DEVELOPING AND EVALUATING A PERSONAL TASK ANALYSIS APP

University of Hawai`i at Mānoa
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Master’s in Learning Design and Technology
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ptayng.app.appery.io

Check it out! (best viewed on a mobile device)
Quick Survey!

How many apps do you have on your phone?
A. 0-5
B. 6-10
C. 11-15
D. I have an app to count all my apps (too many)!
Quick Survey!

How many of those apps would you say are “self-help” or “productive?”

A. 1-4
B. 5-8
C. 8+
D. Candy Crush is pretty productive (none)!
Problem

- Technology has exploded over the previous decade – seemingly making our lives more convenient
Problem

- Technology has exploded over the previous decade – seemingly making our lives more convenient.

- Interest in digitalizing an in-class activity for a graduate class.
Technology has exploded over the previous decade – seemingly making our lives more convenient.

Interest in digitalizing an in-class activity for a graduate class.

Personal motivations to develop and evaluate an app.
The purpose of this usability project was to develop and evaluate the ease of use for a gamified app of a personal task analysis from an activity in a graduate course used at a university on the island of O`ahu.
The In-Class Activity

The In-Class Activity

Design Process

- Materials Developed
  - Paper Prototype
    - First Iteration
      - First Round of Testing
        - Second Round of Testing
  - Second Iteration
    - Future Iterations
Paper Prototype Ideas

INTRO      PROBLEM/PURPOSE      DESIGN      IMPLEMENTATION      RESULTS      FINDINGS      CONCLUSION
Choosing a Platform

![Appery.io Interface]

**Apps**
- Create new app

**Personal Task Analysis**
- Open
- Test
- Rename
- Delete
- Backup
- Remote debug

- Created: 10/21/15
- Last edited: 12/04/15

### DONTS
- **SetScreen_actual**
  - Load
  - Order: 1
  - Action: SELECT ACTION
  - Details: Set storage variable
    - Variable name: PersonalCheck, value:

- **SetScreen_actual**
  - Load
  - Order: 2
  - Action: SELECT ACTION
  - Details: Set storage variable
    - Variable name: StudentCheck, value:

- **SetScreen_actual**
  - Load
  - Order: 3
  - Action: SELECT ACTION
  - Details: Set storage variable
    - Variable name: ProfessionalCheck, value:

---

**RESULTS**

You have
- 3390
- Gold left

**FINDINGS**

**CONCLUSION**
First Iteration

If time is money...
How are you spending your time?
Welcome to...
TimeSpent!

Get Started!
First Iteration

INTRO

PROBLEM/PURPOSE

DESIGN

IMPLEMENTATION

RESULTS

FINDINGS

CONCLUSION
First Iteration

If time is money...
How are you spending your time?
Welcome to...
TimeSpent!

Get Started!

About this App

Money you have left:

3360

Personal Life

Student Life

Professional Life
First Iteration

If time is money...
How are you spending your time?
Welcome to...
TimeSpent!

Money you have left:
3360

Personal Life
Student Life
Professional Life

How many hours in a week do you...
Engage in Sports?
Enter Hour(s) Here

This costs...
0 dollars.
You still have...
3360 dollars!
Second Iteration

Excavate the Temple!

Which gems will you take back?

You'll start with 3360 gold, explorer!
Good luck!

Tap to Continue
Second Iteration

Excavate the Temple!

Which gems will you take back?

You'll start with 3360 gold, explorer!
Good luck!

Tap to Continue

Main Menu

Personal Life

Professional Life

Student Life

Share Your Run!

Results So Far

About this App
Second Iteration

Excavate the Temple!
Which gems will you take back?

