

Concept Video Report

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Problem & Solution Overview

When a college student is faced with a confusing point, they confront a jungle of resources to cut through. On the other side, the instructors spend hours clarifying the same concepts over and over again, within office hours, through emails and on Piazza. Before deadlines, office hours are packed, the queues are long and students are unable to receive the personal help that they need. In other times, they are empty and TAs waste their time.

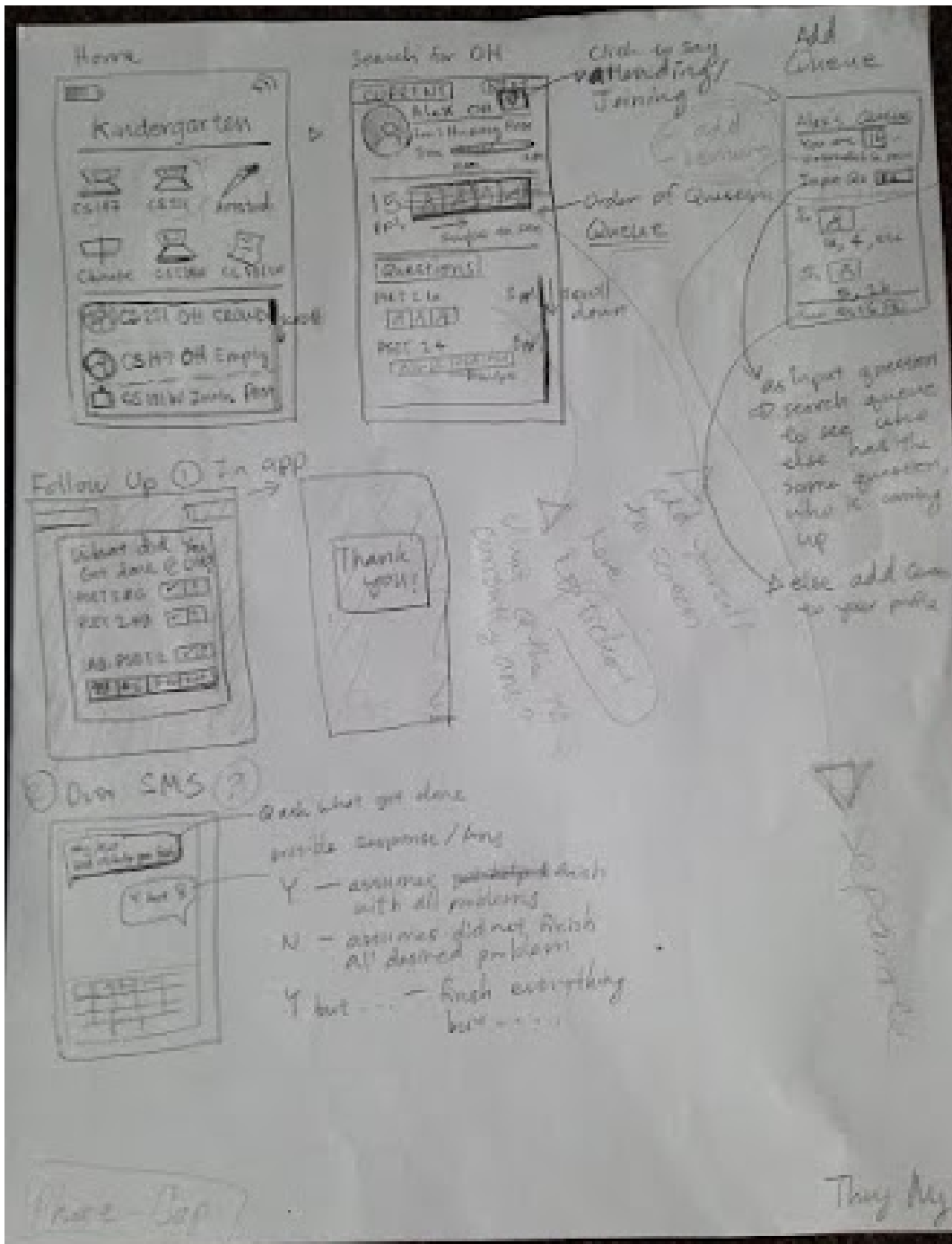
We found that the most pressing problem, therefore, is the lack of feedback between instructors and students on what is working for the students' understanding and what is not. We hope to optimize the current workflow for answering students' questions and to gather important student feedback so instructors are better able to plan office hours.

