

IDC for IEP

Individual Data Collection for Individual Education Programs

Team Members

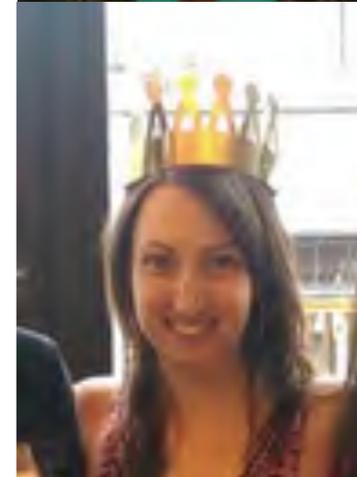
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Problem and Solution Overview

The Individual Education Program (IEP) is a relatively new tool in the world of education to help students with special needs maximize their learning potential. Despite its best intentions, IEPs for students are fraught with absentee data and miscommunication between teachers, parents, and students. Our proposed solution is to create a system that allows for clear communication channels and meaningful data collection/exchange between parents and teachers.

Contextual Inquiry Target, Stakeholders, and Participants

Jannett - Is a recently retired Special Education Teacher with over 35 years of experience. The inquiry was of a master/apprentice form, we walked through creating IEP goals from a mock evaluation. Discussed the task/functionality of IEP online, the current tool SPS uses to generate IEP's. Artifact: Mock up of current IEP online task and features.

Sarah - Special Educator for over 20 years who is currently working at Meadows Elementary in Olympia, Washington. The inquiry was an evocative interview done through email.

Cassie - Classroom teacher for over 10 years and parent of a student who had an IEP while in school and continues to receive special services. She is currently working in the Montgomery County School District in Maryland. We were able to do an evocative interview over the phone.

Sherry - College student that has legal guardianship of her sister, who has an IEP. Sherry currently attends University of Hawaii-Manoa. Due to our different locations, we were only able to interview her over the phone.

Alis - Currently a graduating senior in high school with an IEP. She is the sister of Sherry. Since she lives in Hawaii, we were only able to do a phone interview with her.

Nichole - MSW, LICSW is a parent of a former IEP student. Walked through a student's IEP goals and parent and student involvement in the IEP process.

Charlotte - A parent of four students, two of which have IEPs, one with a 504 plan, and one who was pulled out of SPS and is in a private school. She is a highly engaged parent, she is a member of the PTA (Parent Teacher Advisory Board) of two schools, and she is a member of PAC (Parent Advisory Committee). The inquiry was an evocative interview where two of us sat down with her, walked through IEP paperwork and asked her questions.

For our contextual inquiry we wanted to contact parents, teachers, and students that are involved in the IEP process. We were lucky enough to have acquaintances in all three categories that we were able to reach out to. We choose to speak to Jannett and Sarah due to their knowledge of the IEP process through their experience teaching special education. We wanted their insight into what it is like to manage multiple students with IEPs, and their understanding of what makes an IEP successful. We decided to speak with Cassie due to her experience as an educator and as a parent of a student with an IEP. Additionally, we choose to speak with two other parents of students with IEPs, Nicole and Charlotte, since they would be able to speak to what works in the current system and what difficulties they have to deal with while trying to advocate for their children. Lastly, we choose to speak to Alis and her guardian Sherry to get a students perspective on their IEP.

Contextual Inquiry Results and Themes

Themes:

Our contextual inquiries revealed a multitude of avenues to pursue for our project. Common themes fell under the broad categories of emotions, logistics, and knowledge. An emotional theme that was consistent across contextual inquiries included parents being overwhelmed with the process itself, from the paperwork to the fear of having their child labeled in a detrimental way. A logistical theme was the lack of consistent documentation by teachers concerning student IEP accommodations and goal progress. The annual IEP meeting was mentioned as a logistical challenge by parents and teachers to schedule because of the number of people required to converge. Challenges under the knowledge theme primarily concerned establishing baseline knowledge of the IEP process and jargon to allow for more effective communication between students and parents to best help the student.

Problems:

Storage/Access: Persistence of important IEP data and paperwork. IEP information is often lost from meeting to meeting from year to year, when teachers change, and when schools change. Some examples of lost information include interventions tried, whether interventions succeeded or failed, how instruction was individualized for the student, where the student is in their progress towards a goal, etc.

Communication among IEP team Members: Currently the infrequency of meetings and other forms of communication in the IEP process is a major issue. Teachers have a hard time staying on the same page with a child's progress and needs across classrooms.

Measuring progress: Current Progress reports do not give parents meaningful information about their student's progress towards their goals.

Student Engagement: There exists an IEP Disability Stigma in public education and our society at large regarding special education students. Some disabilities carry a more negative stigma than others and impact teacher ability to deliver services. Students who receive education about their own disabilities and how to use accommodation are more likely to be advocates for themselves

Delivery of services : Students /Parents/Teachers need education about disabilities and strategies help to facilitate the delivery of IEP services. Teachers have serious time constraints that affect their ability to deliver services, report progress, and communicate to parents.

Current Practices:

Parent, created binders to collect important information about the student which included IEP information but also included, likes and dislikes about the child. This binder helps the parent prepare for the meeting and advocate, provide the current IEP team with needed information to make decisions. Parents set up additional meetings and lines of communication with the teachers (general education and special education) outside of the annual IEP meeting to receive information about and inform the delivery of IEP services for their child.

Emerging themes/question:

In considering our contextual inquiries and peer critique in our design process the following themes/ questions presented themselves: How will teachers manage all their students using our design? How can parent easily see their child's progress at a glance using our tool? What information is valuable to the parent and how should it be presented? What information is valuable to the teacher and how should it be presented? How can we make data collection easier for teachers?

Task Analysis

Parents, teachers, and other IEP supervisors are going to be using our design. Currently, the parents keep track of their child's IEP through the use of a binder or notebook at home so that they can make decisions about what changes should be made or to ensure new teachers can be caught up. To gather this information, they have to actively reach out to teachers through phone, email or in-person. If the teacher is unable to answer these questions, the parent's other means of getting the information is to ask their child about the teacher's services. The teacher will track a student's academic progress and inform parents of student performance by rating the progress towards a goal every trimester and occasionally talking directly with parents. They create and store IEPs in IEPOnline along with the other student's IEP progress reports.

Parents would have an easier time tracking their child's IEP if there was a digitized means of accessing and presenting all of their child's IEP information. These could include a useful summary about their child's progress, confirmation that services are being provided, database of goals with corresponding objective and task analysis views, and a simple summary about the available programs and benefits that are available to their child. Teachers could effectively help students' with IEPs if given a way to track and update a student's academic progress in a non time consuming manner, simple interpretation of old IEP plans that both worked and didn't, track student's use of their accommodations, and be able to inform parents of student performance in a non time consuming way.

