Birch Aquarium Experience

Design for Development

Project Members

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Emily Tao | Natalie Tongprasearth

My Roles

User Researcher
Designer

Deliverables

Contextual Inquiry
Interviews
Surveys
Iterative Prototypes
Data Driven Design

Tools

Pen & Paper
Lots of Sticky Notes
Photoshop
Cardboard
Google Forms
Google Slides

The Story

Imagine a young girl no taller than your stomach. You ask her what she wants to be when she grows up, and she excitedly yells, "I want to be a paleontologist!". You're quite surprised she even knows what a paleontologist is. You then ask her what she thinks of when she hears the word "scientist". She says "I think of a man with glasses and a white labcoat".

My team members and I encountered this exact scenario when we were working with the Birch Aquarium to explore new experiences to build for the visitors of the museum. We learned that while scientists are at the cutting edge of innovation and human advancement, many do not see them as such. It was our team's goal to design a way for users to break free from their stereotypical schemas of scientists using a human-centered approach throughout the whole project process.

My responsibilities for the team included contextual observations, conducting user interviews, and iterating and testing on multiple prototypes.

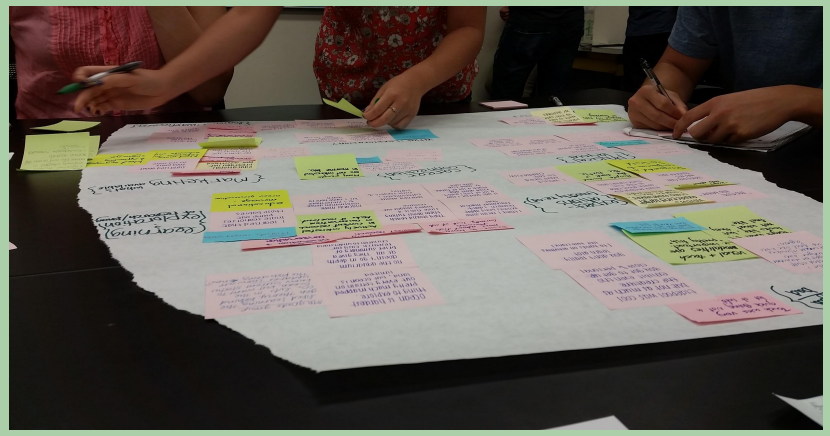
Knowing our Users

In order to better understand our users, our team took part in contextual inquiry at the Birch Aquarium to find key insights from observations, performed competitive analysis research on 6 other museums and aquariums, conducted 20 interviews, and created a survey form that garnered 62 responses from individuals with diverse backgrounds

Design Challenge

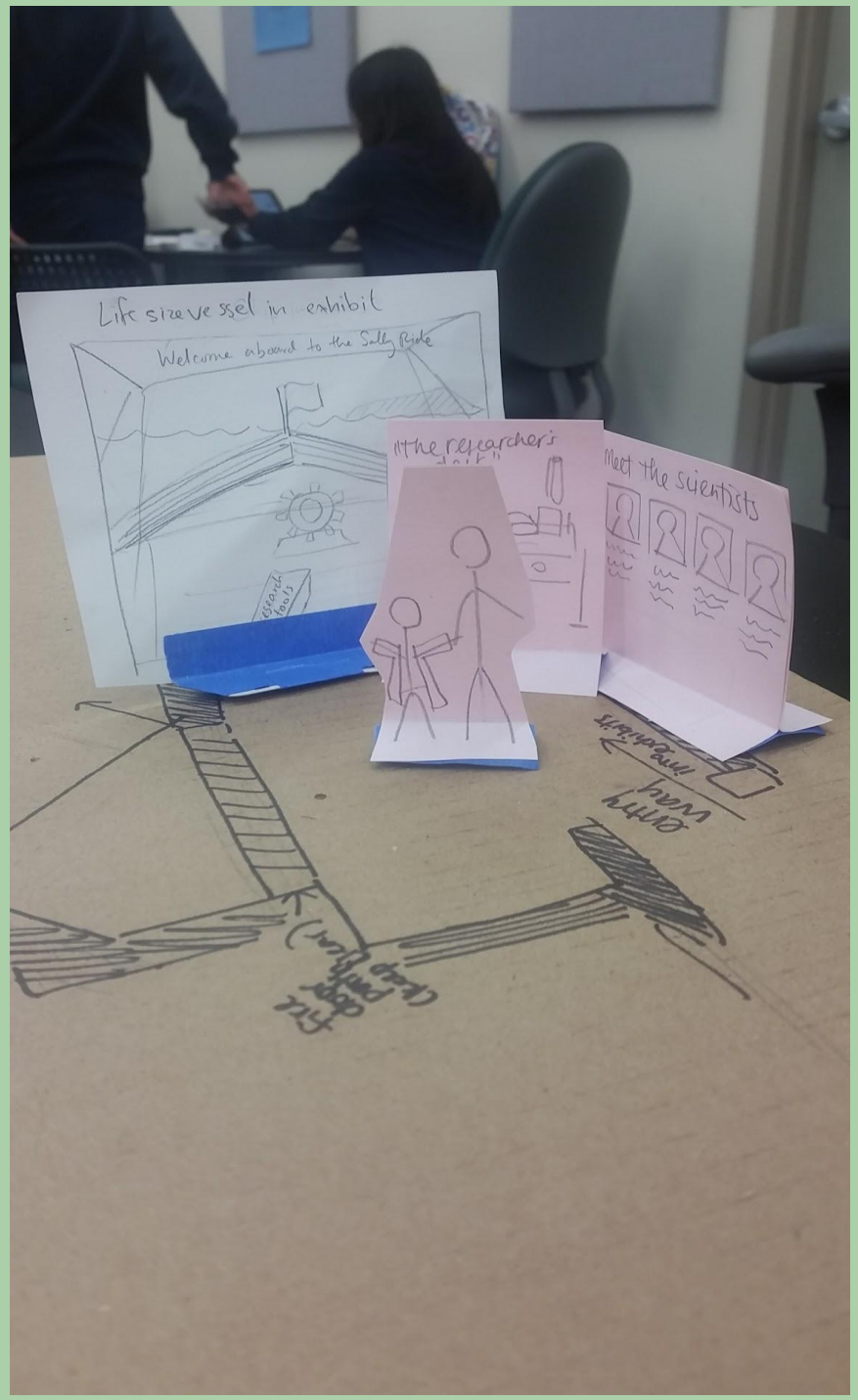
From all of our data, our team learned that many visitors of the Birch Aquarium, as well as everyday individuals, have a stereotypical view of what a scientist does and looks like.

