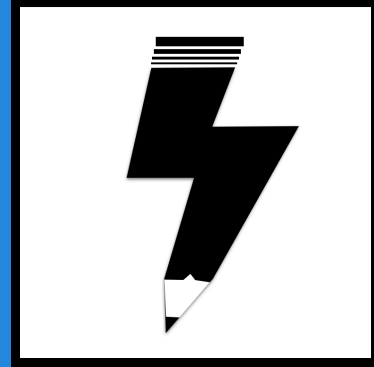


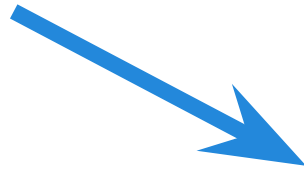
# electurefy



Jenny Farman | Daniel Hok  
Juan Posadas

# Overview

**Lecture**



**Effective  
learning tool**

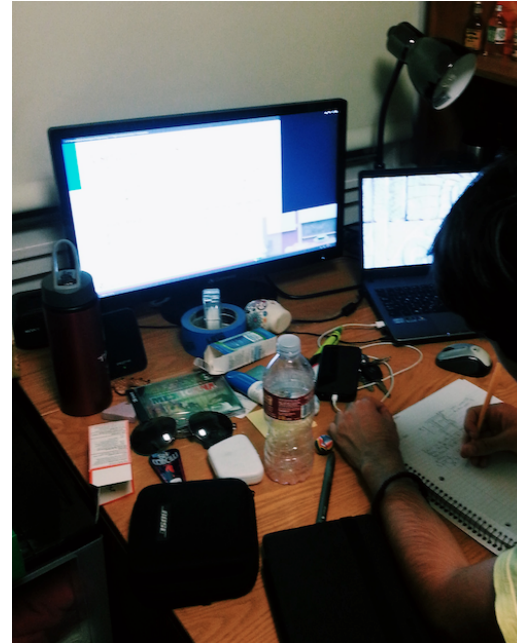
# Problem & Solution Overview

- Difficult to communicate with professor
- Intimidating lecture setting
- Lack of integration between lecture and assignments other course material
- Real-time feedback and analytics

# Contextual Inquiry

## Participant #1 – J.B.

- 18-25, Junior, ME
- Typically attends lectures
- Quiet in lecture setting



# Contextual Inquiry

## Participant #2 – K.C.

- 18-25, Coterm, CS
- Technical background
- TA for CS 103



# Contextual Inquiry

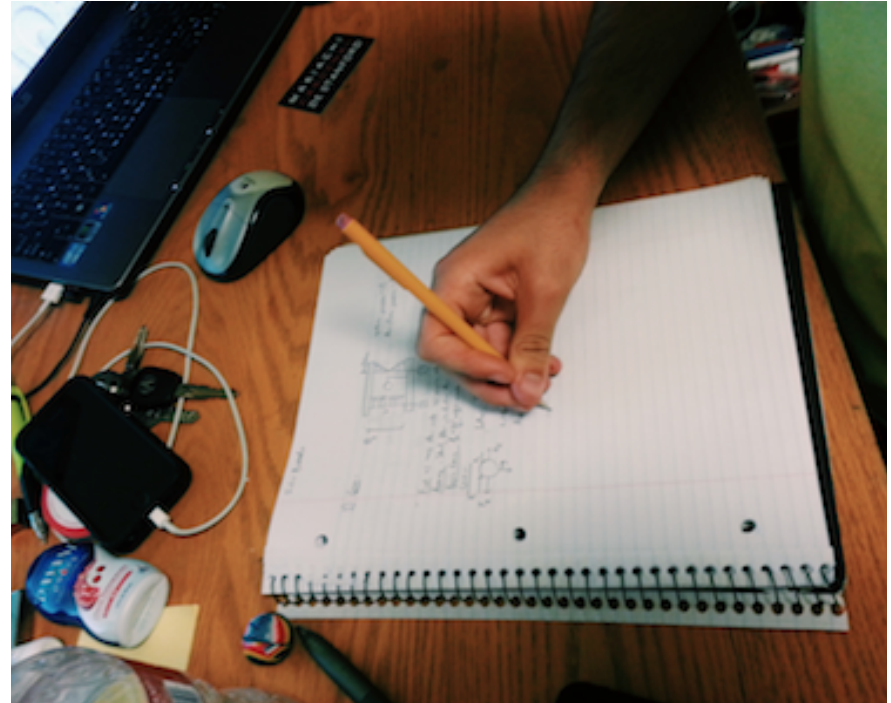
## Participant #3 – J.D.

