

Assignment 2

Point of View (POV) and Experience
Prototypes

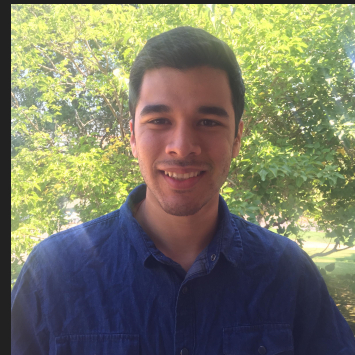
Our Team



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Studio theme

Inclusive Design

Problem Domain

Equitable Education Experiences

Outline

1. Initial POV
2. Need Find Results (x3)
3. Interviewee POV, HMW's, and Prototype (x3)
4. Brainstorming & Testing Solutions

Initial POV

We met...

Diedre, the 1st principal at a math & science elementary school in San Diego

We were amazed to realize...

The extent of her suffering as a school administrator

She needs...

Support and incentive from within the school and the school district



It would be game changing if...

Diedre felt healthy, loved, and supported in her job as a school administrator

Additional Need Finding Results

Angela

Di'Vennci

Krishelle

Additional Need Finding Results



Angela

Former High School
Special Ed and History
Teacher, San Jose

- Special Education teaching is **two full-time jobs**
- Students find **story-telling** a very compelling & engaging medium
- Classroom technology should **not disrupt** a teacher's routine

Additional Need Finding Results



Krishelle

Former High School Math
teacher, Oakland

- “Teaching is constantly **reinventing** the wheel” and always feeling like you’re **failing**.
- **Collecting** and **aggregating** student data is very difficult
- Teachers cannot prep students for **industry** without industry experience

Additional Need Finding Results



Di'Venci

Current Stanford Student,
Georgia

- Exploring his own “narrative” helped him “leverage his blackness”
- Felt like he had to work harder and be better than white students
- Being listened to by admin. was the most fulfilling moment of high school

POV's, HMW's, Prototypes

Angela's Point of View

We met...

Angela, a former special education teacher and high school history teacher

...who needs...

a more feasible way to collect and share student data

because...

Being a special education teacher is intensely time consuming



It would be game changing if...

There was a more efficient way to collect and share data about her students

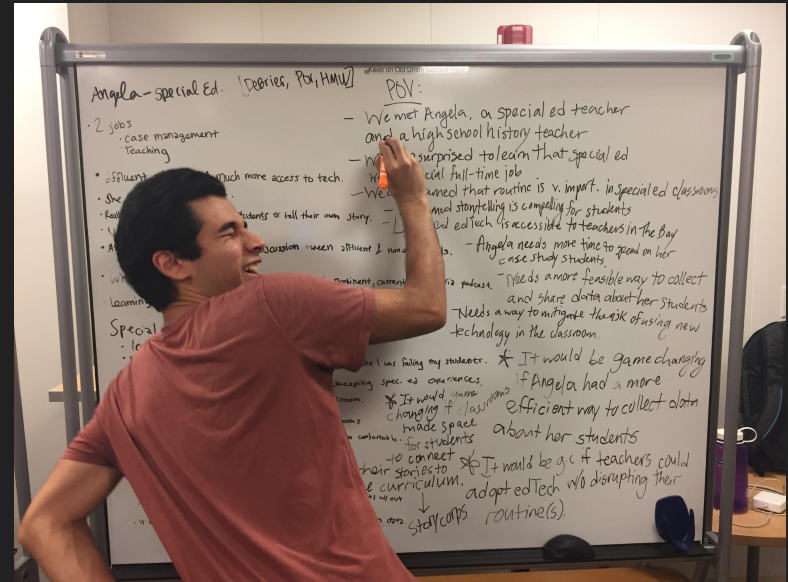
How might we...

Help students help themselves and each other manage their learning and data?

Allow teachers to stay connected to their student's progress after they leave?

Allow students to track their own progress?

