

# Baker Classroom Experience

Design for Development



## Project Members

Keith Lawson | Fraser McIntosh | Leo Song  
Amber Tang | Vachan Vladmal

## My Roles

User Researcher  
Designer

## Deliverables

Contextual Inquiry  
Interviews  
Surveys  
Iterative Prototypes  
Data Driven Design

## Tools

Pen & Paper  
Lots of Sticky Notes  
Photoshop  
Cardboard  
Google Forms  
Google Slides

# The Story

*Imagine a younger version of yourself. You're having fun playing soccer at school with the other children when suddenly you feel someone kick you from behind and you fall to the ground. A few students accidentally step on your fingers as you lay there. You get up and go tell the teacher, but she didn't see anything so she leaves you to continue playing.*

While our team was conducting contextual observations at Baker Elementary School in San Diego, we noticed this scenario happen right in front of our eyes. When discussing with our client, Ms. Sharon Fargason, a third grade teacher at Baker, she expressed that conflict management is important to her and her students, but soccer conflicts is one issue that just keeps coming up.

My responsibilities for the team included contextual observations, conducting user interviews, and iterating and testing on multiple prototypes.

# Knowing our Users

In order to better understand our users, our team took part in contextual inquiry at Baker elementary school to find key insights from observations. Our team was able to interview 11 of Ms. Fargason's students as well as Ms. Fargason herself on multiple occasions. Our team learned that conflict management was an important issue for both Ms. Fargason and her students because they help the students learn empathy.



# User Personas

I helped our team create user personas for both Ms. Fargason and her students in order to better visualize their goals and motivations. Additionally, for the 3rd grade students, I created an experience map to highlight their pain points and areas of relief throughout the day.

## 3rd Graders



Relationship: User, Codesigner  
Age: 8~9 years old  
Location: San Diego  
Education: Grades K~2  
Industry: Elementary Student

### BIO

These third graders attend Baker Elementary and are taught by Sharon Fargason.

It is likely that their parents find education to be very important. However, the students themselves enjoy school because it can be fun. They enjoy talking with friends in their classes, learning new concepts, and playing games. The students seem to gravitate towards hands-on and interactive activities.

### CHALLENGES

- Sometimes there are conflict issues with other students
- Other students race to be first in line
- Classroom gets too loud when students are collaborating.

### GOALS

- To have fun in class with other people
- To do well in school
- To be challenged with lessons, but still have fun

### CAPACITIES

- Familiar with classrooms and school
- Knows how to play/communicate with other students

## Sharon Fargason



Relationship: Client, User  
Age: ~30s  
Location: San Diego  
Education: Phd. Student  
Industry: Education

### BIO

Sharon Fargason is a third grade teacher at Baker Elementary. She has partnered with our ENG 100D Design for Development Team to introduce her students more to the design process. She also wants to keep her students engaged and encourages interactions between all individuals in the class.

### CHALLENGES

- Has to take time out of class to discuss conflict management
- Wants students to have more access to bulletin boards

### GOALS

- To keep her students engaged
- To help her students learn and grow both academically, and socially
- To make her classroom interactive
- To introduce her students to design
- To balance her work and her school

