

Contextual Inquiry Notes

First Contextual Inquiry

For our first contextual inquiry we decided to interview a CSE student. We conducted the observation/interview in their natural habitat- the CSE labs, obviously. With no windows to let light in, we thought this might be a good environment. The student had lived in Seattle his entire life and did not suffer from Seasonal Affective Disorder. However, the subject did have some experience with SAD as his mother (who is from out of state) does experience the disorder.

We learned the CI was very tough to do as an observation instead of an interview. Since receiving sunlight is pretty binary in that you either are or are not getting it at the time of the CI, there isn't much to observe. Thus, it caused us to perform the CI in more of an interview style.

We started off describing our initial project proposal to the subject. Since the interview, we have been discussing taking a slight pivot and reformulating our potential solution because our subject made it clear that having something that displays how much sunlight you receive could be nothing more than a "fun stat" to know. He made us feel that our intentions may not necessarily be a solution to a problem in the real world. Therefore, we think it might be much more useful to rebrand our problem to be "the lack of sunlight causing seasonal depression". This is a real world problem, especially in the gloomy Pacific Northwest (between 20-30% of people living at altitudes near Seattle suffer from seasonal depression).

He mentioned that while he does not suffer from SAD, he is very interested in learning about it and ways to combat it because his mother suffers from it as do a few of her friends. This suggested to us that a solution to SAD would be much more useful, as it's a significant enough problem that people are willing to go to great lengths to combat, whereas very few people are willing to take action to combat vitamin D deficiency or overexposure to sun. Overexposure especially considering it already has an excellent solution: sunscreen!

Our subject confirmed our suspicion that mood analytics would likely not be necessary, but might make for good advertising. He verified that it would be interesting if he could easily "look" and see how much sunlight he had gotten that day. With that he suspected he would prefer seeing the quality of sunlight (accounting for partial cloud cover, angle of latitude, etc.) over just a flat "time spent outside" number.

One problem that appeared during the interview was the challenge of our project overcoming the "just a fun novelty" status of a simple sunlight tracker. To be effective in helping the public, as our interviewee helped us realize, we need to target the SAD disorder and *use* our ability to make observations to help those afflicted.

We didn't encounter any difficulties establishing rapport as they were very honest and open about their answers and the dialogue was fairly easy to keep it moving along.

We plan to further evaluate our idea of making a slight pivot in our next CI. We want a second opinion on if we should follow this direction or keep the course we are already on.

We also plan to interview a non-CSE student for the next CI. Beyond that, finding someone with SAD to interview would give us a lot of invaluable information.

As we move forward into a more concrete structure of a product/plan we will begin having the subjects do more than just participate in an interview. We will likely have them interacting with a mock-up of our system in some way while we observe. That being said, since we lack the knowledge of what our potential users want/need and how people with SAD would like to be helped, we still need to perform at least partial interviews with our CIs.

Second Contextual Inquiry

Intended Subject: someone who suffers from SAD not originally from Seattle

Subject was born in LA and moved to the Seattle Area around age 4 (specifically Kent), It may rain more in Kent than in Seattle in general

NOTE: didn't experience and SAD symptoms over the Summer during an internship in Seattle with Starbucks

NOTE: I hate when winter first starts because suddenly the sun is gone at 5 when I used to be able to go for a run then