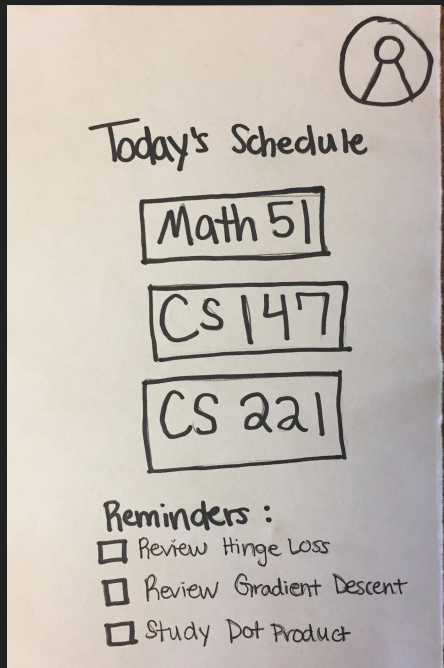
Make case management collaborative?



Experience Prototype 1

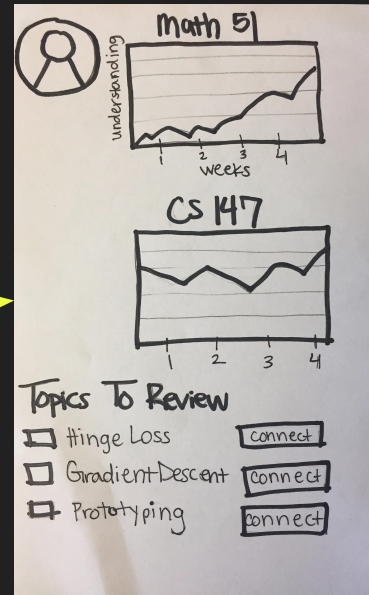
Student progress tracking tool

Home Screen



Hand-drawn interface for the Home Screen. It features a stick figure icon in a circle at the top right. Below it, the text "Today's Schedule" is written. Underneath, three course names are listed in rectangular boxes: "Math 51", "CS 147", and "CS 221". At the bottom, there is a section titled "Reminders:" followed by three items, each with a square checkbox: "Review Hinge Loss", "Review Gradient Descent", and "Study Dot Product".

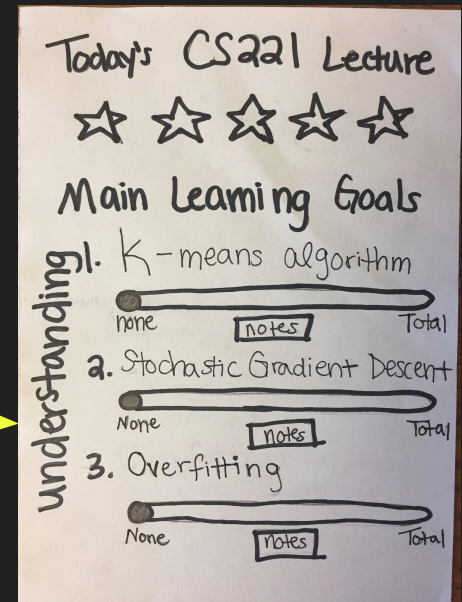
Personal Progress



Hand-drawn interface for Personal Progress. It shows two line graphs. The first graph is titled "Math 51" and has a y-axis labeled "Understanding" and an x-axis labeled "weeks" with markers for 1, 2, 3, and 4. The line shows an overall upward trend. The second graph is titled "CS 147" and has an x-axis labeled "weeks" with markers for 1, 2, 3, and 4. The line shows a fluctuating but generally increasing trend. Below the graphs, there is a section titled "Topics To Review" with three items, each with a square checkbox and a "connect" button: "Hinge Loss", "Gradient Descent", and "Prototyping".



Di'Venci



Hand-drawn interface for the Feedback Page. It features the text "Today's CS221 Lecture" at the top, followed by five star icons. Below that, it says "Main Learning Goals". There are three numbered items, each with a vertical label "understanding" on the left and a progress bar on the right. The progress bars are labeled "None" on the left and "Total" on the right, with a "notes" box in the middle. Item 1 is "K-means algorithm", item 2 is "Stochastic Gradient Descent", and item 3 is "Overfitting".

Feedback Page

Experience Prototype 1

What worked?

- It was **quick** and **clear**
- Would translate well to **digital** platform

What didn't work?