Our users need a way to gain a more holistic view of scientists and researchers while they also enjoy the educational and exploratory nature of the museum-aquarium.



Immersion Room

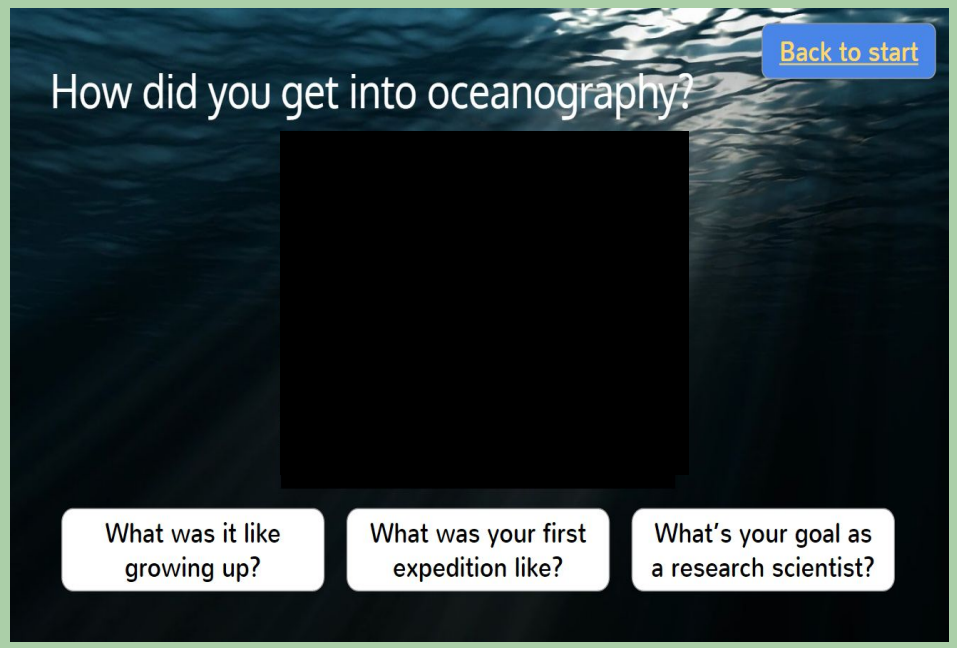
Our team's first prototype was an immersion room of what a researcher's cabin on the Sally Ride Research Vessel might look. This prototype allowed users to place "parts of the room" in ways that would be the most interesting to them. A common trend appeared when individuals consistently placed "Meet the Scientists" front and center near the entrance.

