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CSCI 3002-101
Group Project 5 - Usability Testing & Heuristic Evaluation

Part 1: Usability Testing

Links to Figma Prototypes:

<https://www.figma.com/file/LJ0whQWYAqjO9Yqi6PrB2Tks/Paper-Prototype?node-id=1%3A2>

Note: For this assignment our prototype A corresponds to the life total tracker from the previous assignment and our prototype B corresponds to lumping all of our other prototypes for checking community results and inputting a new result into a single prototype for usability testing. Because both of these use cases come from a starting point of the user profile, we thought it appropriate to put the two together as a single prototype.

Study Session 1:

- **Date:** 11/26/2018
- **Time:** 12:30pm
- **Location:** Brewing Market Coffee Shop
- **Study Participant Info:** Richard, Software Engineer
- **Study Conductors:** Thomas Quinn Langsfeld
- **Observations from Prototype A (Life Counter):**
Richard grasped the life total tracker fairly easily. He was able to quickly find the new game button as well as the buttons to manipulate the life totals. No apparent confusion in operating prototype A.
- **Observations from Prototype B (User Profile):**
Despite some trouble at the start with getting used to the layout of the user profile, once Richard had a bit of familiarity with the system he was able to more easily find the appropriate ways to find community results for a specific deck. He did have some frustration with the nature of the form not showing in full at the start and new fields becoming visible as previous fields get entered.
- **Participant Feedback:**
Richard liked the fact that prototype A was simple and easy to look at and see what needed to be done to change life totals, however, he thought the look of it was a little bland, detracting from his use of it. Richard liked that the prototype had so much access to outside resources (community results of decks/links to articles on other sites) but thought there was too much clicking needed to accomplish the tasks connected with prototype B. The lack of links back to specific sections in prototype B (only have link back to User Profile) was confusing. Richard suggested more color and aesthetics in prototype A and some simplification or decrease in steps in form for entering in deck information in prototype B.

Study Session 2:

- **Date:** 11/27/2018
- **Time:** 11:30am
- **Location:** Brewing Market Coffee Shop
- **Study Participant Info:** Frank, Chemist.
- **Study Conductors:** Thomas Quinn Langsfeld
- **Observations from Prototype A (Life Counter):**
Not much confusion as the system is fairly simple. Frank was frustrated with the amounts one could increment/decrement life totals which I found surprising as 1 and 5 are standard amounts to manipulate numbers.
- **Observations from Prototype B (User Profile):**
Frank took less time to get a handle on the user profile system. It seems that maybe some of the initial confusion with this part of the system is coming from the unpolished nature of the look of it (in other words, coming from the mid-fi nature of the prototype). Frank made a mistake entering in info for a draft deck and didn't realize until after submitting the deck and he was frustrated that he could not go back and edit it.
- **Participant Feedback:**
Similar to Richard, Frank liked how easy it was to recognize what the life tracker in prototype A was doing. Frank had trouble with and disliked only being able to decrement/increment life totals by 1 and 5. Frank liked that both managing your own decks as well as monitoring the community were both connected to the user profile, he liked the centralized nature of the system. Frank disliked that he could not alter decks after submitting them. Furthermore, Frank was confused due to the lack of system messaging saying whether an action was successful or not, indicating a breakdown in the gulf of execution. Frank suggested adding the ability to choose how much you want to alter a life total for prototype A and suggested more functionality for users with their decks in prototype B.

Study Session 3:

- **Date:**12/1/2018
- **Time:**9:30 pm
- **Location:** Raising Cane's
- **Study Participant Info:**Donald, student
- **Study Conductors:**Tyler Mauer
- **Observations from Prototype A (Life Counter):** Donald had no trouble familiarizing himself with, and using the life counter. He had used similar systems in the past, and already knew the general concept behind the design.
- **Observations from Prototype B (User Profile):** Donald had much more difficulty learning to use the user profile. He was primarily confused by the lack of feedback whenever he did something, and did not like the design of the beginning page where the

rest of the menu is not visible. Similar to Frank, Donald was surprised that there is no way for him to edit a deck.

- **Participant Feedback:** While Donald liked how easy it was to use the life counter in prototype A, he suggested that instead it be converted to a sort of scroll bar to allow users more freedom in the intervals at which the life can be changed. In prototype B, Donald liked that the community decks were so closely linked to his own decks, and he explained how this is useful for a common game practice called “Net Decking”.

Part 2: Heuristic Evaluation

Prototype:	Heuristic:	Tester:
A	Visibility of system status	Tyler Mauer
A	Match between system and the real world	Tyler Mauer
A	User control and freedom	Tyler Mauer
A	Consistency and standards	Tyler Mauer
A	Error prevention	Tyler Mauer
A	Recognition rather than recall	Tyler Mauer
A	Flexibility and efficiency of use	Tyler Mauer
A	Aesthetic and minimalist design	Tyler Mauer
A	Help users recognize, diagnose, and recover from errors	Tyler Mauer
A	Help and documentation	Tyler Mauer
B	Visibility of system status	Thomas Quinn Langsfeld
B	Match between system and the real world	Thomas Quinn Langsfeld
B	User control and freedom	Thomas Quinn Langsfeld
B	Consistency and standards	Thomas Quinn Langsfeld
B	Error prevention	Thomas Quinn Langsfeld
B	Recognition rather than recall	Thomas Quinn Langsfeld
B	Flexibility and efficiency of use	Thomas Quinn Langsfeld
B	Aesthetic and minimalist design	Thomas Quinn Langsfeld

B	Help users recognize, diagnose, and recover from errors	Thomas Quinn Langsfeld
B	Help and documentation	Thomas Quinn Langsfeld

UARs:

Thomas Quinn Langsfeld:

UAR #: 1

Problem/Good: Problem

Rated by: Thomas Quinn Langsfeld

Name: System Status

Relevant heuristic: Visibility of system status

Steps to reproduce: Input a deck into your own results section (constructed or limited).