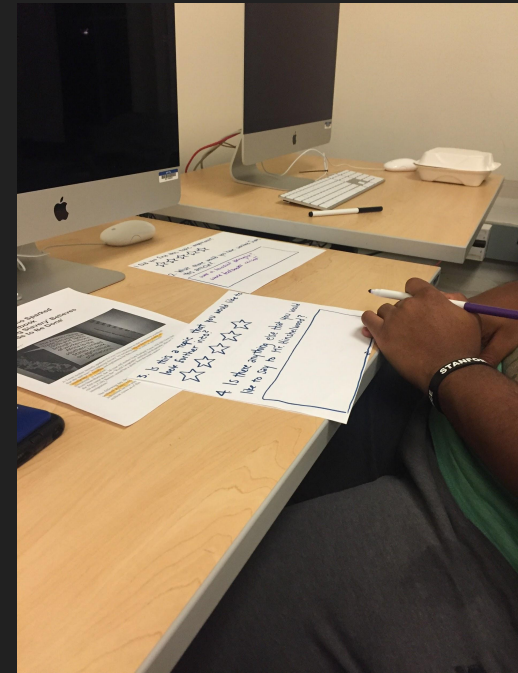
- If it weren't part of his grade, he would have **skipped it** altogether.

Surprises?

- Its surprising that he valued its **brevity** more than anything

New learnings?

- Not engaging when done **after lecture** → would be more engaging if process was carried out **during lecture**.



The **assumption** that students wanted to **react** to a lecture after it was done was **incorrect** in the case of DV.

Krishelle's Point of View

We met...

Krishelle a former high school math teacher who taught in San Diego and Oakland for 6 years

...who needs...

A sense of fulfillment and success with her job as a teacher

because...

Even motivated teachers don't feel like they have enough positive influence or that they can succeed.



It would be game changing if...

Teachers could feel more accomplished, and thus less burnt out by their jobs

How might we...

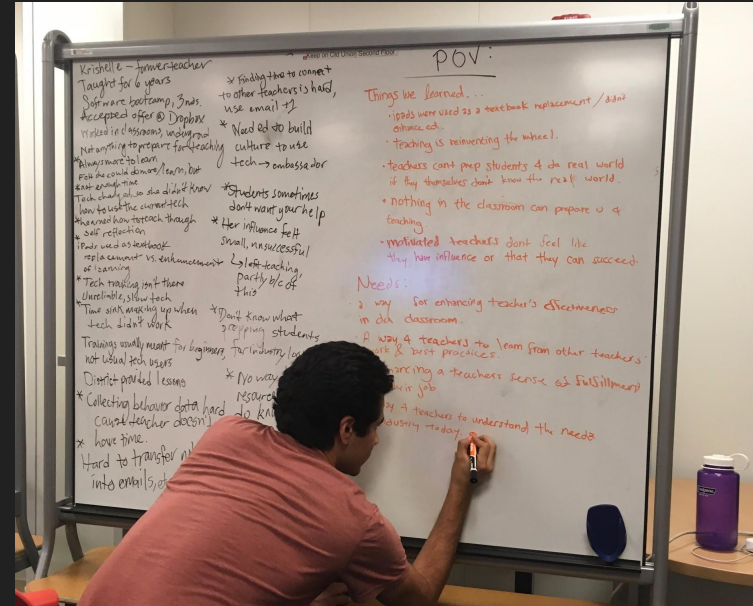
Make a teacher's impact on her classroom feel more tangible?

Allow teachers to share their class experience?

Give teachers a more tangible way of thinking about and analyzing their own growth and learning?

Empower students to encourage their teachers?

Change the definition of success for teachers?



Experience Prototype 2

One-stop shop for teacher administrative tasks and impact tracking



Bear

Student Profile

Johnny

Period 1: Mrs. Jones message
Period 2: Mr. Evans message
Period 3: Mr. Lee message
Period 4: Mr. James message
Period 5: Mr. Sanchez message

IEP Contact: Mr. Soo message

Reminders

- ~~~~~
- ~~~~~
- ~~~~~

Messages

Grades & Stats

Your Notes

Good Morning, Bear!

Navigation bar: 10 green circles, 3rd is grey.

Left grid: 10 green circles, 2nd row 1st is grey, 1st row 1st has red exclamation mark.

Right grid: 10 green circles, 2nd row 3rd is grey, 1st row 1st has red exclamation mark.

Bottom: Blue circle on grey background.

Home Screen

Teacher Profile

To Do:

- ~~~~~
- ~~~~~
- ~~~~~
- ~~~~~
- ~~~~~

80% of students are present

Messages

Grades

Class Stats

Experience Prototype 2

What worked?

