

Experimental Design for the Mentally Impaired

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Position Paper

- Experiential design is using all five senses for much more integrated practice
- Interaction within product design → more holistic knowledge of the subject
- Purpose is to enhance the quality of life for patients with intellectual development disorders

Designing for the mentally impaired, such as those who are autistic or elderly with dementia, involves much more than design for the neurologically typical in regards to psychology, therapy, and social interaction. This manifests itself in experiential design rather than traditional design, with a purpose of inclusion for physical and mental disabilities.

Parts to Understand

- Psychology
 - Therapy
 - Social Interaction
 - Examples of successful implementation
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Psychology

- Assessment of skills during developmental period which contribute to overall level of intelligence
- Creates special needs for both the individual and the family across the life span
- Assessment/examination to allow conditions to be viewed as clinical issue → treatment
 - Trouble with recognition, perception, motor activity

Therapy and Social Interaction

- Observing/assessing → narrow focus
- Find deficits in behavior and manner of living
- Studies show that patients are better able to communicate emotion recognition after choosing a visual prompt
- Therapy is a bridge to design
- Designers can create objects to aid with specific issues
- Social function must be designed differently
- Benefit in cognition and mood from the socialization
- Interaction → decrease anxiety and the challenge of social interaction



Design Beyond Senses, Cooper Hewitt

Examples

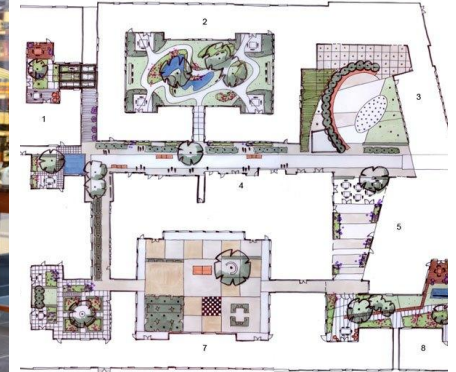
- Connected on multiple levels by sight, touch, smell, sound, and taste
- Eatwell Assistive Tableware
 - Blue allows the person to distinguish the food from the dish
 - Red and yellow to stimulates appetite
- Match Cooking Prep System
 - Provides visual structure and routine (shapes and colors)
 - Eases motor function
 - Make a child's day less frustrating if they do not have to struggle with simple tasks



Dementia Village, Netherlands

Examples

- Residents can live a seemingly normal life, but in reality are being watched
 - Caretakers staff the restaurant, grocery store, hair salon and theater
- Less expensive
- Family members do not have to spend time taking care and watching them
- Not just any facility or regular home → become confused
- Visual and tactile stimuli of the village tap into the prominent memories that dementia patients experience in real time
- Disconnection between their memory and their senses that often creates agitation
- Other kinds of sense memory allow pneumonic recall of past details



We need to do extensive research for experiential design and for the mentally impaired. By doing this, designers can fulfill the deficits that people with dementia and autism experience. The purpose/objective raise awareness of those with impairments, be more inclusive, and increase the availability of products.

My Visualisation

Race against the clock for 30 seconds! Place each piece, one at a time, in their respective color boxes. One person has a veil over their eyes to simulate impaired vision.

The purpose of the color coding is that it is a simple game/toy, but to the mentally impaired, it allows them to practice with coordination.

