Just Begin.

A Design Thinking Journey @The Harker School

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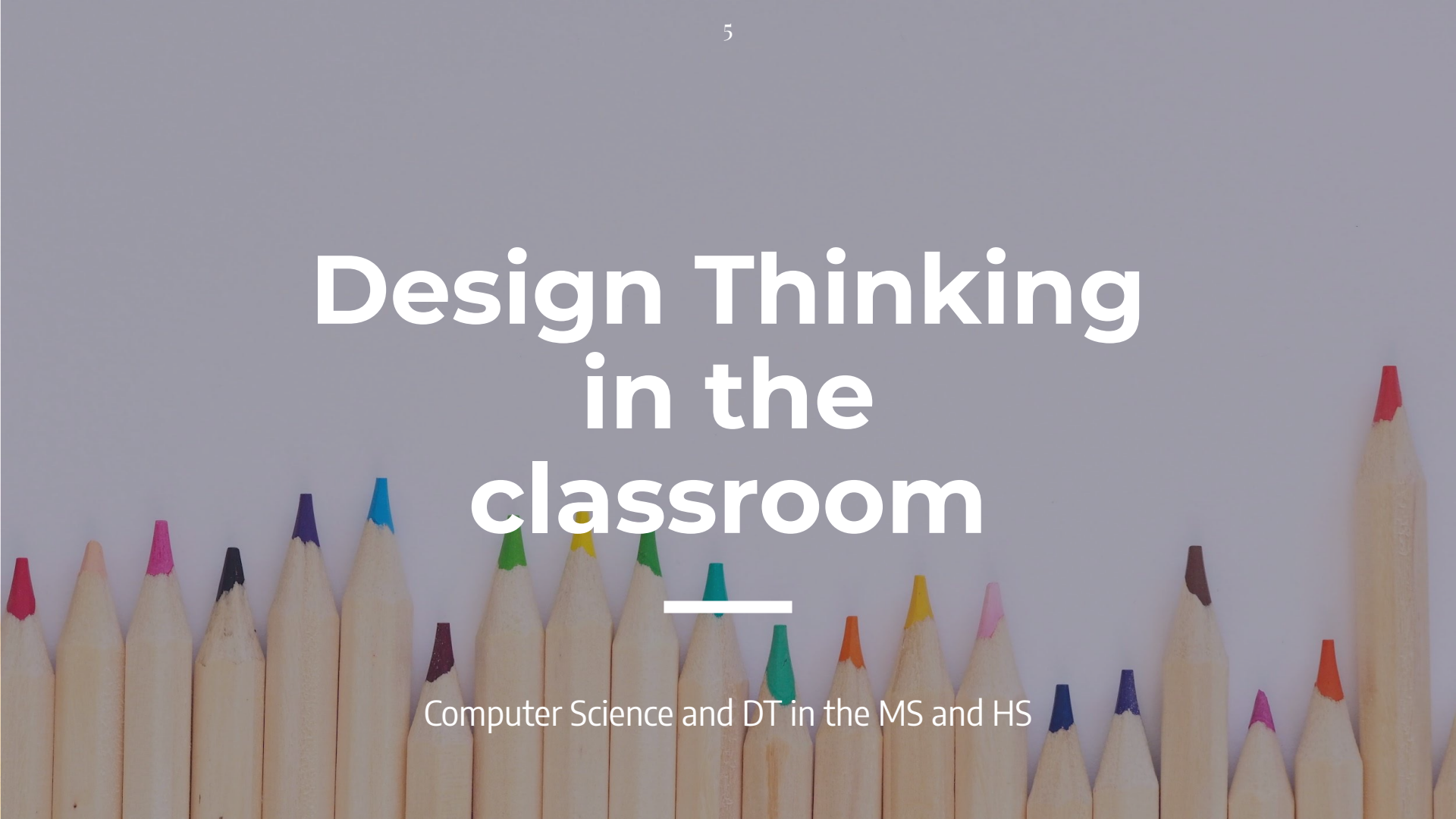
My Teacher Journey

1. PROSPECT SIERRA
2. SAINT SIMON PARISH SCHOOL
3. HARKER
4. THE NUEVA SCHOOL
5. Castilleja

6. HARKER
7. edstoria

MS Director of Learning, Innovation, and Design
The Harker School
abigail.joseph@harker.org

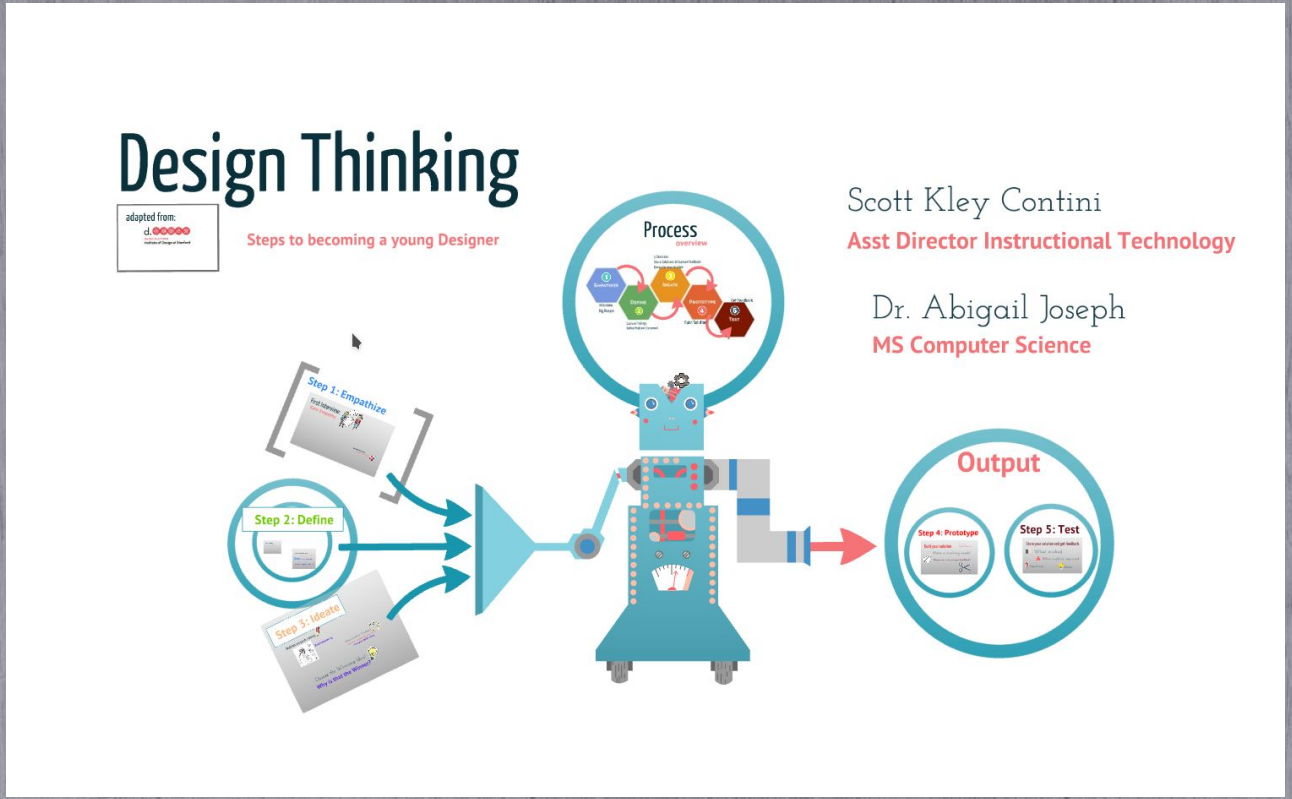


Design Thinking in the classroom

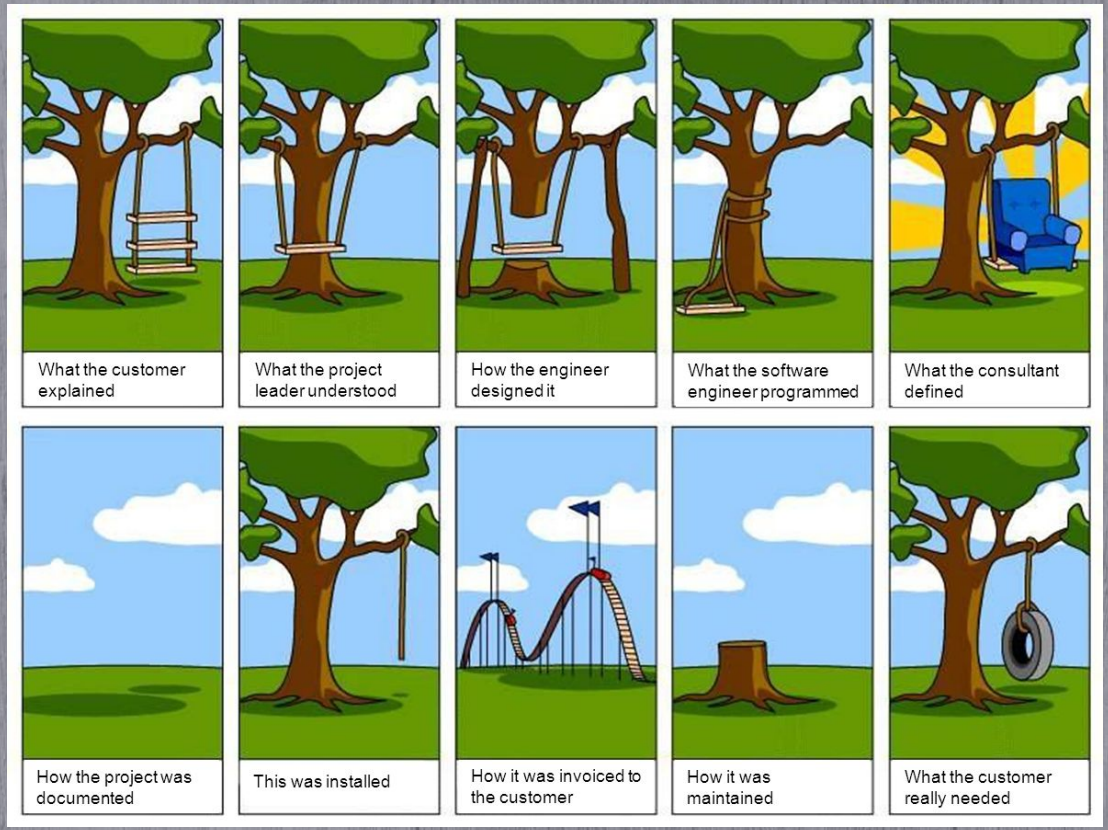
Computer Science and DT in the MS and HS

