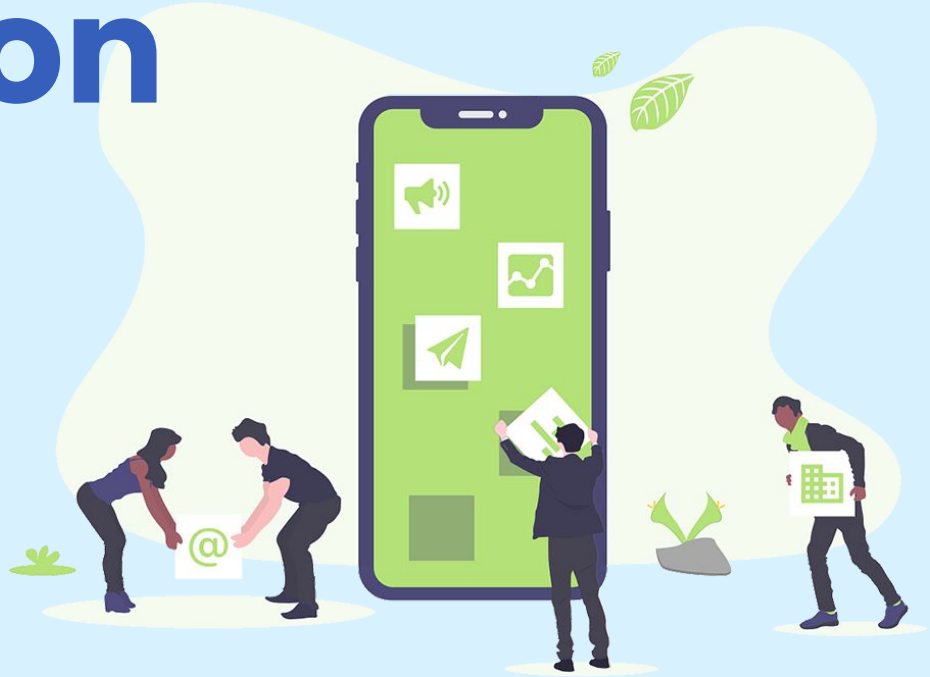
Low-fi Prototype & Evaluation

Team Mission Impossible



Our Team

David E. ‘21

Pau A. ‘21

Jake W. ‘21

Elena W. ‘22

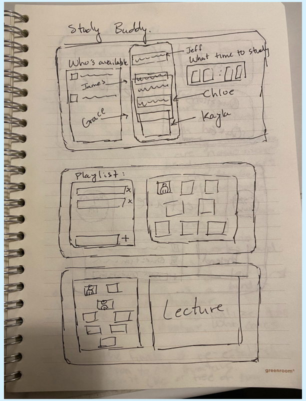
Mission Statement

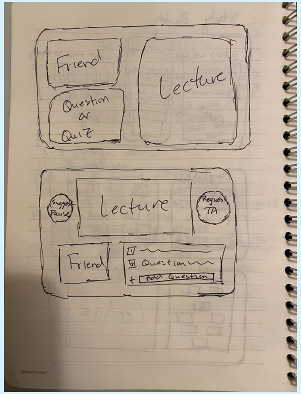
Improve the online learning experience by bringing **students** together and motivate them to collaborate and interact as they would in an in-person setting.