- 18-25, Senior, MCS
- Software Developer
- Eager to give feedback



# Contextual Inquiry Results

- Took handwritten notes to review later
- Access to mobile devices in lecture
- Frustration with content or organization of lecture
- Reluctance to share non-anonymous feedback



# Task Analysis Results

## 1. *Who is going to use the system?*

- Students who attend or watch lectures

## 2. *What tasks do they now perform?*

- Note taking, referencing course materials

## 3. *What tasks are desired?*

- Rapid, anonymous feedback → professor adapts
- Easier navigation through material / lecture videos



# Task Analysis Results

## ***4. How are the tasks learned?***

- Trial and error, routine, preference

## ***5. Where are the tasks performed?***

- In lecture, mobile device, online lecture platform

# Task Analysis Results

## ***6. What's the relationship between customer & data?***

- Lots of data lost due to lack of immediate feedback
- Lack of data that helps students navigate through online lecture videos.

## ***7. What other tools does the customer have?***

- Class evaluations, Piazza, pen and paper, in-person communication with professor

# Task Analysis Results

## ***8. How do users communicate with each other?***

- Difficult to talk to teachers; students discuss lecture with peers both in person and online (social media, Piazza)

## ***9. How often are the tasks performed?***

- Class schedule determines # of lectures

# Task Analysis Results

## ***10. What are the time constraints on the tasks?***

- Students need to stay up-to-date with lecture videos / course materials

## ***11. What happens when things go wrong?***

- No communication → confusion on concepts

# Representative Tasks

Clarify questions  
and solidify  
understanding of  
course topics



# Representative Tasks

Influence pace,  
content, or  
organization of  
course lectures



# Representative Tasks

Stay engaged and up-to-date with lecture videos and course materials



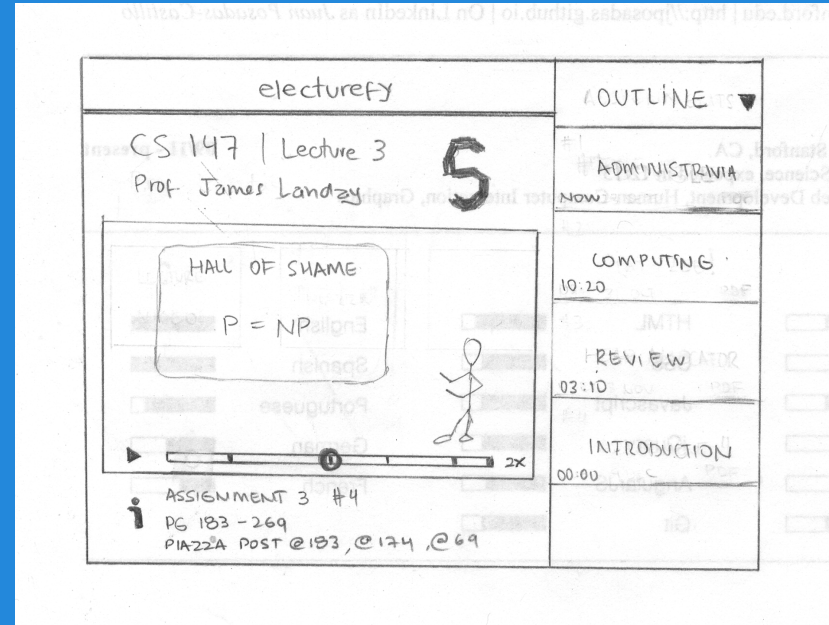
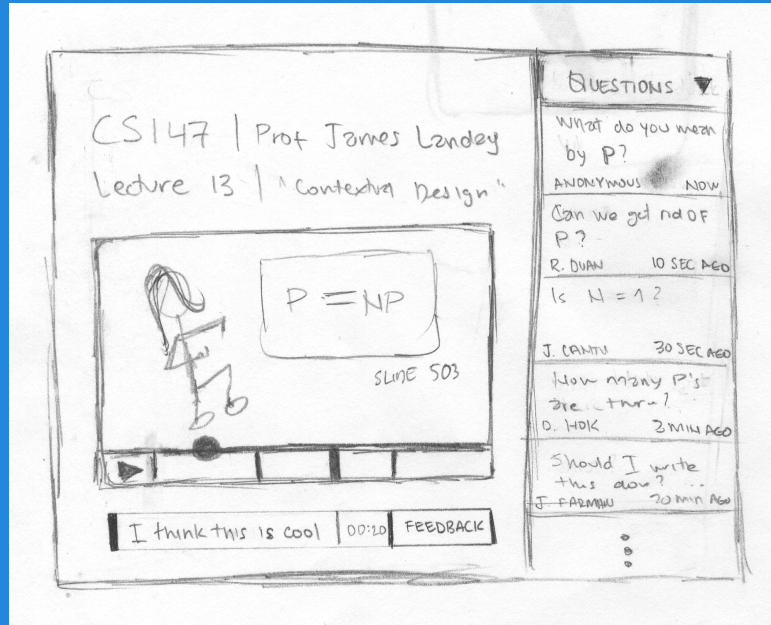
# Application Ideas



