

Introduction

This user testing session is meant to gather data about the overall design of “Have you Herd” and emotions it initially creates. This test also seeks to indicate any potential pain points or moments of confusion that the design of the app creates. The app is being simulated in a high-fidelity state using Adobe XD. The current mock of the app has two experiences that are developed and almost complete. They are the animation and simulation of infection. The other two experiences that are in developmental and conceptual states are parent testimonials from parents who have a child who cannot be vaccinated and Chatty which is a text adventure simulating talking to a parent with a child who cannot be vaccinated.

Method

The testing session included 6 users in their twenties who were split into two groups. Users 1-3 were assigned to Version 1 of the app whose titles for each experience in the app were intentionally vague and more playful. Users 4-6 were assigned to Version 2 of the app whose titles were more descriptive but less playful. At the start of each test all users were told that the test was mainly focused on design and usability but were asked to think of this scenario while engaging with the app.

- You are a parent of 3 children. They are all about to enter school and are required by the school to receive certain vaccinations. You are unsure about the safety of some of the vaccines listed and why your children have to get them. You find this app and start to explore it.

After any questions from the user tester was answered then user testers were prompted to explore the app. Chatty and Parent Testimonials was explained by the moderator to the user tester since both features were in lower fidelity states than other portions of the app. User testers were asked to voice any design for usability suggestions and points of confusion during the exploration period. After the user felt they explored the app to its entirety the moderator would guide them to any other portion of the app that was missed. Once the app was fully explored the moderator asked the following questions:

- **Design questions**
 - How would you rate the navigation from a scale of 1-10?
 - 1 being very easy to 10 being extremely difficult. Why?
 - Does the font make the content feel less trustworthy?
 - On a scale of 1- 10 how would you rate the ability to read the text? Why?
 - Was there anything you felt detracted from the experience?
 - Did you feel anything was missing? Any questions gone unanswered?

Parent Perspective

- Names questions
 - Version 1: As a vaccine hesitant parent in the scenario provided, how did you feel about the names of the animation? Were they too vague?

- Version 2: As a vaccine hesitant parent in the scenario provided, how did you feel about the names of the experiences? Were they too descriptive? Would you want a name that is more lighthearted?
- If you were a vaccine hesitant parent how would you feel after using this app? Examples informed, feel like you're being talked down to or anything else?
- What are your feelings about the story told in the animation?
- Did you feel more sympathetic toward children who were immunocompromised?

Test plan

Tentative Schedule

- 5 minutes for set up and introduction
- 15 minutes for testing
- 10 minutes for debrief

Location

- Remote

Number of Session

- 6 sessions
 - One for each user

When

- Will schedule testing based on user's schedule

Procedures

- Session length: ~30 minutes
 - Sign on zoom
 - Record session
 - Introduction and explanation of tasks and goals
 - Answer any questions
 - Observe and make notes
 - Ask debriefing questions
 - Farewell

Equipment

- User's laptop / desktop
- Moderator's laptop / desktop
- Web browser
- Zoom and record session
- Links to version 1 or version 2 of adobe xd
 - Users 1-3
 - Version 1
 - <https://xd.adobe.com/view/53449bb6-82bb-491a-be4c-b953d71771ba-0617/?fullscreen&hints=off>

- Users 4-6
 - Version 2
 - <https://xd.adobe.com/view/b3c0fb1b-4223-4348-928c-6e823719921d-e693/?fullscreen&hints=off>
- Google Docs

Results

The results that are presented here are all paraphrased and consolidated answers provided by the user testers to questions asked by the moderator. In order to avoid redundancy, answers that were expressed by multiple user tests have been notated with the number of times repeated in parthese such as “Back button needed (x3)”. This means three user testers expressed that they wanted a back button in the app. Moreover, some answers have the user tester identified because their answer was highly specific. This does not mean that other answers are not as valuable but are more general than the user noted answers.