Value Proposition

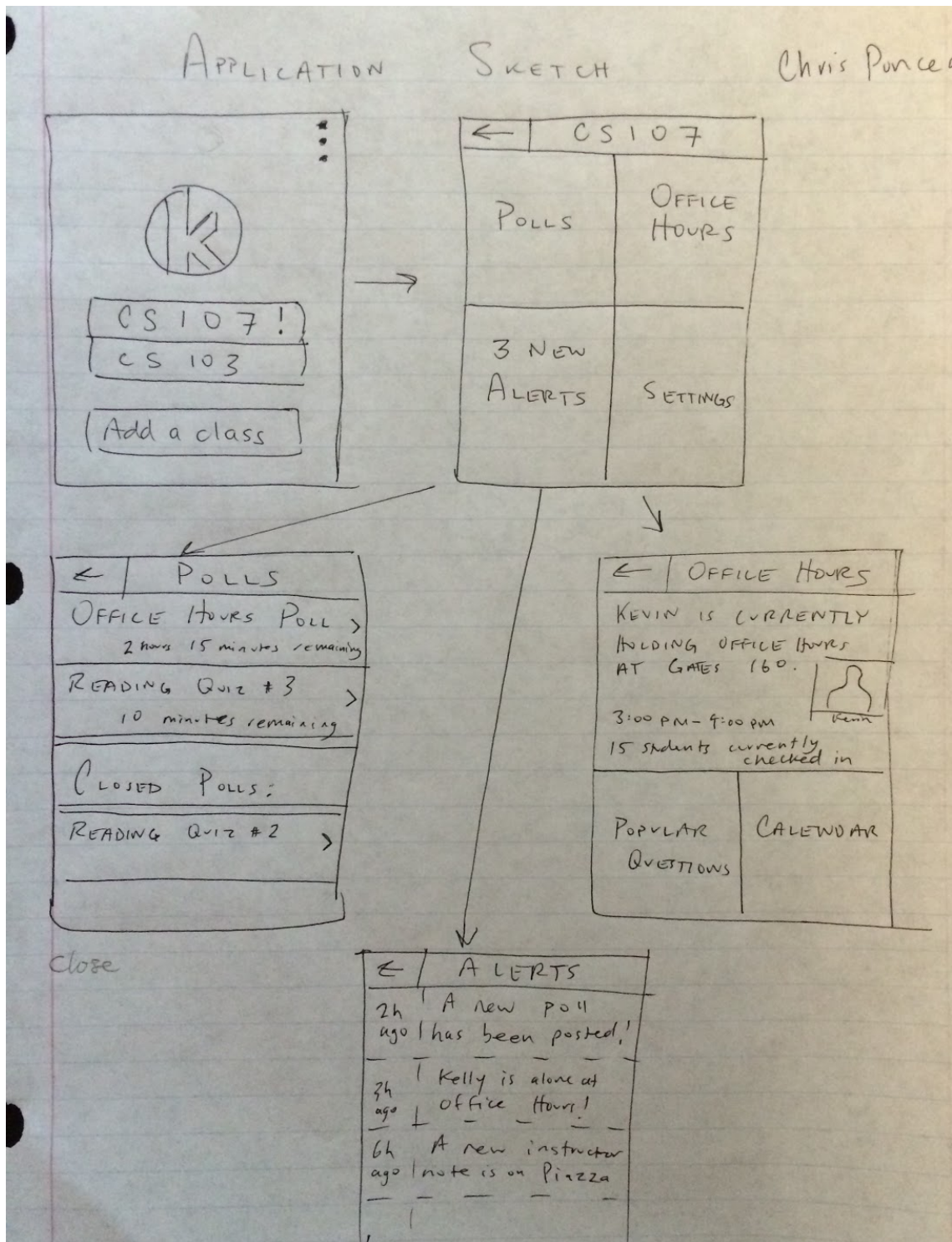
kindergarten will provide instructors with a simple and quick method for gathering feedback and questions from their students.