# Time-stamped Feedback System

- Users enter questions / comments in real time as they watch lecture videos
- Time-stamped feedback corresponds to lecture video (i.e. Soundcloud comments)

# Design sketches

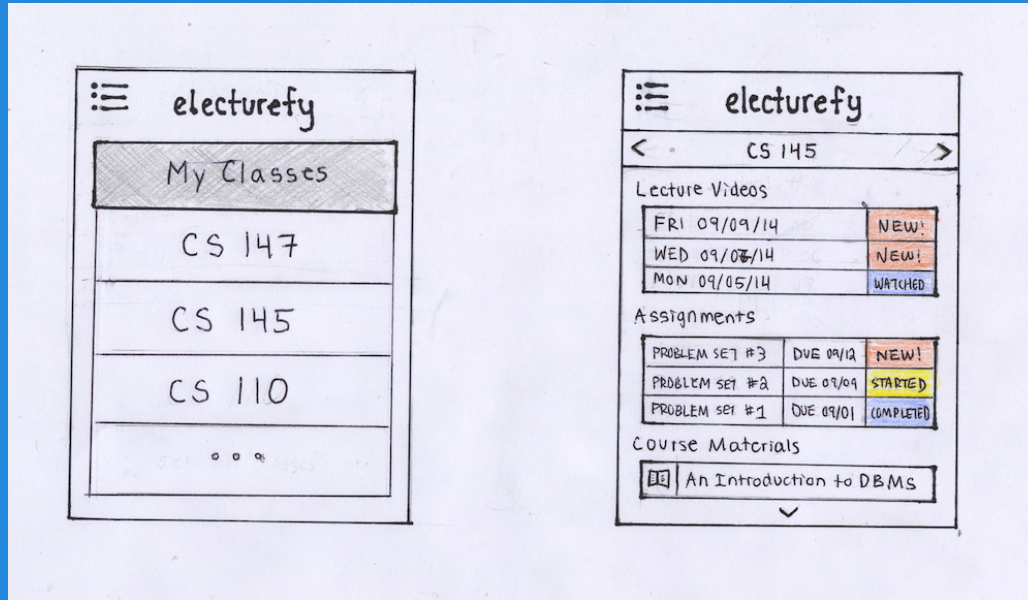


Design Idea #1 - Time-stamped feedback / questions

# Integrated Course Materials Platform

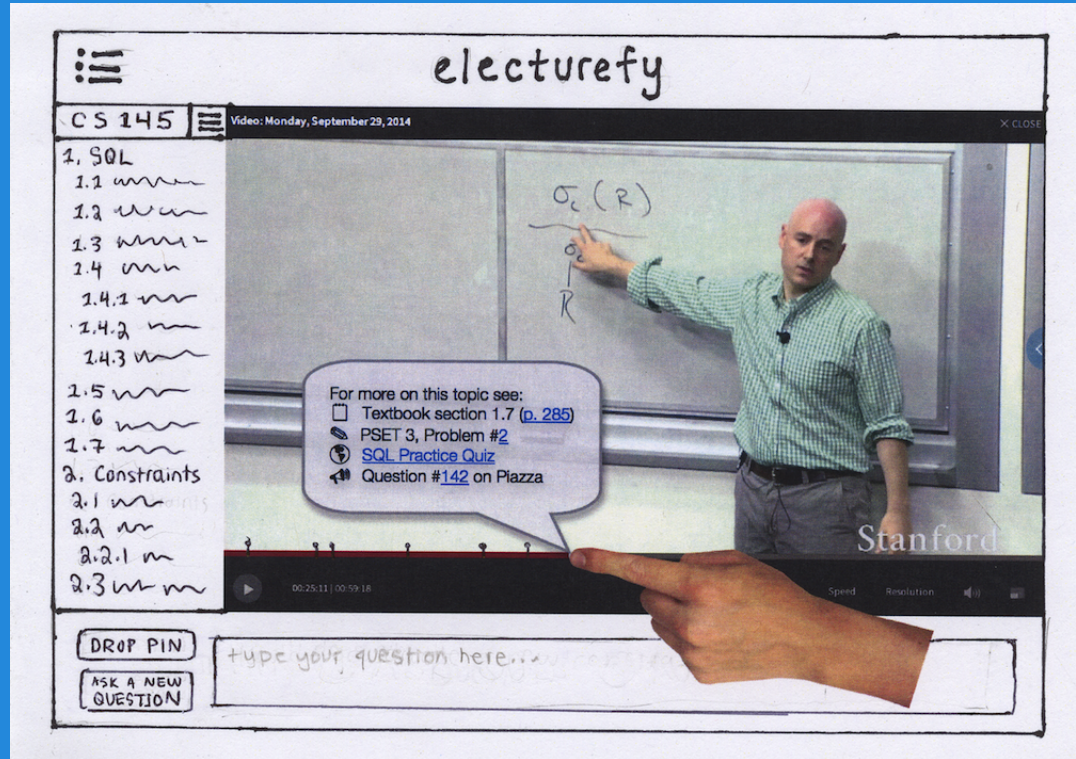
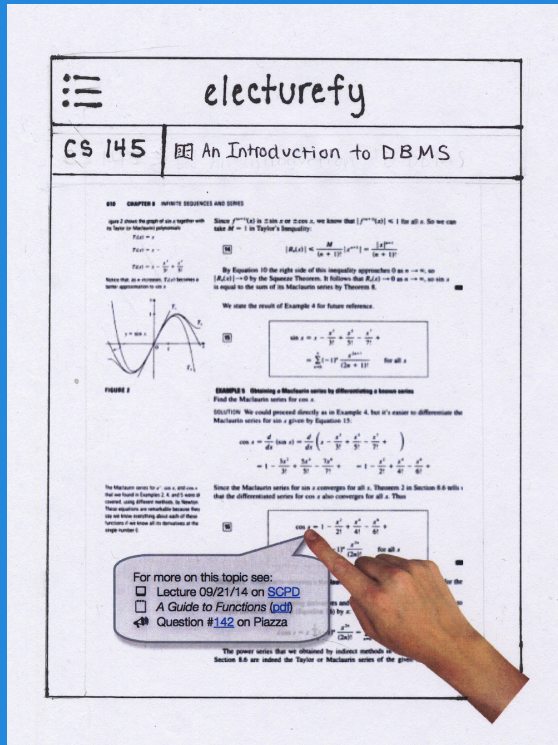
- Connects relevant sections of course materials / lecture video
- Helps to solidify understanding
- Requires staff to populate content