1. How long have you been in Seattle? **end of 2011, four years**
2. When you first moved, were you aware of SAD? **No**
 - a. How did you learn about it and how much knowledge do you have on the issue? **through internet forums, articles on the internet, word of mouth**
3. When was the first time you started noticing the symptoms? **Freshman year of college.**
4. Do you notice the symptoms of SAD regularly? **There are some days that are hard to get out of bed because "I don't want to deal with the world today"**
5. Is there something specific that you notice? **general apathy, don't care about world or class or people. Weight gain definitely in the winter time. By the time a week passes without exercise, I feel like absolute shit.**
6. Are there specific times and/or places where you notice? **Early winter is harder. doesn't like to go home often in the winter.**
7. What do you do when you experience SAD? **try to connect with people I enjoy. Surround myself with people I enjoy. When the symptoms are sleep related taking a nap is helpful**
8. What makes you feel better when you experience SAD? **rest - takes breaks and sometimes skips class to get more rest**
9. Could you describe the last time you experienced SAD? **last week - really stressed, really overwhelmed with everything, hadn't had any time to myself, couldn't concentrate, got into an argument with a capstone teammate, listened to music and took a walk helped.**
10. Do you view having a lack of sunlight as the main cause of this? **maybe doesn't cause it, but DEFINITELY aggravates. The cold weather also plays a part because it makes him stay inside and be less social.**
11. Are there other factors that you think might have an impact? **Loneliness - people break up over the holidays and then valentines day happens..**
12. Do you sleep and wake up at the same time everyday? **For the most part, it depends on workload when I go to sleep, but I do get 8 hours of sleep a day even if it isn't all at once**
13. How stressed are you on average? **On a scale from 1 - 10 average 6 mental stress level. Developed a very rock solid way of tracking responsibilities which helped my stress levels**
14. Do you try to take preemptive measures? **Yes, I try to take breaks before symptoms set in**
15. Taking vitamin d supplements **No**
16. Going outside often? **taking walks**
17. Where do you tend to do your work? **home, in my bedroom at my perfect desk with my desk lamp, in a dark room**
18. Have you tried looking into different solutions? **No, I think that I have firm enough grasp on my life**

19. Have you thought of seeing a doctor or counselor about it? NO
20. if no, Is there a specific reason you feel that you do not need to? Don't feel like I have lost control of the situation - never thought to seek help because I don't know if it is normal for people to feel this way
21. Would it be helpful having some reassurance/ something to provide some guidance? Yes, talking doesn't even have to be about SAD, just social interaction alone is helpful
22. Do you know others in a similar situation to yours that experience symptoms of SAD? NO, but it has come up in conversation
23. if so, does it help you deal with your symptoms to talk to those people?
24. Do you view SAD as something that can be discussed with someone else? Yeah, as long as that people is receptive.
25. Do you use any personal fitness applications or monitors? I hate going to the gym, I like to jog outside, a good week I will go 3-4 times, but average 1-2. Yes I use a fitness app called runtastic. It gives audio feedback every mile.
26. Would a wearable monitor that could assist in your management of SAD be interesting to you? Maybe - depends on the info it would show. If it showed how long I was indoors and then gave a suggestion that I should go do something, that would be interesting.
27. Would that device tell you about your sunlight exposure levels? your vitamin D intake levels? your risk of experiencing SAD? I would be cool to see how long I've been in the sun every day
28. Is there something you wish you could have that would help you deal with SAD? Monitor? Schedule/reminders? having a good enough break in the middle of the day to go outside, more control over my busy schedule, my house gets really cold and that brings me down,

Signed up for a half marathon to force himself to workout and jog more.

He knows some people who have depression and feels some of the symptoms but does not feel that his are as prominent.

Third Contextual Inquiry

Intended Subject: someone who suffers from SAD, or a professional who can tell us a lot about SAD, seasonal depression, and other lack of sun things.

The Light Therapy website says that the light box produces 10,000 lux. the typical overcast day produces only 1,000 lux while full daylight produces 10,000-25,000 lux and direct sunlight produces 32,000-100,000 lux.

What could we ask a professional that would inform our design?

