Theme and brainstorming
“our next order of business might be a lot to swallow”
- Carolina Warneryd
“I love coffee with a side of meeting”

- Shawn Monel
“It's getting a little muggy in here.”
- Anna Weinstein
Association Mapping

- **Function**
  - Fire
  - Bulb
  - Wood burning tool

- **Environment**
  - Heats
  - Burns
  - Smokes
  - Counts down
  - Pops!

- **Name**

- **Materials**
  - Used With

- **Motion**
Invention and Innovation

“Invention is the creation of something new, be it an idea or object, while innovation is the process of coming up with novel approaches or uses for existing objects/ideas”

-Quinn Bowers
the Theme

Seismic Survival, 2008
Beat Blocks, 2015
Light Capture, 2010
Magnitude X, 2016
Theme

2013 — “in the dark”
2015 — surprise
2016 — intrigue
2017 — animate
2018 — dream
2019 — rainbow

2020 — ?
fairy tale!
fairy tale?
fairy tale?
fairy + tail?
fairy tales are about fantasy
fairy tales can be spooky
fairy tales are about storytelling
fairy tales are magical fun!
fairy tale
Idea generation strategies
Why?
Quantity of Ideas vs. Overall Creativity Score per Subject

\[ R^2 = 0.81952 \]
Idea generation strategies
Brainstorming!

generate
LOTS of ideas....
quickly!
Brainstorming

problem statement
Brainstorming

problem statement

20 minutes
Brainstorming

problem statement

20 minutes

5-6 people
(in 3-370)
Brainstorming

problem statement

20 minutes

5-6 people (in 3-370)

one facilitator and lots of paper
Brainstorming Rules?
Brainstorming Rules

defer judgement
NO EVALUATION

switch left brain
to silent mode

encourage wild ideas

build on ideas

challenge all assumptions
Brainstorm Sketching

quick and clear

draw big

name

brief pitch

record

repeat

SFX NERF DART
I/M/P

Ideas Per Minute (Per Person)

quantity not quality

>1.0 IPM (PP)

5 people, 20 min = 100 ideas
but really, more!
Brainstorming Assistance
dopamine
Brainstorming
toys inspired by "fairy tale"
Idea Classification

not selecting ideas yet!

silent sort

name the categories

choose appropriate names
7,363,474 is quite an original answer to the problem ‘How much is 12+12?’

it is only when conditions are such that this answer is **useful** that we can also call it **creative**.

- Sarnoff Mednick

Idea Selecting
Idea Selecting, first pass
Brainstorm Deliverable

☐ fantasy
☐ construction
☐ sensory
☐ challenge

a. ideate as many as you can in each category

b. research + choose one favorite idea from each of 4 categories

c. 4 legible, full page sketches with idea name in your design notebook

d. *redraw* these 4 ideas on printer paper with your name
Brainstorm Deliverable

- fantasy
- construction
- sensory
- challenge

these ideas are the starting point for your final toy!

don’t do it right before lab

this assignment is important

it is graded
Brainstorm Deliverable

- fantasy
- construction
- sensory
- challenge

how is it graded?

a. did you complete the assignment?

b. are the sketches large and legible?

c. are the ideas thoughtful (don't exist already and are within theme)?
Selecting again, Pugh Charts

assessment criteria

pick one idea as a benchmark

rate each criteria with +, S, or - as compared to the benchmark
Fidget spinners

Base of comparison should be one you fully understand.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Spinner 1</th>
<th>Spinner 2</th>
<th>Spinner 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spin time</td>
<td>S</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Cost</td>
<td>S</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ergonomics</td>
<td>S</td>
<td>s</td>
<td>-</td>
</tr>
<tr>
<td>Coolness</td>
<td>s</td>
<td>+</td>
<td>++</td>
</tr>
</tbody>
</table>

0, -1, 1
Toy Criteria

- play value
- enthusiasm
- appropriateness (PLAYsentation friendly, safety, PDL fit)
Pull Toy Hours Tonight
7-10pm in PDL
Lecture Tomorrow

Sketching!
Fairy Tale and brainstorming!