### CAPACITIES

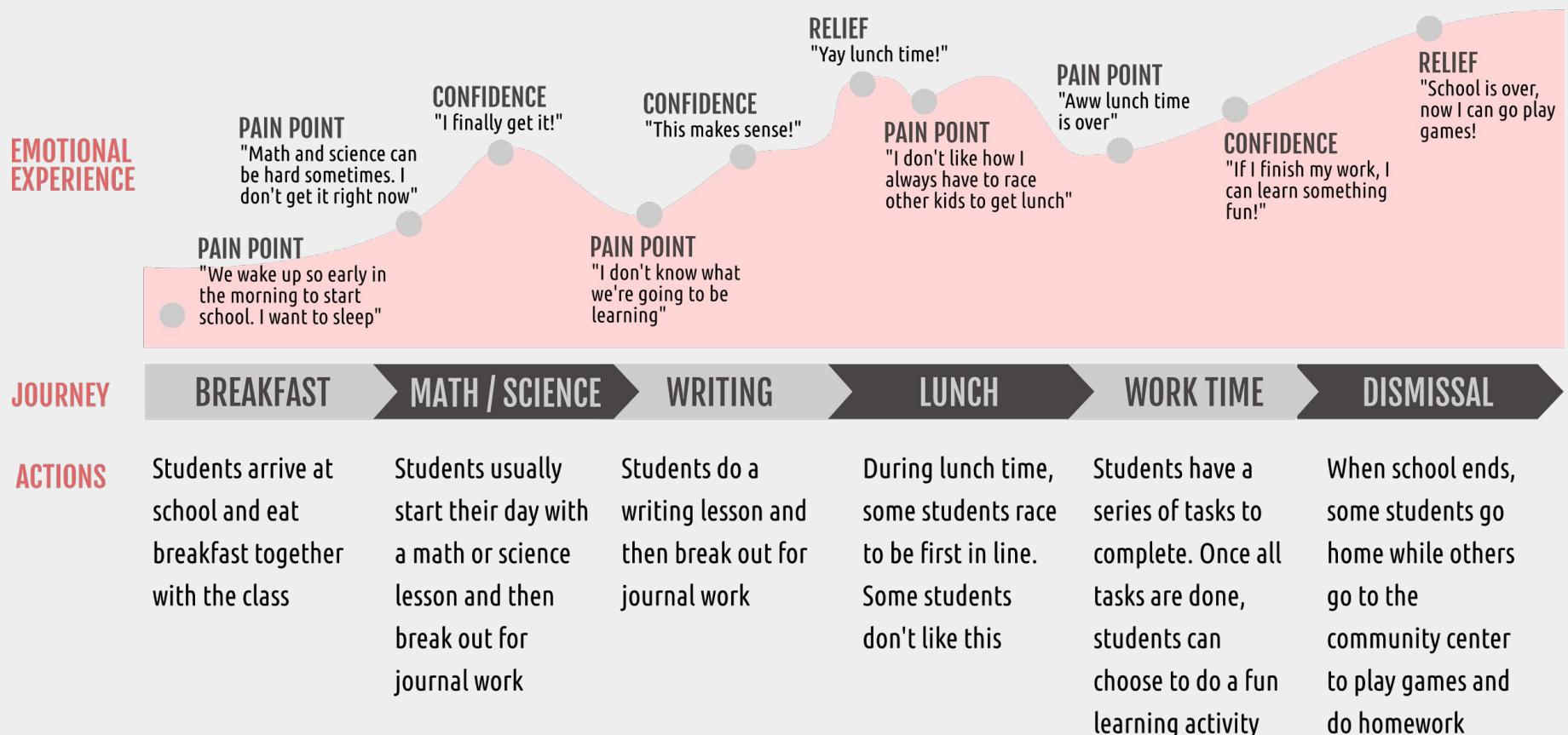
- Able to be flexible with daily schedule if need be to help students learn more
- Meets regularly with other teachers to gauge student needs and curriculum
- Has taught for several years
- Has a background in education
- Is trusted and respected by students

# Experience Maps



## Journey Map

The third grade students go through a daily routine led by Ms. Fargason. Throughout the day the students are taught science, math, writing, and a few other subjects. They often break out into their own groups or individually to reflect in journals.



# Design Challenge

From all of our data, our team learned that Sharon is passionate about helping her students grow not just academically but socially. We also learned that the students enjoy recreational time and identified that conflicts on the soccer field were a common problem.

Our users need a way to manage conflicts on the soccer field without having to sacrifice either recreational time or class time to address those conflicts.

