OVERVIEW

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Date: 05.11.2023
Design Thinking Phases: DEFINE // PROTOTYPE // TEST (EVALUATE)
Topic: “A Crime of the Spirit”
User: Students (Outside)

THIS WEEK’S ACTIVITIES

- (PROTOTYPE) This week, I redeveloped features of my low-fidelity prototype after in-class feedback. New materials from my home were engaged, and I was able to adequately bring my revamped (though still low-fidelity) prototype to the library for testing.
- (TEST) After creating a preparations document and performing a run-through with a friend, 3 “think aloud” evaluations were executed and documented via a feedback capture grid. Users were encouraged to discuss out loud why they moved each of the books and the questions they had along the way.
- (DEFINE) In addition to prototyping and testing/evaluating, I worked on making my POV as precise as possible while expanding my empathy map. In the past five week, I have gained a strong grasp of who my end user is through interviews, observation, personas, and more. Nevertheless, my previous statements have been too general (week 3 feedback in class) or more detailed but not specific enough for the user’s needs (week 4 feedback in class). This POV is meant to correct what is lacking.

KEY FOR GRAPHICS

Week 1: (Introduction)
Week 2: (Empathize) Research, Interview, Bodystorming, Capture, Cultural Probe
Week 3: (Empathize) Interview, Cultural Probe, Observation
(Define) Personas, Space Saturate, POV
(Ideate) Brainstorming session with friends via Miro
Week 4: (Empathize) Observation
(Define) Personas, POV
(Prototype) low-fidelity prototyping
Week 5: (Prototype) low-fidelity prototyping, mid-level prototyping
(Test/Evaluate) think aloud protocol, feedback capture grid
(Define) Empathy Map, POV
* This week’s activities

METHODOLOGY

Method(s) used: (PROTOTYPE) Low-Fidelity Prototyping (TESTING/EVALUATING) Think Aloud Protocol, Feedback Capture Grid (DEFINE) Empathy Map, Point-Of-View

PROTOTYPE

Low-Fidelity Prototyping: Low-fidelity prototype #1 from the previous week was expanded upon according to in-class feedback I received. New household materials were engaged to help make the overall frame and "tracks" in which the books slide across more sturdy. Text that had previously been written directly on the cardboard frame of the prototype was covered and replaced by paper pieces that were more visible and adjustable to the design. Additionally, while the original design only allowed for six books to be "shelved", the new prototype was developed to hold eight books.

TESTING/EVALUATING

Think Aloud Preparation: A preparation document was made to help guide the evaluation experience. Part 1 offers a brief description of both the library's history (as it relates to the splitting of the books) as well as what the prototype is trying to accomplish in relationship to this history. It could be read word for word to participants. Part 2 is a five-step procedure for how each evaluation should be executed. This includes allowing time for participants to discuss (out-loud) their thought process, particularly as it related to moving the books. In terms of the low-fidelity "interface" (the green button and CORRECT/INCORRECT engravings), I planned to explicitly discuss what it would ideally do in its finished form. Part 3 is a list of questions surrounding the user's background ("Where are you from?" "What are you studying?" etc.) and their thoughts on the design ("What are some of the features you liked?" What do you wish was different?" etc.). Parts 2 and 3 were developed in a semi-structured way, meaning some steps could be abandoned depending on the participants response.

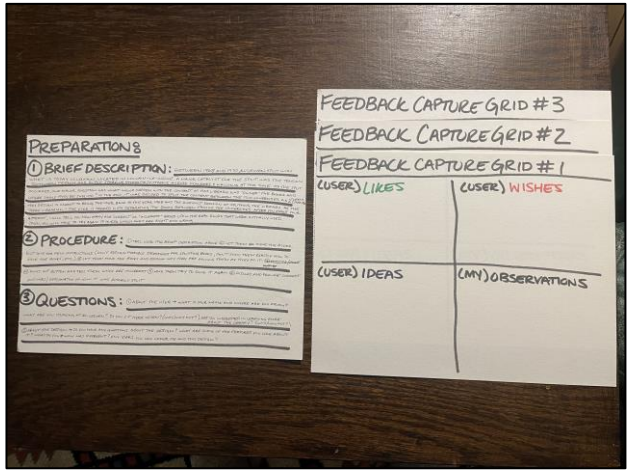
Feedback Capture Grid: A feedback capture grid was made to organize data from individual evaluations. The grid was designed in accordance with the following four sections: 1. (USER) Likes 2. (USER) Wishes 3. (USER) Ideas. 4. (MY) Observations. Data for the first three categories was captured through notes taken during the evaluation or through audio recordings. Observations were captured through different photos and reflected upon immediately after the evaluation. This data was then used to shape variants for following evaluations.