- Classroom layout and color coding **intuitive**
- Ability to **message** all of a student's teachers

What didn't work?

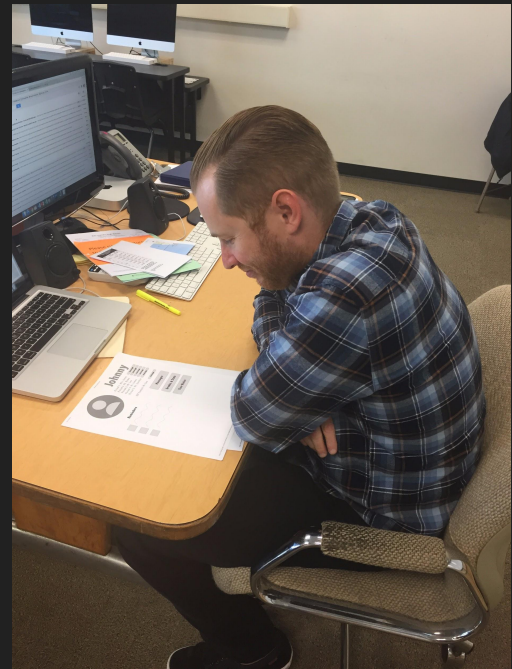
- Not enough emphasis on class and student **trends** and **data** in the UI

Surprises?

- **Daily attendance** is not as important as originally assumed

New learnings?

- **Overall trends** are the most important
- Teachers should be alerted to **negative trends** with specific students



The **assumption** that Bear needs a simpler, more centralized, and intuitive way to **track student data** and measure their own **impactfulness** was correct.

Di'Vennci's Point of View

We met...

Di'Vennci, a first generation, low-income Black college student from Georgia

...who needed...

To be listened to

&

Who needed to find pride in his identity

because...

His moments of most fulfillment came from people listening and understanding his personal story.



It would be game changing if...

It would be game changing if Di'Vennci had a way to explore his blackness and build pride in his identity.

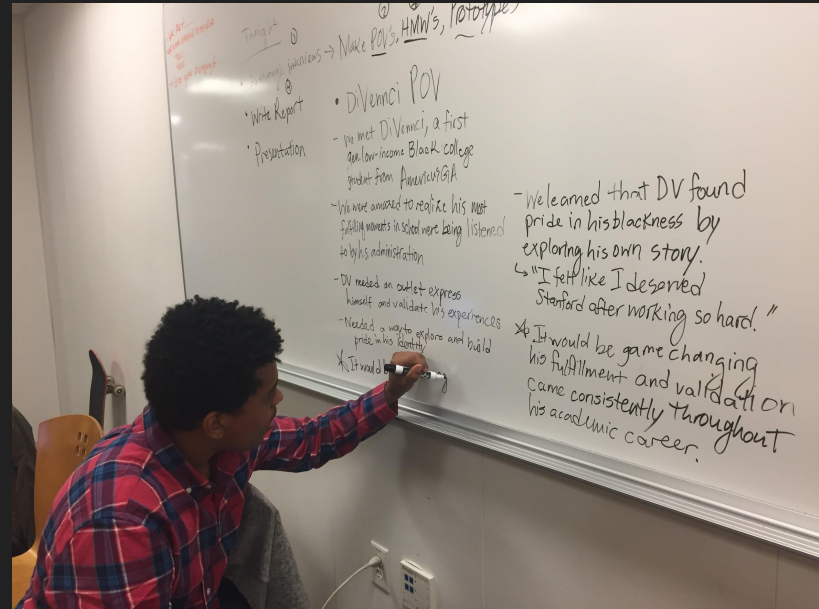
How might we...

Provide students with an outlet to vent and explore themselves?