Screen critiques

- Navigation
 - Back button needed (x4)
 - Have nav at the button since closer to thumb (x2)
 - Buttons were too close together (x2)
 - Chatty button was not centered in the animation nav
 - A hamburger menu is not used conventionally in a mobile setting
 - “Being a parent of a child with weakened immune system” title is too much for one button
- Home screen
 - *Version 1* seemed to confused participants (x2)
- Simulation
 - *Version 1* Body bumpers needs a further explanation (x3)
 - Confusion about what simulation is showing (x2)
 - Confusion about which simulation colors represent which type of person
 - Have settings scroll down so that there is more room for explanations of each setting (x2)
 - User 3 suggested that the result button be placed at the bottom of screen
 - The title of simulation should be present on the simulation page
 - There should be a key for the colors more accessible or apparent
 - Users did not know the arrow was an arrow (x3)
 - Users did not know that results button was a actual button
 - “What’s this?” is not clear to users as a clickable link (x2)

- Include real world time progression into simulation
- On the results page sizing of the words is large and could be smaller. The numbers should be highlighted more.
- User 1 thought the setting screen should have the word number instead of “#”
- Setting should be first then simulation (x2)
- The question mark on scene four and the explanation point on scene six could be same as narration font
- User 5 felt that having both vaccinated and unvaccinated setting was redundant and could just be expressed as a number of people vaccinated then the rest of the population can be assumed as unvaccinated. Similarly, they felt that Immunocompromised could be percentage of not vaccinated individuals
- User 5 was confused about why they could control the number to protect one immunocompromised person
- User 5 felt that drop shadow on “what this?” and sub headers was unnecessary
- User 5 suggested that results button could be navy blue from previous screens
- Herd immunity explanation
 - 5 of 6 users had trouble finding this screen
- Chatty Text experience
 - User 1 disliked the box interface
 - User 5 liked the box interface
 - If a user makes a bad choice have the bubbles stall as if someone is typing a long message
 - Add to drop shadow to speech bubble prompt (the white one) to increase visibility
- Vulnerable Animation
 - Have Sally turn green when she is sick maybe
 - Thought animation was children (x2)
 - Typos in multiple places
 - Need an indicator that there is a drop down nav in the full screen mode
 - Many of the word are too close to the edge of the screen
 - User 1 thought second to last scene goes by too fast
 - User 1 felt animation is too long and should be more of slideshow,
 - Have slide option where animations don’t play, and a movie option where animations play
 - User 1 suggested that animation should lead to parent testimonials after animation completes
 - Animation should automatically go full screen
 - Potentially implement a landing page with a play button
 - User 5 suggested that eyes could be more detailed for main characters so that it would create a stronger emotional appeal
- Parent testimonials

- User 6 liked broken shield symbol
- The picture of shield on top of parents does not communicate separate buttons and could be spaced out more to show that it is actually four separate buttons
- Format the screen so that the pictures are horizontal and as more accounts are submitted the user can scroll to another story like a blog
- Include picture of parents with multiple children
- Right and left margins could be smaller
- Buttons could be smaller
- Miscellaneous
 - Confused about definition of immunocompromised (x2)
 - User 3 and 6 liked the color blue in the design because it made them feel that they could trust the information. It also made that app feel like it was “medical”
 - User 1 thought header were clickable
 - User 5 felt color scheme from setting page should be implemented more on the entire app
 - User 5 felt lots of text was oversized for a mobile screen

Design questions

- **How would you rate the navigation from a scale of 1-10?**
 - **1 being very easy to 10 being extremely difficult. Why?**
 - Average rating: 3.33
- **Does the font make content feel less trustworthy?**
 - Liked it but thought the font was not appropriate for parents (x3)
 - Could use a more sans serif font to appeal more to parents
 - Chalked font makes it more attractive and interesting
 - Makes user more lighthearted and as ease readable (User 6)
 - Chalk visibility is tough and if going with font all elements should be chalk like (User 2)
 - Less fonts should be used (x2)
 - User 4 felt comics sans like font took away from trustworthiness
 - Body font should be smaller
- **On a scale of 1- 10 how would you rate the ability to read the text? Why?**
 - Average rating: 2.33
 - Drop shadow on settings makes it difficult
 - Font has too much spacing
 - Buttons could use more contrast
- **Was there anything you felt detracted from the experience?**
 - *Refer to screen critiques*
- **Did you feel anything was missing? Any questions gone unanswered**