# Design sketches



Design Idea #2 – Integrated platform for course materials / feedback

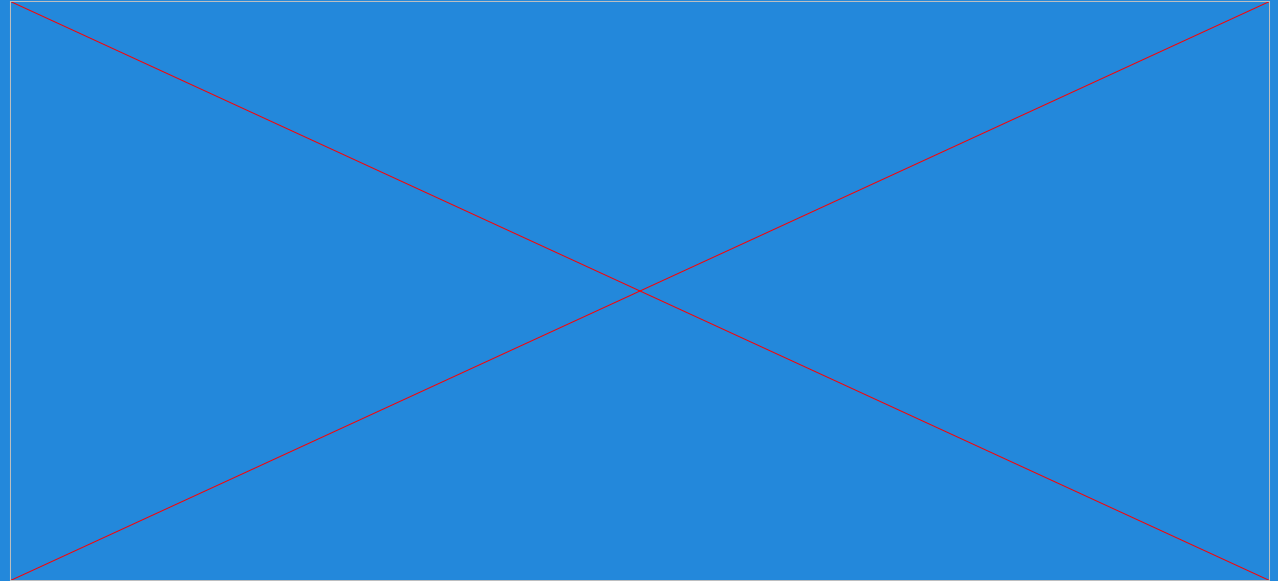
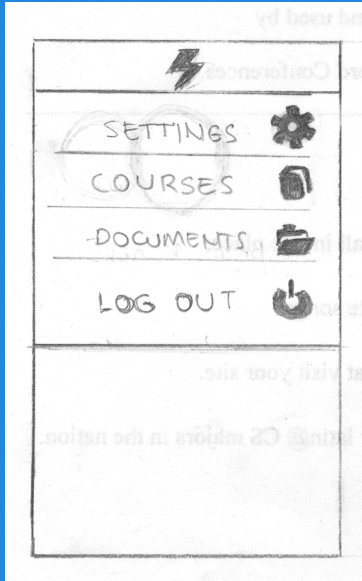
# Design sketches



# Real-time Lecture Feedback