UI Sketches of 2 Different Interface Designs

Design #1 - Office hours interface and different app home Interface



Design #2 - Home and Polls interfaces



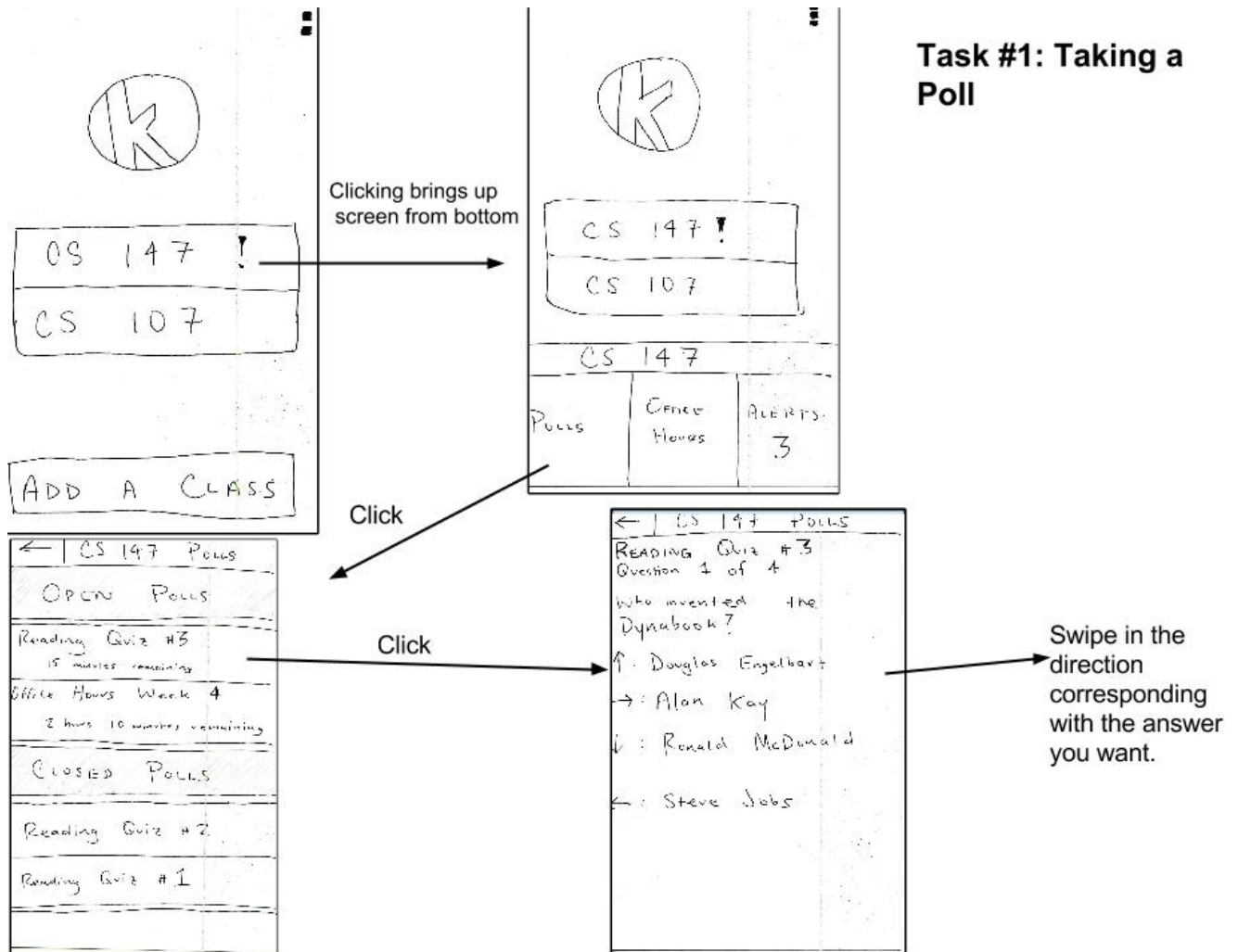
Selected Interface Design

Ultimately, the interface design that we decided to continue with was primarily inspired by Design #2. Going into the process of finalizing our user interface design, our primary focus was that users need to be able to perform their most common tasks in the easiest and simplest manner. With that in mind, Design #2 works well because it was very minimalistic. It is intended to provide users with clear information when and where they want it. In addition, the large buttons and lack of small details in the user interface are much easier to work with on a phone with a touch screen than a complicated interface with lots of details and options. We decided to take