6th Grade CS

Introducing Design Thinking



Customer Requirements



6th Grade Name Card Design

Step 1: Introduction to Design Thinking

What is a namecard? What is it for?

Is it important to know someone's name?

- The Teacher will walk you through the Design Thinking process to make a namecard.

The Interview

- Brainstorm some questions that will help you figure out how to design your namecard.
  - "What kinds of things help you remember someone's name?"
  - "Is it important for you to see someone's face to remember their name?"
- Get a partner and interview them with your questions.
  - Record your partner's responses, ask for more details when necessary.

The Challenge

- Look at your recorded interview responses.
- What challenges do you see that you will need to incorporate into your design?
- What is your Design Challenge?

6th Grade Name Card Design

Time to Sketch

- Create 3-5 brainstorm sketches of what your namecard might look like.
- Use your Design Challenge as the inspiration.
- These sketches should be messy! No words on the page, just real fast mockups!
- Get feedback from your partner on which sketch they feel would be the best way to learn your name!

Make your Prototype

- Use the craft materials provided in class to bring that winning sketch to life!
- Remember to keep your Design Challenge and the winning sketch in mind the whole time.
- You can check in with your partner along the way for feedback to make sure you are on track.

Submit your final Namecard!

- When you finish the prototype or when the time is up (whichever comes first), submit your namecard design to the teacher.

Reflect

- To complete this Mission, you must fill out the Mission Reflection survey.
- Rate your performance on your first Design Project!

5 sections

6th Grade Name Card Design

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6th Grade Zoom Background Design

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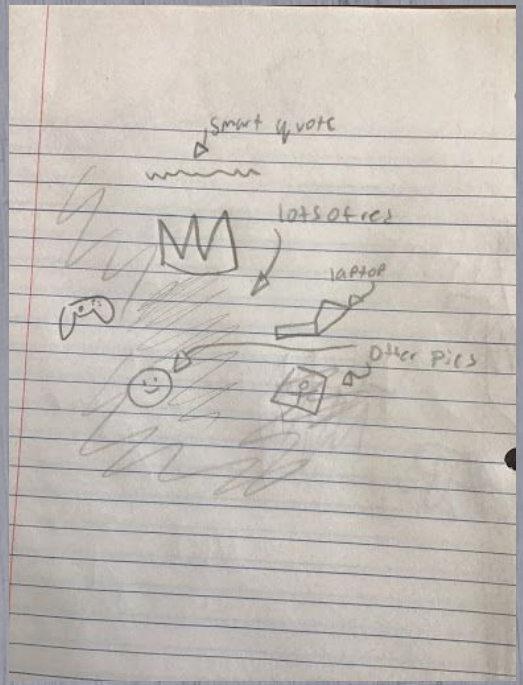


6th Grade Video Game Design

Quest and Challenges Completion

Peer Game- Empathize, Define, Ideate, Prototype, Test

Below Are the USER REQUIREMENTS for the game that i am creating for my user, Ryan.

1. **What do you want your game to be about? (Adventure, mystery, maze, treasure-hunt, obstacle course, fantasy). obstacle course, adventure**
2. **Top-Down or Platformer? platformer**
3. **One big game or multiple-levels? - multiple levels**
4. **If multiple levels, do you want your game to have one single theme or multiple themes? single theme**
5. **If multiple themes, which ones do you want? Single theme**
6. **Difficulty level - proggressive**
7. **What background do you want? -Jungle**
8. **Do you like shooting enemies or dodging enemies or both? -both**
9. **Do you want gold coins? not really**
10. **Do you like surprises? - yes**
11. **Do you want disappearing enemies (ghosts)? yes**
12. **Do you want hidden blocks giving the path? no**
13. **How do you like to win? - collect coins, killed enemies, goal block, key,**
14. **Do you like to base the game on timer or health or both**
15. **Do you like wrap around? Edge out and enter from another place? no**
16. **VIP Characters? no**
17. **Do you like teleporting? yes**
18. **Music? Intense or calming? Intense**
19. **Elevators - Do you want them? Yes**
20. **Damage block - you want or no? - yes**
21. **What different types of sprites do you want? shooter person**
22. **What different types of enemies do you want? ghost and shooter**
23. **Do you want to include text messages? ---No**

DEFINE:

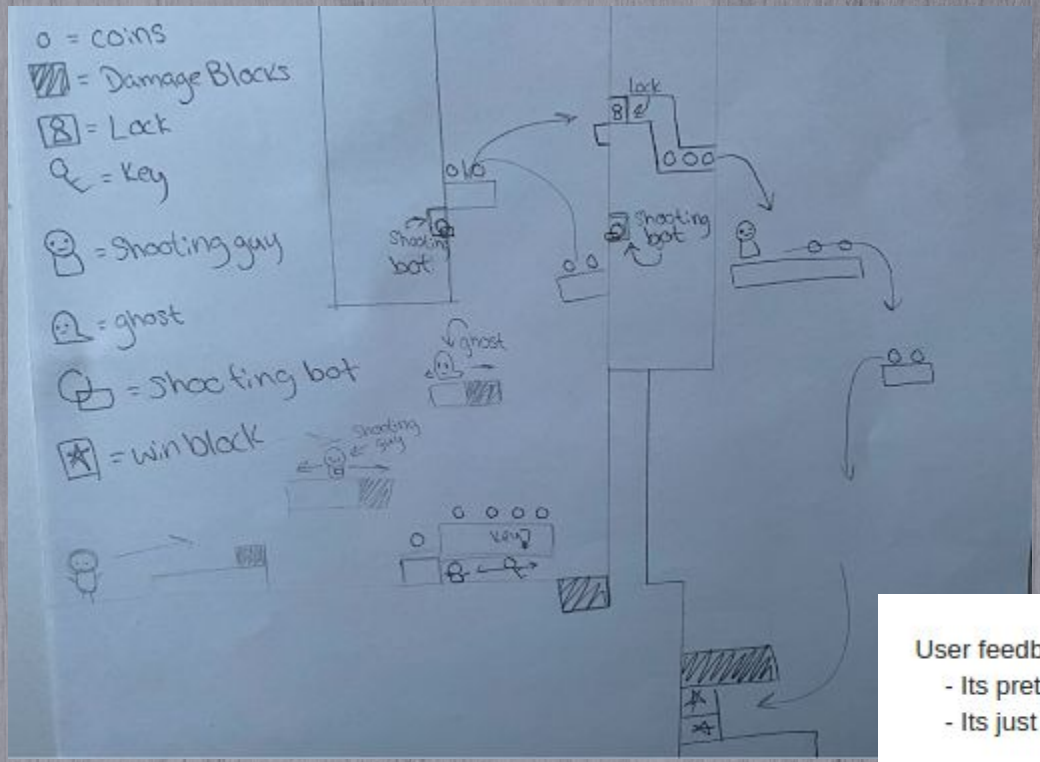
Theme: A obstacle, platformer game: Multi-leveled, Adventure, Jungle, progressive, dodging and shooting, money collecting, surprise induced, ghost infested, with goal blocks and keys, health and timer, teleporting, intense music, elevators, damage blocks, shooting sprite, and bad ghost and shooter sprites

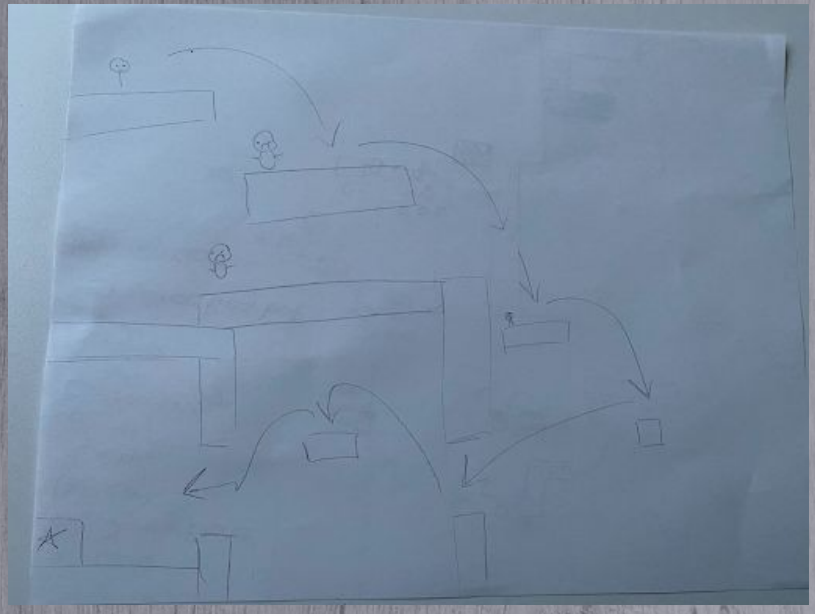
Challenges:

1. One challenge will be to create the multi leveled obstacle course to work and have a good design

2. Another challenge will be to find the right background to fit the sprites and overall theme

Ideate & Feedback





User feedback:

- Its pretty good
- Its just the rough sketch but maybe add some more to the second sketch

Prototype & Feedback

Prototype:
Feedback From:

Thinks similar: nice maybe make it a little easier

Thinks differently: looking good but add a shooter avatar

Domain Expert: i think you're missing a teleportation thingy

User: Nice, no feedback really

6th Grade Innovation Lab Elective

Tamagawa Harker Innovates

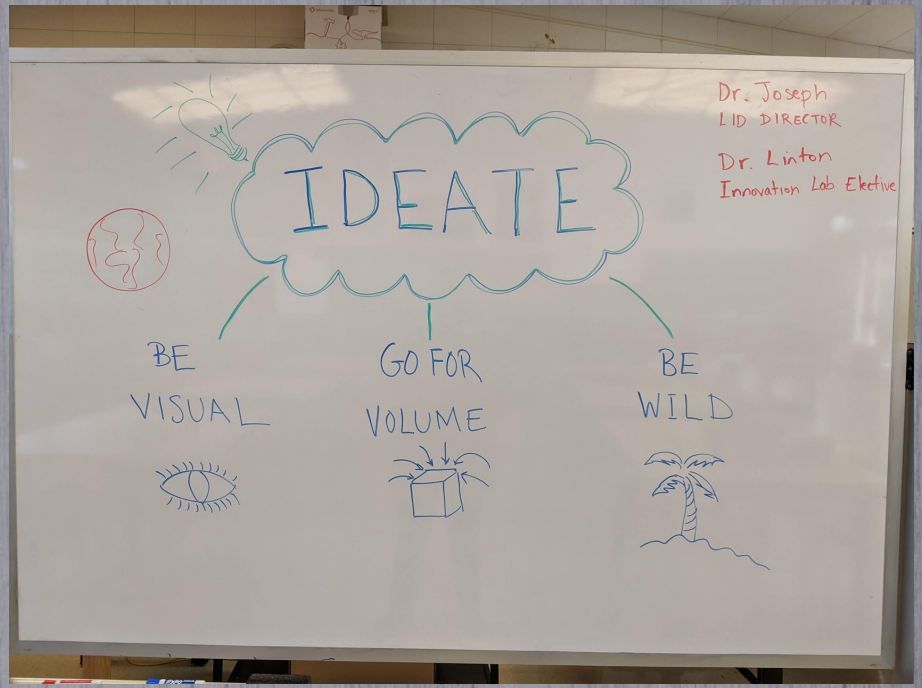
- Started 2019 - 2020
- Video Global Exchange Program
  - 5th Grade Japan
  - 6th Grade Innovation Lab Elective
- Design Prompts
  - We lose items all the time. How can we not lose everything? Help Suhami!
  - How can we make our bags lighter? Please help, Ryder! Thank you!
  - Our walk from station is long. Can you think of a fun thing to do on the way?
- Flipgrid used for communication

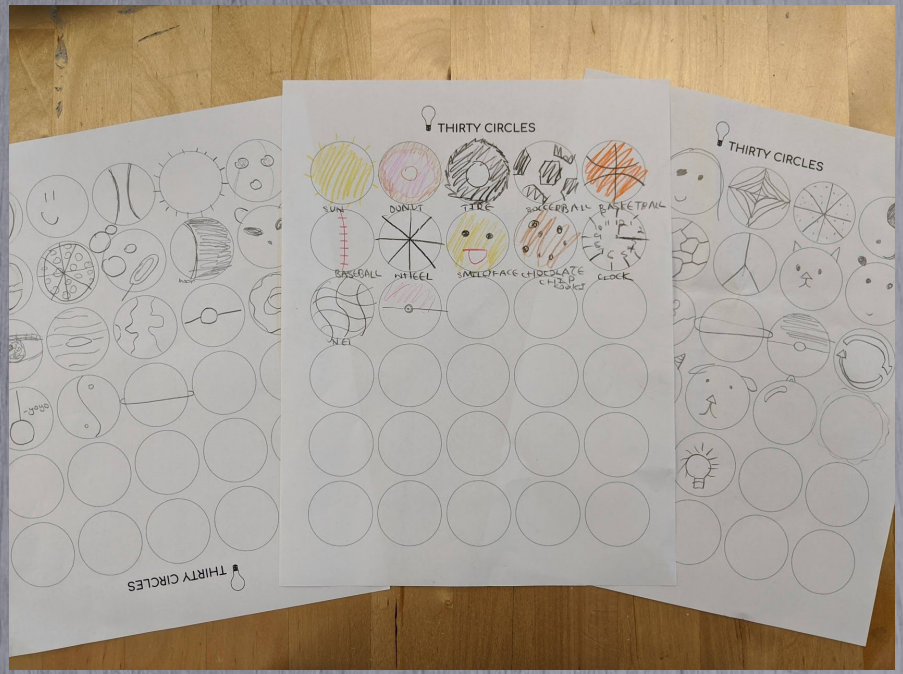
US Digital Worlds

Minecraft Cribs

5th Grade Step Up Day

Thirty Circles





DT @ Harker with Staff

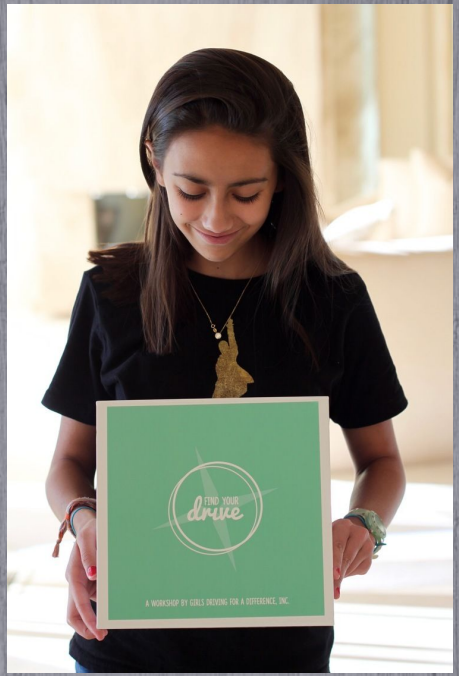
Professional Development Debrief
&
Social Good Hackathon

Professional Learning Debrief

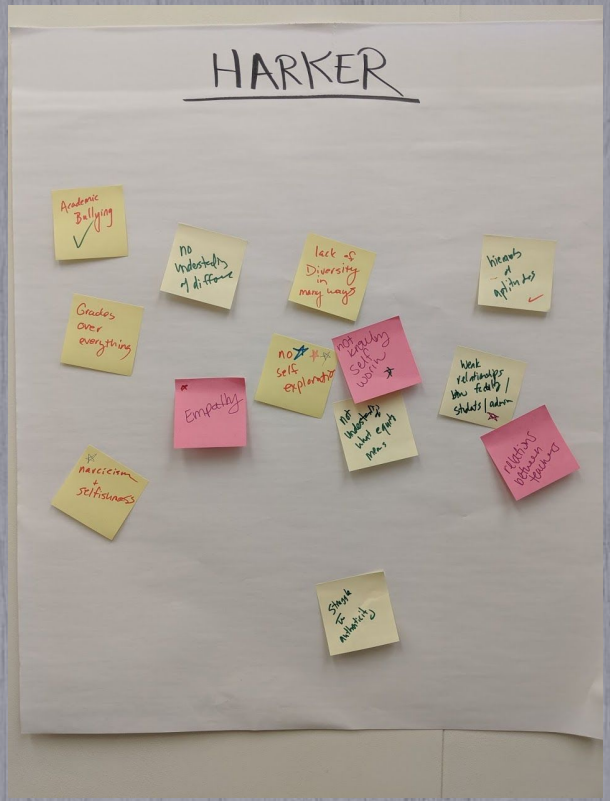
WORLD
How might we communicate value of SEL to parents?
us into the