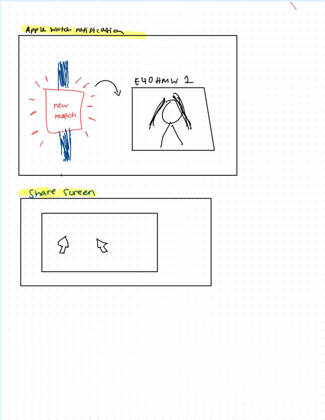
Problem and Solution Overview

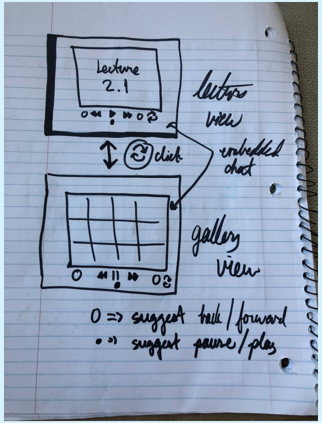
Students across the board are currently struggling with **engagement, motivation, and accountability,** and incoming freshman are hit especially hard. We want to build a **community** that people are excited to join, and make studying less of a **solitary activity**.

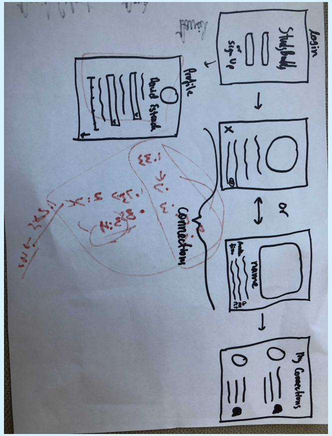
Sketches

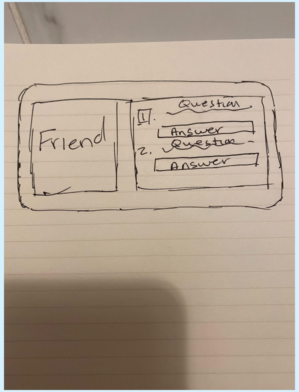

Study Buddy
Who's available
Chloe
Kayla
Playlist:
Lecture

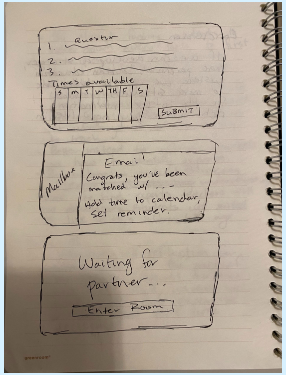

Friend
Lecture
Question or Quiz
Lecture
Friend

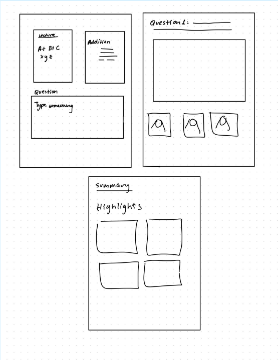

Apple watch notification
new match
Share Screen

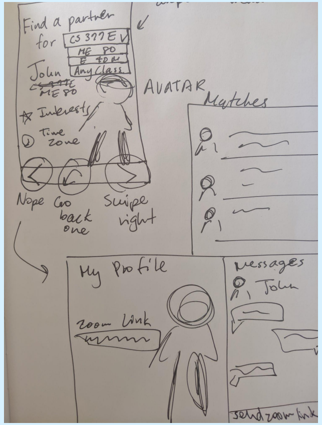

Lecture 2.1
lecture view
click
embedded chat
gallery view
suggest back/forward
suggest pause/play