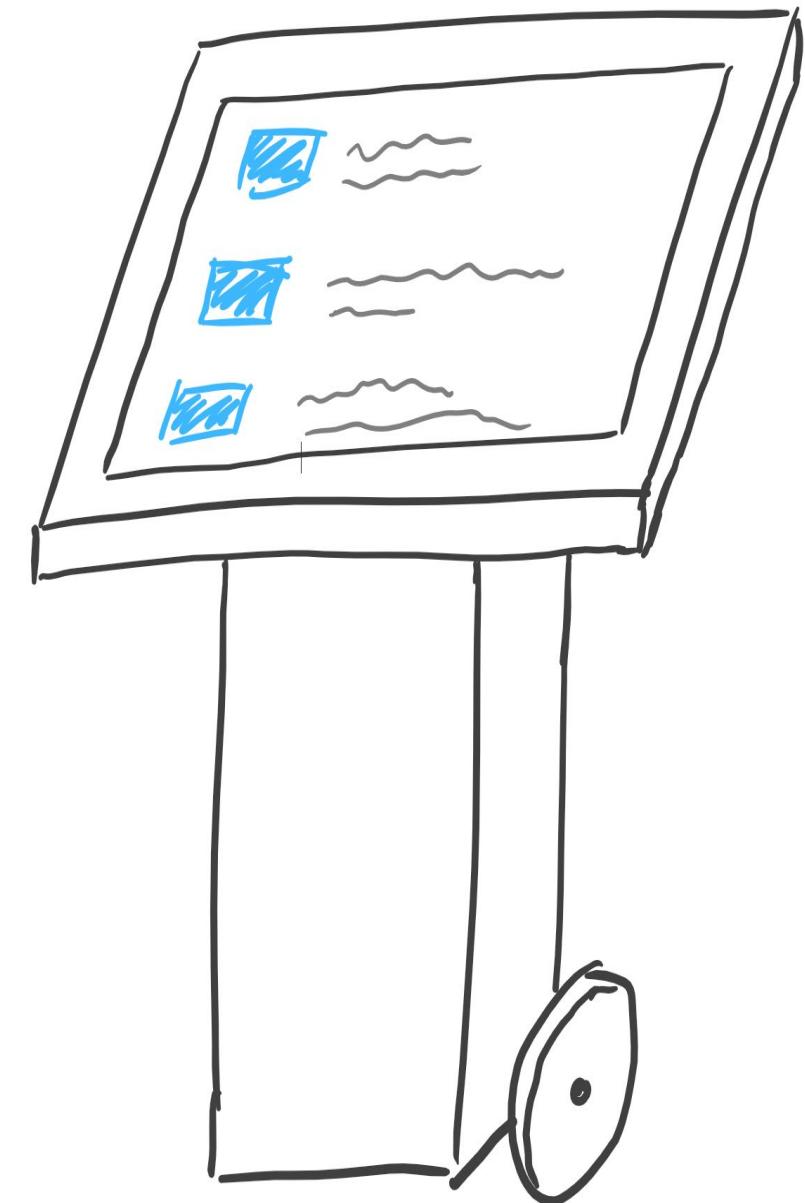
# Concept Generation

Our team had a brainstorming session and we came up with three designs to mediate the conflicts the children experienced: On Field Display, Conflict Flowchart, and The Rules-Kit