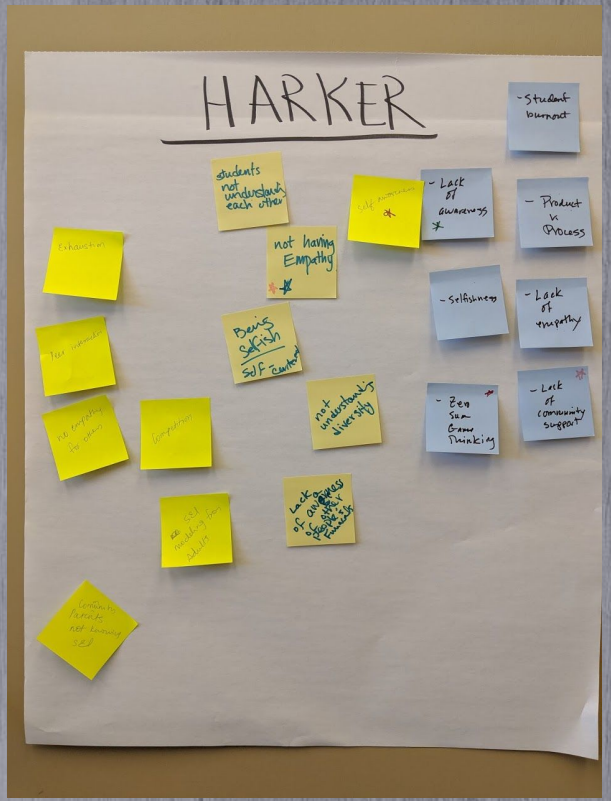
HARKER
THE INSTITUTE FOR SOCIAL AND EMOTIONAL LEARNING 2019

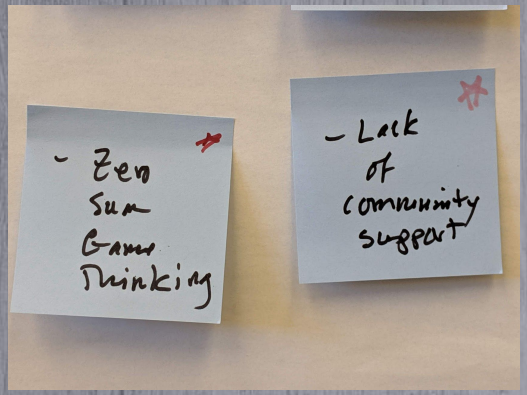
Girls Driving For Difference (Girl Possible)

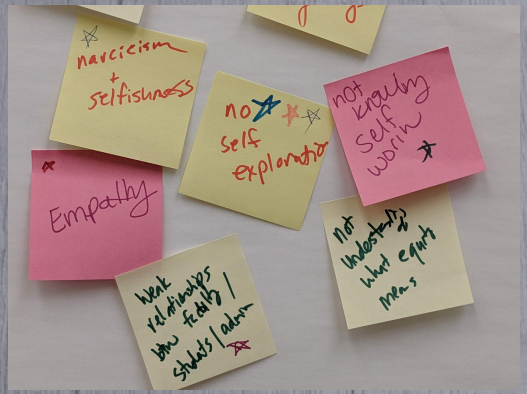


Harker Problems

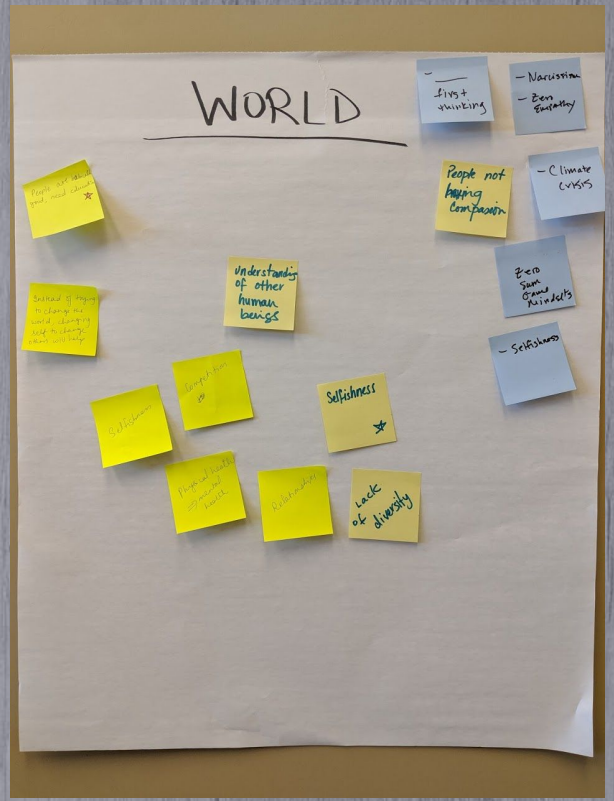


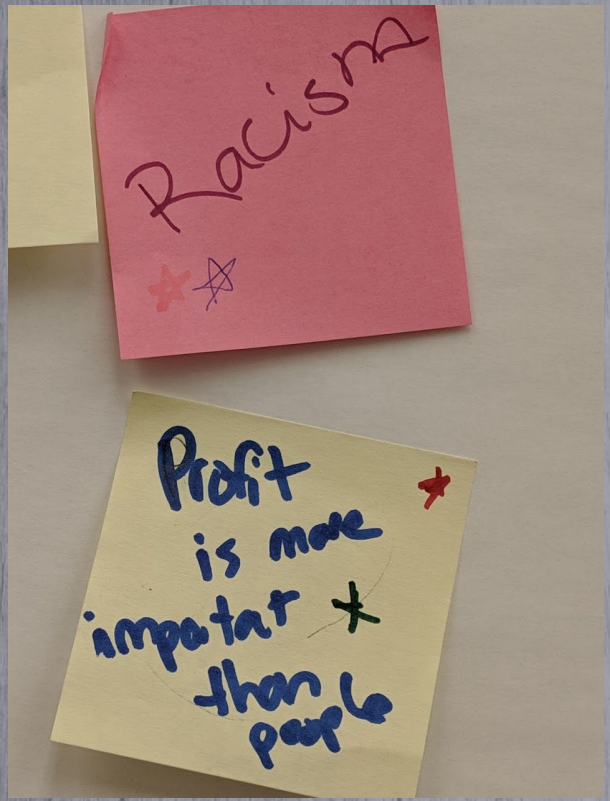




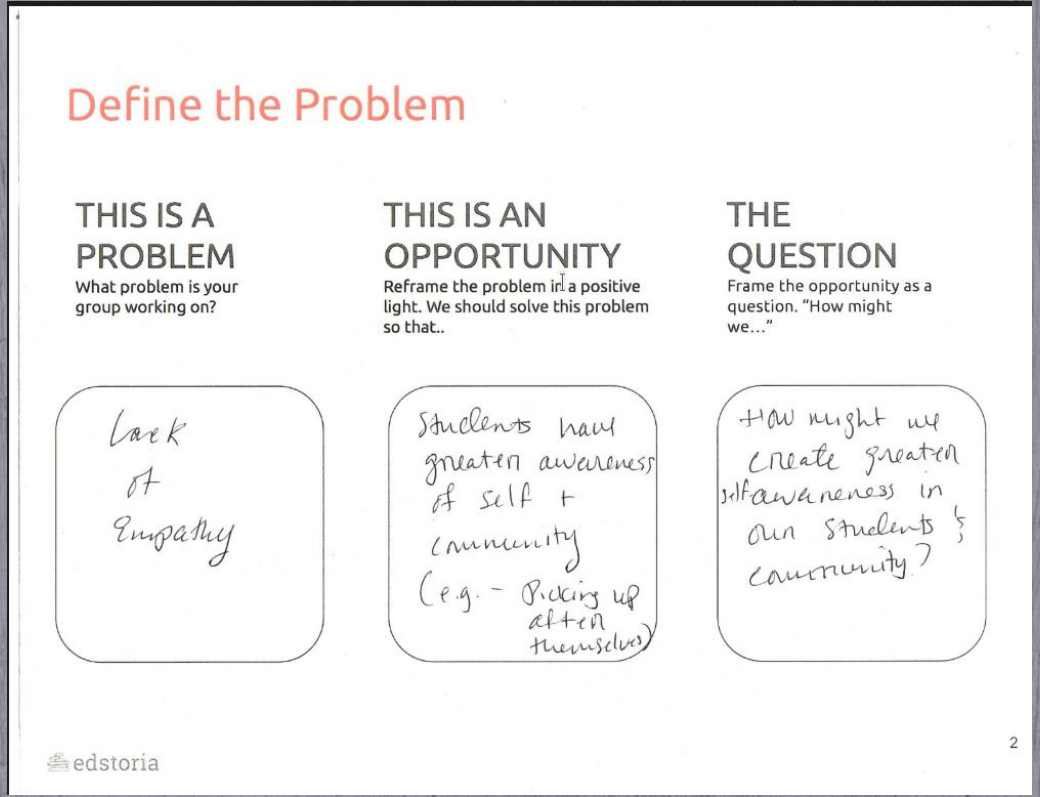


World Problems





Define the Problem



Define the Problem

THIS IS A PROBLEM
What problem is your group working on?

Lack of Empathy

THIS IS AN OPPORTUNITY
Reframe the problem in a positive light. We should solve this problem so that..

Students have greater awareness of self + community (e.g. - Picking up after themselves)

THE QUESTION
Frame the opportunity as a question. "How might we..."

How might we create greater self-awareness in our students & community?