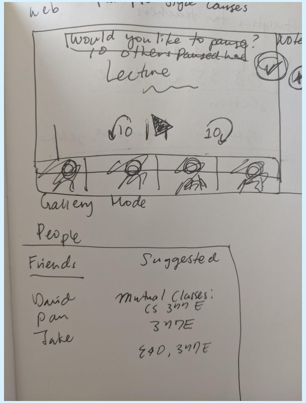

Login
Profile
Connection
My Connections


Friend
Question
Answer
Answer

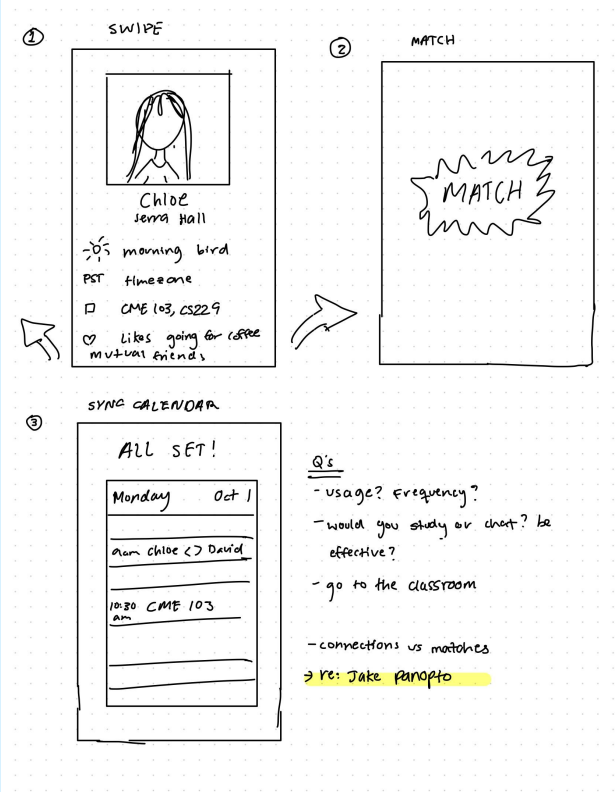

Times available
SUBMIT
Email
Congrats, you've been matched w/ ...
Hold time to calendar, set reminder.
Mailbox
Waiting for partner...
Enter Room


Question
Summary
Highlights


Find a partner for
AVATAR
Matches
Nope
Go back one
Swipe right
My Profile
Messages
Zoom Link


Would you like to pause?
Lecture
Gallery Mode
People
Friends
Suggested
David
Pan
Jake
Mutual Classes:

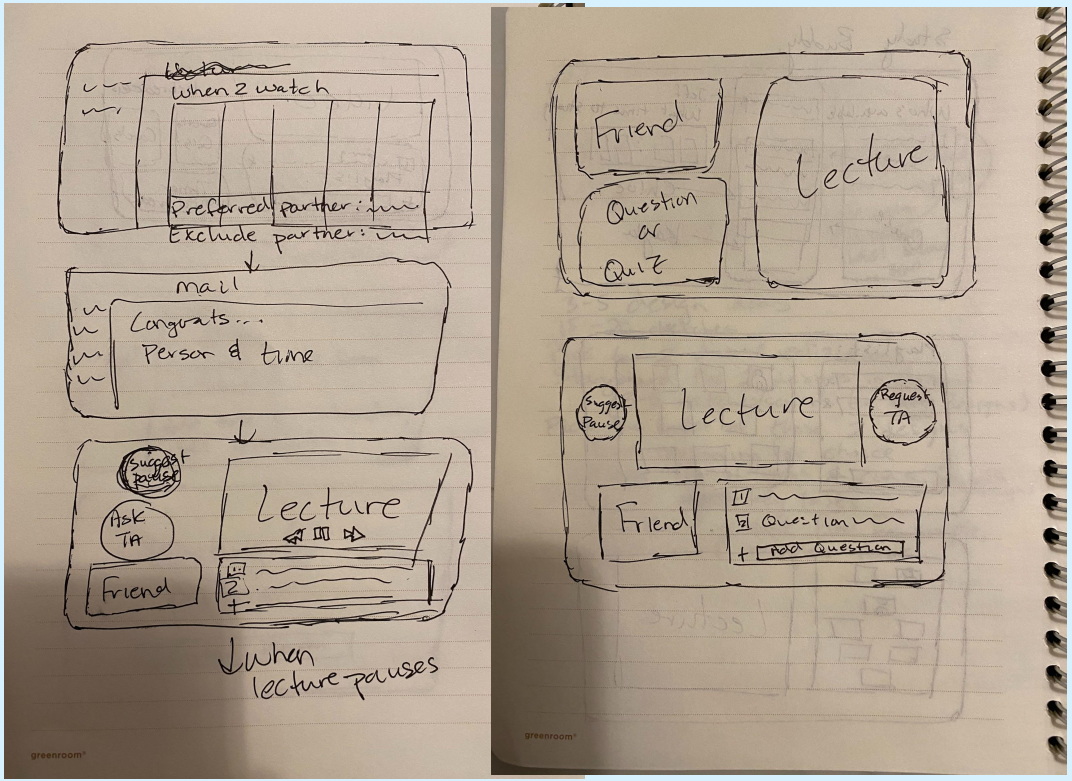
Design #1: Study Buddy



Why?

- Fun and familiar way to match with people, rather than just an email
- Avatars instead of pictures to almost gamify the system
- Easy to message within the app itself

Design #2: Recorded Lecture Party



Why?

- Rather than zoom sharing, having a universal pause/play button was key
- Simulates an in-person class feeling, like you are talking to your friend next to you about a question in lecture
- Engaging

Design #1: Study Buddy

Pros

- Reduces friction to find compatible people
- Short and sweet work time, easy to focus
- Encourages people to meet others in similar courses/academic interests

Cons

- People spend time chatting and not studying
- Not as novel or new
- Limited number of people, so may have bad matches early on
- If people reschedule or don't show then one person is left on the hook with no partner

Design #2: Recorded Lecture Party

Pros

- universal pause
- accountability of watching with friends, may be more comfortable to ask questions
- Room for a teacher/TA use case + analytics
- MOOCs or flipped classrooms

Cons

- students pause for different reasons (i.e taking notes, getting food, bathroom) so it might be difficult to know when a “suggested” pause is valid/valuable
- Getting enough people interested to do use this consistently

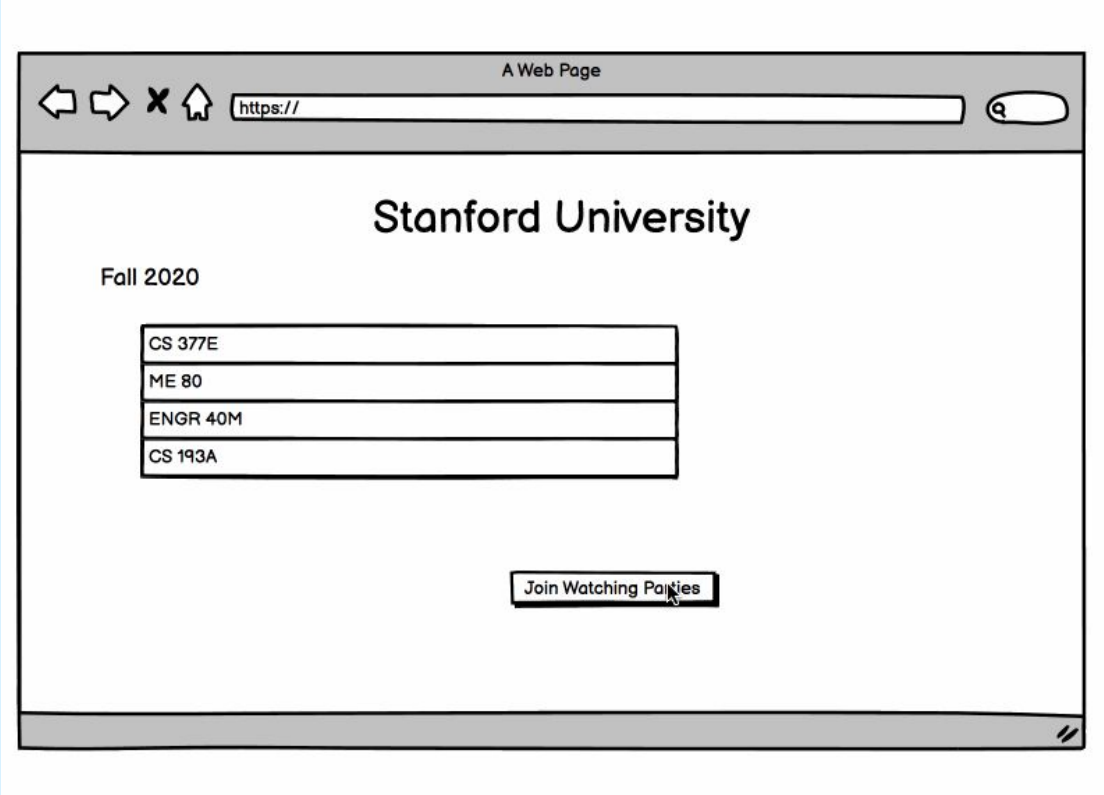
Recorded Lecture Party!