Some parents can effectively work with an IEP through trial-and-error. Undergoing the IEP several times is an iterative process that forces them to understand what's working and what's not. Teachers sometimes undergo minimal training to deal with IEPs in the classroom. However, when teachers have to work with IEPs, they need to understand how to fill out a progress report, and understand what teaching strategies are/are not working.

Parents and teachers have access to tools such as myIEPmeeting, IEPPal, IEP Prep Tool, and Educationmodified.com. The limitations with these tools is that they are mainly checkboxes to make sure each parent has prepared what they need to for IEP meetings. It does not provide the teacher or parent with additional insight about their child and the IEP's effectiveness. Additionally, the data distribution between schools and teachers is a process that relies heavily on the parent knowing the information about their child or the school has to mail the documents to the other teacher. There are required annual meetings between the school and parent and the parent can try to get in contact with the teacher through phone or e-mail. However, the teacher must work towards the IEP set goals throughout the school year.

Class environments are very busy and it can be difficult for teachers to dedicate time to tracking IEP goals in the moment. Current annual meeting puts pressure on stakeholders to plan a year's worth of services. Due to poor communications often teachers do not know that they are responsible to deliver specific specially designed instructions and therefore none is delivered. When this happens, students do not progress toward their academic goals, students give up on their education, and the complaint process is equally daunting for parents.

Proposed Sketch Designs

Sketch #1: (see figure 1)

Tasks: Communication, Accessible IEP Info, Motivational Reward System, Mini Lessons

Supporting the Tasks: The main focus is communication, provided through a timeline of notes relating to the students IEP. It is an interface for parents and teachers to communicate and update each other of progress or issues going on. Anyone involved in the student's IEP can add notes to the timeline relating to: progress, concerns, or new ideas for activities to help the student. The interface will also serve as a data storage system, providing anyone involved with the IEP access to old and current IEP info. Parents will also be provided with mini lessons they can do at home that have a motivational reward system built in.

Sketch #2: (see figure 2)

Tasks: Communication, Support Groups, Video Tutorials, Mini Lessons

Supporting the Tasks: The main focus of the design is a web portal that allows you to rate your familiarity with IEPs and get customized resources to store to a profile. Your recommendations will change based on your site visitation habits. This will support the tasks of watching video tutorials and seeking out support groups. Also the parents will be able to self-evaluate their understanding of the IEP process and get educational resources to be able to better communicate with their students, teachers, and administrators. Additionally, the design will allow parents to download mini-lessons targeted for their students goals.

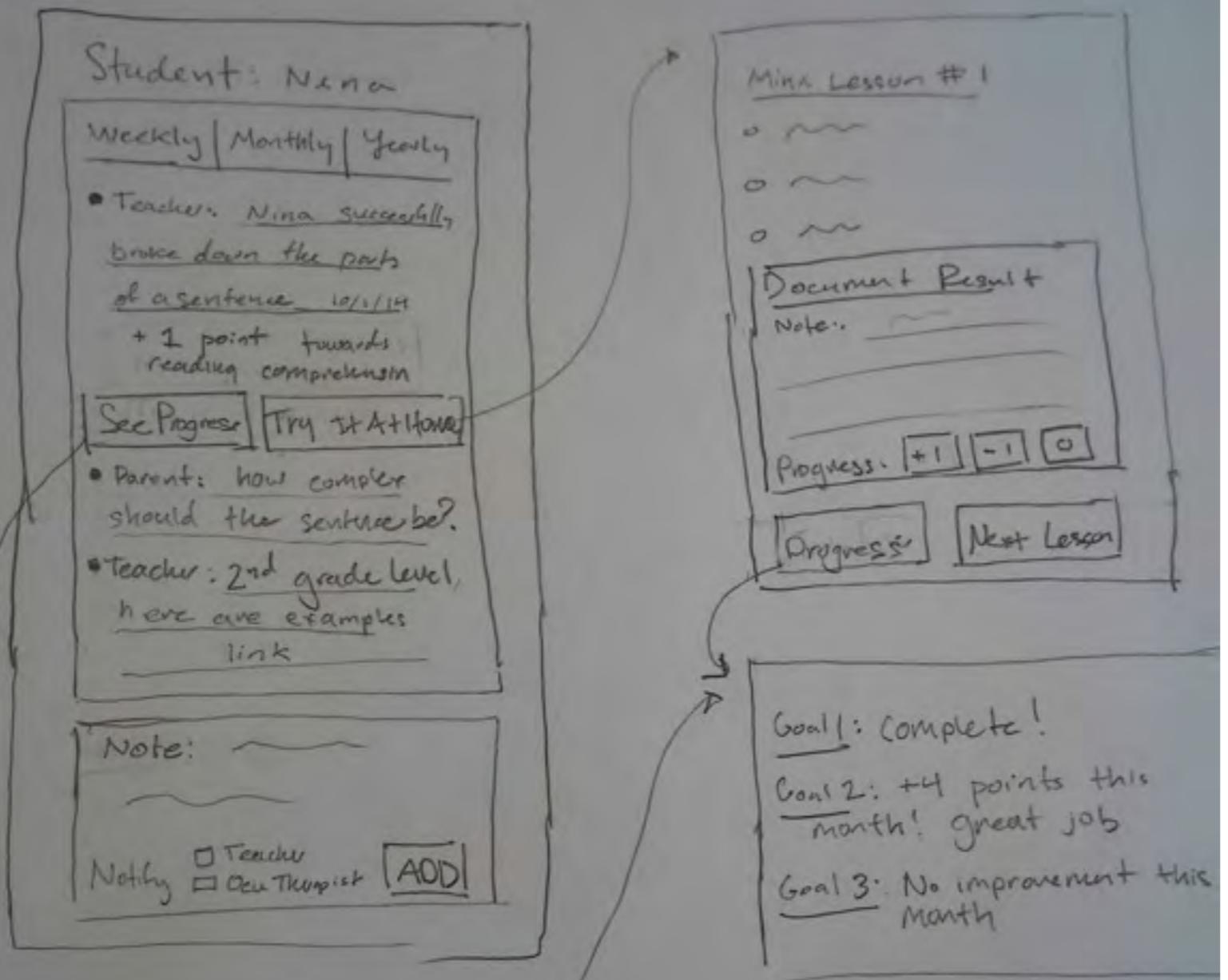
Sketch #3: (see figure 3)

Tasks: Track Motivational Reward System, Mini Lessons & Accommodations, Video Tutorials, Accessible IEP Info

Supporting the tasks: Motivation is supported with various graphs showing the progress toward a goal, and a point system where you earn points for doing various tasks both on and off the website. Mini Lessons are provided to the parent to guide the student progress towards a goal. Each mini-lesson also provides a list of recommended accommodations for the student. Additionally, there is a portal where the parent or student is provided with educational videos to better understand the specific disability, accommodations and the IEP process. Lastly, the design provides accessible IEP files that the parent and teachers can collaboratively edit and access, providing an organized system for storing, editing and sharing files between parties in the IEP group.