Detailed explanation: Once submitting a deck the system does not say whether the submission was successful or not. The user is redirected to their user profile page where it is not immediately apparent if the deck got submitted. There are no flash messages indicating system status.

Possible solution: Show flash message indicating success or failure after submitting a deck in addition to the page redirection.

Severity(low, medium, high, critical): Critical

See also: N/A

UAR #: 2

Problem/Good: Good

Rated by: Thomas Quinn Langsfeld

Name: Speaking the user's language

Relevant heuristic: Match between system and the real world

Steps to reproduce: Navigate to the community results page (constructed or limited).

Detailed explanation: The prompts involved with entering the form for displaying community results correspond to Magic: The Gathering lingo and not to system calls or resources.

Possible solution: Make sure this is repeated in other parts of the system as it is good.

Severity(low, medium, high, critical): Medium

See also: N/A

UAR #: 3

Problem/Good: Problem

Rated by: Thomas Quinn Langsfeld

Name: Lack of error messages

Relevant heuristic: Help users recognize, diagnose, and recover from errors

Steps to reproduce: Submit an incorrect constructed deck by adding more than four copies of a card.

Detailed explanation: When submitting this incorrect and illegal deck the system does not give any error message at all let alone a good one. The page simply redirects to the user profile page.

Possible solution: Add a flash message and don't redirect to the user profile page. The flash message should say exactly why this was an error, i.e., "Error: Did not add <card> to <deck>. Constructed decks cannot have more than four copies of a card."

Severity(low, medium, high, critical): High

See also: N/A

UAR #: 4

Problem/Good: Problem

Rated by: Thomas Quinn Langsfeld

Name: Freedom

Relevant heuristic: User control and freedom

Steps to reproduce: Go into the community results section. Complete half of the form. Try to go anywhere other than user profile.

Detailed explanation: In this section and across the app there are only links to go back to the user profile and not clear this form to start over. If a user needs to restart the form they either have to manually change every field in the form or go back to user profile and then renavigate back to the community results page.

Possible solution: Add a clear form button on all the forms. Add links to community results, personal results, etc pages to every page.

Severity(low, medium, high, critical): Medium.

See also: N/A

UAR #: 5

Problem/Good: Problem

Rated by: Thomas Quinn Langsfeld

Name: FAQ section

Relevant heuristic: Help and documentation.

Steps to reproduce: Try to navigate to a FAQ or About page.

Detailed explanation: There is no central page on the app to answer questions or read a quick synopsis of the software. The app should be relatively easy and intuitive to use, but, given it's connection to outside systems users could have some questions still.

Possible solution: Add an FAQ and About page to address baseline problems and use cases of the app.

Severity(low, medium, high, critical): Low.

See also: N/A

Tyler Mauer:

UAR #: 1

Problem/Good: Problem

Rated by: Tyler Mauer

Name: Transparency to user

Relevant heuristic: Visibility of System Status

Steps to reproduce: Attempt to perform any action in the life tracker while the system is under intense stress from other applications.

Detailed explanation: There is no system in place to allow the user to know that something is wrong when the application experiences poor performance as a result of a lack of resources.

Possible solution: Add a periodic self test to insure that the application is working properly, and if it is not display a loading circle to the user.

Severity(low, medium, high, critical): Low

UAR #: 2

Problem/Good: Good

Rated by: Tyler Mauer

Name: Accessibility of App

Relevant heuristic: Match between system and the real world

Steps to reproduce: View the life tracker.

Detailed explanation: The life tracker is appealing to the user because of the familiarity of the layout, which is mapped efficiently, and because of the use of numbers and symbols to label the buttons instead of words. This makes the life tracker easy to view and use regardless of the user's native tongue.

Severity(low, medium, high, critical): High

UAR #: 3

Problem/Good: Problem

Rated by: Tyler Mauer

Name: User Customization

Relevant heuristic: User control and Freedom, flexibility and efficiency of use

Steps to reproduce: Attempt to change a life total by an increment of 3, and note that there is no settings option in the life tracker at all.

Detailed explanation: The life tracker is extremely limited in its usage, and inconvenient for performing certain actions or for use in certain lighting environments.

Possible solution: Use a slide bar for the life totals instead of a dynamic number, and add a simple options menu that allows users to change basic things such as the color scheme, and the intervals of change.

Severity(low, medium, high, critical): High

UAR #: 4

Problem/Good: Problem

Rated by: Tyler Mauer

Name:

Relevant heuristic: Aesthetic and minimalist design

Steps to reproduce: View the life tracker page.

Detailed explanation: The life total tracking system is clunky and archaic. The +/-1 buttons effectively negate the requirement of the +/-5 buttons, this detracts from the minimalist design of the interface.

Possible solution: Switch the method of changing life totals to a scroll menu, removing much of the clutter on the page, and allowing users to more easily change life totals at different intervals.

Severity(low, medium, high, critical): High

UAR #: 5

Problem/Good: Good

Rated by: Tyler Mauer

Name: Applications of consistency

Relevant heuristic: Consistency and Standards

Steps to reproduce: View the life total tracking page.

Detailed explanation: Maintaining consistency throughout an app is very important for user ease of access. This app has a bar across the bottom with important options such as the home button, this bar is designed to be used with every page of the app, and be identical on each page.

Possible solution: Be sure to use this exact same layout on each page to insure that the user has the optimal experience.

Severity(low, medium, high, critical): High