some inspiration from Design #1's Office Hours page, however, in an effort to provide as much useful information to students as possible regarding Office Hours.

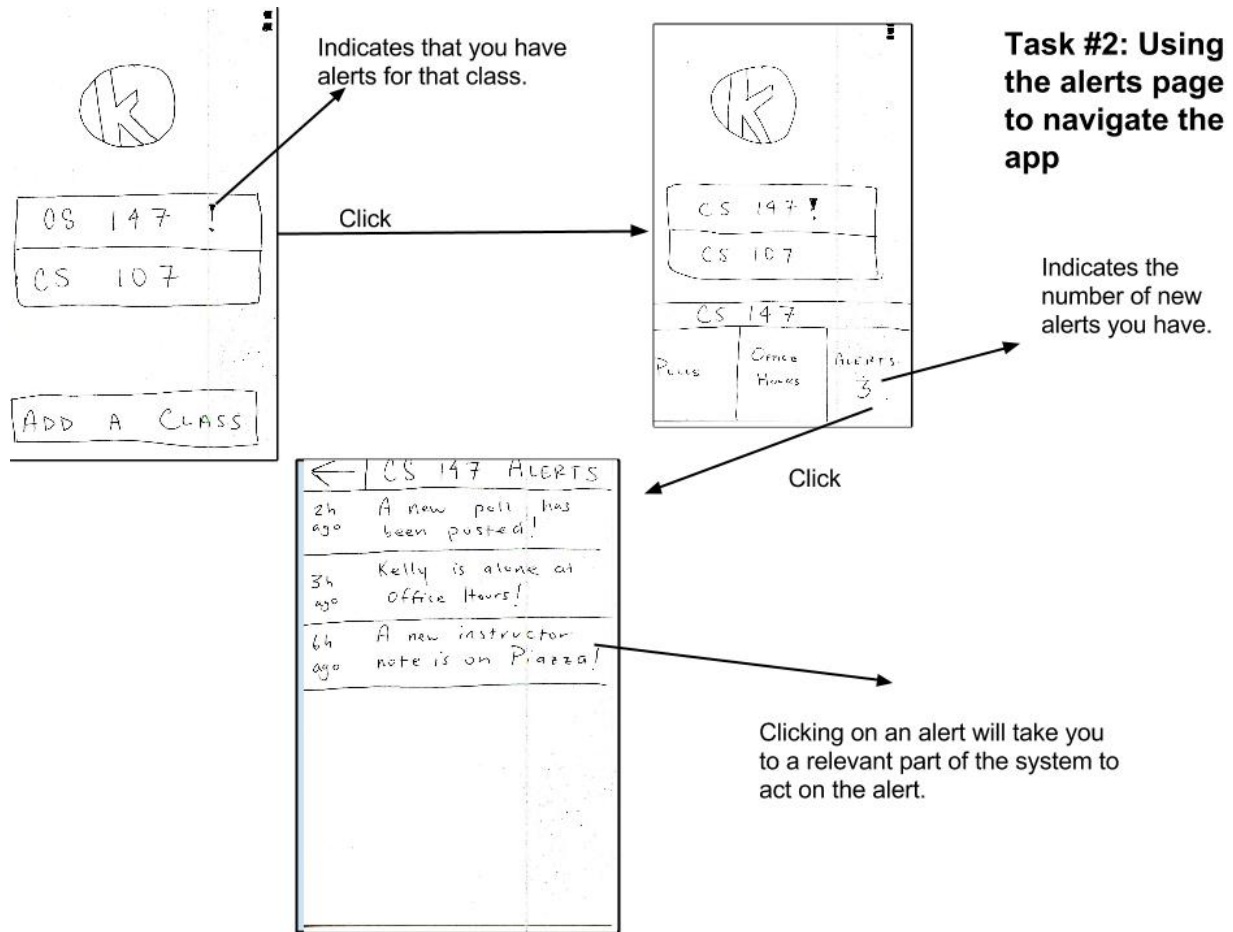
This platform is designed to provide instructors with an easy method of gathering student feedback and to create clearer channels of communication between instructors and students in regards to organizing Office Hours. The exact tasks that the system makes possible are listed in the table below. We split the tasks into tasks that will be performed by instructors and tasks that will be performed by students. The goal of our project is to provide both students and instructors with an application that they will enjoy using because it offers tools that are extremely helpful while also simple to use. No task should take more than three or four touches of the screen with our application.