Why?

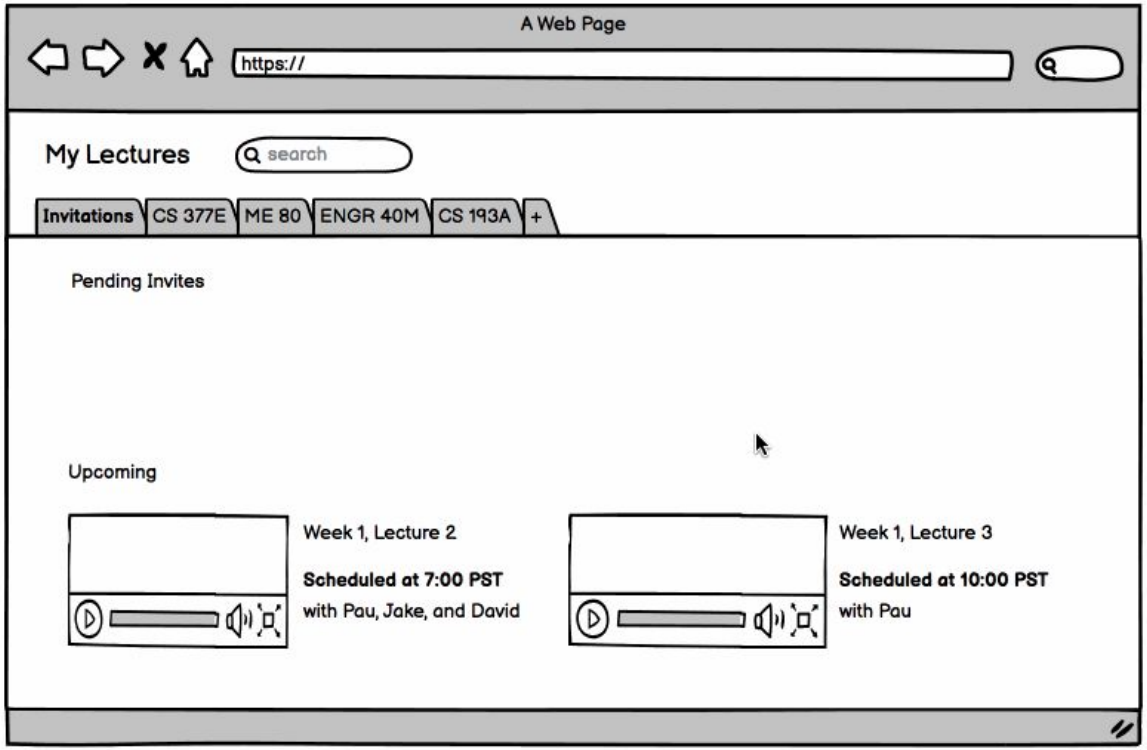
- Study Buddy isn't very novel
- Could hinder studying instead of focus

- RLP has larger implications for online classes
- Stanford research suggests that students retain more information when they learn this way
- Accountability is still there