Allow DV to be connected to peers with similar experiences and aspiration?

Make the classroom a place for students to learn more about each other?

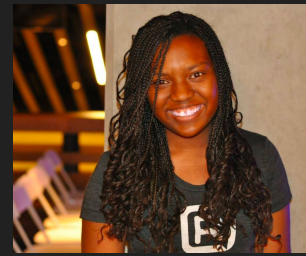
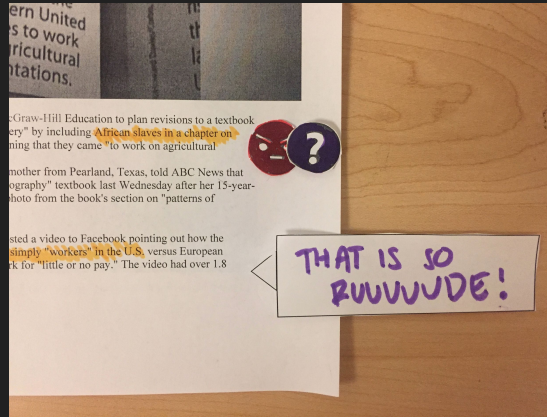
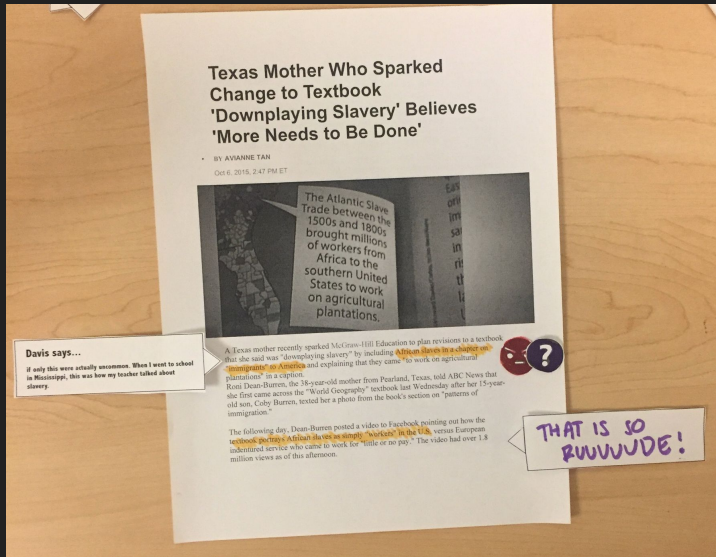
Better encourage self-love?



Experience Prototype 3

Collaborative annotation aggregator

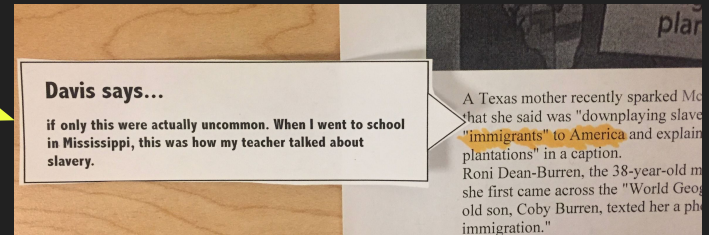
Annotation feed



Elizabeth

Reactions & Comment

Student Comment



Experience Prototype 3

What worked?

- Stock reactions were **highly usable**
- Commenting was **useful**

What didn't work?

- Not being able to highlight information
- Reading was **boring, lacked engagement**

Surprises?

- Its surprising that she wanted more extensive comment threads

New learnings?

- Elizabeth wished there was **nuance** to the **anger reaction**. Wanted to “disagree without being angry.”



Our **assumption** that collaborative annotating with pre-existing reactions would be engaging was **correct** with Elizabeth.

Brainstorming

- Collectively wrote down every solution that came to mind on a whiteboard
- Individually chose our top choices and discussed pros/cons
- Agreed on 1 solution for each HMW
- Fleshed out each idea into a prototype
- Pared down on features→ Does this feature accomplish our HMW?

Testing

- Paper with graphics
 - Gave participants a new screen when they pressed a button
- San Leandro High School to visit Bear
- Ujamaa to visit Di'Venneci and Elizabeth (Black Theme Dorm)

Thank you!