

Contextual Inquiry Description

What is Contextual Inquiry?

Contextual inquiry is a user-centered design method, part of the contextual design methodology that happens up front in the software development lifecycle. Contextual Interviews are one-on-one interviews conducted in the user's workspace that focus on observing ongoing work. Conducting a contextual inquiry is more than just observing and recording the user's current task. It involves discussing what is happening in the moment with the user⁽¹⁾. Contextual inquiry comprises preparation, evaluation, analysis, and design phases⁽²⁾.

Planning:

We started the process of conducting our contextual inquiries by first determining the target users. These were the people we would be interviewing. Since our product would be used by visitors, mostly children, who visited the Ann Arbor Hands-on Museum, our target users were primarily children and their parents. School teachers were also a part of target users since they often take children for field trips to the museum and would be able to give us helpful information about the learning experience at the museum.

The Hands-on Museum is an extremely interactive space and capturing its essence would be incomplete if the interviews would be conducted in any other space. Thus, the interviews we conducted were *environment centered*⁽¹⁾. Such interviews are dominated by the physical context to understand what works. In such cases one captures the environmental context by observing and talking with whoever comes to the location.

Observation and Interviews:

Our data collection was primarily done using two methods: observation and interviewing. We conducted our observations using David Carr's techniques (2003) of simply observing users in their space with almost no preparation. We visited the museum individually and observed users i.e. children and their parents or teachers, in the environment of the museum. These observations gave us valuable information about interplay that the museum promotes between child and child, child and parent as well as the child and the exhibit. This interaction is an integral part of and fosters the learning process that happens at the museum. As part of this process of observation, we also took photographs of the exhibits as well as children who were interacting with the various exhibits in the museum. These helped us document the process in enough detail to enable us to revisit the experience later.

As stated before, the interviews were conducted by randomly approaching the visitors in the museums and talking to them about their child's learning

experience at the museum. Some of our interviewees also shared their ideas about features that would further the learning process in the museum. We interviewed a middle school teacher, three parents, a Girl Scout leader, a workshop manager at the museum and an 11 year old kid as part of our contextual inquiries.

Interpretation Session:

Interpretation sessions bring the design team together to hear the whole story behind each interview and capture the insights and learning relevant to their design problem. An interpretation session presents all team members' unique perspectives to the data, sharing design, marketing, and business implications. Through these discussions, the team captures issues, draws work models, and develops a shared view of the needs of the customer whose data is being interpreted ⁽³⁾.

After conducting the contextual interviews, our group got together to brainstorm, interpret the various interviews and bring everyone on the same page. The person who conducted the interview discussed the questions asked during the interview and the interviewee's feedback. Affinity notes were then made based on the interpretation of the interview. Each point in the affinity note was later transformed into a yellow note in the affinity diagram.

The Affinity Diagram

Affinity diagramming is used to sort large amounts of data into logical groups. Existing items and/or new items identified by individuals during the interpretation sessions are written on sticky notes which are sorted into categories as a workshop activity. Affinity diagramming can be used to:

- analyze findings from field studies
- identify and group user functions as part of design
- analyze findings from a usability evaluation⁽⁴⁾

After compiling our individual notes from observations and patron interviews into affinity notes, we organized them into an affinity diagram. The following steps briefly outline the process of building the affinity diagram:

- Write yellow affinity notes that contain data from the interpretation sessions
- Place all affinity notes on a chart
- Reorganize the notes according to their common theme
- Add blue labels that represent a coherent theme or work distinction of yellow notes
- Group blue labels into categories, and place a single pink note above each category. Finally, add green notes to group pink notes together. The

green notes are the highest level of affinity label and summarize the pink labels under them. Each green label denotes a big picture of the user's story.

Our Affinity Diagram is a work in progress. As we learn more about the organization, we will add to it.

References:

David Carr, *The Promise of Cultural Institutions* (Walnut Creek, CA: Alta Mira Press, 2003): Chapter 3, "In the Context of the Possible," 37-54; Appendix B, "How to Observe," 193-200.

Karen Holtzblatt, Jessamyn Burns Wendell, Shelley Wood, *Rapid Contextual Design* (San Francisco, CA: Morgan Kaufmann, 2004)

http://en.wikipedia.org/wiki/Contextual_inquiry
<http://www.incontextdesign.com/cd/cdprocess.html>
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