- Page that explains pages and herd immunity
- Another view should be further on the top for because it has a stronger emotional appeal
- Safety for their own child isn't answered
- Contact screen for app creator
- Contact screen for app help and technical support
- A place to give feedback on the app.
- App needs to further emphasize that vaccines are more for people who can't get them
- Include a screen to where you can get your child vaccinated
- Include a screen the details allergies that prevent a child from being vaccinated
- User 4 desired more information screens
- User 4 felt herd immunity should be emphasized more
- User 5 thought a explanation of the app could be beneficial after the start button is clicked so that it give the user a reason to why they should continue to explore it

Parent Perspective Questions

Names questions

- **Version 1: As a vaccine hesitant parent in the scenario provided, how did you feel about the names of the animation? Were they too vague?**
 - Chatty title is confusing (x3)
 - User 1 felt that the "Vulnerable" title was too vague,
 - User felt that "Another View" was not a effective title
- **Version 2: As a vaccine hesitant parent in the scenario provided, how did you feel about the names of the animation? Were they too descriptive? Would you want a name that is more lighthearted?**
 - User 6 liked Chatty title
 - User 6 believed that "Being a parent of a child with weakened immune system" title could be phrased as a question such as "Are a parent of a child who has a weakened immune system?"
 - User 6 thought Infection simulation could be community simulation to further emphasize togetherness of herd immunity
 - "Vulnerable Animation" title needs to be different to further connect theme of animation
 - User 4 felt title "Being a parent of a child with weakened immune system" did not apply to them
 - User 5 felt that "Chatty: Text Experience" was a confusing title
 - User 5 believed that "Being a parent of a child with weakened immune system" title needed to be phrased differently so that it was more emotional

- **If you were a vaccine hesitant parent how would you feel after using this app?
Examples informed, feel like you are being talked down to or anything else?**
 - Not confused but having more visual and explanations would help the users feel more knowledgeable
 - Felt like app was aimed at kid due to the style and font choices
 - User 1 was still not sure why they should vaccinate their child after using the app
 - Animation and parent testimonials made a strong emotional connection (x2)
 - Simulation caused lots of confusions among participants
 - Infection simulation needs more of prompt to make the emotional connection stronger

- **What are your feelings about the story told in the animation?**
 - Thought it was believable and realistic
 - Like the simplicity of it (x2)
 - Story feels it is geared more toward children (x3)
 - Creating emotional connection with the user
 - User 6 felt that the music helped give the animation a stronger emotional appeal
 - User 1 felt that Monique should not be featured on title screen since the main character is Sally

- **Did you feel more sympathetic toward children who were immunocompromised?**
 - Yes (x3)
 - Sympathy is more placed on child who does not understand (User 2)
 - Have Sally more emotional as she thinks she caused Monique to go the hospital (User 2)
 - User 5 had the feeling of unconcerned for immunocompromised children but suggested that if an actual condition was listed that prevent a child from being vaccinated would spark more concern

Discussion of Most Prominent Results

Navigation

Many users felt the navigation was simple due to the fact that the average score was 3.33 out of 10. On the other hand, there were some pain points that could be remedied. The two most prominent pain points were not having a back button to navigate the app and the navigation not being at the bottom of the screen. These are two conventions that have been ingrained in the psyche and when they are not apparent, they confuse the user. The next interaction will include both conventions.

