

RESEARCH METHODS

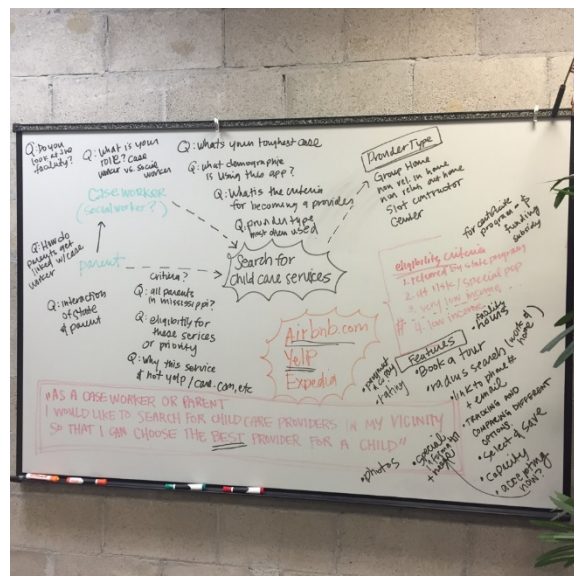
Cambria Solutions utilized both traditional practices and Human Centered Design methodologies in conducting its research. This research formed the basis for understanding features and the usability of the solution in creating a helpful and informative search for child care providers.

BACKGROUND RESEARCH

Cambria's initial research process began with a question and answer session with Mississippi's Department of Human Services (MDHS) business analysts, all of whom were former case and social workers. In addition, business team utilized web based research to better understand the purpose and scope of creating a child care provider search site, as well as the potential users of such a tool. Our preliminary research gave us a foundation for the needs, desires, and behavior of potential users, and provided a backdrop and context for our work. We began by conducting research on Mississippi's Child Care Certificate Program, the rules for licensing child care providers, and existing resources for the users this prototype would serve. We relied heavily on the experience of Cambria staff from Mississippi working in the health and human services field to provide background information and a sense of what kind of solution would be required. We reviewed quantitative summaries on the distribution of foster children across the state. The team also leveraged previous research and user feedback from the creation of a prototype for our successful admittance into the California Agile Development Pre-Qualified (ADPQ) Vendor Pool.

White boarding methods, and round-table discussions were held to identify potential features and design of the prototype. Figure 1 below visualizes this process.

Figure 1: Initial White Boarding Design Session



HUMAN CENTERED DESIGN RESEARCH

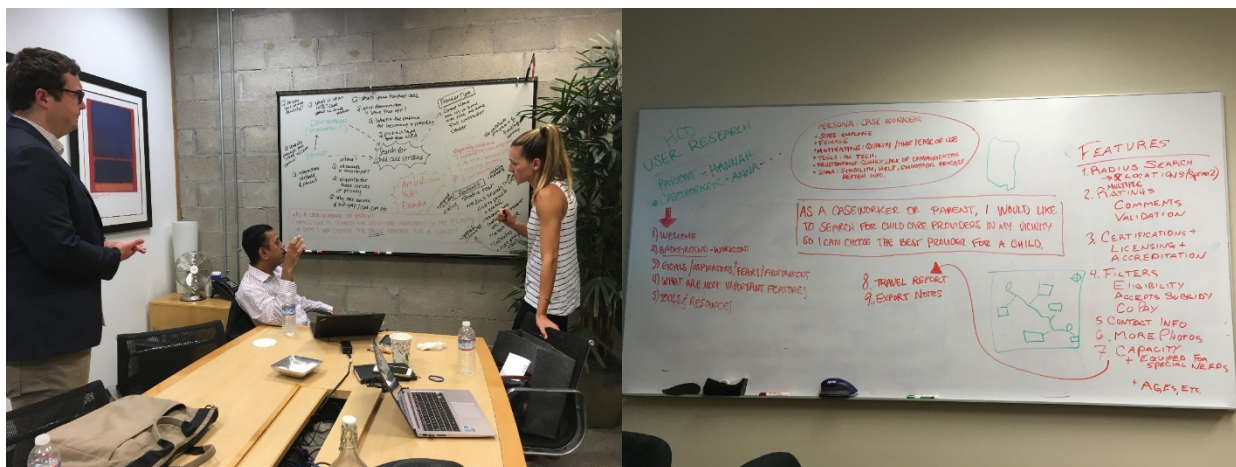
Cambria's business team used a number of Human Centered Design methods to conduct further and continual research during the design and development of our solution. We leveraged two actual users currently residing in Mississippi and representing both a parent and a social worker in foster care systems.

SEMI-STRUCTURED INTERVIEWS

User research was completed through semi-formal interviews with two potential Mississippi users. Both a parent and a social worker participated in 1-hour semi-structured interview question sessions that produced better understanding of the stories, backgrounds and needs of potential users. The semi-formal interviews were completed through a conference call, where two interviewers used a set of established questions to help guide and conduct the interview. Due to the semi-formal nature of this process, the interview occurred organically, allowing the interviewees to naturally discuss their opinions and needs. This process was then analyzed to determine potential features and components of the prototype.

