

Part 1: Usability Testing

Participant 1:

- Study Session #, date, time, location

B1, 12/2/2018, 12:45pm, my house

- Study participant info: give them a pseudonym, and note their occupation (often we would record their age, gender, etc., but in this case those aren't very relevant to the usability test)

"Mary", 26, female, graduate student studying Aerospace engineering

- Who conducted the study (and who else from your group helped)

Sofie

- **Observations from Prototype A:** What happened when testing prototype A? Did you notice anything surprising? Any confusion or mistakes?
- **Observations from Prototype B:** What happened when testing prototype A? Did you notice anything surprising? Any confusion or mistakes?
- **Participant feedback:** Summarize the participant's answers to the 6 questions above, plus any other questions you asked.

When going through prototype A, the user was able to effectively move through the study tasks. The only thing she found confusing was that if you sign in it takes you immediately to the add a book page whereas you would think if you already have an account you should go to the my forest page after sign in, or the my tree.

When going through prototype B, the user recognized that we in fact only have a log-in page and no sign up page. Also, the user found an error in the prototype when trying to log out. The overall navigation went pretty smoothly and the user could perform most study tasks easily, however there were a few simple things that were a bit confusing, like adding a book from the search and also there is no way to move on from the scan cover or scan ISBN pages.

In terms of preferences, the user preferred the design of prototype B because of the colors and the way the book covers were in the shape of trees, and she also noted that it made sense to have more of a focus on searching by typing because most people would go for that option. She did like that on prototype A

you could see which chapter and page you were on versus just percentage completed.

Participant 2:

- Study Session #, date, time, location :

B2, 11/30/2018, 4:30pm, Louisville Public Library

- Study participant info: give them a pseudonym, and note their occupation (often we would record their age, gender, etc., but in this case those aren't very relevant to the usability test)

23, female, "Sally", student studying biology

- Who conducted the study (and who else from your group helped)

Sofie

- **Observations from Prototype A:** What happened when testing prototype A? Did you notice anything surprising? Any confusion or mistakes?
- **Observations from Prototype B:** What happened when testing prototype A? Did you notice anything surprising? Any confusion or mistakes?
- **Participant feedback:** Summarize the participant's answers to the 6 questions above, plus any other questions you asked.

When going through prototype A, the user got very confused at the update screen about how to actually update the number because it simply prompts you to save without having the user type in a number. I'm not sure if this is possible to add into figma but I couldn't find a way to make the prototype reactive in that way. She was also a bit confused about how to change the book she was currently reading until I pointed out the hint at the bottom of the screen, so maybe it should be in a more obvious place, or larger.

When going through prototype B, the user was able to make it through all study tasks, with only a few errors and hiccups. First of all, the user noted that the way my tree screen is designed is poorly done. It is hard to determine which part of the text is what, so it would be good to have the current percentage completed either highlighted or in a different section from the title and author. Secondly, the user clicked on the dot dot dot button to the right of the meow book on the my forest screen, and noticed that it actually popped up information about Harry Potter, oops!

This user had a strong preference for prototype A. She loved the color scheme and the pictures in the background and said the whole aesthetic experience was

much more pleasing in that prototype. She also thought the my tree screen was way better in prototype A in terms of understanding where you are at currently in the book. However, she preferred the navigation being at the bottom as it is in prototype B versus having the hamburger drop down menu to navigate the app.

Participant 3:

- Study Session #, date, time, location :

B3, 11/30/2018, 12:30pm, Joe's apartment

- Study participant info: give them a pseudonym, and note their occupation (often we would record their age, gender, etc., but in this case those aren't very relevant to the usability test)

22, male, "Jacob", student studying computer science

- Who conducted the study (and who else from your group helped)

Joe

- **Observations from Prototype A:** What happened when testing prototype A? Did you notice anything surprising? Any confusion or mistakes?
- **Observations from Prototype B:** What happened when testing prototype A? Did you notice anything surprising? Any confusion or mistakes?
- **Participant feedback:** Summarize the participant's answers to the 6 questions above, plus any other questions you asked.

When attempting to use prototype A Jacob was confused about what the specific buttons do. He was also confused about the terminology used, i.e he didn't know what the "forest screen" was supposed to represent or what the "tree" was. We should consider maybe having a sort of tutorial when the user first opens up the app to help explain what each of these terms mean in the context of our app. He also noted that there was no back button when you search for a book. So once you hit the search option there was no way to go back and try another method of adding a book.