Student Tasks	Instructor Tasks
Answer quiz questions	Put out multiple choice quizzes for their students to answer
Provide feedback through polls after lectures	Provide polls regarding Office Hours demand or course feedback for students to respond to.
Check Office Hour times	Put up Office Hour times
Use push alerts to quickly navigate from their phone's Home menu to parts of the system.	Send out push alerts to the class with announcements and important material such as quizzes.
Provide feedback regarding their Office Hours experience	Figure out who at Office Hours has similar questions and consolidate
Check how many students are currently at Office Hours	Keep track in the system of how many students are at their Office Hours
Check in and put name on queue for Office Hours remotely	Check student feedback and statistics regarding quiz scores

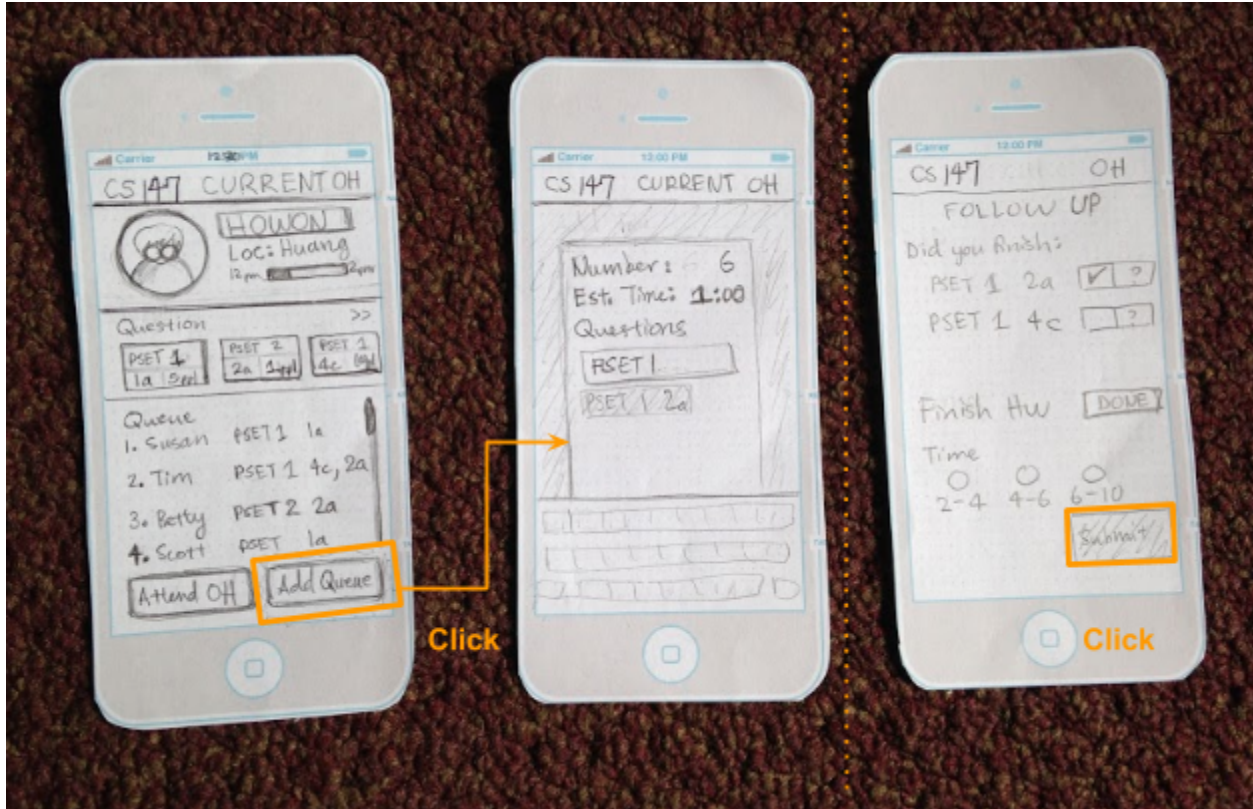
UI Storyboards for Three Scenarios



To take a poll or answer a quiz question, students can either navigate through the home screen of the application, as demonstrated here, or the instructor can send out a push notification that will take students immediately to the polls screen.



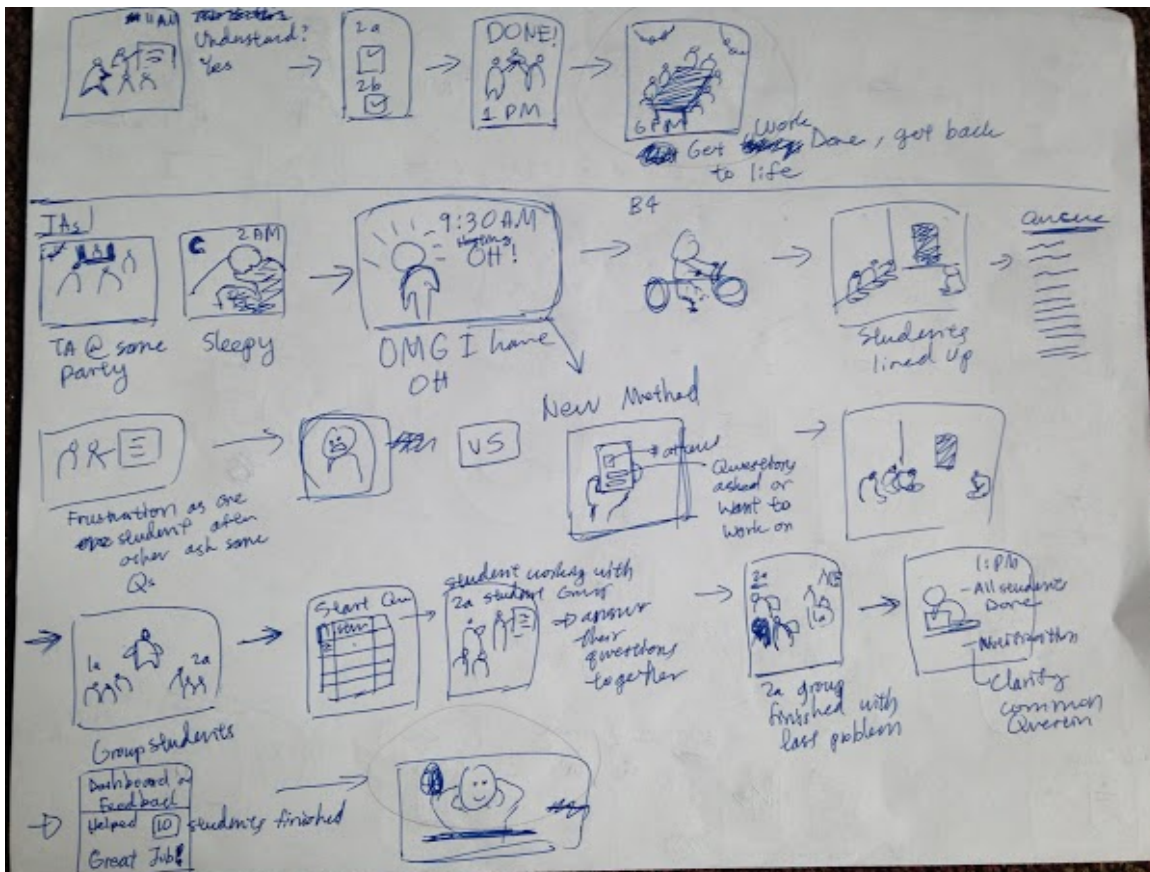
Should an instructor have something that they want the class to see easily but is not worth a push notification, they can include it in the alerts page. This provides shortcuts to other areas of the application where students can act on the alert.