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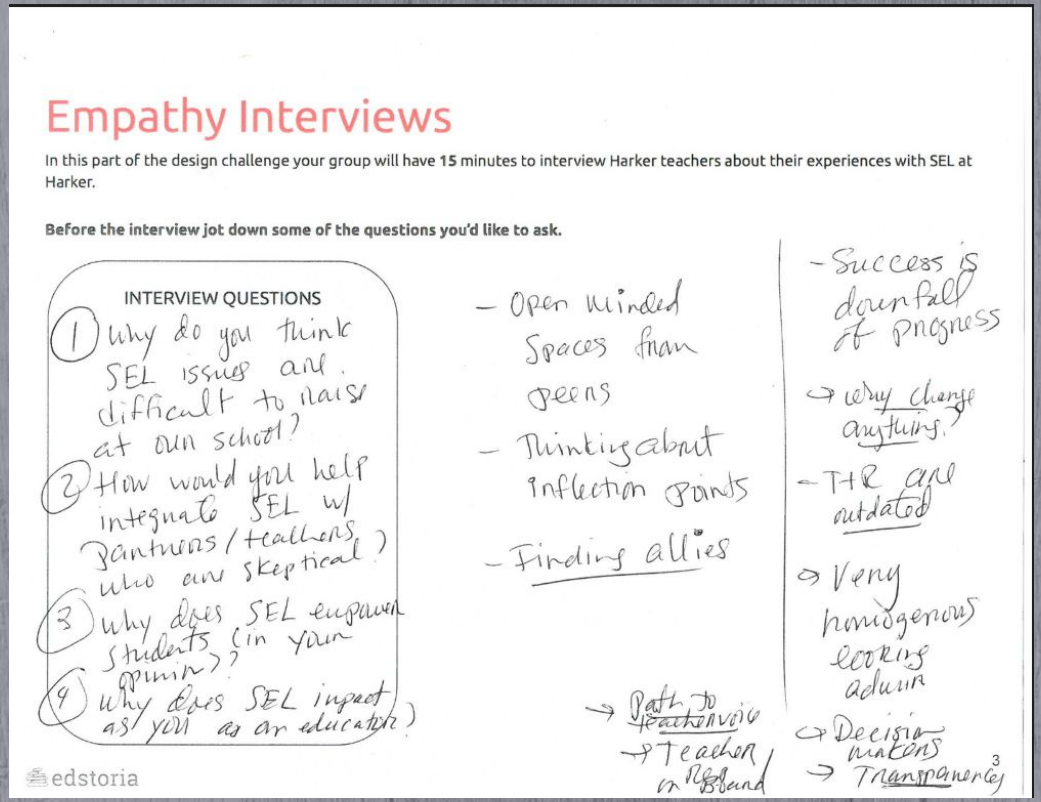
2

Empathy Interviews



Empathy Interviews

In this part of the design challenge your group will have **15** minutes to interview Harker teachers about their experiences with SEL at Harker.

Before the interview jot down some of the questions you'd like to ask.

INTERVIEW QUESTIONS

1. Why do you think SEL issues are difficult to raise at our school?
2. How would you help integrate SEL w/ partners / teachers who are skeptical)
3. Why does SEL empower students (in your opinion)?
4. Why does SEL impact as you as an educator)

- Open Minded Spaces from peers
- Thinking about inflection points
- Finding allies

→ Path to teacher voice
→ Teacher on Board

- Success is downfall of progress
→ why change anything?
- THR are outdated
→ Very homogenous looking admin
→ Decision makers
→ Transparency

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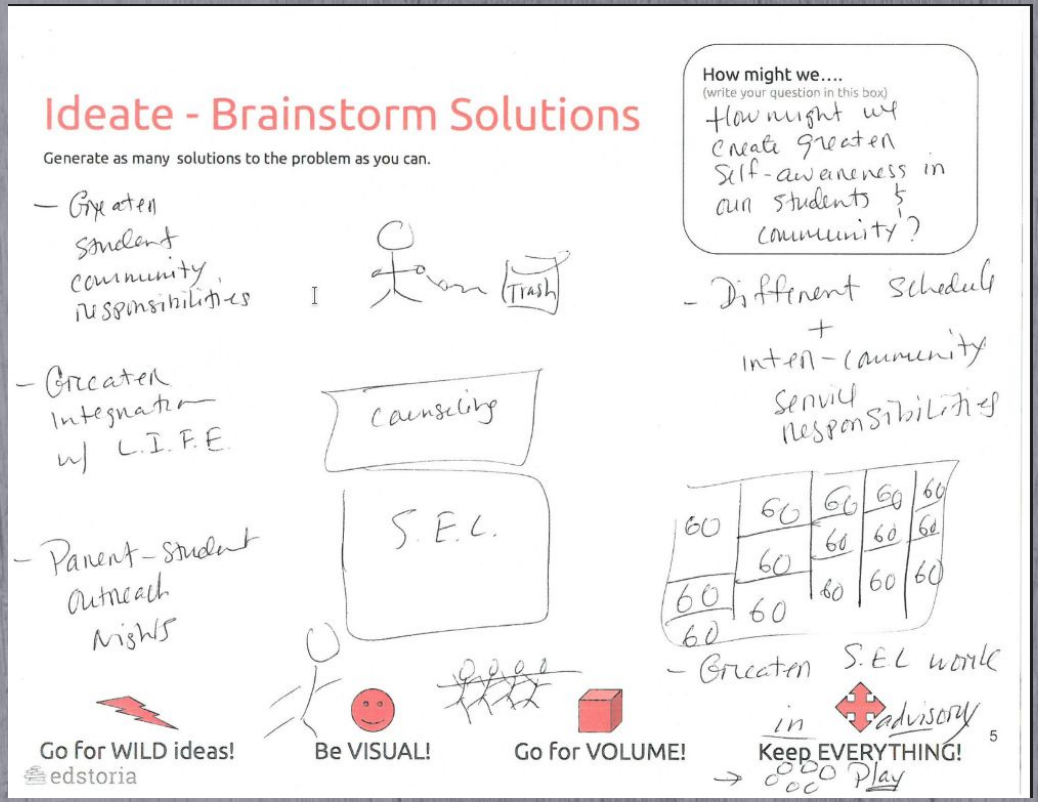
Brainstorm Solutions



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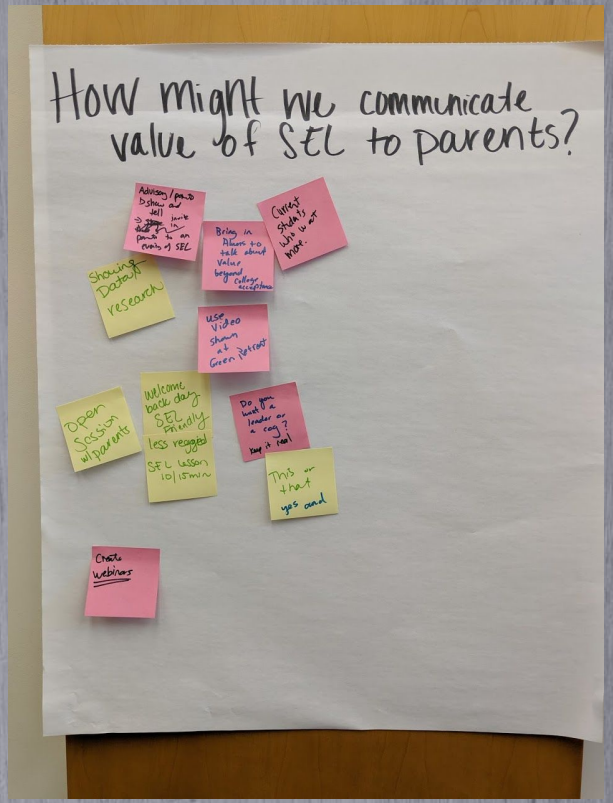

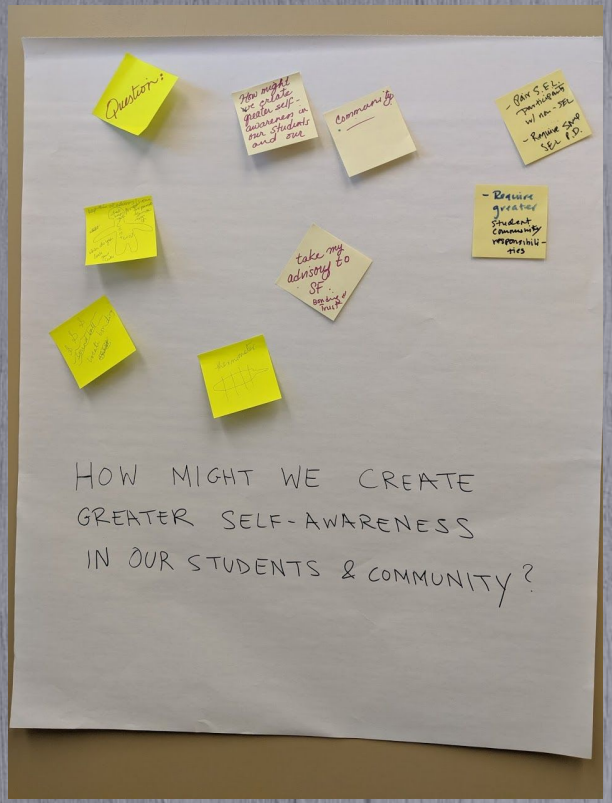

Pick a solution

Ideate - Share and Focus

Share your ideas with your group. Generate a 1-3 solutions as a group. Try combining and remixing each other's ideas. Sketch them into more complex solutions.

→ Take action w/n advisory to Strengthen community → Lens Advisory Activity
→ Reflection Piece to

Be WILD!

Be VISUAL!

Go for VOLUME!

&

Build on each other's IDEAS!