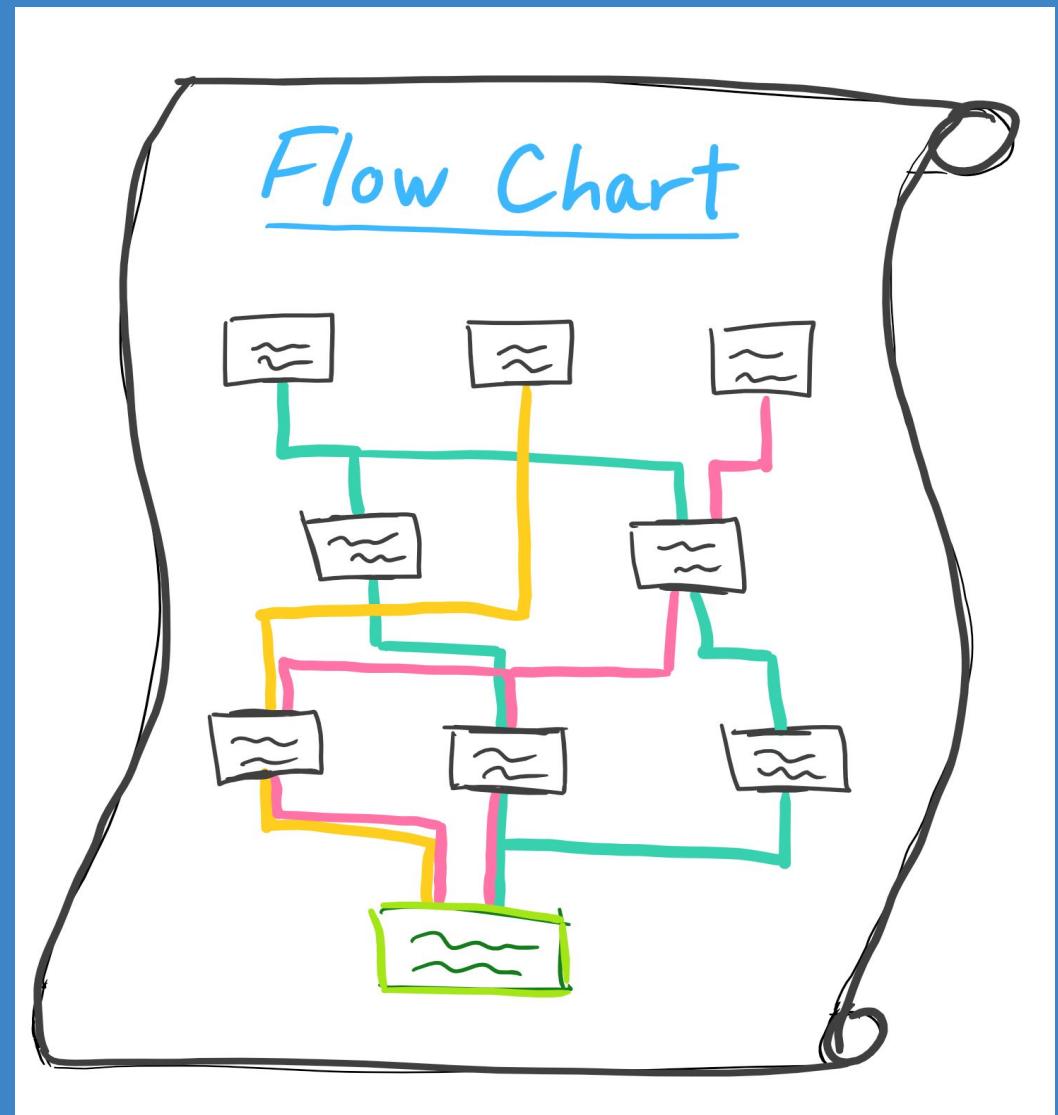
# On Field Display

The On Field Display is an idea that helps children mediate through their conflicts through an interactive interface. The On-Field display can aid in establishing rules, and is the most aesthetically pleasing out of all the design ideas. It is also the most expensive and least feasible given our constraints.