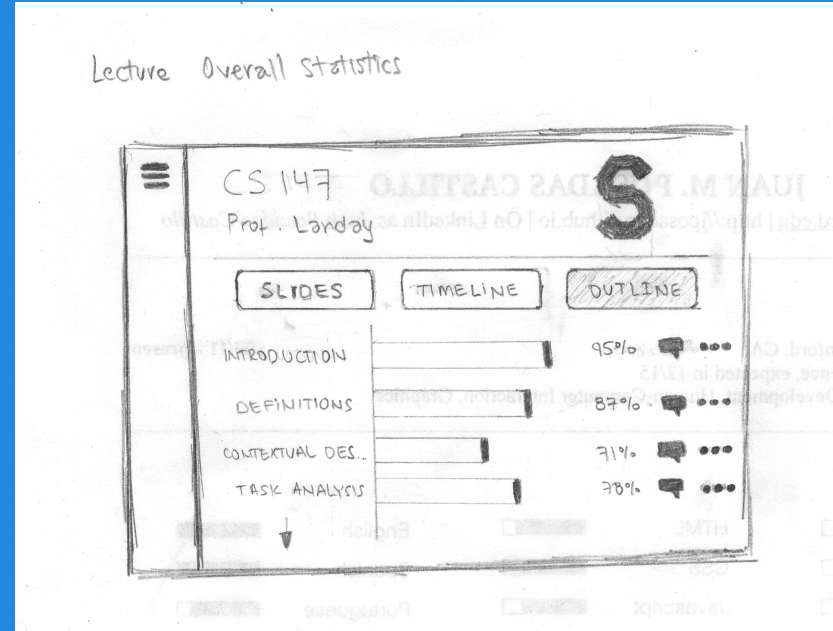
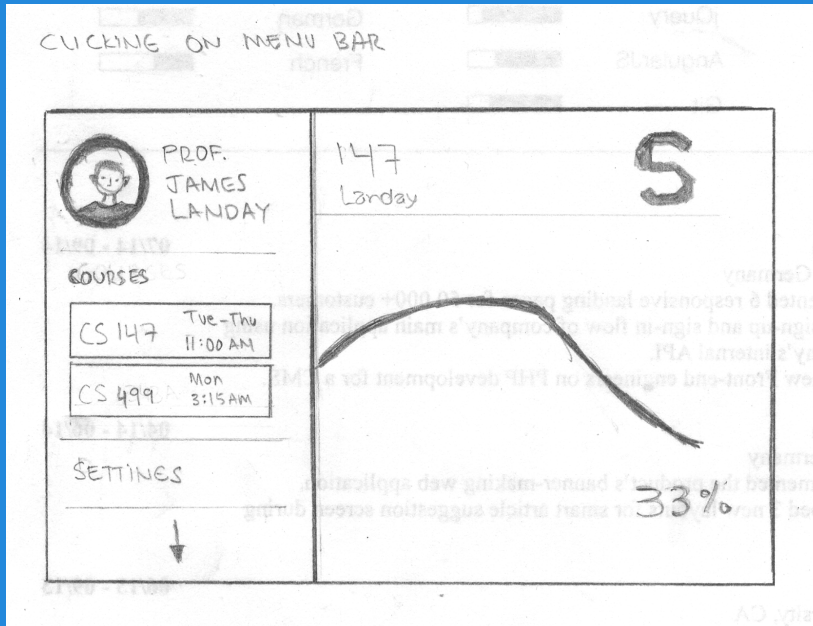
- In-class immediate customer feedback
- Gives students the ability to change lecture dynamics in real time
- Cross-platform implementation

