 Accepting personal responsibility
Lesson 1 Getting on course to your success
Lesson 0 Tech check: Syllabus walkthrough
Sequencing

What's Happening in Lesson 0?

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Step 2:
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Step 3:
Lesson 0 Instruction - Syllabus Walkthrough

Step 4:
Lesson 0 Assignment - Syllabus Check

Edit Item

- Item Name: Lesson 0 Assignment - Tech Check
- Path (in Resources)
- Item Description
- Change Assignment
- Edit Assignment
- Don't Release Item Until All Prerequisites are Completed
- Require that the student submit this assignment
- Require that the student receive a Checkmark

Delete: Delete
Update Item  Cancel

Next
Multimedia Learning Objects

Skip Downing

Hi! I'm Koran

YouTube

Lesson 0
Ready for e-Learning? Tech check

Google Slides
Administration
Organization
Sharing
Usability Testing
Existing UH services

HawCC
IS-101
F2F course

Combined into eLearning design

Research Questions

User perception
Efficiency
Ease of use
Receive a gift card for your time...
Participant Profile

At which school are you enrolled as a student?

How many online courses have you taken in Laulima?

Do you access course material with a mobile device?

�� = 9
Participant Tech Profile

How would you rate your tech level?

How would you rate your ability to use Laulima?

How would you rate your ability to use Google apps?
Can you tell me what you’re thinking?

I wonder what this does...
user perception

efficiency

ease of use

Protocol
Thanks SO MUCH for your time! 😊

That was interesting...
1

Round 1 Usability Errors

- **user perception**
  - overall design: Serious Error
  - language/concepts: Serious Error
  - simplified/intuitive: Serious Error

- **efficiency**
  - task completion: Critical Error

- **ease of use**
  - navigation: Critical Error
  - accessing resources/multimedia content: Serious Error

- **Minor Error**
  - experienced by 1 user per round

- **Critical Error**
  - id and nav to G+ page error
  - native nav within lessons confusing
  - resources not ideally located

- **Serious Error**
  - excessive text homepage
  - included Google services unclear
  - included Laulima services excessive

- **excessive text**

- **homepage**

- **native nav**

- **lessons confusing**

- **resources not ideally located**

- **1 user per round**

- **2 users per round**
Too many!

Too much!

Google Services?
Round 2 Usability Errors

- **User perception**
  - Overall design
  - Language/concepts
  - Simplified/intuitive

- **Efficiency**
  - Task completion
  - Ease of use
  - Navigation

- **Accessing resources/multimedia content**

**Critical Error**
- Id and nav to G+ page error
- Native nav within lessons confusing

**Minor Error**
- Included Google services not clear
- Resources not ideally located

**Critical Error**
- Experienced by 1 user per round
- Experienced by 2 users per round
- Experienced by all users per round

**Round 2 Usability Errors**

- 2 users
- 2 icons
- Firefox logo
Prototype Revision 2
Round 3 Usability Errors

**Critical Error**
- Experienced by 1 user per round
- User perception
  - Overall design
  - Language/concepts
  - Simplified/intuitive
- Efficiency
  - Task completion
- Ease of use
  - Navigation
  - Accessing resources/multimedia content

**Serious Error**
- Experienced by 2 users per round
- User perception
  - Navigation only to G+ page error
- Ease of use
  - Native nav within lessons confusing

**Minor Error**
- Experienced by all users per round
- User perception
  - Homepage video display overlapping issues on iPad
- Ease of use
  - Excluded cultural based resources
In the future perhaps other web servers could utilize this [design] and help students use a more functional approach to not only Laulima but also the UH system.

The design was very easy [to] follow and was consistent in various tabs … [this] is very helpful when working in an online course.

The accessibility was awesome!

Easy to use. Easier than Laulima itself.

It's just right there and you just click it. Straightforward and clear.

Not going to take a rocket scientist to figure it out.
The home page is clear and serves as an orientation to the course.

It was easy to complete the tasks given during the study.

The course site is easy to use.

<table>
<thead>
<tr>
<th>User Perception</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>The home page is clear and serves as an orientation to the course.</td>
<td>4.25</td>
<td>4.5</td>
<td>4.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Efficiency</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>It was easy to complete the tasks given during the study.</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ease of Use</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
</tr>
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<tbody>
<tr>
<td>The course site is easy to use.</td>
<td>4.5</td>
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<td>4.6</td>
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User perception: Efficiency, Ease of use.
Wow!
Reflecting
I hope this design positively impacts student success and elearning!

Koran Munafo
THE DESIGN: A simplified cloud-based, clean learning design accessible across an array of devices and platforms.
Wow!
Wrap it Up!
Overall Usability Errors

- User perception
  - Serious Error
  - Minor Error
- Overall design
  - Serious Error
  - Minor Error
- Language/concepts
  - Serious Error
- Simplified/intuitive
- Efficiency
  - Critical Error
- Task completion
  - Critical Error
- Ease of use
  - Critical Error
  - Serious Error
- Navigation
- Accessing resources/multimedia content

Overall Post Survey User Ratings

<table>
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Usability Issues

User perception

Efficiency

Ease of use
Major Revisions

simplified homepage

tools & resources

graphic links

features video
Aloha!