After the sketching process and based on critique feedback we decided to pursue the following tasks:

- 1) Allow parents and teachers to aggregate all IEP information so that it is easily accessible through eclectic situations and environments. Note, this task includes the process of collecting data to assess the IEP.
- 2) Encourage IEP goals, objective, and student behavioral communication between parents, teachers, and school officials.

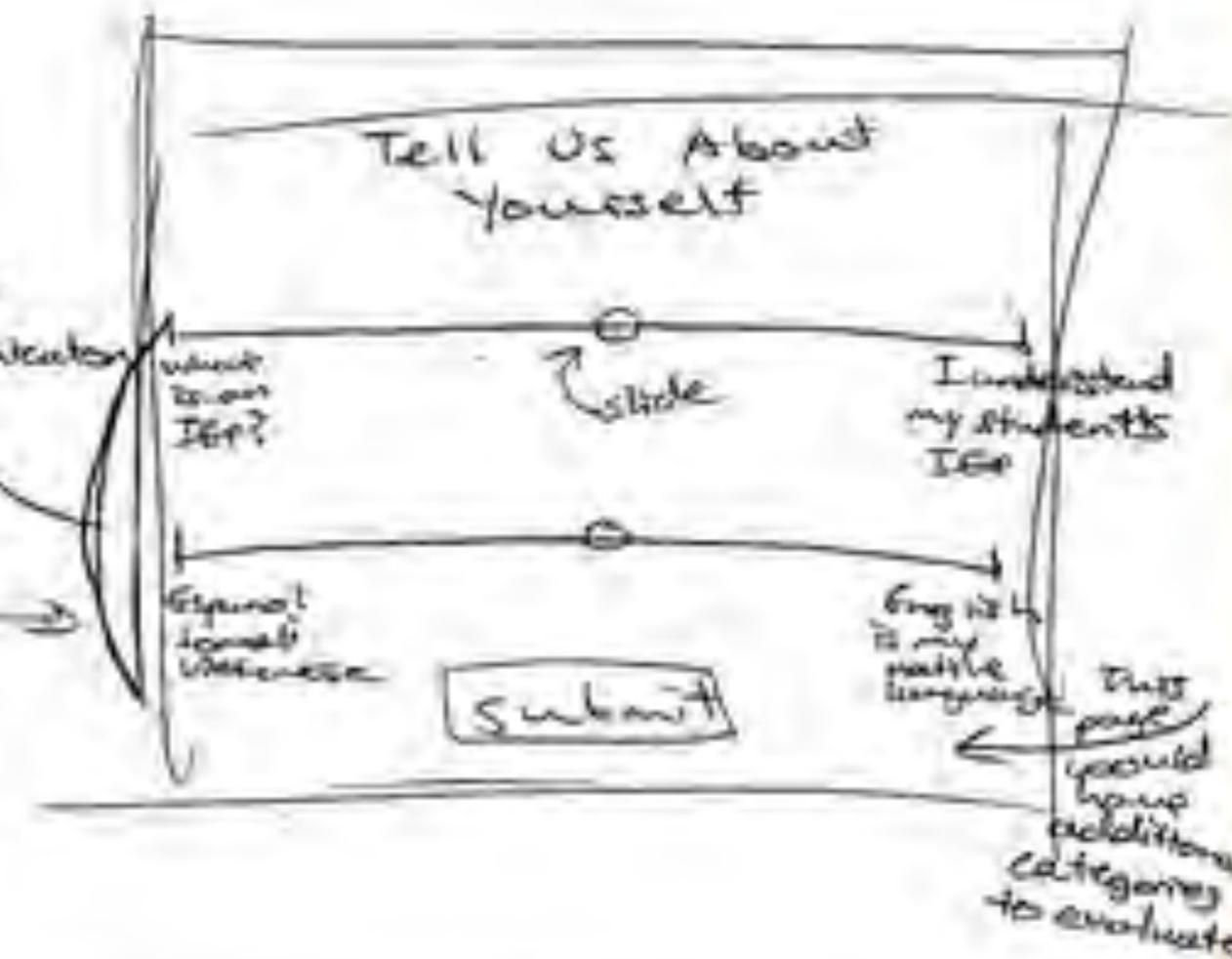


- o Communication
- o Accessible IEP info
- o Motivational Reward System
- o Mini Lessons parent can do