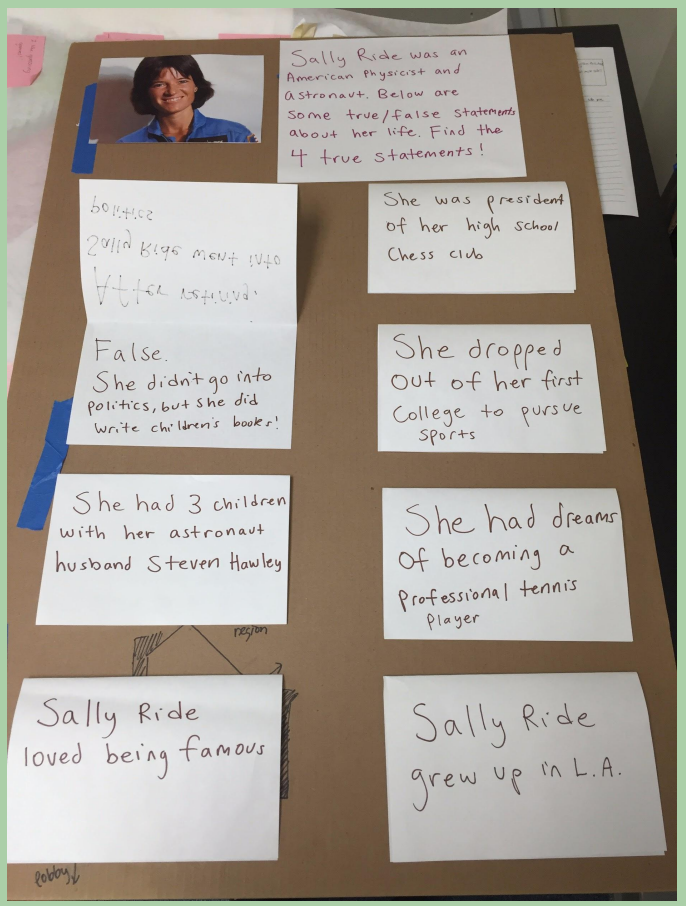


Science Interview

True/False Game

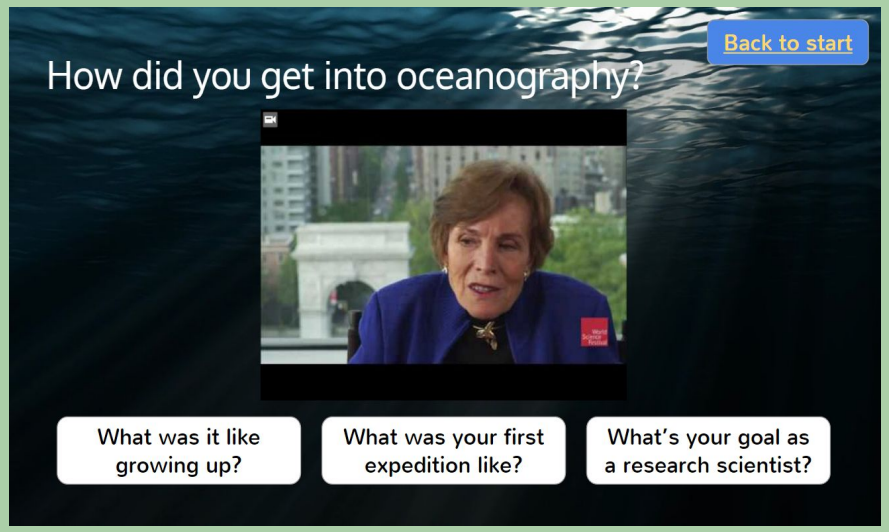
From our Immersion Room prototype tests alongside our user research, our team learned that people showed interest in actually learning about scientists, but found them boring or intimidating. Our team's goal is to make scientists more relatable and personable.