We gathered much of our initial findings from our semi-structured interviews. The two people we interviewed had experience in both serving in foster parent and caseworker roles. From our interviews we learned about the daily life of a case worker, their level of contact with foster parents, and their role in finding services for any of the children in their caseload (which included children who were not in the foster care system). In their capacity as parents, we learned about their motivations. At the conclusion of each semi-structured interview the research team debriefed through team discussion and white boarding by integrating user goals determined in the interview process and translating them to potential features and content for the prototype, this can be seen in Figure 2 below. The Semi-structured Interview Protocols and associated notes can be found in [GitHub \(https://github.com/CambriaSolutions/MSRFP-3717/tree/master/artifacts/User-Research/Semi-Formal-Interviews\)](https://github.com/CambriaSolutions/MSRFP-3717/tree/master/artifacts/User-Research/Semi-Formal-Interviews).

Figure 2: Semi-structured Interview Debrief



FINDINGS

Utilizing the collective research efforts, Cambria developed 4 personas for use in the development process. Two of these personas were created using the profiles of our two Mississippi volunteers, while the other two represent other potential experiences and stories. These personas can be found in [GitHub \(https://github.com/CambriaSolutions/MSRFP-3717/blob/master/artifacts/Human-Centered-Design-Artifacts/User%20Personas.pdf\)](https://github.com/CambriaSolutions/MSRFP-3717/blob/master/artifacts/Human-Centered-Design-Artifacts/User%20Personas.pdf).

From these personas and all major research efforts, 17 initial user stories were created to be used in our Agile development process. These user stories can be found [here \(https://github.com/CambriaSolutions/MSRFP-3717/blob/master/artifacts/User%20Stories.pdf\)](https://github.com/CambriaSolutions/MSRFP-3717/blob/master/artifacts/User%20Stories.pdf).

USER EVALUATIONS

Our two Mississippi users were brought back in Sprint 4 of the prototype development process, to conduct User Evaluations of the prototype. These evaluations were conducted through screen sharing and a conference call format as shown in Figure 3 below. Both users were sent the prototype minutes before the evaluation, and two interviewers discussed the prototype, both in terms of its overall effectiveness, ease of use, and ability to meet the user's needs. Through these User Evaluations, visualization, feature changes and additions were identified for inclusion in the development of future prototype iterations. Our real-life users provided exceptional feedback, and created clarity in the different feature set of the prototype. Confusion in prototype layout and clarity in search function purpose were identified, as well as changes to language used, so as to be more accessible to everyday parents and users. At the conclusion of each User Evaluation, a debriefing session occurred to collectively discuss changes to the prototype, this can be seen in Figure 4.

Figure 3: Online User Evaluation

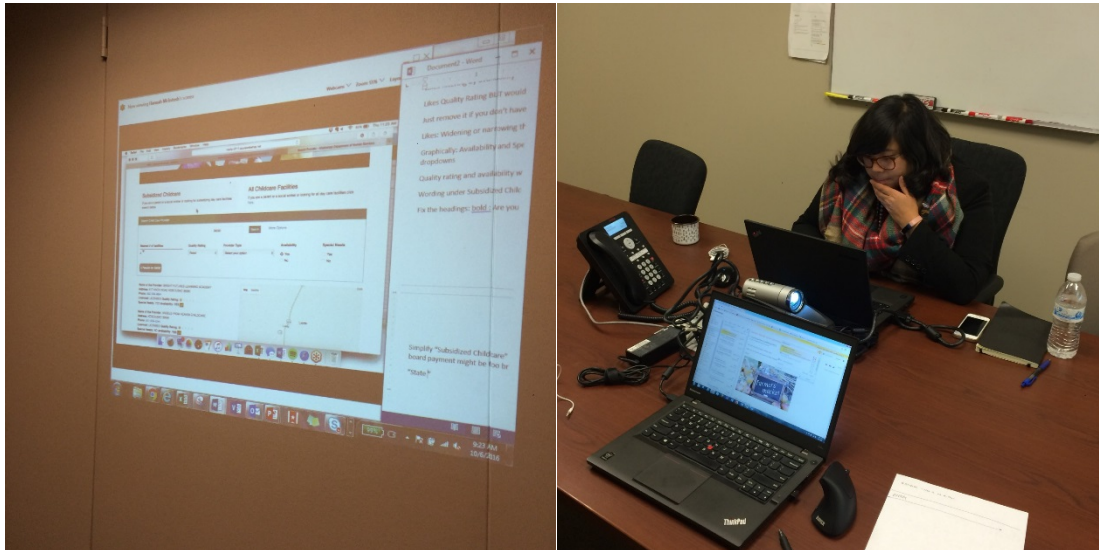


Figure 4: User Evaluation Debrief

