

## Posture: Design Research Check-In

### Initial Findings

*Who you observed or interviewed, their background, and the environment.*

- Five different locations for “Fly on the Wall” observations: Seattle Public Library - University District Branch, Odegaard Library - 4th floor, Kaiser Permanente (formerly Group Health), Husky Union Building, Northgate Mall - Food Court
- We tried to observe several people at a time while seated at tables and desks, if possible.
- Most of the people we observed were between the ages of 20 and 40.

*What did you learn?*

- People tend to have the worst posture when looking at their phones -- particularly by craning their neck forward.
- Seats that can lean back are better for back posture, but worse for neck posture
- A person’s style of typing influences their posture at a desk- two handed typing led to better posture than one handed use of computer
- Most people looking at the laptop have bad posture especially people who rest their elbow on the desk
- People doing work on laptop seldom change postures
- If other people who is standing talk to the sitting people, they will change the posture to better
- In the group chatting, people who is talking now tend to have good posture but once they start listening, it becomes worse
- People who use expansive gestures tend to have good posture

*What tasks, problems, or opportunities did you uncover?*

- It is difficult to know if the type of computer work a person does influences their posture, i.e. working vs. playing games or chatting online.
- The type of computer that a person uses (laptop vs. desktop) influences their head angle.
- Eating and using a computer at the same time affects hip angle

*Did you encounter any difficulties establishing rapport or getting the information you need?*

- One limitation of “Fly on the Wall” observation regarding posture is that the researcher needs to have a head-to-toe view of a person’s body. It can be difficult to find a good vantage point in a public place without appearing conspicuous.
- Lots of unknowns -Didn’t know what those on computers were working on, if anyone has back pain or physiological differences that could cause different postures, fitness background, etc.
- Hard to determine cause/effect- we could observe that people had good or bad posture, but not why they were sitting that way or what was causing that posture

### Adjustments to Design Research Plan

*What are your plans for the remaining participants?*

- Each researcher will collect data (see below) from at least 2 experience sampling participants and 1 videotape contextual inquiry for a total of 12 participants. We will also attempt to collect interview responses from one posture expert.

*How will you change your design research plan?*

- We will incorporate three different methods, while also cease our fly-on-the-wall observations.
- First, we will conduct an interview with a posture expert (e.g. chiropractor) about proven techniques that improve posture. Depending on these results, a literature review may also be required.
- Second, we will perform a contextual inquiry with people we know. We will covertly videotape them working at a desk for as long as it takes for them to adjust their posture in a negative way. We will then show them the videotape and ask them why they made that adjustment, what they were doing, and how they were feeling in that moment. This might reveal why people slide into poor posture.
- Third, we will perform experience sampling to learn if certain temporal, spatial, or social contexts influence posture. We will ask participants 4 times per day where they are, who they’re with, what they’re doing, and how they would rate their posture on a 3-point scale (1=bad, 2=neutral, 3=good).