figure 1



Task: Communicator



Task: Videos

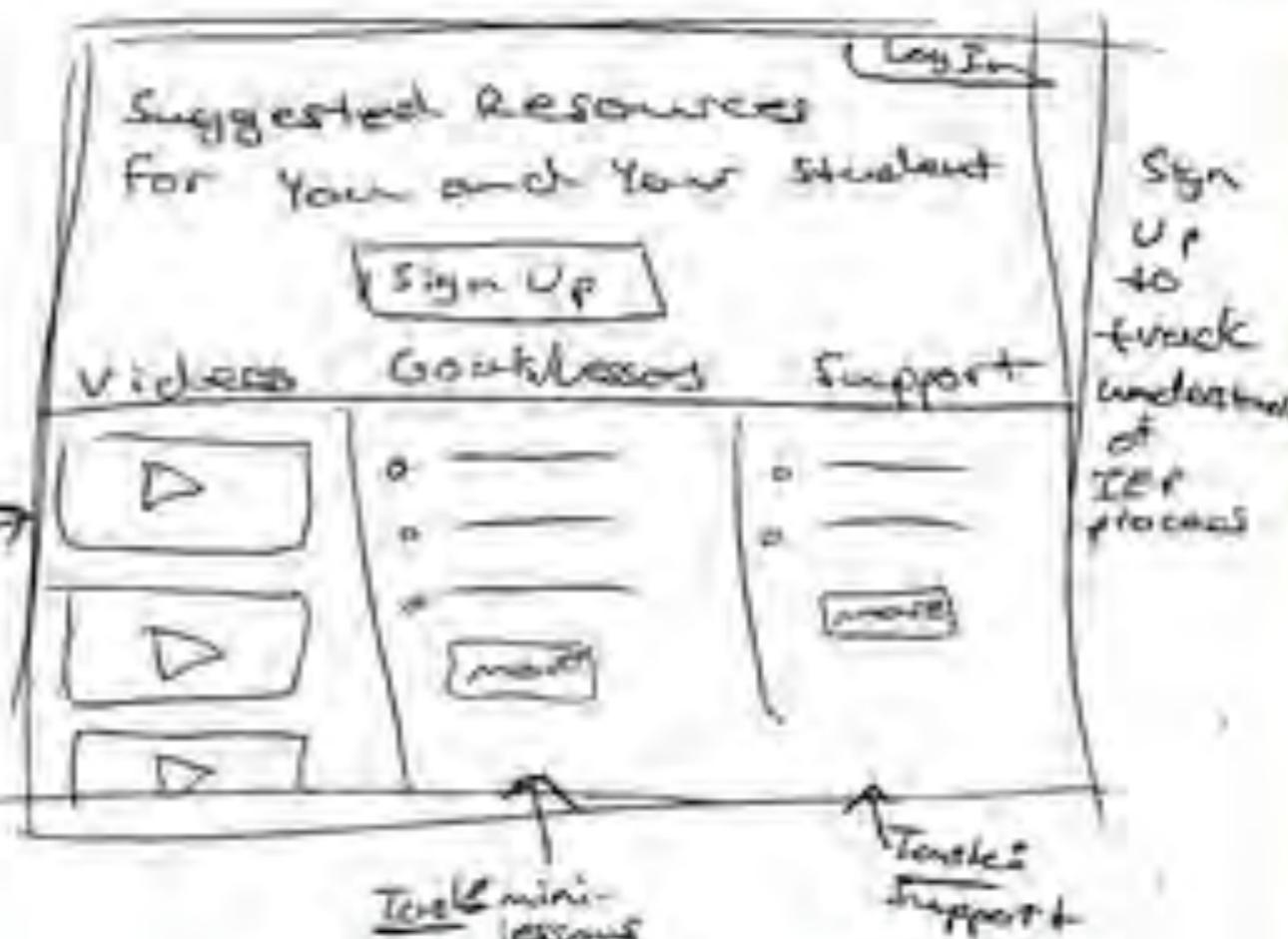


figure 2

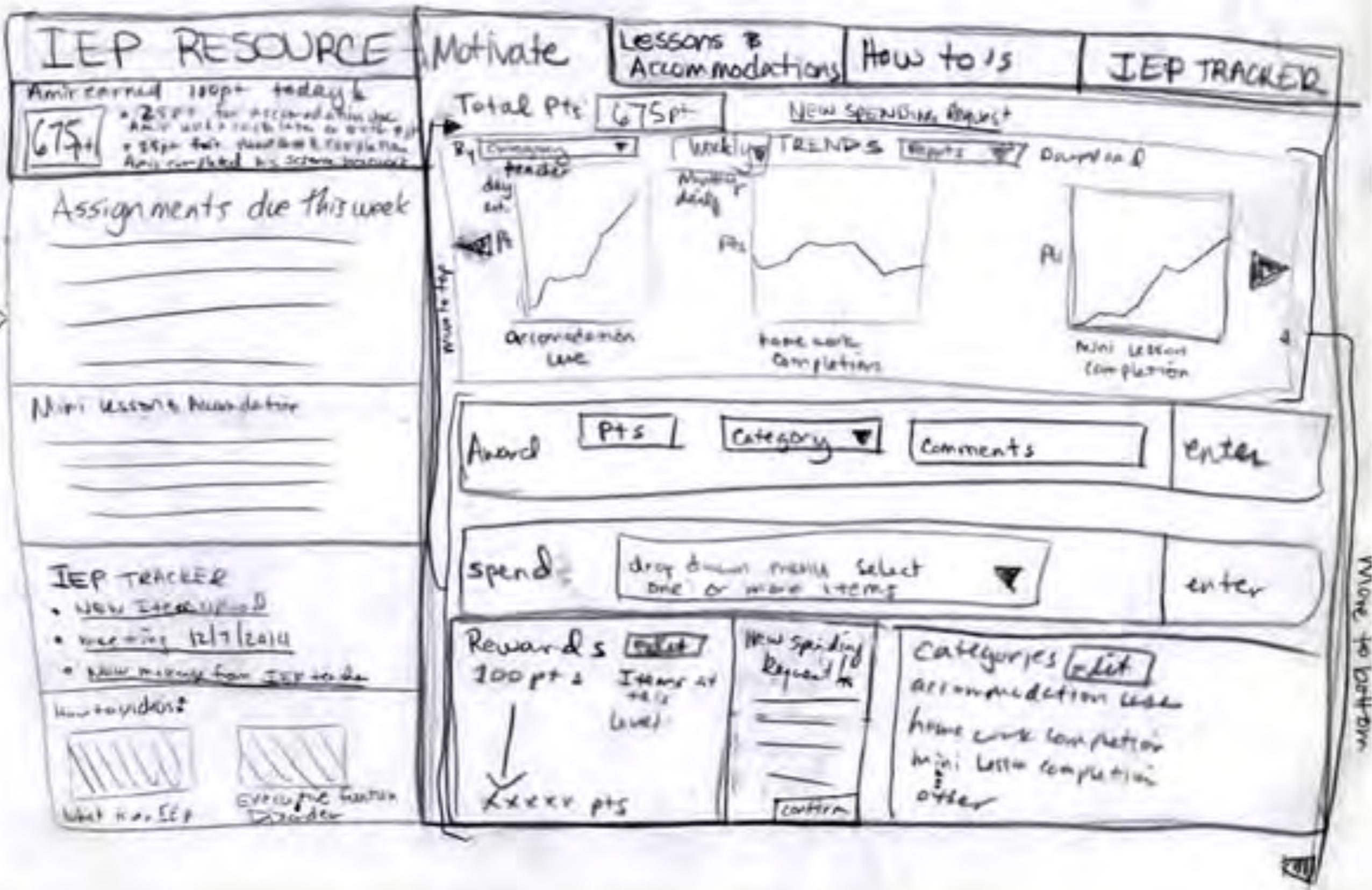


figure 3

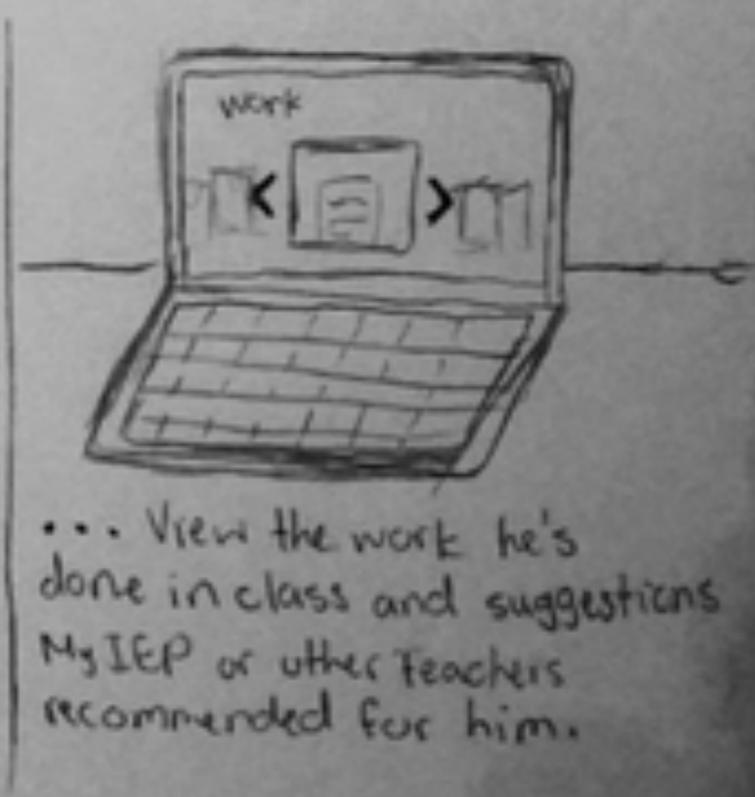
