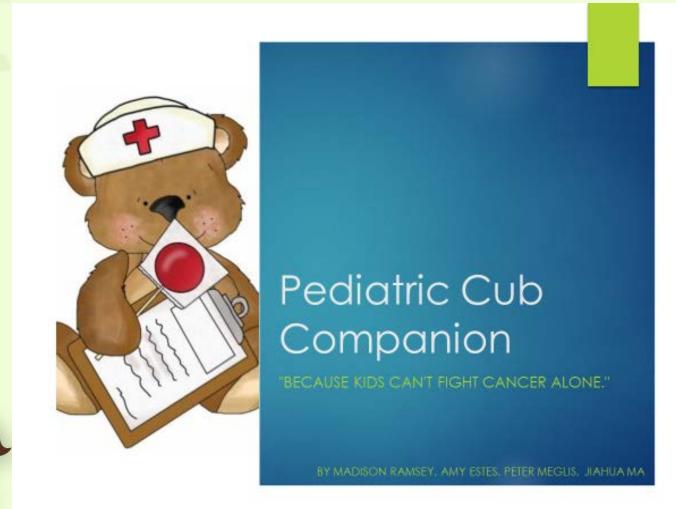


# Objectives

- At the conclusion of this Flash Talk, participants should be able to describe:
  - An Aha moment
  - The Cub Companion project
    - The purpose of the Cub
    - The purpose of the project
- Two (2) applications that might be pertinent to the WPSU Early Childhood Education Project

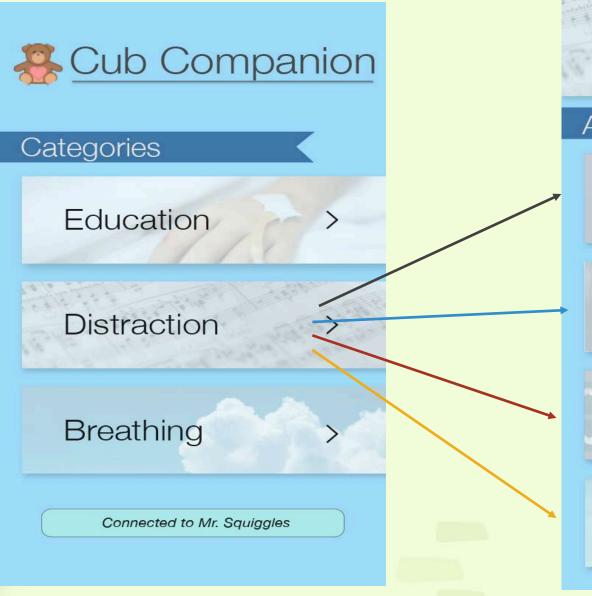
## College of Nursing wins 2018 mHealth Challenge



An app is used to control a
 Bluetooth speaker placed
 inside a stuffed bear to
 communicate with children
 about their medical treatment.
 Designed to reduce anxiety in
 pediatric cancer patients by
 providing comfort, knowledge
 and evidence-based coping
 mechanisms.









Activities

Sing a song

Ask a question

Count

Imagine a scene









Prototype



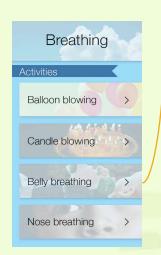


Cub Companion

Education

Distraction

Breathing



# Belly Breathing

## Description

Deep breathing is an effective way to relax your child. With belly breathing, your child will place Mr. Squiggles on their stomach...

### Bear's Dialogue

It's time to take me on a ride!

Put me on your belly and take a big deep breath through your nose as I count to 4. Make your belly nice and round!

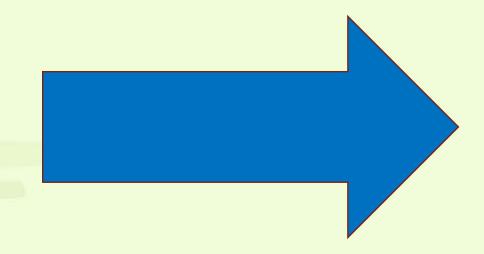
1, 2, 3, 4

Now hold your breath as I count...



