TriggerHunter: Designing an Educational Game for families with Asthmatic children

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Background

- More than 22 million asthmatics in the U.S., approximately 6 million of whom are children
- Certain environmental condition may cause children’s asthma attack or make their symptoms worse
- Children spend the majority of their time indoors, where they may be exposed to asthma triggers
- The needs for knowledge of asthma triggers and specific actions to reduce exposures to these triggers

Goal

- To educate asthmatic children and their parents on healthier home environments
- To increase the awareness of asthma triggers
- To allow children to learn indoor asthma triggers in their actual environment
- To provide asthmatic children with enjoyable learning experience
- To encourage parents and children to change their behaviors for better pediatric asthma management

User Research

Asthmatic Children

- Needs: More effective ways to learn self-management
- Implication: Supporting children’s experimental learning about asthma triggers in actual environment

Parents (Caregivers)

- Needs: Preventing their children’s asthma attack, and know more about asthma triggers and how to avoid them
- Implication: Helping parents control environmental asthma triggers and minimize children’s exposure to the indoor triggers

Healthcare Providers

- Needs: Educating families with asthmatic children about asthma triggers in actual environment and how to manage them
- Implication: Helping community health workers provide education, support for behavioral change, and resources to control triggers effectively

System Design

Collaborative system for healthcare provider, parents and children

Prototype

TriggerHunter is an adventure game in which the player assumes the role of protagonist in an interactive story that is driven by exploration and problem-solving.