DEFINE

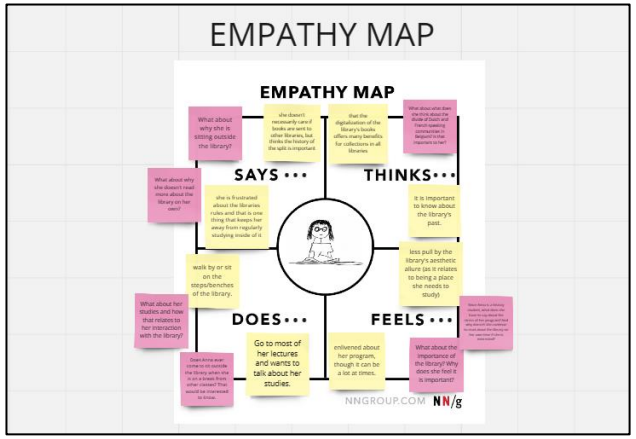
Point-Of-View: In order to make my POV more precise, sticky notes with key questions were added to my empathy map for Anna, the main persona I have been using throughout this project. Different colors were employed to adequately show the difference between this week's thoughts and the previous weeks' ideas. After adding these questions, I looked back at the data I had collected in interviews, my cultural probe, and my observations to try and answer them. All of this took place on the Miro board I have been using throughout this project.

(PROTOTYPE) Low- Fidelity Prototyping

(TESTING) Evaluation Preparation



(DEFINE) Empathy Map



RESULTS

PROTOTYPE

Low-Fidelity Prototyping: Adding the duct tape to the prototype allowed the books to move more smoothly than in my previous prototype. The wooden sticks could be reached easily from underneath and slid across the board without concern of the cardboard ripping. Moreover, this design allowed me to test out different variants with ease, including the location of each university name, the location of the Correct/Incorrect "interface," and the general orientation of both the box and the books (i.e., one participant was given clear access to the hole to reach under the box where it was not as obvious for another).

TESTING/EVALUATING

Think Aloud Protocol and Feedback Capture Grid: A shared "like" between each participant was the design of the books. Participant 3 reported that the books drew her towards the prototype, and she was happy that they were not just labels. Additionally, each participant appreciated that the game itself was not hard to understand (though all still struggled with actually finding the "correct" strategy to dividing the library). // Having the participants speak aloud revealed that "hints" of some kind are needed in order to keep users engaged. For instance, the immediate reaction of participant #1 was to randomly move the books without really looking at the call numbers or even the authors. Diverting from my preparation, I ended up giving some participants the hint to look at the totality of the book, including the call numbers. // Under my own observations, I noticed that participants were not keen on grabbing the sticks from under the box, regardless of how the box was oriented to them (you can see this even in the picture to the right). Additionally, while participants showed/expressed interest in learning more about how the library was split, some of the participants did not seem that devoted to actively playing the game until completion. Part of this has to do with the fact that the "interface" I designed to tell how many books are correctly or incorrectly "shelved" does not tell you *which ones* are correct/incorrect. For instance, Participant #2 played for two rounds, but her second round seemed more like a random guess without as much thought as her approach to the first round. In other words, the "work" required to get the desired knowledge was too much. // In response to this, one participant suggested that I keep the interface but develop it in a way where the books can actually be checked one at a time rather than all at once. This might allow users to learn as they go and possibly come closer to figuring out the "correct" strategy on their own. // Lastly, a way for the user to actively confirm how the split worked (i.e. the "odd-even" principle) needs to be made explicit for the user. Participants were most interested in this, especially after seeing how their own strategies had differed, but (in its current form) it required me to explain the "correct" answers to them. A QR Code could potentially work for this, though I have yet to test that on the prototype.

DEFINE

Point-Of-View: Anna NEEDS to informally learn about the library BECAUSE she believes it is important to know more about the library's history and is actively aware of language divides in Belgium but tired from the demands of her university program.