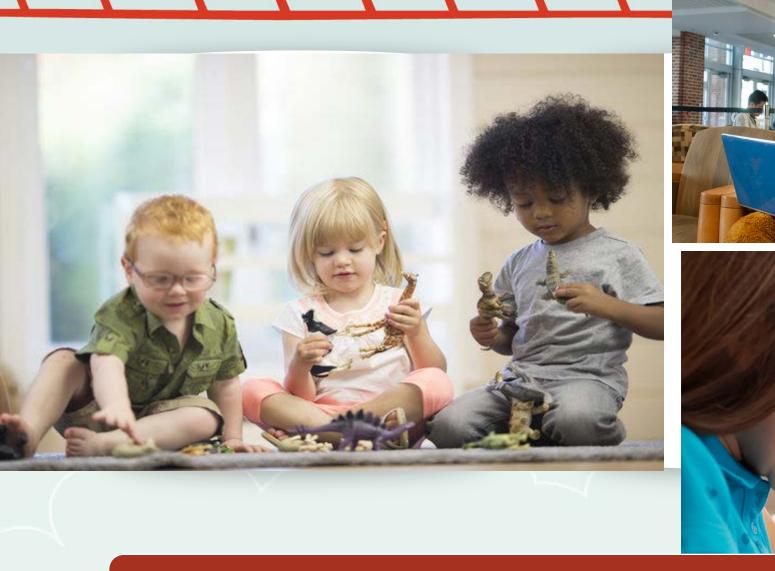


## Onward State

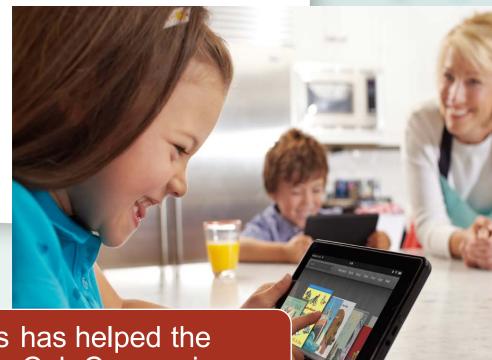












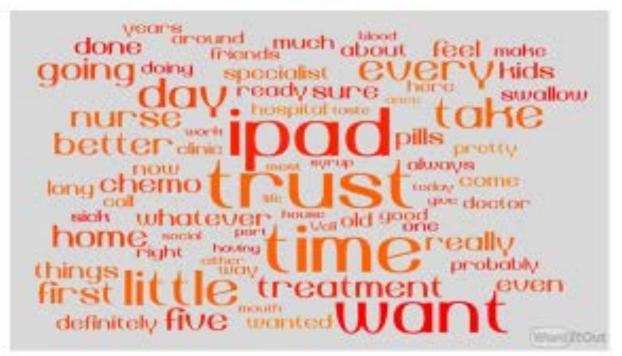
Research on child interaction with products has helped the team understand how a child might react to Cub Companion.

# Reaching out to parents of pediatric cancer patients and oncology nurses provided valuable information from the people closest to the children.

## Nurses

# How getting hid explain procedures especially feel give parents life anywhere parent find think own try went hind think own blood super time having kids hospital well toy interest two make wider about pedetries mean any nursing obviously chemotherapy discurs protty need usually hard option home anything radiation understand around floor medicine whole different better

### **Parents**









- (From Berardi, Hulburt, Miller & Merkel "WPSU Innovation Planning Grant")
- WPSU's strength in **trusted** children's programming should be reemphasized, with a unit that connects with school districts, libraries, homeschoolers, daycares and caregivers.
- Priorities
  - Serving Learning Families in our Geographically Dispersed Coverage Area
  - Supporting Early Childhood Development
  - Focus on Learning Impact
  - Leveraging Penn State and Community Connections
  - Continue to Innovate



