03 Affinity Diagramming

Affinity diagramming is a process used to externalize and meaningfully cluster observations and insights from research, keeping design teams grounded in data as they design.

As long as research data is stored as tacit knowledge in people's minds or buried in interview transcripts, teams will experience difficulty synthesizing what has been observed and learned. Affinity diagramming helps designers capture research-backed insights, observations, concerns, or requirements on individual sticky notes, so that the design implication of each can be fully considered on its own. Notes are then clustered based on *affinity*, which form into research-based themes. Two common research variations of affinity diagramming include:

Affinity Diagramming for Contextual Inquiry:[1] Once researchers have conducted interviews of typical workers from four to six different work sites, there should be enough representative data to complete an affinity diagram. Before the affinity diagramming session, record on average 50–100 observations of each person interviewed. Each observation should be on its own sticky note (be sure that notes reference their original interview transcript, in case a question comes up about it). Once created, notes are posted on a wall that is covered in sheets of large-format paper (which allows the affinity diagram to be moved, if necessary), and the team can begin the rigorous process of interpreting notes and considering the underlying significance of each. Notes that share a similar intent, problem, or issue—or that share an affinity—are clustered together. Out of this work, a story emerges about people, their tasks, and the nature of their problems.

Affinity Diagramming for Usability Tests: Prior to each usability test session, the research team agrees on a different color sticky note for each participant. Once the usability test is in progress, the team (which can include stakeholders, developers, designers, and other researchers) watches the evaluation from an observation room. As the participant talks through the tasks, the team captures specific observations and quotes on the sticky notes, and posts them on a wall or whiteboard. Over the course of a few usability tests, common issues and problems in the interface will emerge. The categories that have usability issues will show many colored sticky notes—indicating several people experienced the same problem. Fixes and priorities to the interface can then be determined: whatever aspect of the design has the most issues is the first to get fixed and retested.

In both variations, affinity diagramming is an *inductive* exercise—which means that instead of grouping notes in predefined categories, the work is done from the bottom up, by first clustering specific, small details into groups, which then give rise to the general and overarching themes. Once complete, the affinity diagram should be referred back to not as a prop, but as the voice of the customer, and a partner in design.[2]

1. Holtzblatt, Karen, and Hugh Beyer. *Contextual Design: A Customer-centered Approach to Systems Design*. San Francisco, CA: Morgan Kaufmann, 1998.

2. See note 1 above.

3. See note 1 above.

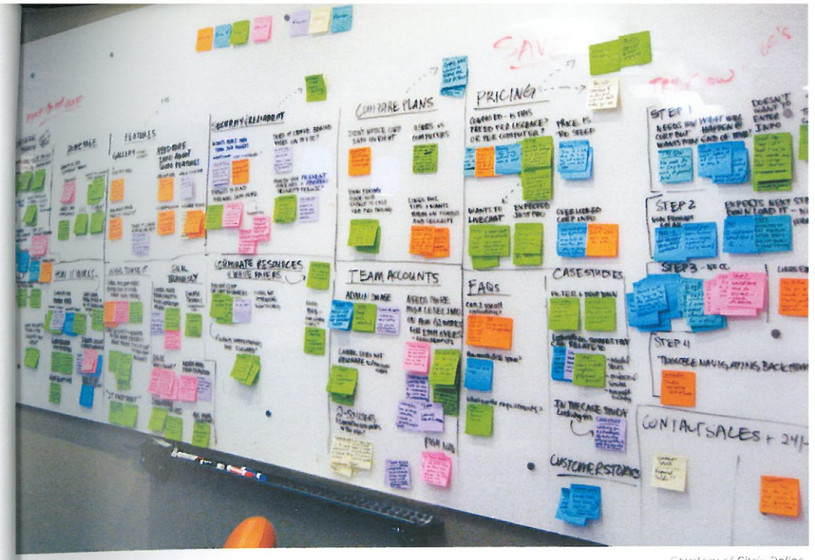
Further Reading

The affinity diagram was introduced in the 1960s, alongside the KJ Technique, by Jiro Kawakita, a Japanese anthropologist. See:

Kawakita, Jiro. *The Original KJ Method*. Tokyo: Kawakita Research Institute, 1982.

Kuniavsky, Mike. *Observing the User Experience*. San Francisco, CA: Morgan Kaufmann, 2003.

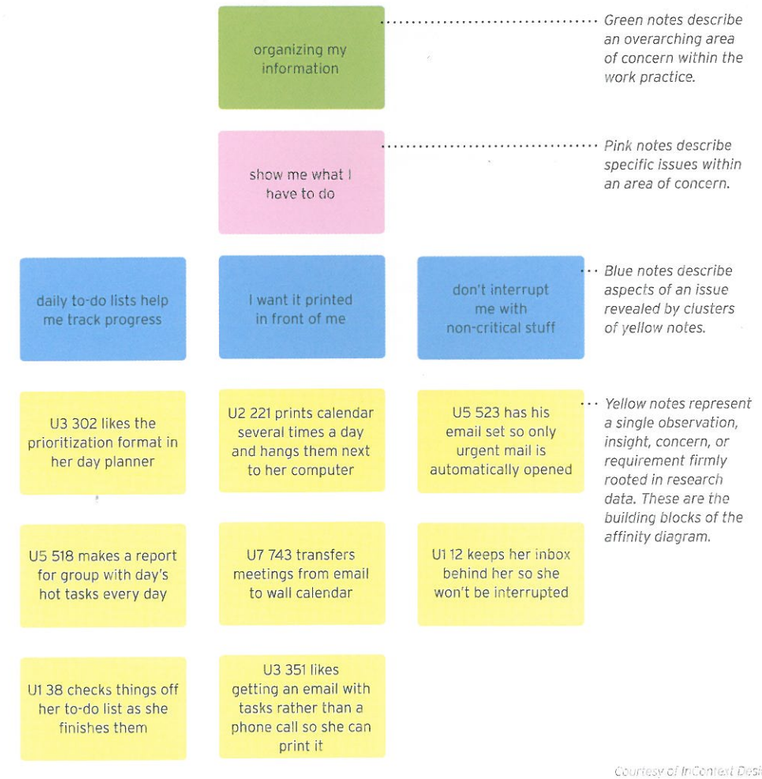
Behavioral	Quantitative	Innovative	Exploratory	Participatory
Attitudinal	Qualitative	Adapted	Generative	Observational
		Traditional	Evaluative	Self reporting
				Expert review
				Design process



Courtesy of Citrix Online

While usability tests are conducted at Citrix, team members in an observation room simultaneously construct an affinity diagram (left) of issues that are detected during the test session. Each color sticky note represents a different participant, and over multiple tests, recurring issues are revealed. The issues with the most sticky notes are the first to get revised and retested.

In Contextual Design[3], affinity diagramming sessions are scheduled after contextual inquiry interviews. Instead of putting the notes in pre-defined or known categories, the methodology uses a "bottom-up" process for building affinity diagrams. Affinity notes are placed on a wall that is covered in paper large enough to accommodate hundreds (and sometimes thousands) of sticky notes. When planning for a session, InContext uses a metric of 100 notes = 1 person day.



Courtesy of InContext Design

See also 19. Contextual Design • 49. KJ Technique • 94. Content Analysis