

# Waste Management System

Wasting Away

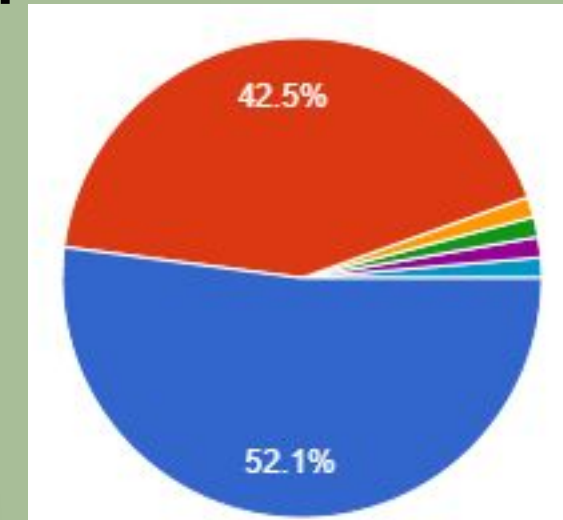
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Santa Monica High School

## Problem Statement

Santa Monica High School has problems with waste management.

## Justification

Do you believe Waste is a problem at SAMOHI?

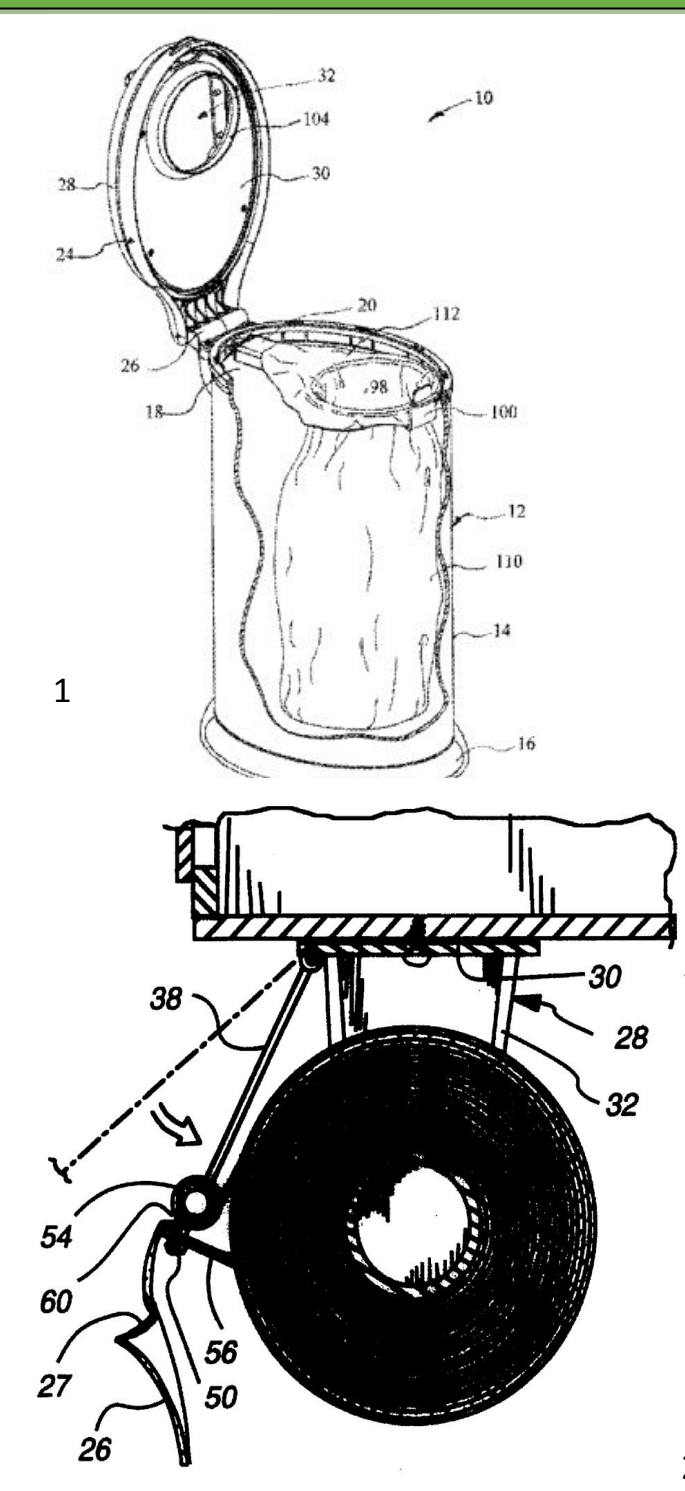


Pi chart for question above

96.1% of students at Samohi believe waste, is a problem.