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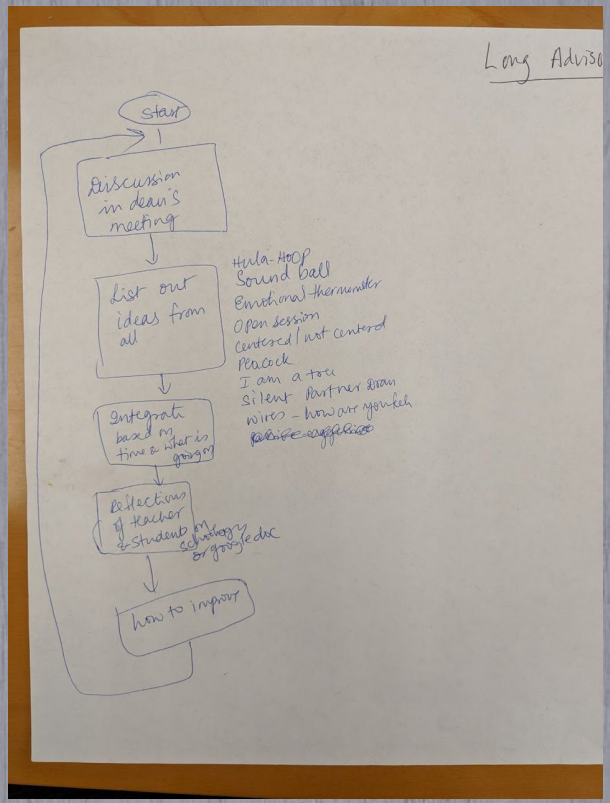
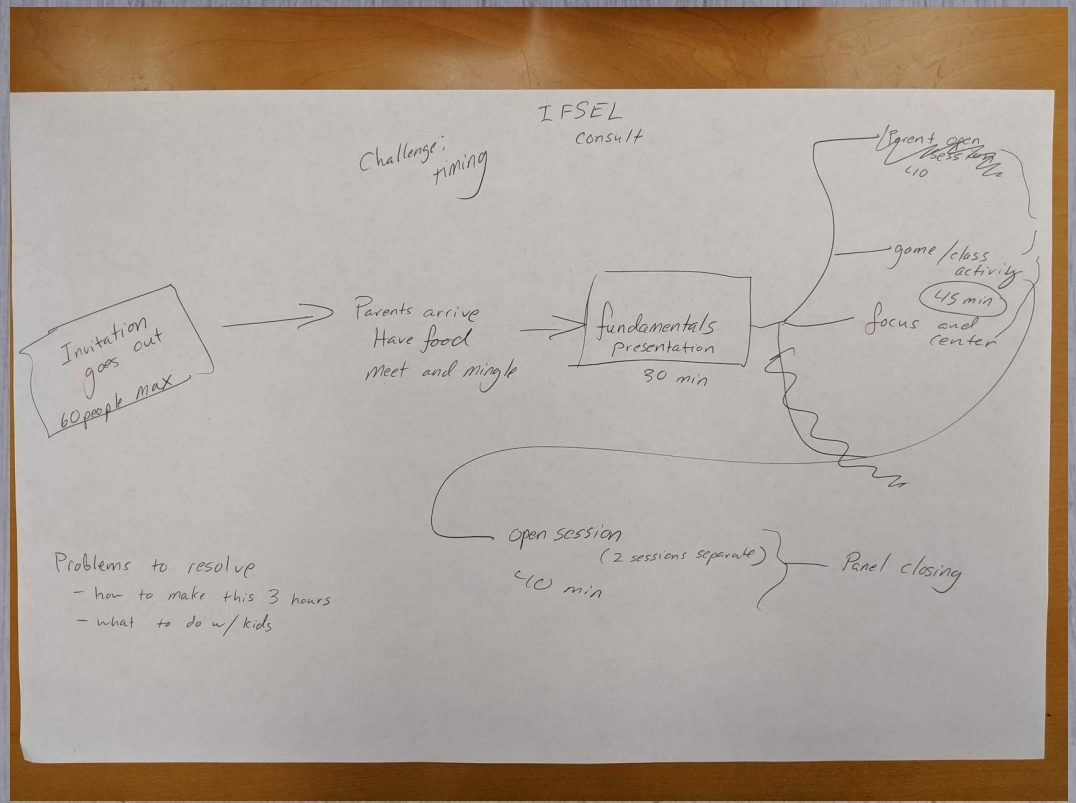
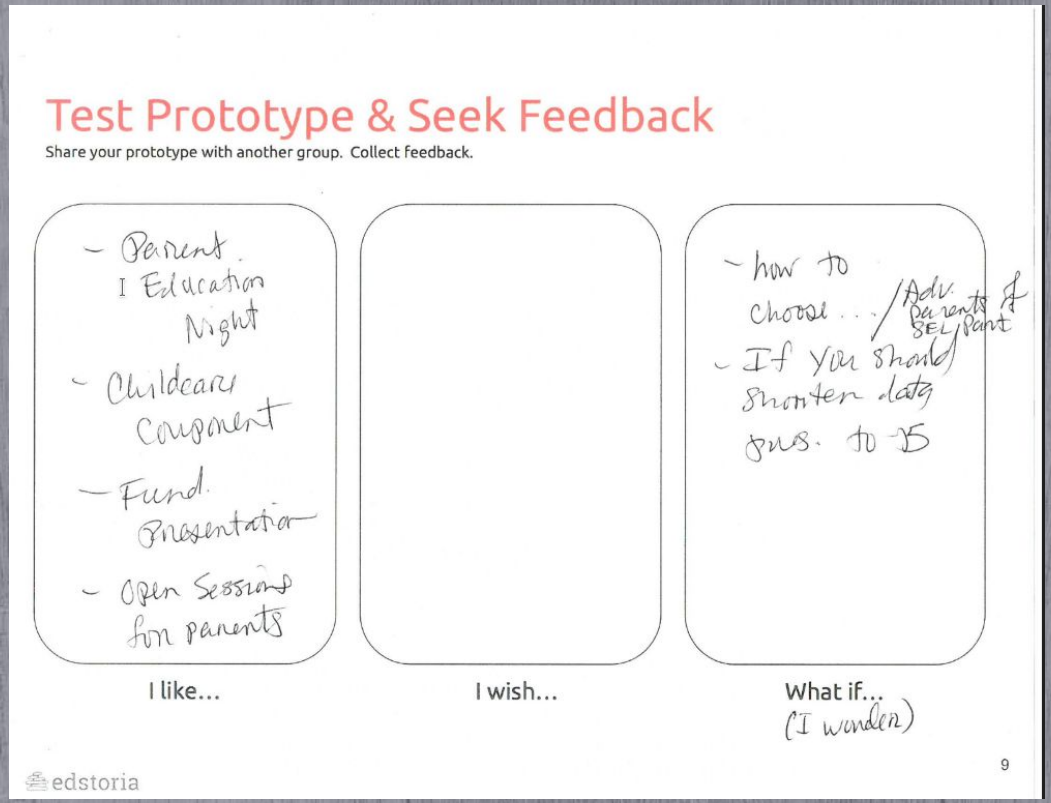
Experience Prototypes





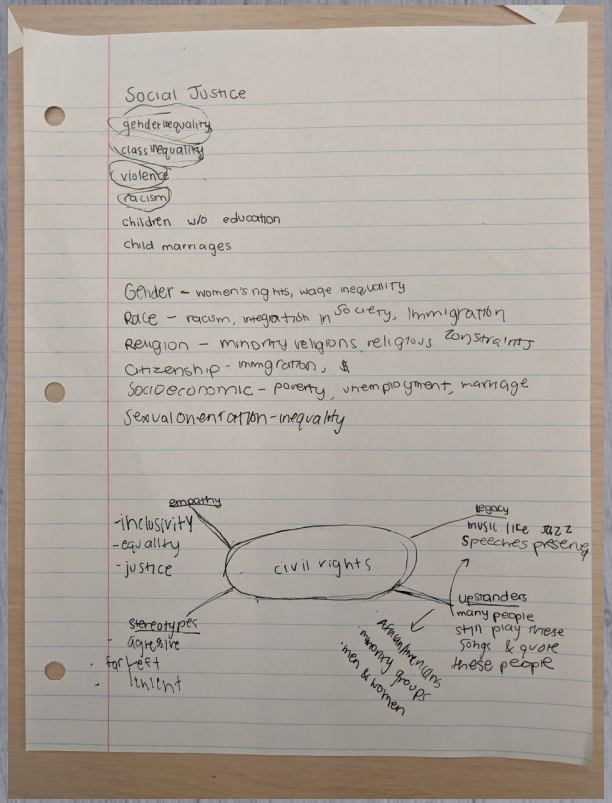
Prototype Feeback



Civic Hackathon

LID Grant

- Defining 8th Grade US History teacher idea for a civic hackathon
- Inspired by
  - Facing History and Ourselves
  - Notre Dame High School (San Jose, CA) high school hackathon
- Created and prototyped parts in one week with students during the summer



get...M.A.D.
MAKE A DIFFERENCE

Civic Hackathon 2020

Mr. Merrill's LID Grant
Facilitated by Dr. Joseph

Introduction and Purpose

Purpose
Defining Civic Hackathon
Challenge Focus Areas
Design Thinking

How might we increase civic participation in our communities?

What are the different ways we can transform our communities through digital innovation?