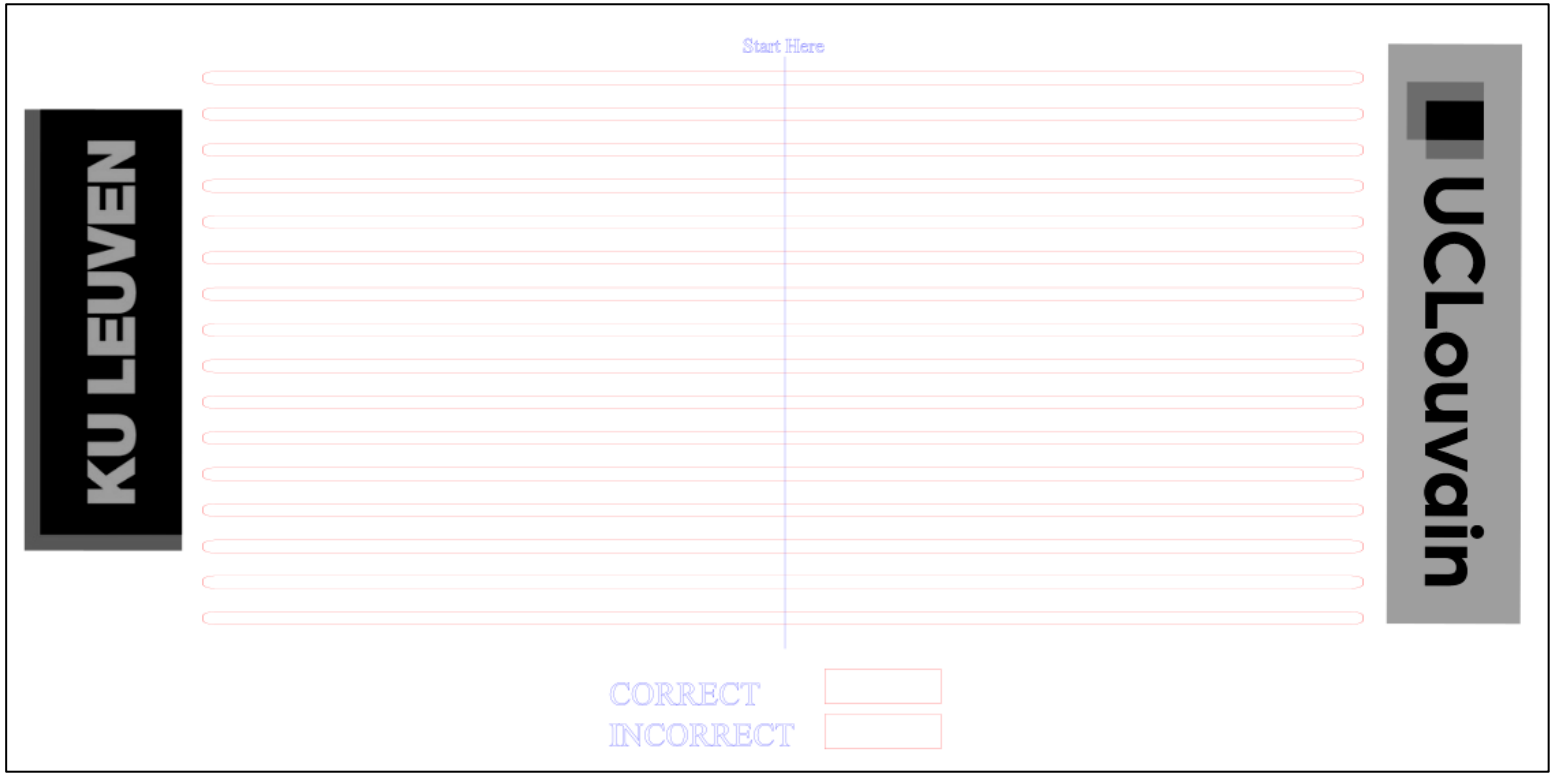
(PROTOTYPE)
Redeveloped Prototype

(TESTING)
User Evaluation

FUTURE ACTIONS

MID-LEVEL PROTOTYPING

The image to the right is a screenshot from an Inkscape file I developed. It represents a more sophisticated board in which the books can be "shelved" on. There are 16 identical "tracks" that have been designed in accordance with the 4mm wooden sticks I used for my low-level prototype. The logos are official .jpg files from the university websites of KU Leuven and UCLouvain.



Ideally, an electronic interface would go behind the "CORRECT" and "INCORRECT" engravings at the bottom. The two rectangular cutouts besides this text would be where the interface shows through, displaying how "correctly" the user has engaged with the split of the library as it relates to the historic rules used in 1968-1970 (this could be done in accordance with the user recommendations made on the previous page). Next week, I will have this file printed and then implemented into my mid-level prototype.

Alongside this, a 3D printed button – the one created in class – will be placed on the side of the prototype, similar to where the green button is displayed on my low-fidelity prototype (see image on previous page). Next week, I will redevelop the walls of my prototype using more cardboard to accommodate the addition of this button as well as observations/user insights made during the evaluations.

QUESTIONS:

1.) Can you please give some feedback on my POV? Do you believe it is now strong enough? If not, can you please expand upon what is missing it in?

2.) Inkscape specific question (I can also check with workers at the Fablab): I have engraved a small line across the center of the board (see above) with the phrase "Start Here" (the idea being that this is where the pegs should be placed when users are first interacting with the design). Is it okay to have an engraved line overlap with the laser cut "tracks"? Obviously, the areas that intersect will not show once the "tracks" have been cut with the laser printer – I more so want to confirm if the machine can operate this way or if I need to manually create the segments and avoid all overlap.