1. Is SAD something that is clinically diagnosed? NO. because the symptoms of SAD are generally encompassed in other depressive disorders.
2. Is SAD potentially caused by vitamin D deficiency? Potentially, but it is not determined
3. How many people do you usually see a week to talk about SAD? Winter quarter produces the most cases for SAD. Joseph may not even see one person a week.
4. I noticed that light therapy requires an intake appointment first, what are key issues that you look for to decide if light therapy or any other type of solution is needed? YES. not all cases can be treated with light therapy alone, sometimes long term therapy is also needed

- a. What are the other possible treatments for SAD? psychotherapy; often the depression is not mild enough to be treated with light therapy alone
5. What symptoms of SAD are people usually most concerned about? (mood changes, appetite changes, weight increases, sleep or activity changes, or social strain) feelings of sadness, sleep issues, lack of interest in things that you used to love
6. Does someone have to make an appointment or can they just walk in? people need an initial consultation with a therapist first to determine if light therapy is the right thing for them, then they manage their own light therapy sessions
7. Can you demonstrate how light therapy works? Yes; we were taken to a small room (maybe 6x6 ft) where there was a table and a couple of chairs. The light was on the table and was about 2x1.5 ft. The light has two brightness settings, really bright and blindingly bright, depending on what the student needs and there was also a timer on the table for students to use. You simply turn the light on and sit near by (within 3 ft) facing the light.
8. When applying light therapy do you have to be there with the patient? No, using the light box does not require a therapist's presence.
9. At any point do you tell your patients to try some other remedies? If light therapy isn't showing the improvements that the patient was hoping for, or the therapist doesn't think it is enough to remedy the level of depression that the person
10. What other solutions are things that people should try? The most common addition to light therapy is to also have psychotherapy and in extreme cases drugs may also be prescribed (usually by a long term therapist, not a short term therapist like you find at the uw)
11. Is light therapy supposed to have immediate effects? No. some people feel positive effects as early as a few days, but it is supposed to be a positive force over time.
12. How regularly do people receive therapy? initial recommendations are 20 minute sessions every 2 days, though this varies by severity of the case
13. Will light therapy help with vitamin D deficiency? not significantly
14. Is there a difference between using this light source than other types? Yes, the type of light is very important as well as the intensity of the light. The light box is about 20 times brighter than the standard room lighting
15. Could you use a mixture of different types? Yes, but other types of light that don't give off enough brightness will not affect much
16. Is there a lux measurement of how much light people should receive a day to avoid SAD? No, it is too variable from person to person to pin down an appropriate amount that will improve SAD symptoms
17. Or is there some other kind of measurement? No
18. Do light therapy patients ever talk about improvements in other areas of their life after receiving light therapy? (general health or fitness?) Yes, but more often we see that the light "activates" people and they start self-perpetuating their improvements
19. How portable is the light source? Very, because they vary in size
20. What do you think of mobile applications that claim to provide light therapy? (meditation apps, app that tracks chronic suicidal people working with skill development.) Joseph thinks that if an app could model the right type of light that they would be incredibly useful.
21. Do patients have withdrawal symptoms? not necessarily withdrawal, but if the light goes away, people can relapse into their negative feelings
22. Do you have more recurring patients than non-recurring patients? Meaning, do the same light therapy patients return every winter? Or do they improve to a point of self-sustaining SAD management? Light therapy is like any other prescription drug, people can have a hard time establishing a regular schedule because of time commitments

Other Notes:

- the psych info database in the UW libraries houses the most information on depression in various forms
- Joseph taught us that SAD is not a medically diagnosable disorder because of the fact that the symptoms of SAD are almost entirely encompassed by the other forms of depressive disorders with the exception that SAD is seemingly seasonal. However, there are so many external variables other than the weather that can contribute to depressive disorders that it is next to impossible to prove SAD. Weather can be an aggravator of other depressive disorders, which means the depression worsens in the winter and comes off like SAD, but it actually isn't.
- Three of the key symptoms that Joseph pointed out were; sadness, loss in interest, and sleep - *these are the symptoms of sunlight deficiency that people are most interested in fixing*
- Many of the treatments for depression are used for various different types of depression.
- Most treatments results vary for people, but most will receive the same initial treatment to see the level of depression they have.
- One thing that Joseph also pointed out specifically for the counseling center was that most people do not know about it, there is not much visibility.
- Also receiving treatment is really the individuals' choice, they can ask for help and choose to follow the suggestions