Needfinding

Presented by Jorge Cueto
Studio: Learning and Education
Team: Jorge Cueto, Lynne Sneed, Nicole Crawford, & Musila Munuve

Problem Domain:
Learning and Invisible Disabilities

Needfinding Methodology

Young Adults with Disabilities + Parent

Jane Martinez
MIT student with Visual Perception Deficit Disorder

Bob Waverly
USC student with ADD

Lucy Hill
bipolar Stanford student

Jordan Kortenhoven
Palo Alto resident with autism

Andrea Kortenhoven
Jordan's mom, Stanford PhD student

Intervention Developers

Catalin Voss

Google Glass Autism App Developer

Stanford School of Medicine

Alice Wong

Alternate Format Producer

Office of Accessible Education

Interview Results

Results

Tensions

- **"I wish I had local friends. All of my friends live in other cities, or in other countries." - Jordan**

- **"I miss being able to focus. Taking my medication actually makes me less focused. When I was unstable, I could really pay attention." - Lucy**

Results

Contradictions

- **"I can fit in just fine…Sometimes I get uncomfortable when there are a lot of people around. During my graduation, there were over 300 people, and I went to hide in the bathroom."** - Jordan

- **"I feel pretty normal now…Regular college students get to go out and drink and have fun. I don't have that. I'll never have that."** - Lucy

Results

Jordan Kortenhoven
@writergirl47

Follow

Being interviewed by two Stanford Computer
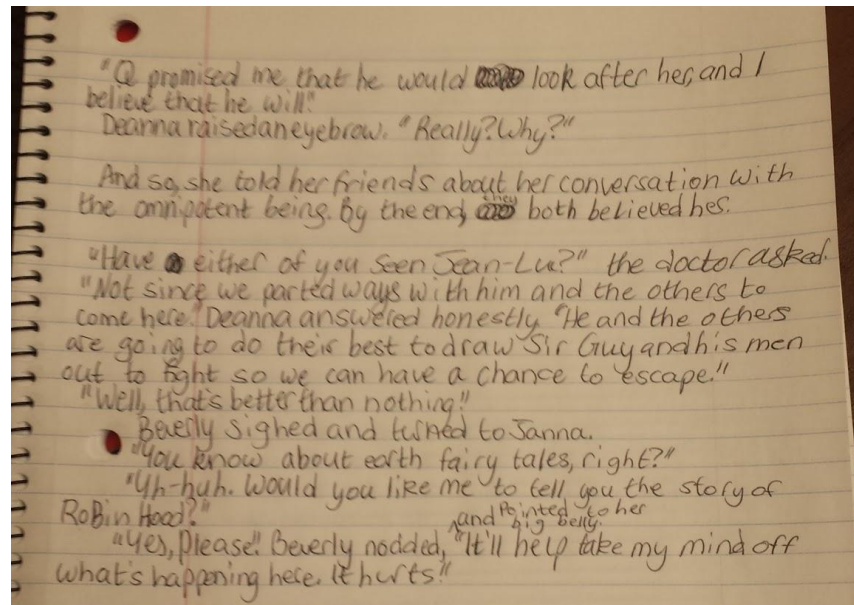science guys for a research project :)
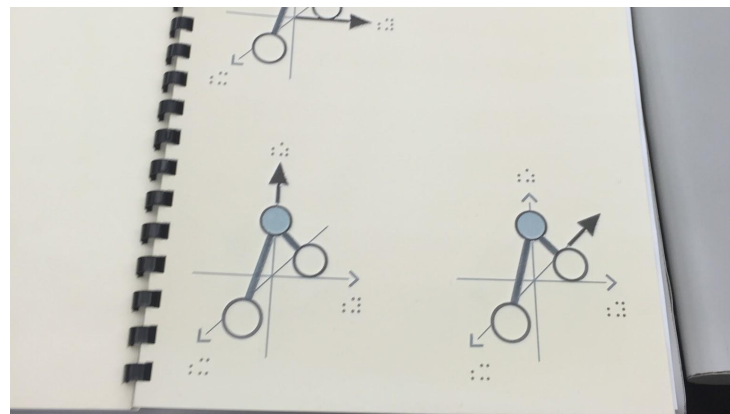
10:05 AM - 30 Sep 2015

Results

Surprises

- **Diversity within the disability space.**

Autism Google Glass App Demo

Braille Math Textbook

Analysis

SAY

- **"You want to create a learning aid, not a prosthesis."** - Catalin
- "I march to the beat of my own drum" - Jordan
- "I'm glad that I'm independent so I was able to seek help on my own" - Lucy
- **"I can be very predictable at times" - Jordan**
- **"I need to follow a strict schedule" - Lucy**
- "It was frustrating in the early years, trying to get teachers to understand she didn't just have an attitude with math and PE." - Jordan's mom
- **"I dive way deeper than the lecture when I'm interested." - Bob**

THINK

- Do they think I'm weird?
- I don't like change.
- **It's not a disability, it's a difference.**
- Therapy methods for people with disabilities are outdated and contrived.
- **Will using an app give me the same experience as writing by hand or holding a book?**
- Do they think I'm weird?
- Can others understand my situation?
- I have to be independent & create my own solutions.
- I can cope with my disability because I have support from friends.