# Design sketches



Design Idea #3A – Real-time lecture feedback

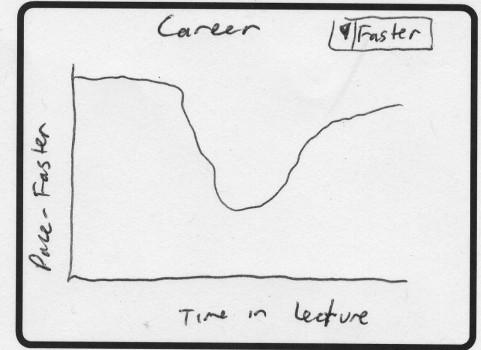
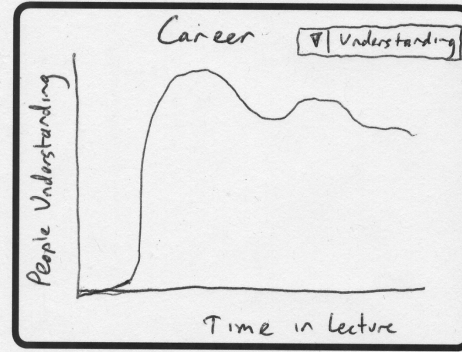
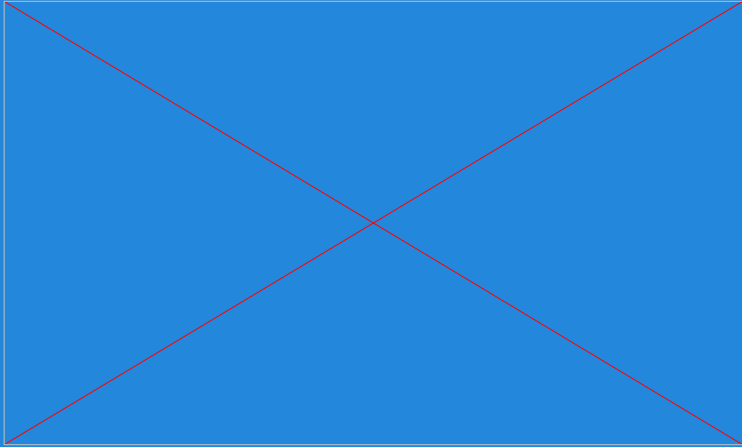
# Design sketches



