

## DATA VISUALIZATION, SYNTHESIS, AND ANALYSIS

## BUILDING A RESEARCH WALL

Synthesizing and analyzing research data through a visual arrangement of research data on a wall – a practical approach.



<b>Duration</b>	0.5–8 hours (depending on complexity and amount of data)
<b>Physical requirements</b>	Research data, wall space, paper, pens, masking tape
<b>Energy level</b>	Middle
<b>Researchers/Facilitators</b>	Minimum 1 (a better approach is to have teams of 2–3 researchers)
<b>Participants</b>	2–12 (optional, if possible from the research team)
<b>Expected output</b>	A visual arrangement of research data

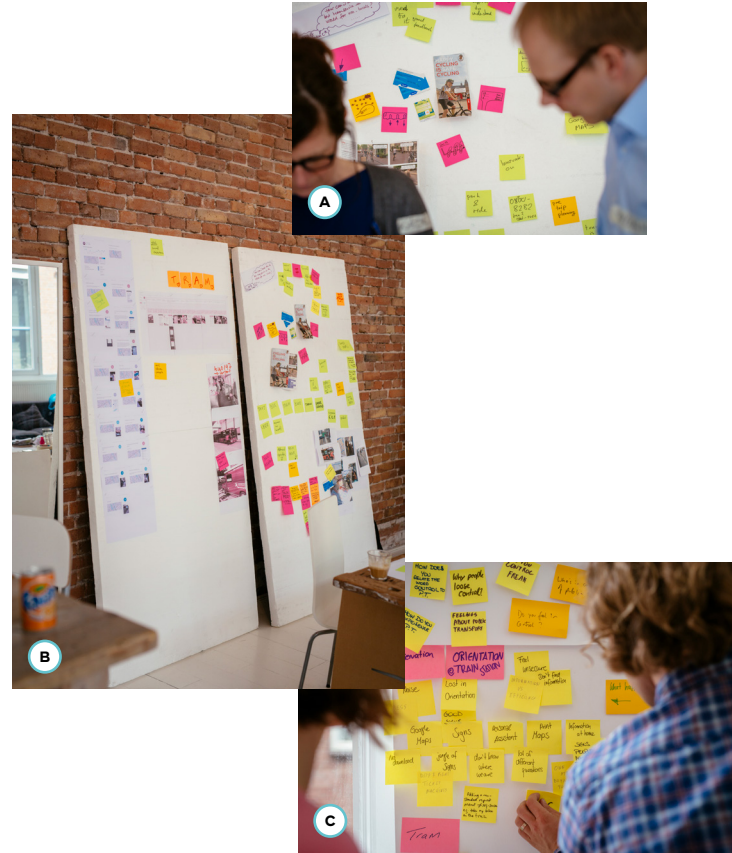
You can imagine a research wall<sup>01</sup> as a more complex version of how detectives structure their crime scene data in many thrillers (think of any *CSI* episode). You'll find many types of data on these walls (quotes, photos, screenshots of websites or videos, statistics, artifacts, etc.).

A research wall enables you to identify patterns within your data, while also providing a place to share your research with others as it develops. Often, you start synthesizing data by simply clustering it according to specific categories or by creating a simple mind map of your dataset. Using an interactive convergent method, such as octopus clustering, is usually a good start.<sup>02</sup>

<sup>01</sup> See #TISDD 8.3, *Service design and software development*, for an example of how a research wall is used to connect different service design activities of research, ideation, prototyping, and implementation. There are many similar approaches with different names; for example, the "Saturate and Group" method from IDEO/d.school.

<sup>02</sup> See the octopus clustering method in #TISDD 6.4, *Ideation methods*, for a detailed description.

You can consider the various patterns you identify as intermediate research outcomes. These can be then further explored, visualized, or condensed with tools like personas, journey maps, system maps, key insights, jobs to be done, user stories, or research reports. However, before researchers start working with these tools, they usually create some form of intermediate-level outputs – perhaps visual representations that describe patterns in the data. Often these patterns also lead to new or modified assumptions that need further research. Look for contradictions to your initial hypothesis, and start “building your case” with the support of user verbatims, photos, and audio and/or video recordings. Many of these intermediate insights can be illustrated with simple diagrams and sketches that will be useful when presenting them to your team and beyond.



- A** A research wall can contain any kind of collected data, such as quotes from interviewees, photos, screenshots, artifacts, and sometimes even videos.
- B** Using foam boards enables teams to keep their research data when they have to move between rooms.
- C** Try to structure your research wall by clustering and adding headings to the different sections.

## Step-by-step guide

### 1 Prepare and print out data

You'll need wall space or large cardboard sheets or foam boards to hang up your research data. Prepare your research data by printing out your most important photos, writing out great quotes visualizing audio recordings or videos as quotes, or screenshots, and putting out your collected artifacts and all other data that might be useful. Prepare the room with the essential material you'll need, such as paper, sticky notes, pens, and of course your research data. Also, think about who should join you to create a research wall.

### 2 Create a data inventory

Make an asset catalog of your data, such as “5 video interviews of families, 25 customer quotes on common problems, 15 photos of critical situations ...” to make sure nothing gets lost. This might be a simple list or a mind map based on your data index.

### 3 Build research wall

Hang the material on the wall and start clustering it in a way that seems meaningful to you. You could start with topics like certain customer segments, interview contexts, or common problems, or with steps along the journey map, etc. Name these clusters and look for connections between clusters as well as connections between single materials. You can repeat clustering and connecting several times with different initial topics.

### 4 Follow-up

Document your research wall with photos and write a summary of your key findings. You can also give the same material to different groups for cross-checking and researcher triangulation. You can build a research wall right at the beginning of your data collection and iterate it with new data coming in from your research.

## Method notes

- During clustering, you will notice that you are already starting to make connections (often subconsciously) while you are building the wall. Try to avoid confirmation bias, where you start looking for evidence that supports your assumptions while ignoring other input.
- Keep your research wall visible throughout the project so that team members can always come back and review the data when making design decisions later on. ◀