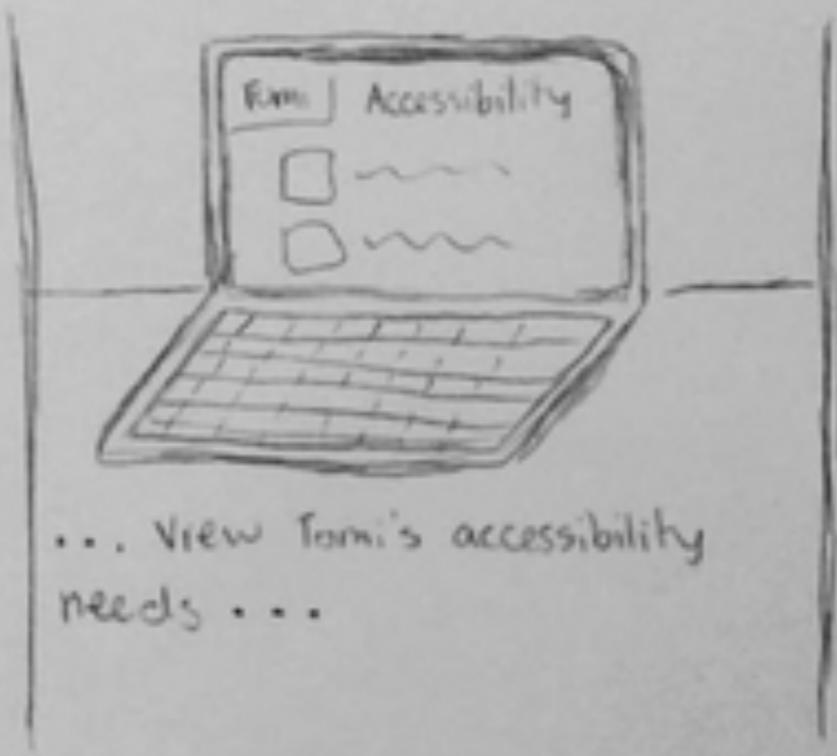
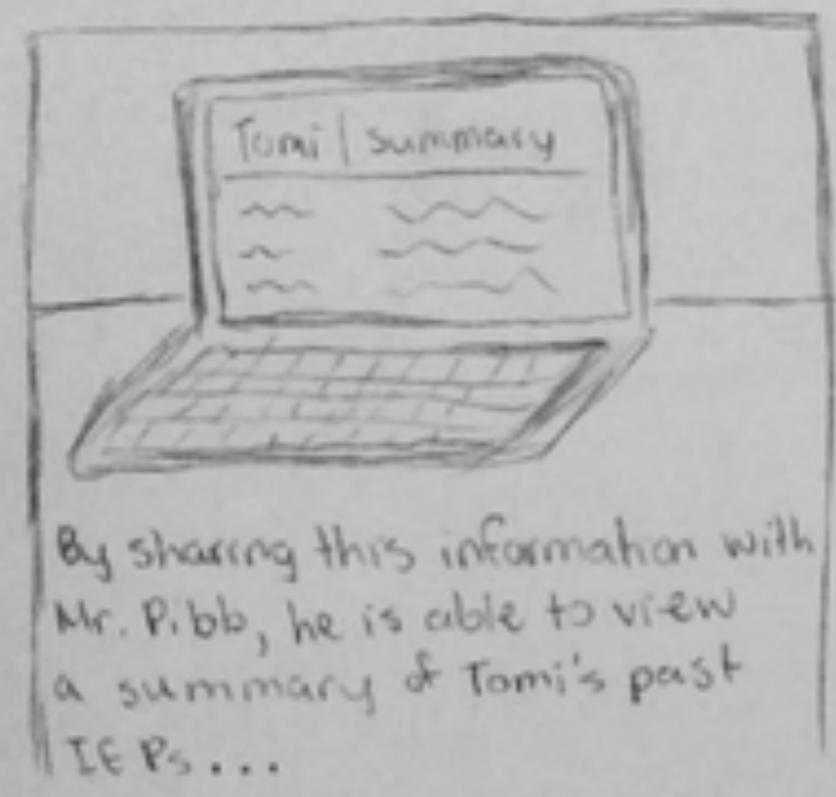
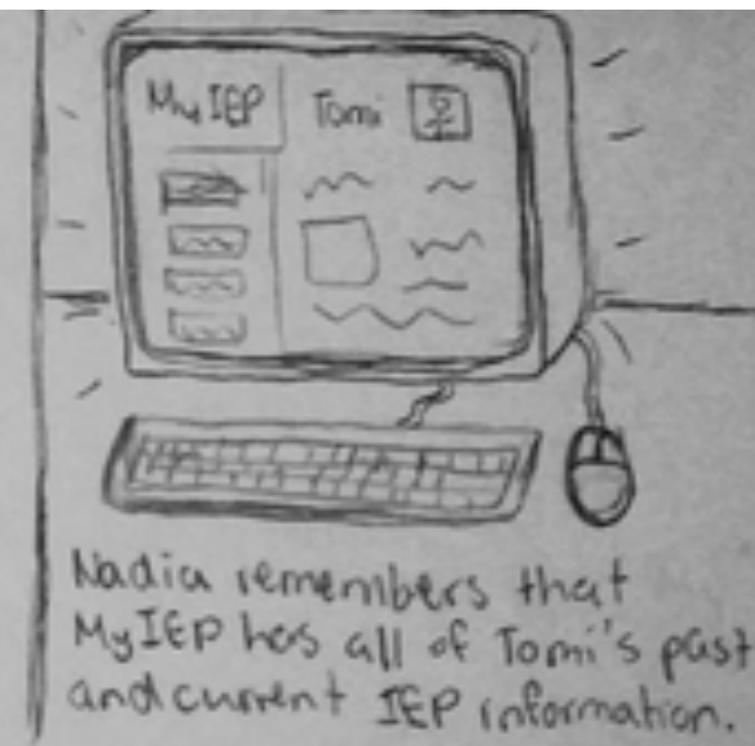
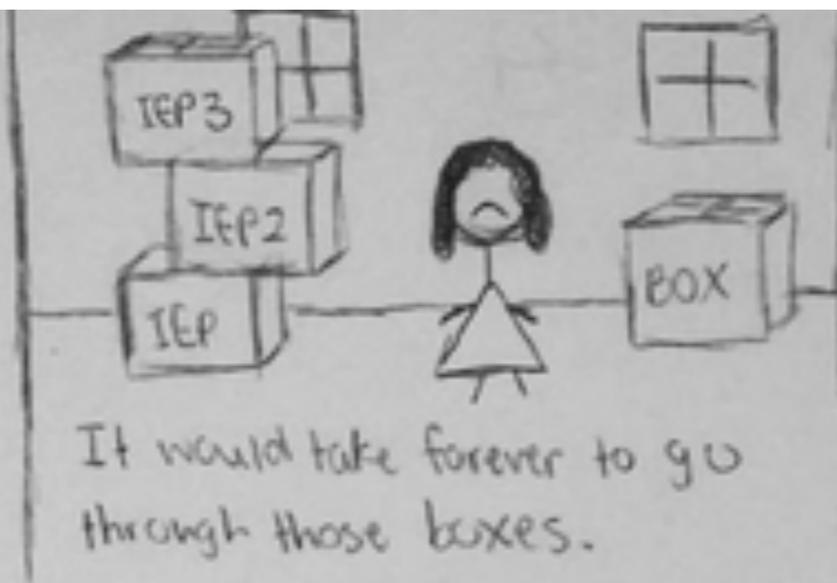
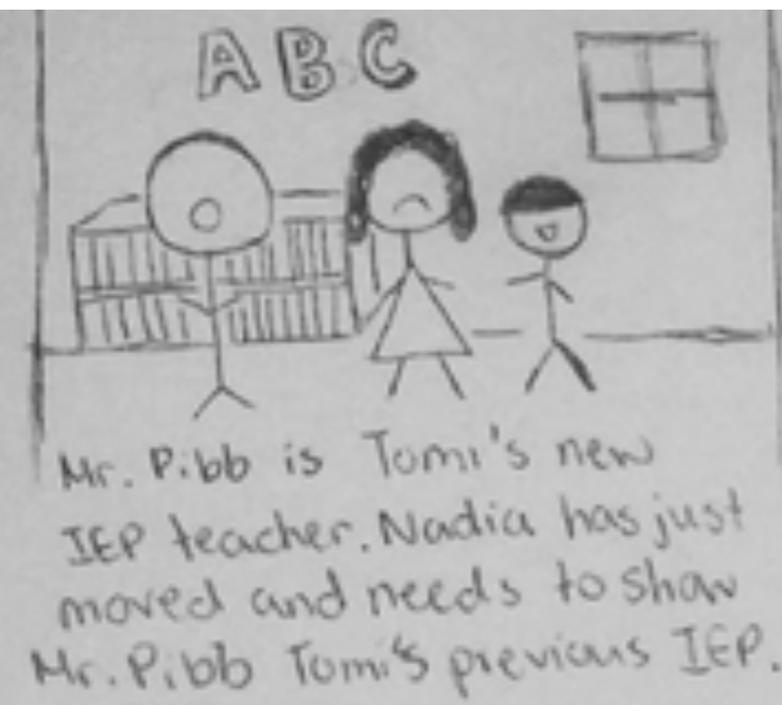
Written Scenarios

