GIFT GIVING GAME
I’m an engineer turned educator turned nonprofit entrepreneur
We empower every student as an inventor.
why invention?
THE MINDSETS

1. Creative Confidence
2. Empathy
3. Embrace Ambiguity
4. Make It
5. Learn From Failure
6. Iterate, Iterate, Iterate
7. Optimism

designkit.org/mindsets
HUMAN STRENGTHS STAND OUT IN THE DIGITAL AGE

Most Valued Soft Skills Are Hard to Find

<table>
<thead>
<tr>
<th>Skill</th>
<th>Most Valued</th>
<th>Hardest to Find</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>30%</td>
<td>56%</td>
</tr>
<tr>
<td>Collaborate</td>
<td>22%</td>
<td>55%</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>31%</td>
<td>54%</td>
</tr>
<tr>
<td>Organization</td>
<td>24%</td>
<td>49%</td>
</tr>
<tr>
<td>Customer Service</td>
<td>16%</td>
<td>45%</td>
</tr>
<tr>
<td>Leadership</td>
<td>20%</td>
<td>34%</td>
</tr>
<tr>
<td>Management</td>
<td>18%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Source: Manpower Group
building solutions to community problems
Design thinking

come up with an impactful idea

Making

make the idea a reality
TEAM EXPERIENCE: STRIA

VIDEO: https://youtu.be/Gk-kUnnjunY
YOUR TURN: How can we design a better future?
Designing for Jimmy
Design thinking is a universal process for creatively solving problems.
DESIGN THINKING PROCESS

Empathize
Define
Ideate
Prototype
Test

Bootcamp Bootleg, Stanford d.school

PROJECT INVENT
interviewing
ideating
building
observing
prototyping
DESIGN THINKING GONE GOOD

Photo by UCSF Medical Center at Mission Bay
what are students really doing when…
they are reading?
they are writing?
they are experimenting?
they are performing?
they are calculating?

“When students are designing, when students are designing, empathy, brainstorming, prototyping, and feedback are tools.”
11-12:30PM: Design Thinking
12:30-1PM: Lunch
1-3PM: Making
3-4PM: Pitch Prep
4-4:30PM: Debrief + Survey
Jimmy: Interview Recording
NEEDS
VS.
SOLUTIONS
DEBRIEF

What were some powerful stories or needs you heard?
SYNTHESIS

1. Download your learnings
2. Find themes and insights (affinity clustering, journey map)
3. Craft “how might we” statements
DOWNLOAD YOUR LEARNINGS (10 min)

Individually, write down each anecdote from your interview on a post-it (quote, question, etc).
AFFINITY CLUSTERING (20 MIN)

1. With your team, group your post-its into related themes.
2. Name each cluster, write on a post-it, and stick above the cluster.
3. Notice patterns and record insights in your notebook about each cluster.
JOURNEY MAP (20 MIN)

1. Determine a start and finish to your timeline (ie. wake up and go to bed).
2. Label what happens between start and finish (include needs identified in affinity clustering and give as much detail as you can).
3. Use happy and sad faces to indicate high and low points.
4. As you make your journey map think: Where am I making assumptions? What additional questions do I now have?
“How Might We”s
The Power of a Question
How might we help blind people?
How might we help Jimmy avoid veering when he walks so as to keep him safe from cars driving by?
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WRITE 3 UNIQUE HOW MIGHT WE’S AS A TEAM

How might we _______ _______
(verb) (user)

_________ so as to __________________ ?
(need) (emotional/practical reason)
LUNCH
BRAINSTORMING.
1. THINK WILD

The Klutz Book of Inventions

By John Cassidy & Brendan Boyle
Who says clearing out a stopped-up toilet has to be a chore? With this idea, you'll look forward to every backup. Great for kids, adults, the whole family. Let everyone experience the joy of sewage with the PogoPlunger, the perfect marriage of plumbing and jumping.
Re-runs and reps

TV Remote Dumbbell

Forget push-ups and don’t even waste your time on bench presses. If you really want that ripped look, you’ll need to hit the couch and log some serious tube time.
Puts wasted play energy to work

Lawnmowing Tricycle

Sure you love to watch your kid having fun outside, but wouldn’t you love it even more if he were learning some important lawn-care basics at the same time?