While trying to use prototype B Jacob ran into an initial wall when he tried to scan the cover of the book and the ISBN. We hadn't implemented that so nothing happened. Fortunately we did implement a back button on all screens so he could easily go back and try another option. Overall this session went a lot smoother. With just a few setbacks Jacob was able to add a book, check its progress and update the book relatively easily.

Overall the participant preferred the look and layout of design B. He did however comment and say that in design B the tree graphic should be updated, as it's hard to understand what it's representing. Jacob also commented that he liked the small hint at the bottom of the first prototype because it helped him figure out what buttons did what and wished that there was some sort of welcome screen in prototype B that would explain how the app worked.

Participant 4:

- Study Session #, date, time, location :

B3, 12/1/2018, 9:00am, Five Guys

- Study participant info: give them a pseudonym, and note their occupation (often we would record their age, gender, etc., but in this case those aren't very relevant to the usability test)

21, female, "Alice", Psychology student

- Who conducted the study (and who else from your group helped)

Joe

- **Observations from Prototype A:** What happened when testing prototype A? Did you notice anything surprising? Any confusion or mistakes?
- **Observations from Prototype B:** What happened when testing prototype A? Did you notice anything surprising? Any confusion or mistakes?
- **Participant feedback:** Summarize the participant's answers to the 6 questions above, plus any other questions you asked.

During the test of prototype A Alice made it through the prototype relatively quickly and easily. She did have a few initial questions about what specific screens represent but she picked it up pretty quickly. The one part she struggled on was to update a book. She tried to look for the update button within the hamburger menu. I had to tell her to go click the leaf button next to the specific book in order to go to the update screen. She said that maybe there should be some text that says "update" above the leaf button. Overall, I was pleasantly surprised how quickly she got completed the tasks layed out for her.

During the test of prototype B Alice showed similar results to A. She got through all of the study tasks on her first attempt. She did note that she thought this layout and color scheme looked a bit more sleek that the previous prototype. She

faced a small hiccup when trying to update her current book as the dots button was hard to click. She also noticed that the update button next to the Meow book didn't go to the meow page. She was confused as to how to set her active book to the meow book. She noted that she liked having navigation on the bottom of the screen instead of having a hamburger on the top.

Overall the participant seemed to prefer the layout of B. She had slightly less issues going through B and stated that the removal of the hamburger menu made this prototype easier to follow. She also suggested that the specific menu that we're currently on should be greyed out on the bottom so you know that you can't click it.

Part 2: Heuristic Evaluation

Prototype

Heuristic

Tester

A	Aesthetic and minimalist design	Joe
A	Visibility of system status	Joe
A	Recognition and recall / Help and Documentation	Joe
A	User control and freedom	Joe
A	Visibility of system status	Joe
B	Visibility of system status	Sofie
B	Match between system and real world	Sofie

B	Visibility of system status	Sofie
B	Error prevention	Sofie
B	Help and documentation	Sofie

Prototype 1:

<https://www.figma.com/proto/NlaICYc1zbUsI5S59Qkptmpn/HCIProject?node-id=36%3A5&scaling=scale-down>

Prototype 2:

<https://www.figma.com/proto/RN0DcoRHyCoQG1hNX6JIZJzl/HCIProject-V2?node-id=7%3A69&scaling=scale-down>

Usability Aspect Reports:

UAR #: A1	Problem/Good: Can't go back after selecting a search option	Rated by: Joe Los
Name: Joe Los		
Relevant heuristic: User control and freedom		
Steps to reproduce: Go to add a book screen, select an option on that screen, try to go back afterwards		
Detailed explanation: Once the user selects an option on the add a book screen they can't go back, so they are stuck unless they click the hamburger menu and try again from there. The user should be able to go back and select a different option in case the one they selected won't work		
Possible solution: Just create a back button on each of these screens		
Severity (low, medium, high, critical): Critical	See also:	

UAR #: A2	Problem/Good: Understanding tree button	Rated by: Joe Los
Name: Joe Los		
Relevant heuristic: Help and documentation / Recognition and recall		
Steps to reproduce: Go to my forest screen, examine buttons		
Detailed explanation: It isn't immediately obvious what the leaf buttons on the forest screen do. A new user might be confused as to their purpose		

Possible solution: Add some text above them so users know that they click these to update information about the book

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

See also:

UAR #: A3

Problem/Good: Redundant text in many areas

Rated by: Joe Los

Name: Joe Los

Relevant heuristic: Aesthetic and minimalist design

Steps to reproduce: Go to add a book screen, observe useless 'or's in between the buttons

Detailed explanation: These 'or's serve no purpose other than to increase the amount of clutter on the screen and decrease space for more functionality.