Scenario based on Task 1: Allow parents and teachers to aggregate all IEP information so that it is easily accessible through eclectic situations and environments. Note, this task includes the process of collecting data to assess the IEP.

Nadia is a single mom who has just moved to a new city. Her child, Tomi, has an IEP and starts school tomorrow. She meets with Tomi's new IEP teacher, Mr. Pibb, who needs Tomi's past IEP papers in order to understand how to work with Tomi. Nadia goes home and feels overwhelmed by the boxes of papers she has collected over the years related to Tomi's IEP. She then remembers that she has access to IDC that has all of Tomi's IEP information on it. She shares the information with Mr. Pibb who is able to view the documents. The tool generates a summary of all of Tomi's previous IEPs along with suggestions on how to work with Tomi. Mr. Pibb is able to view Tomi's past work that he has done and understand the suggested accommodation tools provided by IDC. By the next day, Mr. Pibb has a decent understanding of Tomi's IEP history and is able to begin working with Tomi at his new school.

Scenario based on Task 2: Encourage IEP goals, objective, and student behavioral communication between parents, teachers, and school officials.

Ms. T is Julia's language arts teacher. Julia has a behavioral IEP to address her autism in an inclusion classroom setting. Ms. T uses clip-e to track Julia's progress towards her IEP goals and to make sure she has any necessary accommodations in class. Clip-e is great because it is a simple data collection/communication tool that can easily be attached to Ms. T's clipboard for instant data collection. Ms. T can simply click on Julia's initials on clip-e's screen to bring up her IEP goals and click the checkmark if Julia is progressing towards her goal or the x-mark if she is exhibiting behavior counter to the stated IEP goal. This data will be recorded and synced to Julia's other teachers via their clip-e's as well as to Julia's parent's online IEP portal. Clip-e can also function as a timer to help implement student's IEP accommodations that include extra time for assessments and class work. By facilitating real time data collection clip-e improves the lines of communication between Julia's parents and teachers in an effort to best support Julia.





Ms. T's student, Julia, has an IEP. Ms. T helps with her IEP goals by using clip-e.



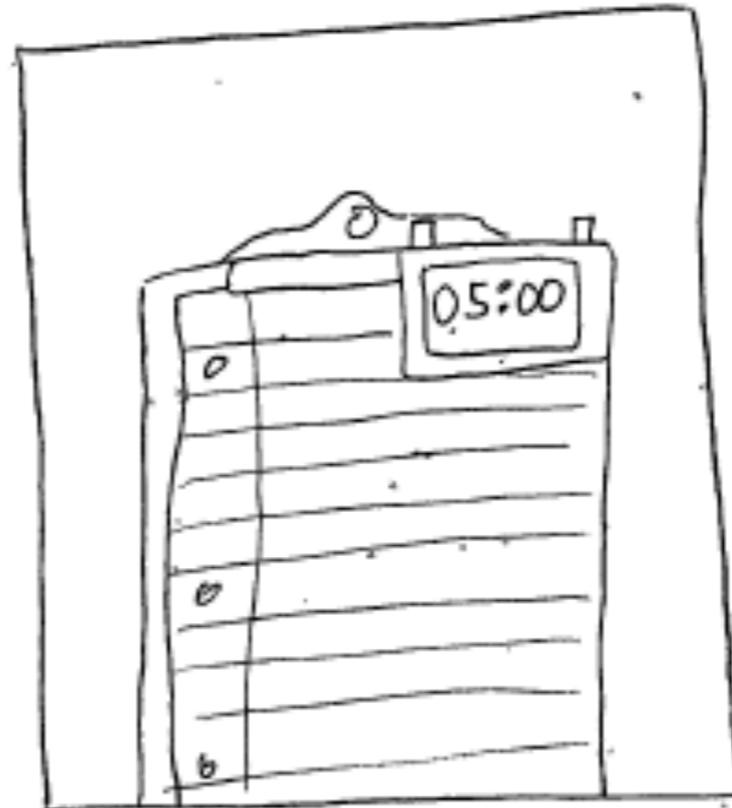
Clip-e allows Ms. T to record when Julia is progressing towards her goal.