DO

- **Bob tossed his phone and cursed**
- Jordan and her mom laughed together
- **Lucy kept looking to the side while talking**
- Jordan kept making typos while Tweeting
- Catalin fidgeted with a pen during the interview
- Alice touches the final product to ensure perfection
- **Bob was distracted by phone notification**
- Jordan had trouble plugging in her charger
- All of the employees in the Braille production room just stared intently at their screens
- Jane grimaced when asked to show homework

FEEL

knowledgeable

unsure how to display strengths

not normal

more confident

frustration with the status quo

in control   overwhelmed   lonely

anxiety

blame/shame

unfocused   overwhelmed

skeptical   **proud**   fulfillment   pressure for perfection

Needs

- To fit in
- To focus better
- To maintain a routine
- To build supportive relationships at school and in the local community

Insights

- Everyone felt some level of frustration
- Students are proud of their strengths and wish there was some way for others to see those strengths

Questions

- Although we see common themes in our results, will it be impactful to try to help everyone or should we focus on a specific use case?

Thank You

Removed Slides

Needfinding Methodology

8 interviews:

4 young adults with disabilities + 1 parent
2 intervention developers
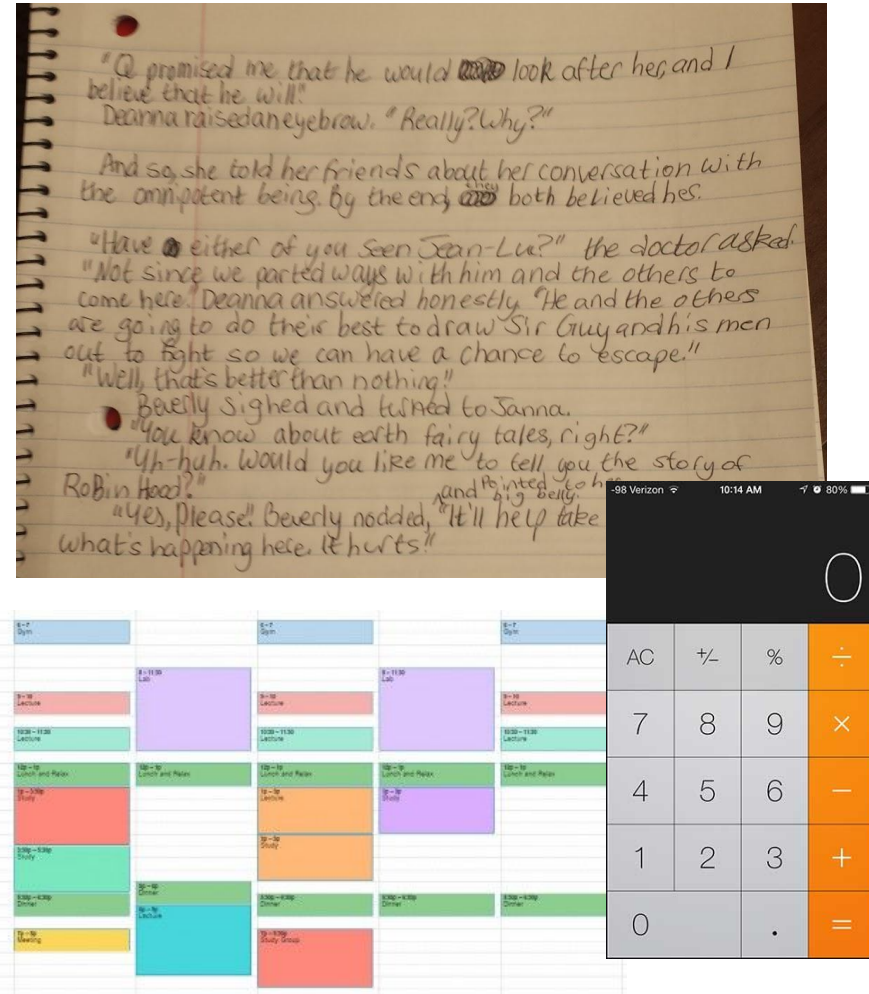1 researcher

Learning Disability Researcher

Dr. Shaozheng Qin
Brain Development Researcher
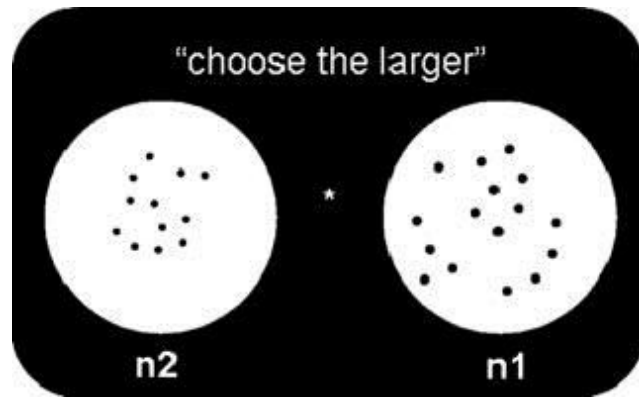Stanford School of Medicine

Results

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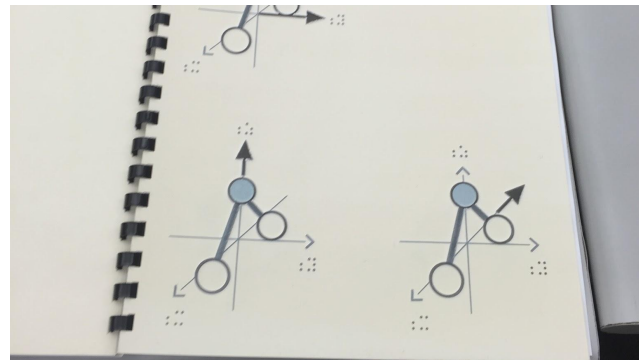- **Simple applications can be extremely helpful**

Autism Google Glass App Demo

Dyscalculia Diagnostic Test

Braille Math Textbook

Summary

- Learning and invisible disabilities manifest themselves and impact people in many **different** ways: socially, emotionally, and cognitively.

- Focusing, maintaining a routine, and fitting in are important for people with learning and invisible disabilities.

- Technology can **empower** people with learning disabilities.