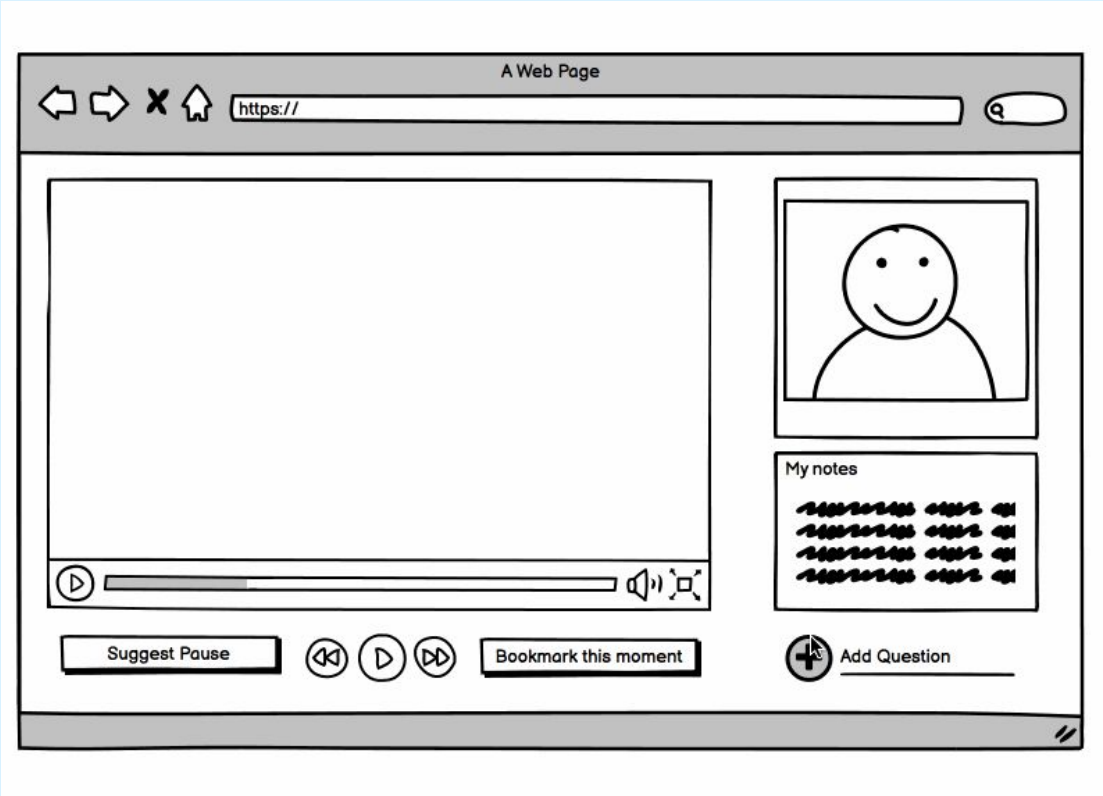
Simple Task: sign up for classes and accept a watch party invitation



Moderate Task: invite a friend to watch a lecture and start watching



Complex Task: ask question and pause the video to answer questions

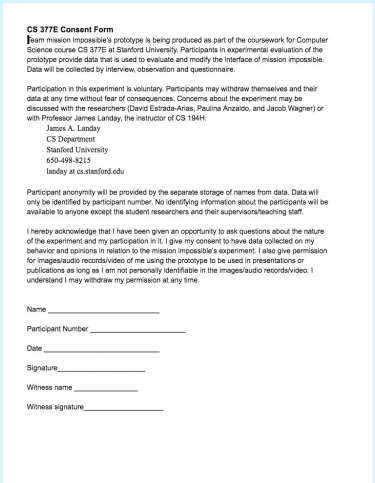


Lo-fi Testing Procedure:

Recruits:

- 5 college students across the country
- Experience with in-person and virtual classes
- Ages 20-22

- Consent Form
- Script
- Observer, Facilitator



CS 377E Consent Form

Team mission impossible's prototype is being produced as part of the coursework for Computer Science course CS 377E at Stanford University. Participants in experimental evaluation of the prototype provide data that is used to evaluate and modify the interface of mission impossible. Data will be collected by interview, observation and questionnaire.