Design Idea #3A – Real-time lecture feedback

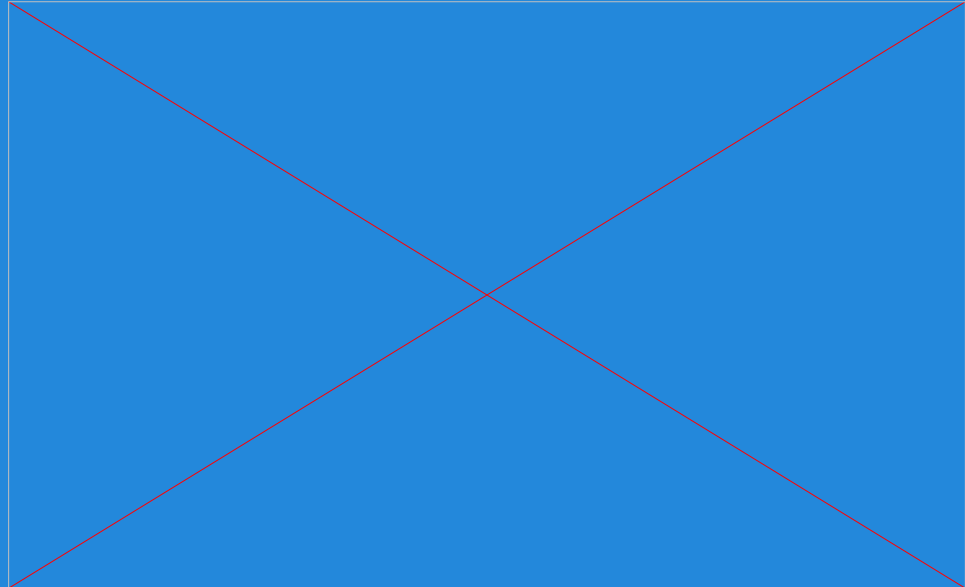
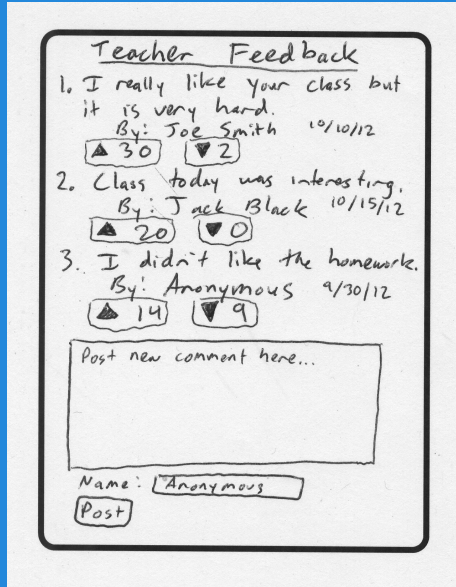


# Design sketches



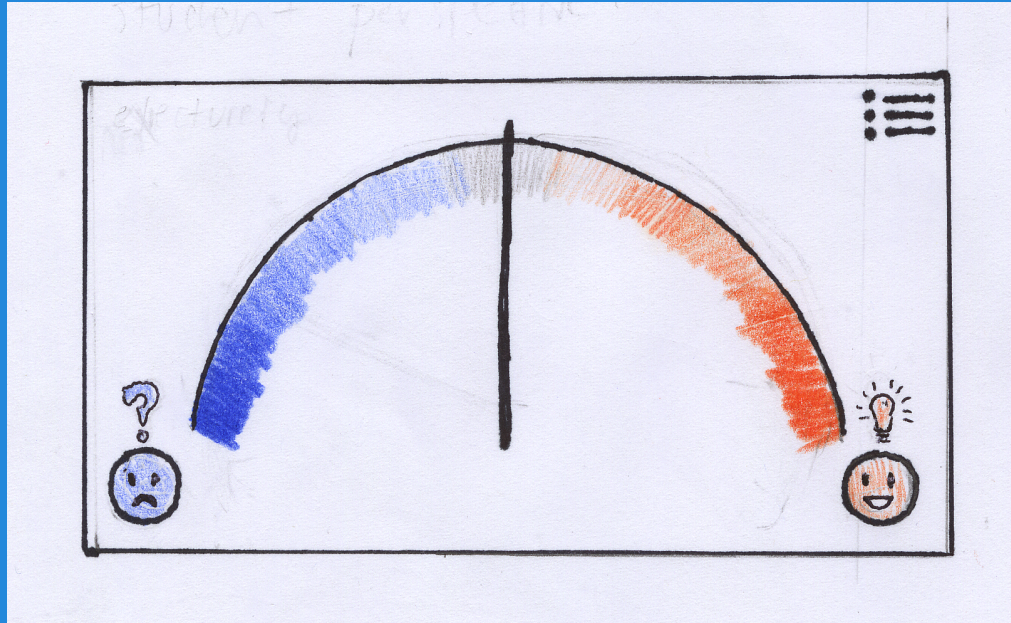
Design Idea #3B – Real-time lecture feedback