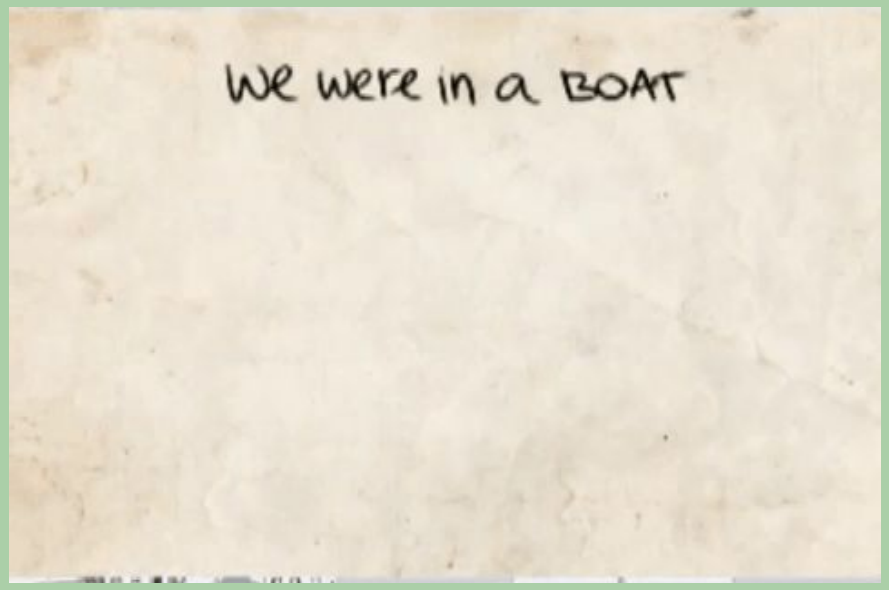




Animated Science Interview

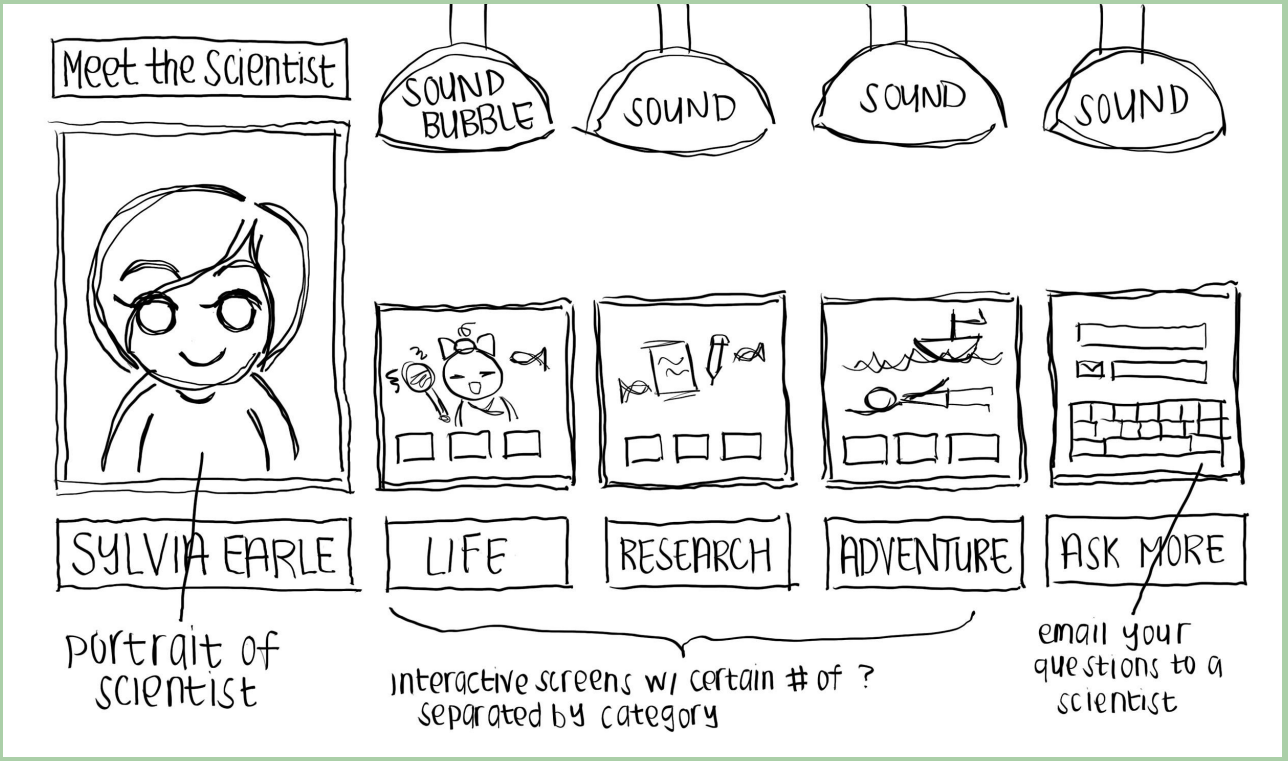
After prototype testing at the Birch Aquarium with visitors and getting additional feedback from other designers, it appeared that the Science Interview was the more desired interaction. However, one problem that our team found was a lack of engagement from children who are one of the main user groups of the Birch Aquarium. As such, our team updated our prototype with animations to test with using the original Science Interview questions.





Final Solutions

After one last round of prototype testing we learned that our biggest problem for the Animated Science Interview was a single user experience that the design provides. This would work out poorly considering the Birch Aquarium has multiple visitors at any given time. For our final design our team design the Animated Science Interview as a full wall with multiple interactive screens.



The End

While our team wasn't able to fully implement a full-scale wall experience for the Birch Aquarium, our team was able to explore the human-centered design process thoroughly through prototyping and testing and was also able to provide the aquarium with useful user information for their future projects!