While in the teacher's lounge, Julia's math teacher, Mr. R, gets an update on his clip-e that Julia improved on a goal in Ms. T's class.



Mr. R gives Julia a thumbs up to congratulate her on her progress.



One of Julia's accommodations in math is extra time on tests. Mr. R can easily implement this accommodation by switching clip-e into timer mode.



All the data from clip-e is synced with Julia's IEP profile for her parent to view in a weekly report. Julia's parent is excited to celebrate her progress!

Updated Designs

There are three main parts to our design: 1) the parent view (figure 4), 2) the teacher view (figure 5), and 3) the Clip (figure 6), a data collection and teacher to teacher communication device. Both the parent and teacher view have a communication portal allowing both of them to communicate with each other and other teachers. Both the parent and teacher have access to weekly reports, a timeline presenting information on accommodations and goal progress, and various IEP files. The parent also has access to suggested accommodations, to help them advocate for their child's needs. The teacher's main view has a bar at the top to let them select which student they are currently looking at, and additionally has forms to input data if they do not want to use the Clip. The Clip interface is intended for tracking goal progress and when accommodations are provided. Additionally, the interface allows teachers to send messages to each other if other teachers should be updated on a student's current situation.

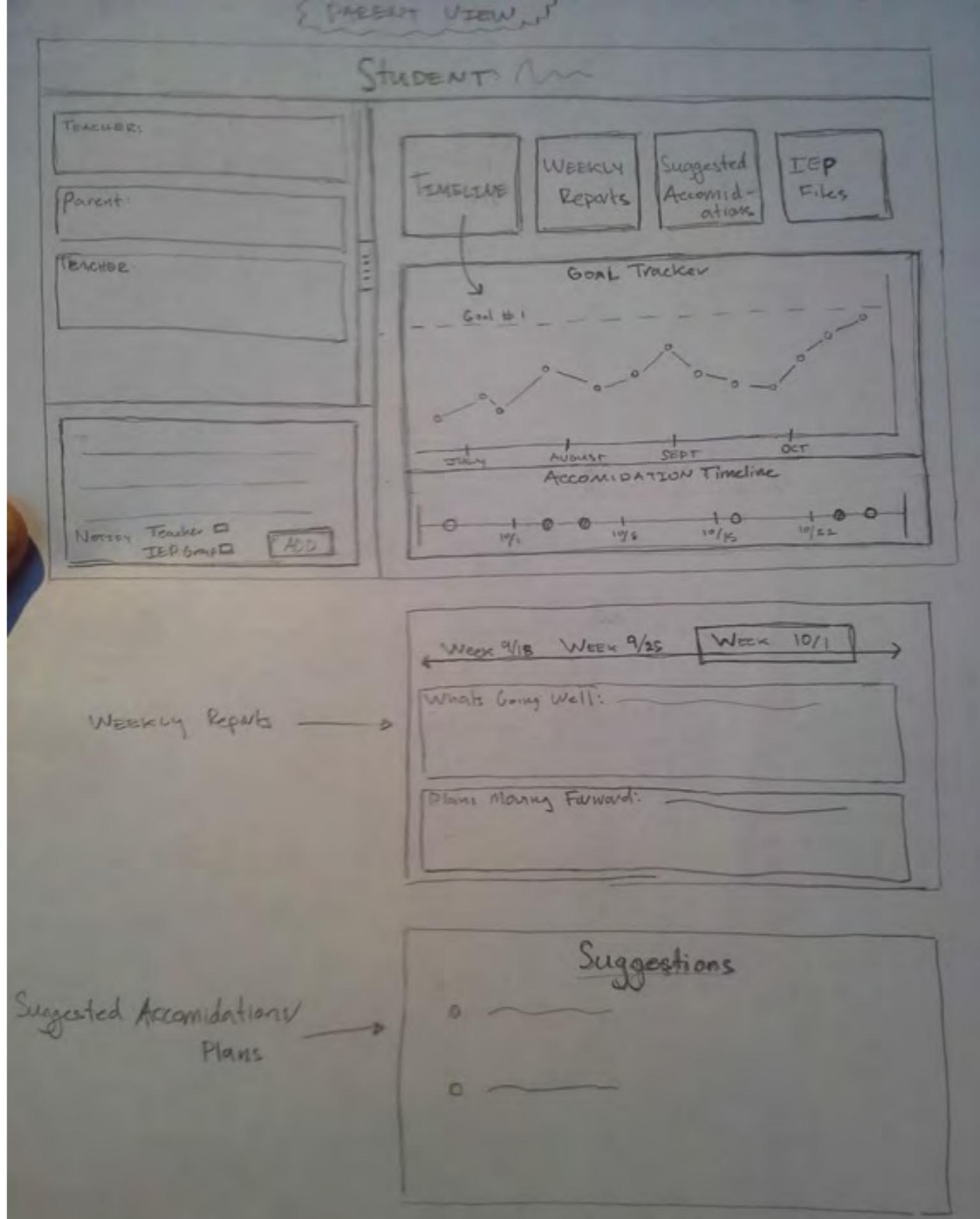


figure 4: Parent view of the interface

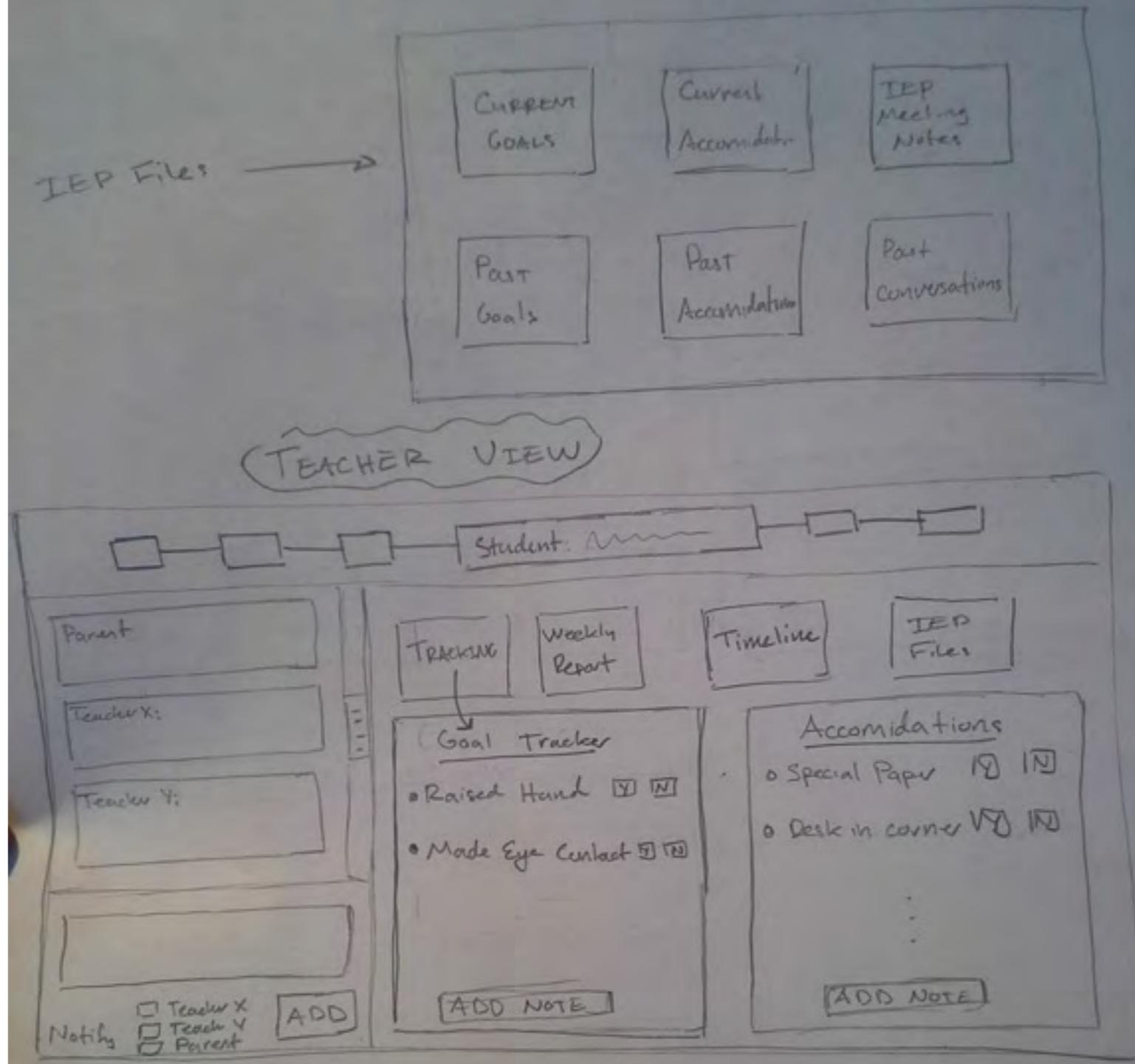


figure 5: Teacher view of the interface

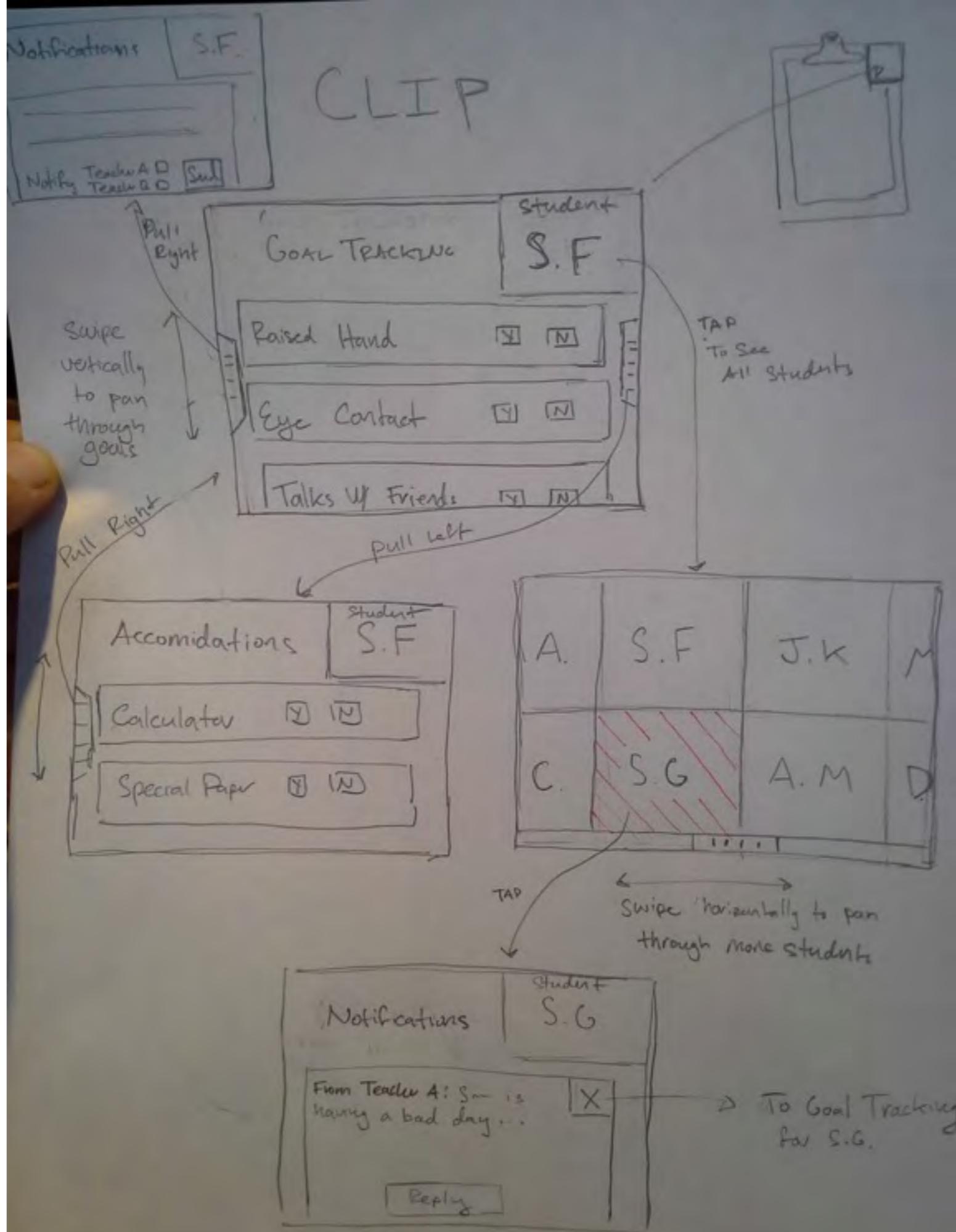


figure 6: Clip data collection interface design.

Thank you for reading!

A special thanks to the CSE 440 Autumn faculty, TAs, and cohort for insightful critiques and guidance!