Names of Experience on the Home Screen

Both user tester groups felt that the title for the text adventure (version 1: “Chatty”, version 2: “Chatty: Text Experience”) was confusing and needed to be changed. This is interesting since version 2 was meant to be more descriptive than version 1 but version 2 still

received negative feedback. Another title that received negative reactions was the parental testimonials. In version 1 it was called “Another View” while in version two it was called “Being a parent of a child with a weakened immune system.” User testers in version 1 group thought “Another view” did not describe it well and was too vague. Reactions from user testers in version 2 group varied for “Being a parent of a child with a weakened immune system”. Some thought the title could be reworded while others felt it needed to be completely changed. Overall, user testers preferred titles of experiences that did not leave them guessing as to what they were clicking on.

Simulation and Herd Immunity Explanation

Users were confused about interacting with the simulation. Many suggested that if there was an explanation screen that detailed what the simulation was, what each element was representing and described the variables that could be manipulated that the simulation would be more digestible. After interacting with the simulation, user testers were shown where explanation for each variable was but still felt those explanations needed to be upfront rather than left for the user to find out. Many also disliked that the explanation for herd immunity was hidden within the simulation and would display after the simulation was complete. User testers also expressed that this element should be presented first before interacting with the simulation.

Vulnerable Animation

User testers enjoyed the animation but felt it was more for children rather than adults. They suggested that font changes could help but more changes will need to be considered. This fact did not prevent most users from feeling sympathetic like emotions after watching the animation, but these emotions were a bit scattered. Some users had more sympathy for Sally (child who infected Monique) over Monique (immunocompromised child) while others had more sympathy for Monique. It was even expressed that the animation did not create a strong enough emotional appeal to feel sympathy for the children. It was suggested that a strong emotional appeal could be created if Monique had an actual condition like cancer that prevented her from getting vaccinated rather than just stating that she was immunocompromised.

Parent Testimonials

User testers like the concept of testimonies from parents who have children who cannot get vaccinated but felt the user interface was confusing. Some felt that the symbolism of the shield of the parent was not clear and the way the images were arranged made it seem like one button rather than separate buttons. There will need to be further consideration on how to create mosaic that has better symbolism or if it would be better to just have testimonies listed in a blog format.

Font

Users felt the font did not make the app difficult to read because on average they scored the font as 2.33 out of 10, but many felt the font gave the app a more child-like feel. User testers suggested that if the font was a sans serif font that it would make the audience feel it was more for parents or adults rather than children. User testers also question the size of many of the font choices. They asserted that it was oversized and could be made smaller.

Emotional Appeal Overall Versus the Need for Logical Appeal

In general, user testers had strong emotional responses from interacting with the application but still felt there needed to be screens solely for informational purposes. The goal of this app was to be highly emotional because vaccine hesitant parent use emotion and experiences from other parents to determine if the information presented is helpful to them (Enkel et al., 2018). According to user testing, there was not enough logical appeal to direct its users to the desired action. Several user testers advised that if the app was successful in persuading vaccine hesitant parents then there should be a screen that tells them where they can take their child to be vaccinated. In summary the app needs to have a balance of emotional appeal and information for logical appeal so that it has a higher chance to persuade vaccine hesitant parents.

Limitations

There were a couple of limitations in this user testing session. One being there was a lack of diversity within the user testers. User testers were mainly in their twenties and were highly familiar with technology which is different from the target audience who may not be as versed. However, these participants were chosen because they had much input on design and usability which was the goal of this user testing session. Another limitation was that user testing sessions took place on desktops computers that simulated a mobile environment. Some users were able to identify the problems of mobile users within the design, like not having a bottom navigation, but most users did not see these affordances. Testing on a mobile device should be conducted to further identify other mobile user obstacles.

Sources

Enkel, S. L., Attwell, K., Snelling, T. L., & Christian, H. E. (2018). 'Hesitant compliers': Qualitative analysis of concerned fully-vaccinating parents. *Vaccine*, 36(44), 6459–6463. <https://doi.org/10.1016/j.vaccine.2017.09.088>