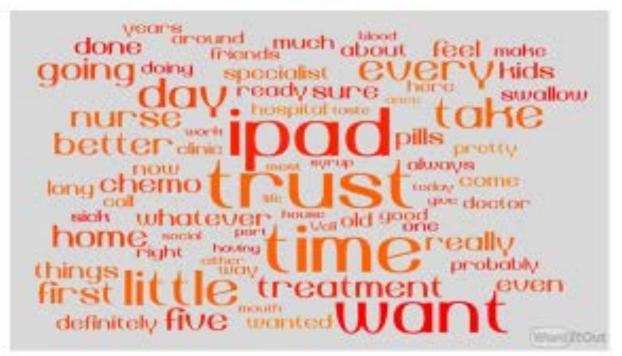


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### **Parents**





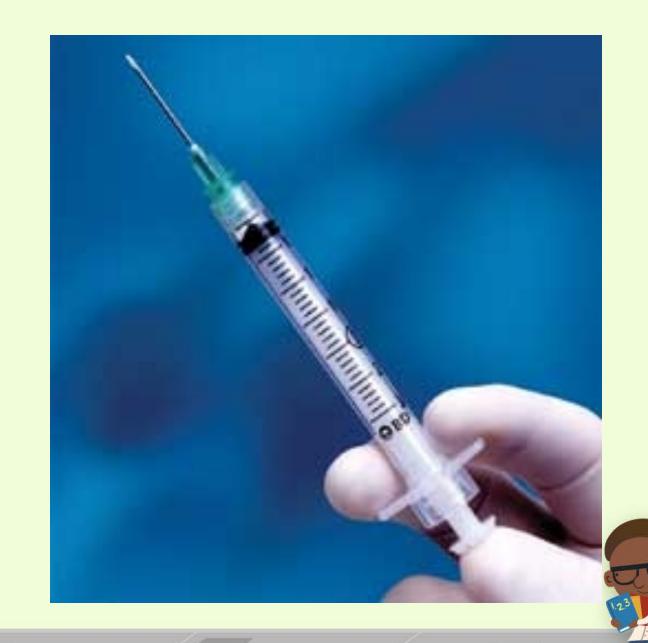


The team determined that the biggest areas of focus were building trust in a new environment and encouraging distraction from invasive procedures.

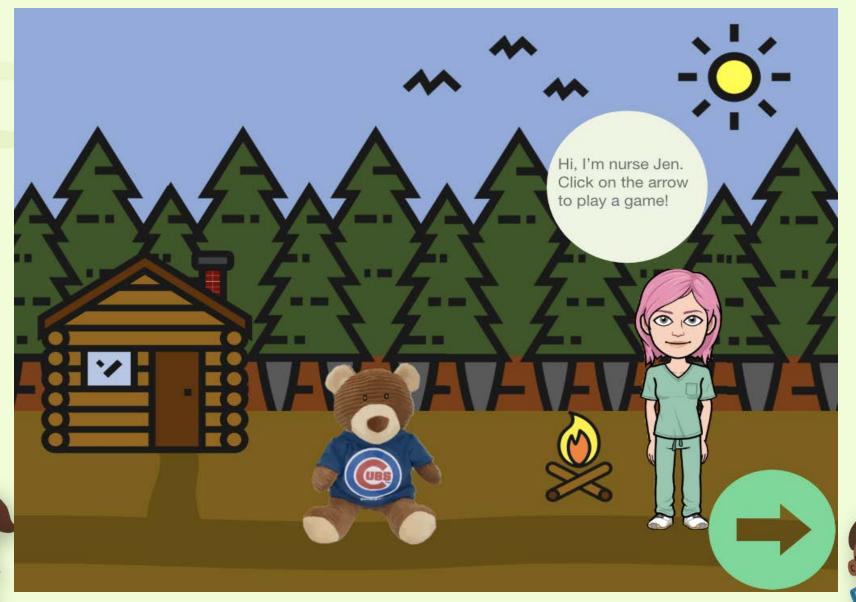




An Aside.....













More research and prototype testing is necessary to evaluate which games are the best for providing distraction and interactivity.











A virtual world with a physical component provides much promise for significantly reducing stress in pediatric cancer patients.



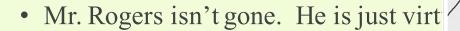


The Word Cloud of the Caretaker, the Educator and the Program Developer Team should look very similar

# WPSU - Where do we go from here?

• The word cloud for the student, the parent and the teacher should look about the sa

• The kids are already using this mediu



- That means we can make his sweater any color we want.
  - And zip and unzip it as many times as we want.
- Use students
  - They are already there with the tools

• They don't know the "We tried that 8 years ago and it didn't work..." routine for this.





Affinity







# Objectives

Based on the presentation, can we describe...?

- At the conclusion of this Flash Talk, participants should be able to describe:
  - An Aha moment
  - The Cub Companion project
    - The purpose of the Cub
    - The purpose of the project
- Two (2) applications that might be pertinent to the WPSU Early Childhood Education Project

## **Developers and Faculty**

#### **Students**

- Nursing
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  - Madison Ramsey
- IST
  - Jiahua Ma
  - Peter Meglis\*
- Engineering
  - Abdelhady Aboulba
  - Christie Hasbrouck
  - Kevin Kearney
  - Manoj Malviya

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