You'll start with 3360 gold, explore! Good luck!
Tap to Continue

Personal Life
Professional Life
Student Life

Share Your Run!
Results So Far

Unexcavated
Unexcavated
Unexcavated

You have 3360 gold left!
Share my Results
Implementation

- Usability Protocol
- 6 Participants, two rounds of 3 participants each
- Pre-Test and Post-Test
- Given four tasks to perform

Usability Protocol Tasks

<table>
<thead>
<tr>
<th>Scenarios (“tasks”) for Cognitive Walkthrough</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task 1</strong></td>
</tr>
<tr>
<td>You are a student who, after hearing about this new app that would help you manage your own time commitments, decides to download the app and try it out. You have heard that it can give you a good breakdown of where your time goes in a week. Find out where you can start this process.</td>
</tr>
<tr>
<td><strong>Task 2</strong></td>
</tr>
<tr>
<td>You are a student who has decided to focus on studying and is unemployed at the moment. Find how you can do an analysis involving only your personal and student life.</td>
</tr>
<tr>
<td><strong>Task 3</strong></td>
</tr>
<tr>
<td>You are a teacher who is looking to integrate this app into their classroom. After completing the app's process by yourself, you are now curious as to see where you can find options to share your results so your class can do the same when they complete it. Find out where you can do this.</td>
</tr>
<tr>
<td><strong>Task 4</strong></td>
</tr>
<tr>
<td>You are a student who wants to try out the app and wants to access a summary of the money spent in the game. Find out where you can access this.</td>
</tr>
</tbody>
</table>
Implementation

■ Recording Using FlashBack Express

■ Free software that lets you see user input

■ Sound Recording and Screen Capture with no watermark!
Participants

- Recruitment Email Sent
- Six Participants
- 2 Male, 4 Female
- 25-54 years old
- 4 Master’s Students, 2 Doctorate Students
- Most did look at their weekly schedule
Pre Test Results

• Sample apps include –
  • Social Media programs (Instagram, Facebook, Twitter)
  • Organizational Apps (Calendar, Mail, Scheduler)
  • Activity Apps (Nike+, Runtastic, Bus Schedule)
During the Study – Round 1

Task 1 – Average 4 clicks
Task 2 – Average 3 clicks
Task 3 – Average 2 clicks
Task 4 – Average 2 clicks
During the Study – Round 1

Participant 1

Money you have left:
3360

Personal Life
Student Life
Professional Life

Share Results

Participant 3

Before we start, please select from three areas that apply to you below:
(For more information about this Personal Task Analysis, click the i button on the bottom)

Personal Life
Student Life
Professional Life

Continue
Task 1 – Average 3 clicks
Task 2 – Average 2 clicks
Task 3 – Average 1 clicks
Task 4 – Average 1 clicks
During the Study – Round 1

Participant 4

Participant 5
Post Test Results

Round 1 Testing Post-Study Survey

- The app is user-friendly.
- I can use the app without instructions.
- Labels for buttons or pages are clear and concise.

Likert Rating 1 = Strongly Disagree, 5 = Strongly Agree

- Participant 1
- Participant 2
- Participant 3
Post Test Results

**Round 1 Testing Post-Study Survey**

- The app is user-friendly: 1 (Participant 1), 4 (Participant 2), 5 (Participant 3)
- I can use the app without instructions: 4 (Participant 1), 5 (Participant 2), 5 (Participant 3)
- Labels for buttons or pages are clear and concise: 4 (Participant 1), 5 (Participant 2), 5 (Participant 3)

**Round 2 Testing Post-Study Survey**

- The app is user-friendly: 5 (Participant 4), 5 (Participant 5), 5 (Participant 6)
- I can use the app without instructions: 5 (Participant 4), 5 (Participant 5), 5 (Participant 6)
- Labels for buttons or pages are clear and concise: 5 (Participant 4), 5 (Participant 5), 5 (Participant 6)

Likert Rating 1 = Strongly Disagree, 5 = Strongly Agree
Written Results (Round 1 Post-Test)

understand much confusing
STEP some

RESULTS
Streamline
results

introduction

problems/purpose

design

implementation

conclusion
Written Results (Round 2 Post-Test)
Findings (discussion)

- Second Iteration an improvement
  - Improved visuals
  - Less confusion on Home page
  - Higher post-test results (more satisfaction overall)

- Further iterations incorporating feedback continues to improve the app
Conclusion (Reflections)

■ Limitations
  - Time and Resources
  - Settling on a Platform
  - Gamification might better be reserved for another type of app

■ Usability Study Protocol

■ Technical Skills
  - Javascript

■ Conducting a Usability Study
Questions?
Thank you for Listening!

A HUGE thank you hug to:

■ My advisor, Dr. Catherine Fulford
■ LTEC Ohana -- Faculty and Staff
■ Critical Friends
■ My Cohort
■ Good Friends at UH
■ Tea