Challenge Focus Areas

historical legacy

identity

inclusion/
exclusion

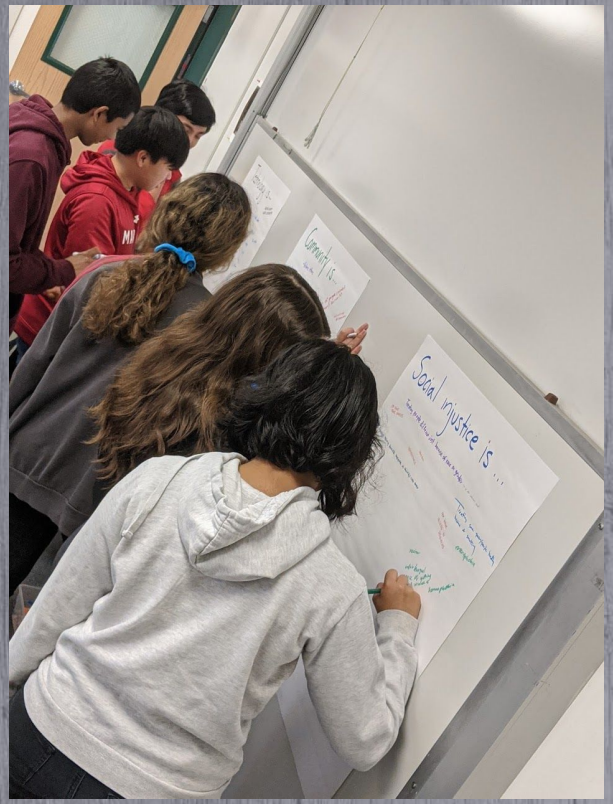
upstanders

Agenda

- Introduction and Purpose
- Define the Problem
- Brainstorm Solutions
- Prototype
- Pitch/Demo
- Closing

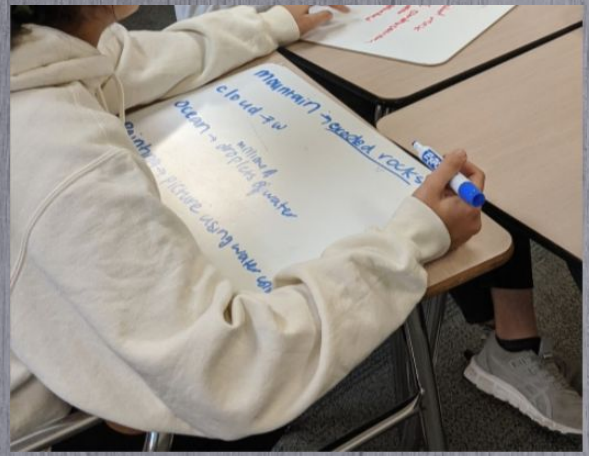
Defining Terms

- Technology is...
- Community is...
- Social justice is...

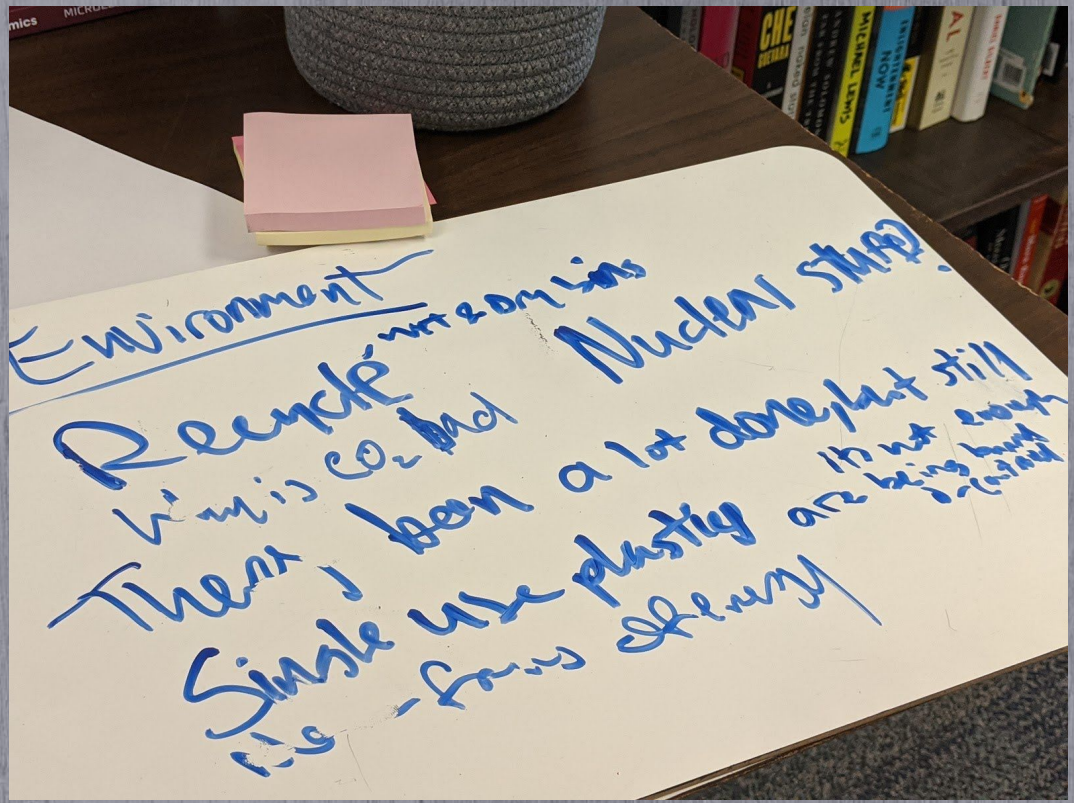


Warm Up - What's another name for boss?