# Design sketches



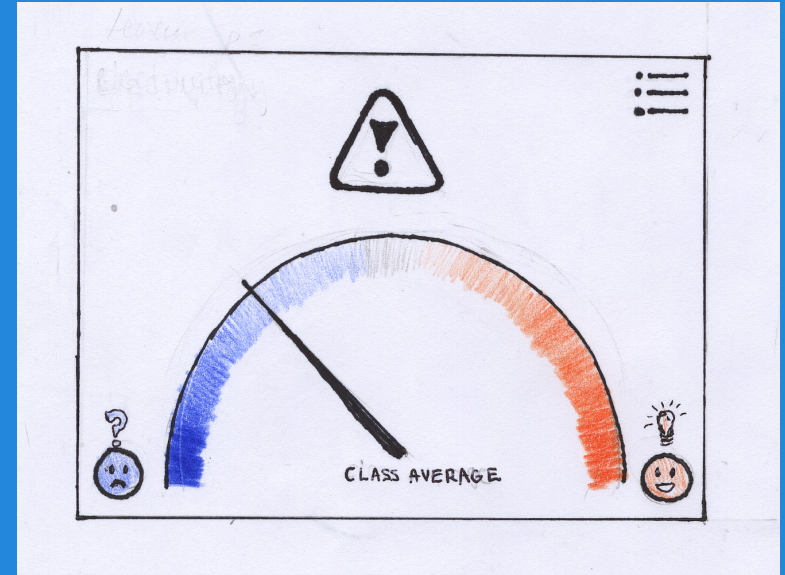
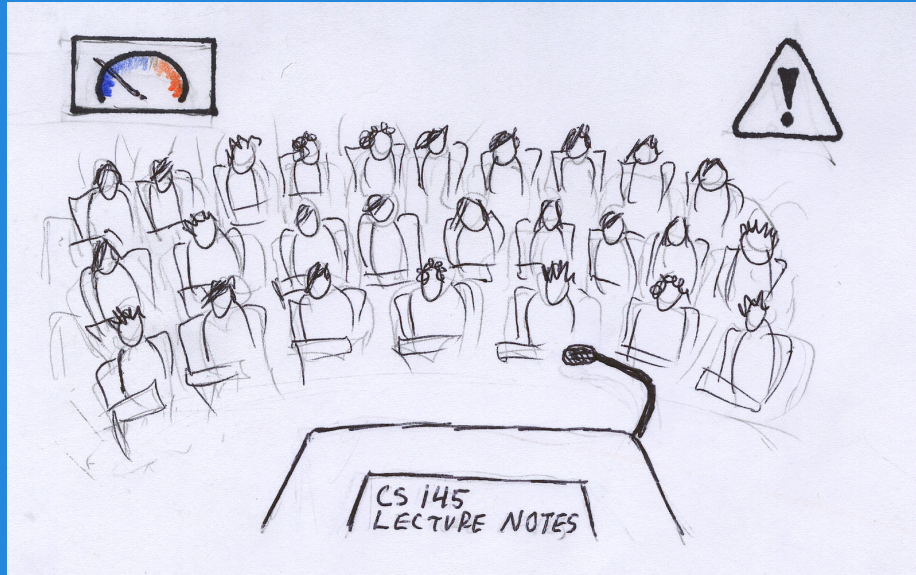
Design Idea #3B – Real-time lecture feedback

# Design sketches



Design Idea #3C – Real-time lecture feedback

# Design sketches



Design Idea #3C – Real-time lecture feedback

# Summary

- Problem: lecture communication
- Solution: real-time feedback system
  
- Helps students influence their learning environment and clarify points of confusion
- Constructive & actionable for teacher

Thank you.

**electurfy**