Task #3: Viewing current OH, adding yourself to a queue, and providing feedback at the end of OH

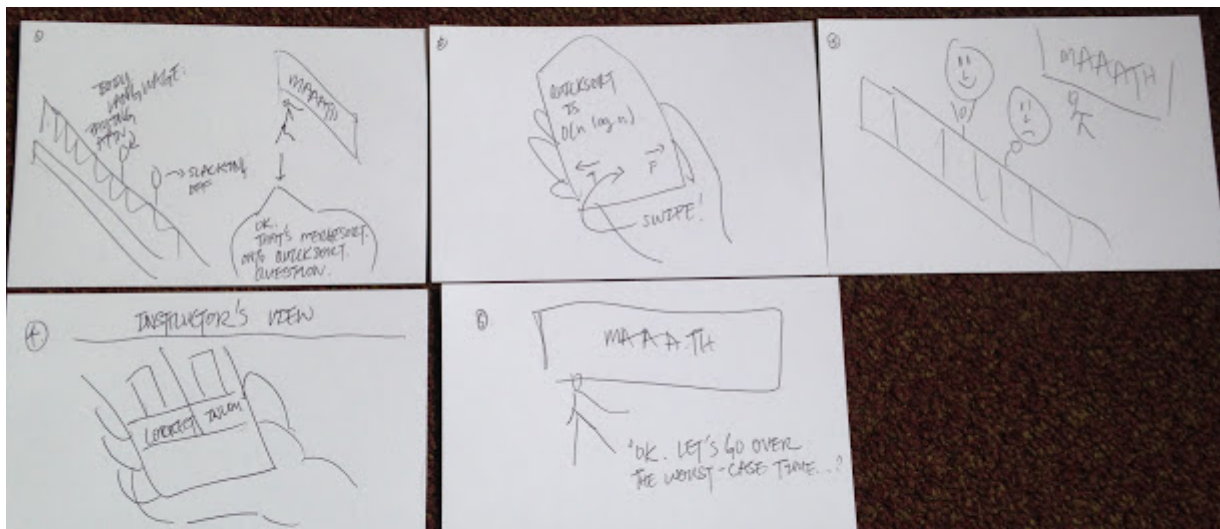
The office hour screen contains information about the TA, location, time and duration of the office hour as well as the questions that other students are working on within that office hour. It also displays a digital queue and the problems that each student have questions about. The student can click “Attend OH” to indicate that they are going to this office hour or they can click the “Add Queue” to place their name into the queue. Once they click “Add Queue”, a form will pop up with their queue number and estimated wait time. On this form, they can input the problems they are working on. After the office hour ends, a follow up screen will pop up when they first enter the app and it will ask the student about their progress in office hours.