Of course you would. And with this three-wheeling lawnmower, that’s exactly what he’ll be doing. This tricycle comes equipped with a push-style set of lawnmower blades between the wheels. Your kid will love the extra challenge and hey! He’s out there pedaling around anyway! A win-win.
2. GO FOR VOLUME (15+ IDEAS)
3. BE VISUAL
5 minutes.
1 idea per post-it.

Every idea is a good idea.
ON “BAD” IDEAS
Sometimes, impractical ideas can be the most revolutionary.
Share your **wildest** and **favorite** idea (don’t share which is which)
What do you think this quote means?

Designers don’t think their way forward, they build their way forward.

-Bill Burnett, Stanford Professor
You have BIG ideas. Prototyping is testing a small part of your idea.
Retreating to his garage, he cut a block of wood to fit his shirt pocket. Then he carried it around for months, pretending it was a computer. Was he free for lunch on Wednesday? He would haul out the block and tap on it as if he were checking his schedule. If he needed a phone number, he would pretend to look it up on the wood. Occasionally he would try out different design faces with various button configurations, using paper printouts glued to the block.
Rapid Prototyping: The cheapest way to fail & improve.
What are ALL the things that Jeff was able to test with this simple prototype?
Share your **wildest** and **favorite** idea with your group.
STRIA EXAMPLE
Choose **ONE** idea as a group to prototype.
What are you uncertain about for your idea(s)?
How will you test your assumption?
What will success look like?
BUILDING TIME (30 MIN)

Image courtesy of IDEO
What did you learn from prototyping?
PITCHING

Telling the story of your product to an audience.
DISSECT THE STORY

Problem (what is)
Solution (what could be)
Details
Emotional End

VIDEO (0:42-1:34): https://www.youtube.com/watch?v=lkdLV_rOzcw
STORYTELLING

Problem (what is)
Solution (what could be)
Details (features, etc.)
Emotional End
POISING THE PROBLEM

**ETHOS**
credibility

**PATHOS**
emotion

**LOGOS**
logic
JERRY THE BEAR: The lives of children diagnosed with Type 1 Diabetes are turned upside down. They have to prick their fingers 3 times a day...

SWIPESENSE: There are 100,000 preventable hospital acquired infections every year.

STRIA: This is Jimmy. And whenever he crosses the street, his life is put in danger because of a problem called veering.
STORYTELLING

Problem (what is)
Solution (what could be)
Details (features, etc.)
Emotional End
Describe your problem and solution as clearly as possible.
CONDENSE INTO A ONE LINER

[Product Name] is a [catchy description] for [why].
Pair makes fun, customizable eyeglass frames that don’t break the bank.
STORYTELLING

Problem (what is)
Solution (what could be)
Details (features, etc.)
Emotional End
DETAILS

List all the **benefits** that make your product stand out.

*(start from your competitor analysis & value proposition)*
STORYTELLING

Problem (what is)
Solution (what could be)
Details (features, etc.)

Emotional End
A BETTER WORLD

How will the world be better with your innovation in it?
Come up with a repeatable saying, memorable demo, etc. to end with.
FINISHING STRONG

APPLE
Jan 2008, Steve Jobs reveals the Macbook Air that is “so thin it fits in an envelope.” He doesn’t just say it, he shows it.

JERRY THE BEAR
“Our goal is to give this smile to every single child diagnosed with a chronic illness.”

Photo by Lara Ucakar
A great product deserves a great name!
Make a **word cloud** of all the words related to what you’re inventing.
Naming Tools

* Look up other languages (i.e. Zappos)
* Mash together words (i.e. Airbnb)
* Drop some letters out (i.e. Tumblr)
END OF DAY DEBRIEF

What was challenging today?
What was successful?
We are an after school program for students to learn to build a better world.
We are a professional development opportunity for teachers leading young innovators.
WE...

TRAIN & SUPPORT MENTORS.
CONNECT COMMUNITY PARTNERS.
DEMO INVENTIONS.
SHARE RESOURCES.
educate for the future.
VISIT: projectinvent.org
CONTACT: hello@projectinvent.org

Instagram: project_invent
Twitter: project_invent