Possible solution: Remove them

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

See also:

UAR #: A4

Problem/Good: Visibility of currently active book

Rated by: Joe Los

Name: Joe Los

Relevant heuristic: Visibility of system status

Steps to reproduce: Log in, go to my forest, examine the lack of a current book marker

Detailed explanation: One of the ideas of our app was to be able to grow a tree while you read a book. In this iteration of our UI, you cannot see what the active book is, or any tree that corresponds to it

Possible solution: In the my forest or my tree page have an actual visible tree so the users can get a sense of progression as they read

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

See also:

UAR #: A5

Problem/Good: Always know where you are

Rated by: Joe Los

Name: Joe Los

Relevant heuristic: Visibility of system status

Steps to reproduce: Go to any screen in the app, look at top of screen

Detailed explanation: I think one of the good parts of prototype A is that you always know where you are in the app. The screen you are currently working on can always be seen at the top of the page

Possible solution: n/a

Severity (low, medium, high, critical): n/a

See also:

Usability Aspect Report Template

From Shaun Kane, based on UAR Template from Brad A. Myers and Bonnie John

<http://www.cs.cmu.edu/~bam/uicourse/UARTemplate.doc>

Complete this form *for each* problem or good aspect that you observe.

UAR #: B1	Problem/Good: Can't tell which book is current book on my forest page	Rated by: Sofie Lange
Name: Sofie Lange		
Relevant heuristic: Visibility of system status		
Steps to reproduce: Log in, go to my forest, then try to determine which book is the current working tree		
Detailed explanation: On the my forest page, if you can't see which book is the current one you are working on, this could be confusing for the user if they are wanting to update their tree or they have been off the app for a while.		
Possible solution: Add a small token or box around the tree which highlights the tree (book) which you are current reading.		
Severity (low, medium, high, critical): Medium	See also:	

UAR #: B2	Problem/Good: search tool	Rated by: Sofie Lange
Name: Sofie Lange		
Relevant heuristic: Match between system and real world / consistency and standards		
Steps to reproduce: Log in, add a book by title, genre, author, or view top books, then view search results and pick the book you want		

Detailed explanation: The issue here is that usually when a user is performing a search they would expect the title to be below the cover in text which is easier to read than the cover of the book in a lot of cases. There are some cases where the title might not be on the cover of the book and so the reader might not be able to find the book they want.	
Possible solution: Simply add a text box below the book cover which details the book, perhaps even a pop up menu when you click on the book which shows more detailed info.	
Severity (low, medium, high, critical): High	See also:

UAR #: B3	Problem/Good: Not clear how to add book from search page	Rated by: Sofie Lange
Name: Sofie Lange		
Relevant heuristic: Visibility of system status		
Steps to reproduce: Go to any of the search pages and attempt to add a book to your tree. How do you do it?		
Detailed explanation: It may be easy to understand for some users that you would simply tap the book you want to add, but this may be confusing for some users.		
Possible solution: Either a tutorial at the beginning or maybe a hint at the bottom of the screen to tell the user what to do. You could also add in a special button that you click and it means that the next book you click will be the one you add.		
Severity (low, medium, high, critical): Medium	See also:	

UAR #: B4	Problem/Good: Too easy to select wrong book from search	Rated by: Sofia Lange
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Name: Sofie Lange	
Relevant heuristic: Error prevention	
Steps to reproduce: Go to any search page, then attempt to add your book but Oops you added the wrong one because it only takes one click to add it to your library!	
Detailed explanation: The way the prototype is set up now makes it very easy to accidentally add the wrong book to your tree. Many users might click on the cover thinking it would give them a more detailed explanation of the book only to find they now have to go in and delete the book from their forest. Also, since there is no confirmation, users might accidentally click the wrong title and would have to delete it then, which would be super annoying.	
Possible solution: Simply add a confirmation pop-up which asks if you want to add this book to your forest after you click on it.	
Severity (low, medium, high, critical): Critical	See also:

UAR #: B5	Problem/Good: No help documentation	Rated by: Sofie Lange
Name: Sofie Lange		
Relevant heuristic: Help and documentation		
Steps to reproduce: Log in to the app		
Detailed explanation: In the case where this is a real app that connects to a lamp to show your progress some users may definitely have issues with connecting the app to the lamp.		
Possible solution: It would be very helpful to have a help page where common issues would be listed and solutions as well as customer service in case of serious malfunctions.		

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