Scenario #1b - Office Hours, from the TA's point of view



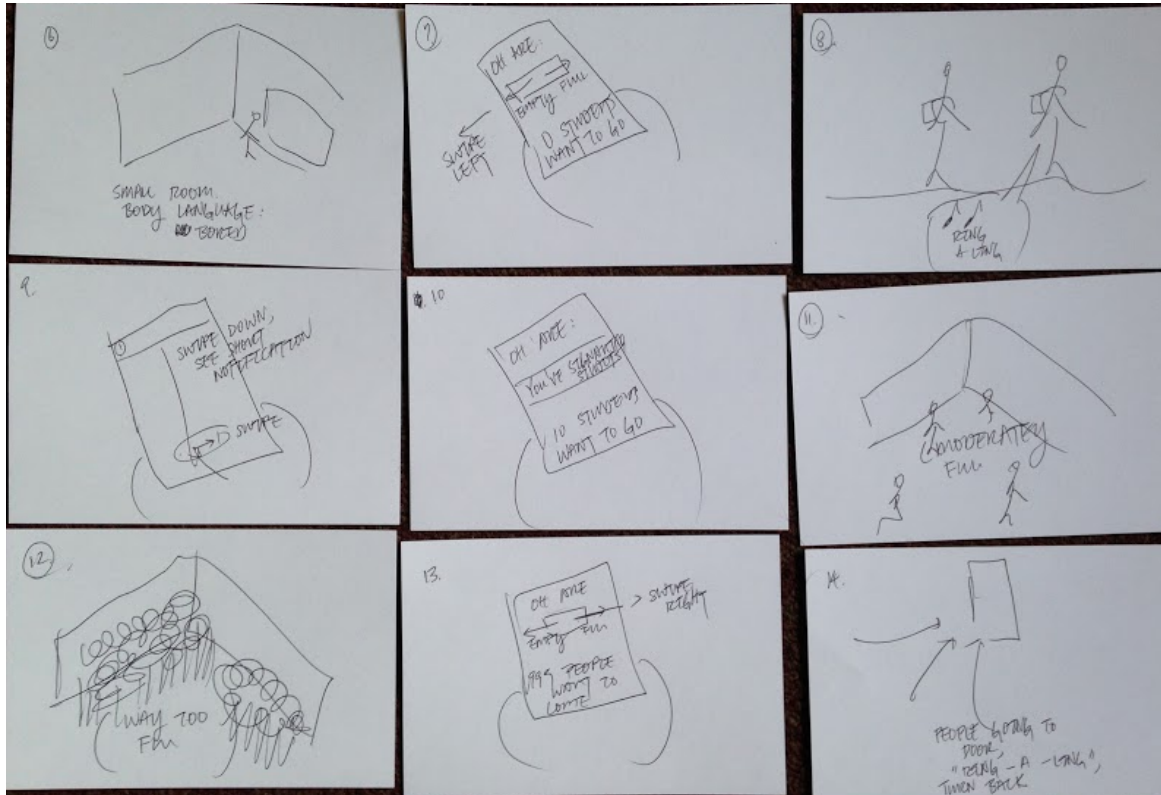
This storyboard examines the process of making the office hours with a digital queue, with a prologue and an epilogue for the TA which we cut, instead simply indicating the feelings of the TA about helping the student. Note the satisfied look on the TA's face on the last panel, which was kept with a different shot.

Scenario #2 - Quizzing the Student



These story notecards were supposed to give a story behind the quiz being issued in class. But we didn't need a back-story of that sort: the experience of the quiz is immediate and obvious. We also did not need the words being spoken. We still did take the angles used here in the classroom for the shoot, however.

Scenario #3 - Office hours notification



This was to show how the notification system would work for the office hours. However, note that very many of the cards show the UI directly in some fashion, which showed the context of use perhaps too little, and showed the cool swiping motions we would add perhaps too much. We felt that the individual experience of going to office hours, also, was the best one to show, and the most parsimonious in the context of the film.

Concept Video Description

Design Prep: ~2 hours total.

Shooting: ~1.5 hours.

Editing: ~10 hours.

The concept of our idea is bound up with the functioning of the application itself, so we found it necessary to show the UI in focus and actually being used. Specifically we also wanted to show the convenience and the simplicity of the navigation. We found the context representative to our own lives, as students, so it should show clearly and without artifice in the video that we are students.

Filming was done exclusively in and around Huang Engineering. We found that the HP Garage room was well-lit and therefore did some shooting there, as well as in a classroom. Instead of recruiting large amounts of extras, we used the familiar device of a long whiteboard queue to bring forth the context of crowded office hours. The logistical issue of getting extras for those crowded office hours was to be fairly difficult until we took that step.

Many of our concepts had words in them, but we decided in the final analysis to take out spoken words in the video itself in favor of captions, which worked well. This, along with a large paring down of scenes and concepts and the excision of a longer prologue and epilogue, got us down to 2 minutes 15 seconds. Every scene was shot in fewer than three takes and without a tripod.