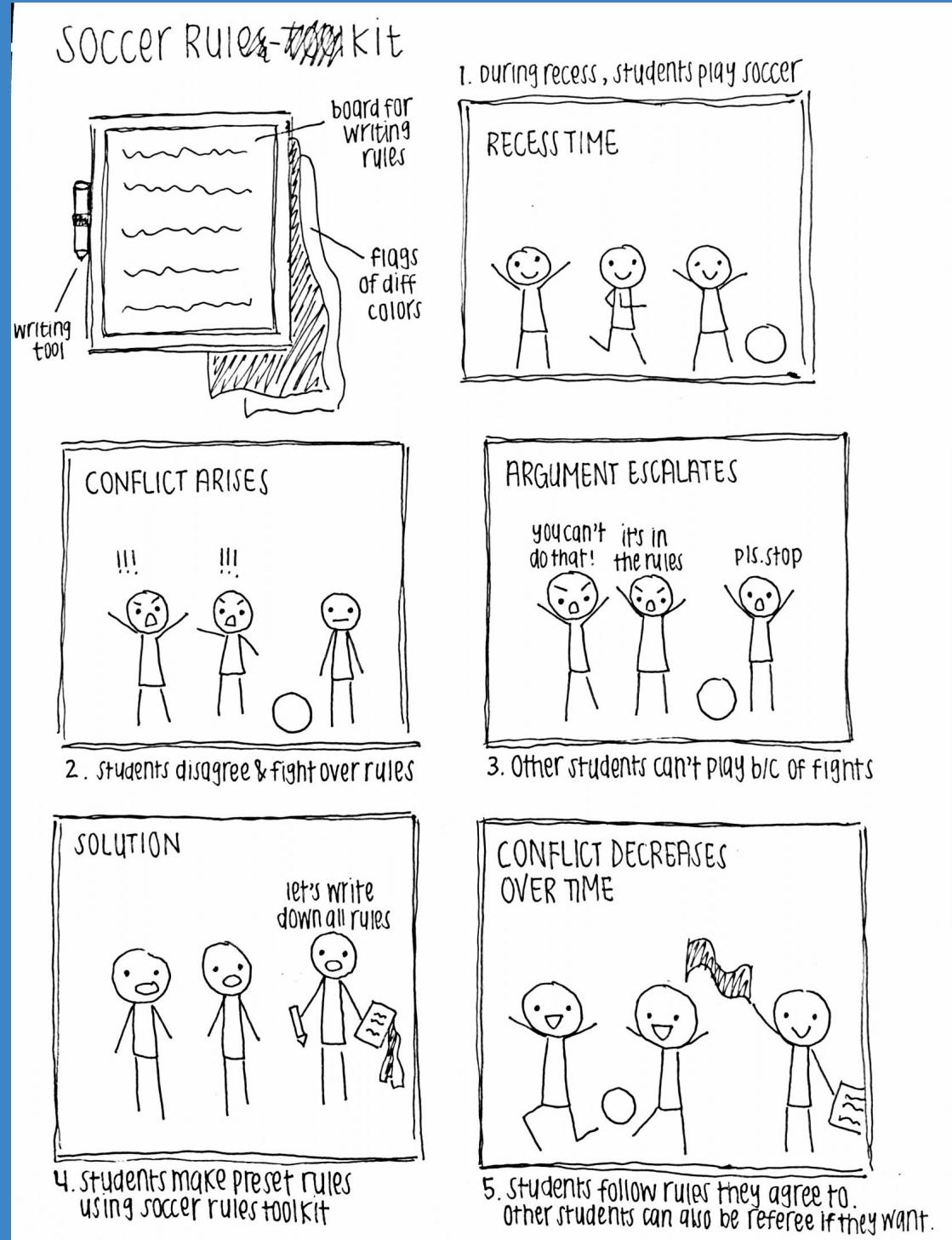
# Conflict Flowchart

The Conflict Flowchart works similarly like the on-field display. It is a cheaper alternative, but is less interactive and more passive. To develop the conflict flowchart, our time wants to include Ms. Fargason's third grade class as our co-designers through the process.



# Rules-Kit

One of the main issues that seemed to result in conflict on the field is a disparity of established rules between different students and teams. Our team wants to help guide the students to develop their own pre-set rules at the start of the game in order to diminish the frequency of soccer conflicts.



# Concept Selection

In order to select our concepts to prototype our team created a Pugh Chart to evaluate which design ideas were feasible and useful. Our team chose our compare the three designs, with the Rules-Kit as our baseline, on the criterias of portability, robustness, compactness, timeliness, affordability, and ease of manufacture. Ultimately our team deemed the Rules-Kit and Conflict Flowchart to be the most feasible and useful overall.

Pugh Chart				
Criteria	Weight	Rules Tool-Kit	Conflict Flowchart	On-Field Display
Portable	5	0	+2	-1
Robust	4	0	+1	-2
Compact	3	0	+1	-1
Timely	4	0	-1	-1
Affordable	2	0	+1	-2
Easy to Produce	1	0	+1	-2
<b>Total</b>		0	7	-9
<b>Weighted Total</b>		0	16	-28

# User Testing

To create our prototypes, our team worked alongside Ms. Fargason's students as our co-designers to create rules that they would most benefit from. However, our team quickly learned that our prototypes would not be useful because students wanted to maximize their recreational time as their most important need - not extra time spend time making rules. Our team is now back to the drawing board!



# Work in Progress

Right now our team is in the process of ideating new prototypes alongside the students as our co-designers. Stay tuned for more updates!