Participation in this experiment is voluntary. Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers (David Estrada-Arias, Paulina Anzaldo, and Jacob Wagner) or with Professor James Landay, the instructor of CS 194H:

James A. Landay
CS Department
Stanford University
650-498-8215
landay at cs.stanford.edu

Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the student researchers and their supervisors/teaching staff.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the mission impossible's experiment. I also give permission for images/audio records/video of me using the prototype to be used in presentations or publications as long as I am not personally identifiable in the images/audio records/video. I understand I may withdraw my permission at any time.

Name _____

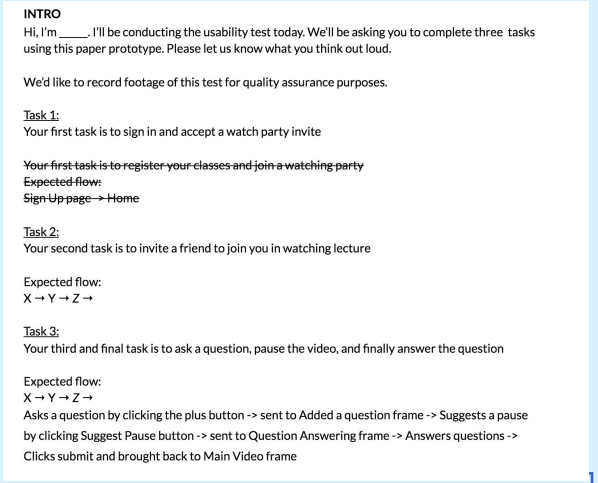
Participant Number _____

Date _____

Signature_____

Witness name _____

Witness signature_____



INTRO

Hi, I'm _____. I'll be conducting the usability test today. We'll be asking you to complete three tasks using this paper prototype. Please let us know what you think out loud.

We'd like to record footage of this test for quality assurance purposes.

Task 1:
Your first task is to sign in and accept a watch party invite

~~Your first task is to register your classes and join a watching party~~
~~Expected flow:~~
~~Sign Up page -> Home~~

Task 2:
Your second task is to invite a friend to join you in watching lecture

Expected flow:
X → Y → Z →

Task 3:
Your third and final task is to ask a question, pause the video, and finally answer the question

Expected flow:
X → Y → Z →
Asks a question by clicking the plus button -> sent to Added a question frame -> Suggests a pause by clicking Suggest Pause button -> sent to Question Answering frame -> Answers questions -> Clicks submit and brought back to Main Video frame

Results Overview

“A better way to consume recorded lectures”

Confusing how watch groups are made (friends vs. classmates)

Buttons didn’t always match the function

Key Insights

Medium Task

- Home page should have easy access to upcoming lectures
- Invitations tab should allow people to invite others
- Make it clear whether to invite friends or classmates with easy access to a calendar

Complex Task

- Suggest pause button is very confusing
- Universal play/pause button is not intuitive
- Questions are meant to be discussed in a back and forth conversation

Thanks!

Appendix

Sketches

Consent Forms

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Name _____Hana Burgess_____

Participant Number _____015_____

Date _____10/13/2020_____

Signature____Hana Burgess_____

Witness name ____Elena Wagenmans_____

Witness signature____Elena Wagenmans_____

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Name _____jason nguyen_____

Participant Number _____017_____

Date _____13 October 2020_____

Signature_____jason nguyen_____

Witness name _____jacob wagner_____

Witness signature_____jacob wagner_____

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Name _____logan fairman_____

Participant Number _____015_____

Date _____13 October 2020_____

Signature_____logan fairman_____

Witness name _____jacob wagner_____

Witness signature_____jacob wagner_____