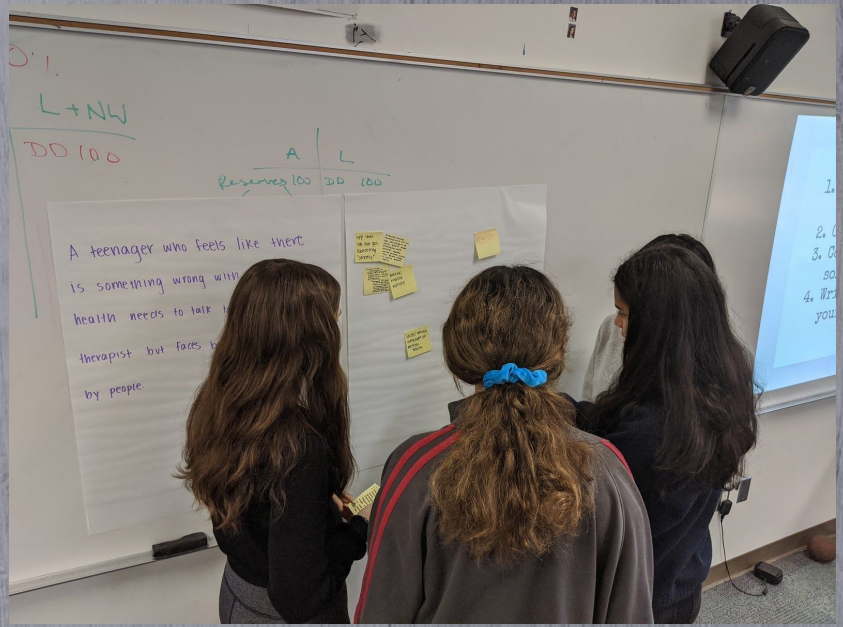
cloud | mountain | ocean | painting



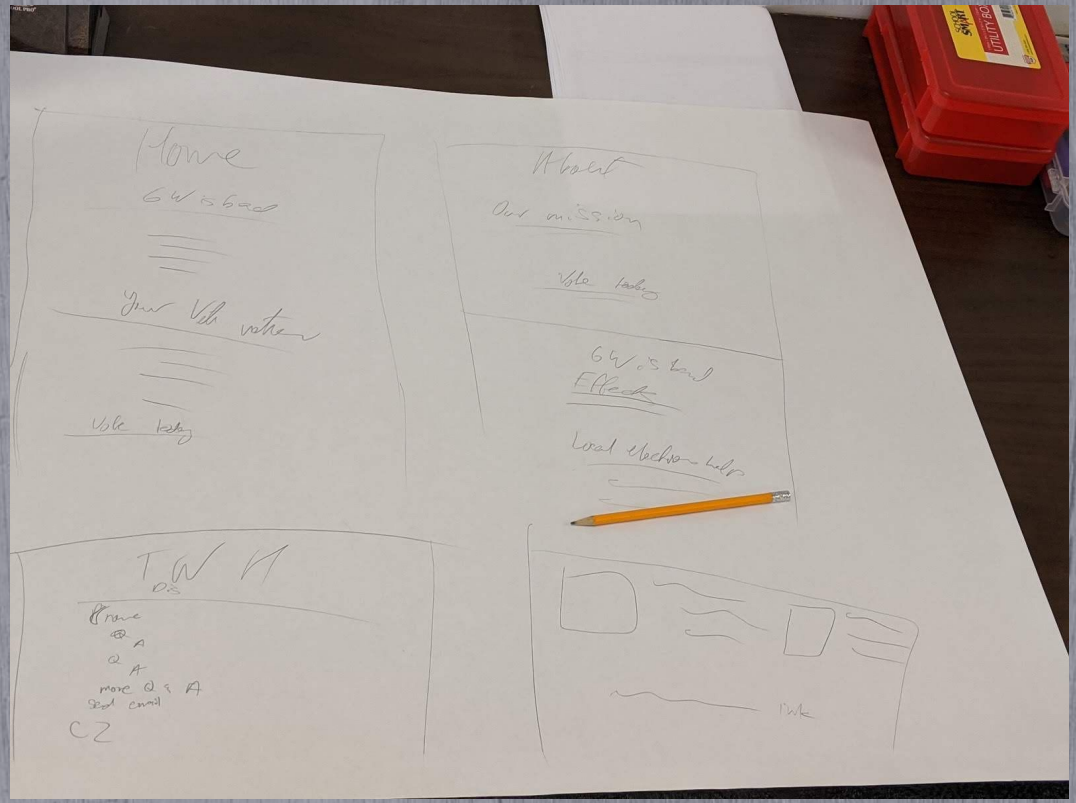
Defining the Problem



Brainstorm Solutions



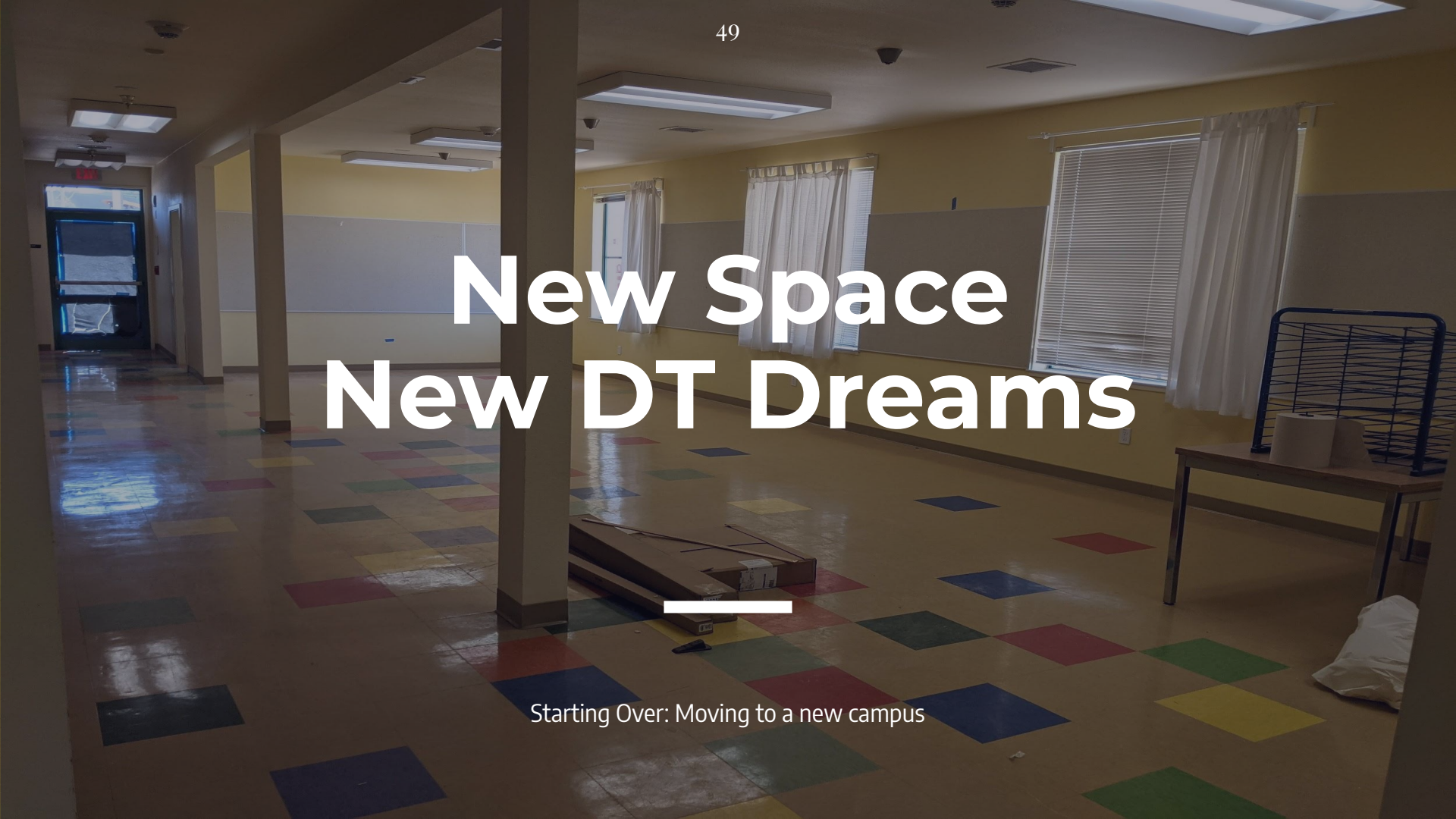
Prototype


Home
About
Our mission
Vote today
Local election help
more Q & A
send email
CZ

Expert Feedback

Pitch/Demo

- Website to encourage voting to influence global warming policies
- Breaking the stigma of mental health

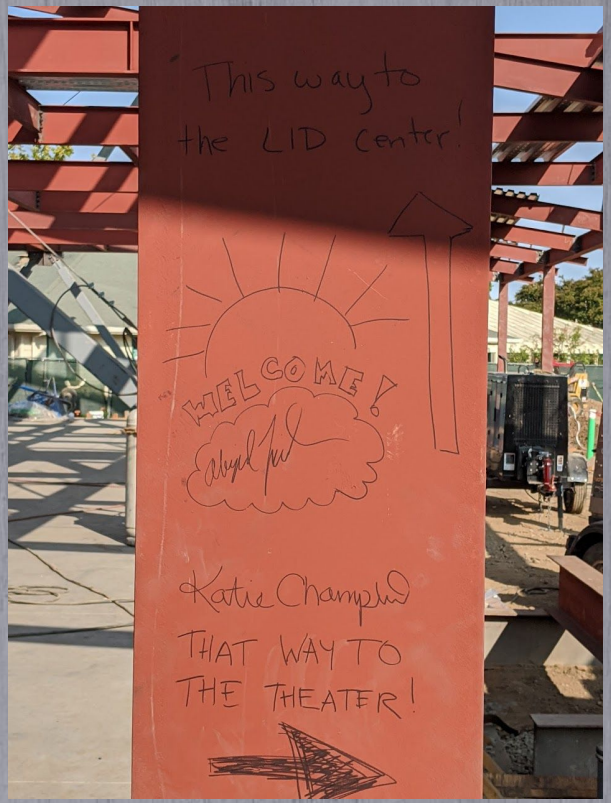


New Space New DT Dreams

Starting Over: Moving to a new campus

Out with the old

In with the new



LID Center - Design for Social Good

Vision:
The LID Center creates conditions for discovering opportunities to take action to improve ourselves, better our communities, and change the world.

Mission:
The LID Center sparks the curiosity and imagination of a community of maker-empowered learners. We embrace the power of risk-taking and to innovate with the belief that good design has the power to make good social change.

LID Center - Design for Social Good

Values:

Community
Foster development of a community of lifelong learners in an inclusive and collaborative environment through hands-on experiences with emerging technologies.

Care
Develop empathy and compassion for others' problems and concerns

Curiosity
Explore new and emerging technologies with a critical and curious lens

Design
Work in collaboration to design solutions with awareness of social implications

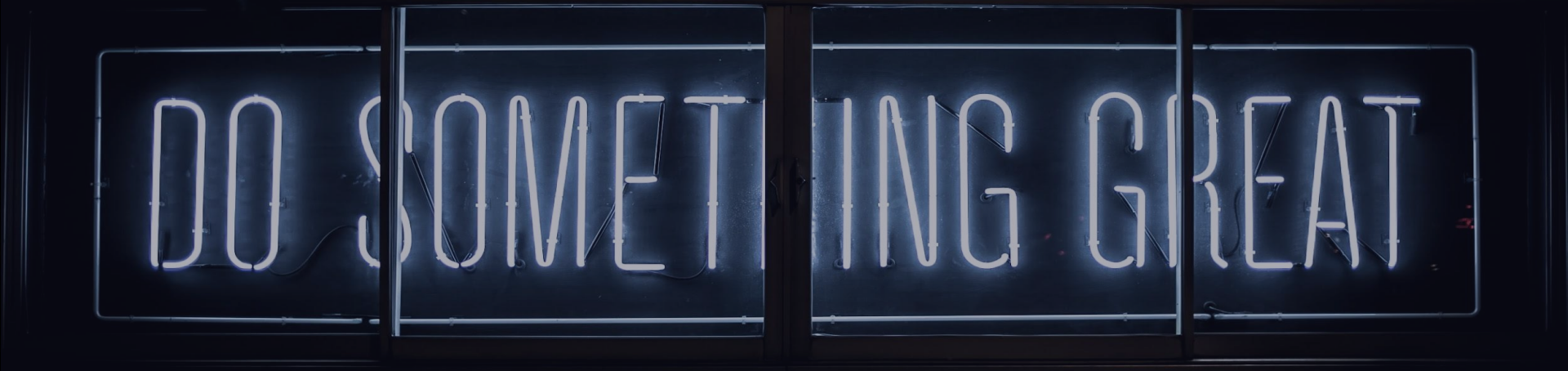
Act
Cultivate a bias towards action and leadership for problem-solving and pursuing change

LID Center - Design for Social Good

Goals:

- Welcome and engage faculty with makerspace tools through hands-on experiences, trainings, and workshops
- Cultivate LID Center student (Student LID Council) and faculty (department experts) ambassadors
- Development informal learning times for faculty and students

Just Begin.



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