## Similar Solutions

These are solutions we found, but they were products, not a system



1, 2, & 3 - are of various solutions that already exist, they are also in our research document.



## Design Criteria

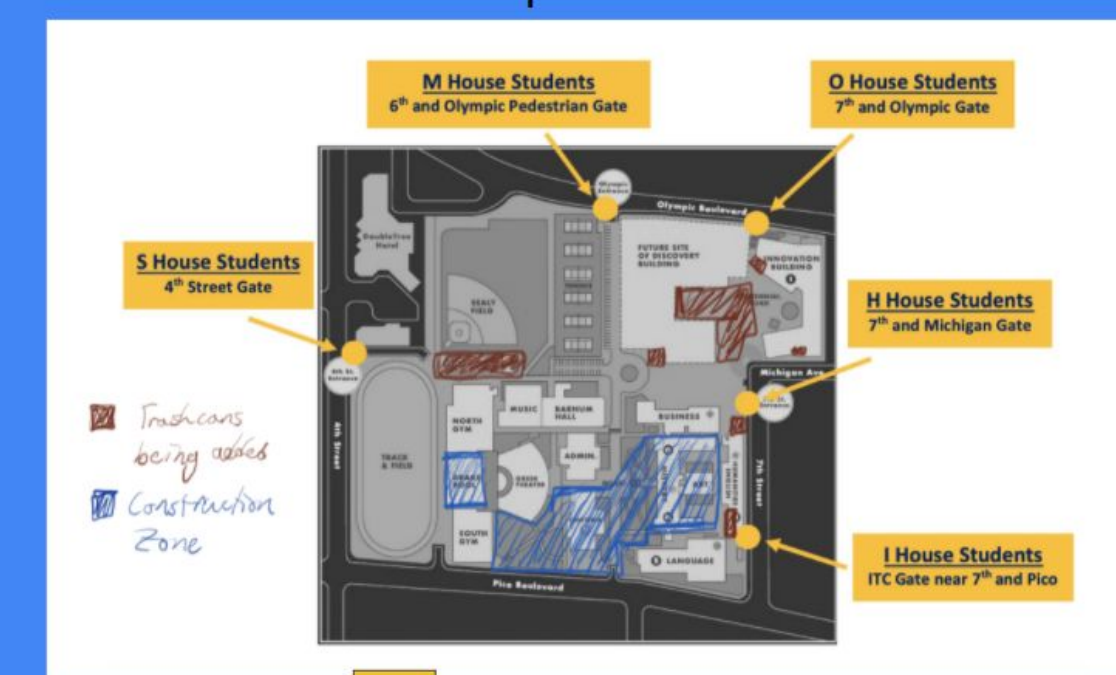
- A system
- Incorporates new trash cans
- Gets SAMOHI community involved
- Comply with California waste law SB-1383

## Design

### System: Flow Chart

#### Step 1: Trash

Trashcan Locations/Placement:



Indicated by the dark red, the new designed trashcan will be added to those areas.

#### Step 3: Incentives

Rewards and Participation:

To keep the system smoothly running, students will be able to volunteer to help students at lunch throw away their food. In turn, students will be awarded community service hours

#### Step 4: Collection

The collecting of the trash will still remain with the janitors with the possibility of students being able to help the janitors with this service.

#### Step 2: Presentations

Raising Awareness:

A bi annually presentation during flex-time to talk about the importance of keeping the campus and environment clean. Includes how to follow the system

This is our initial poster for our system as a flow chart. It consists of the main parts we wanted to include in our final design.



4 & 5 - are samples of labels to put on to trash cans.

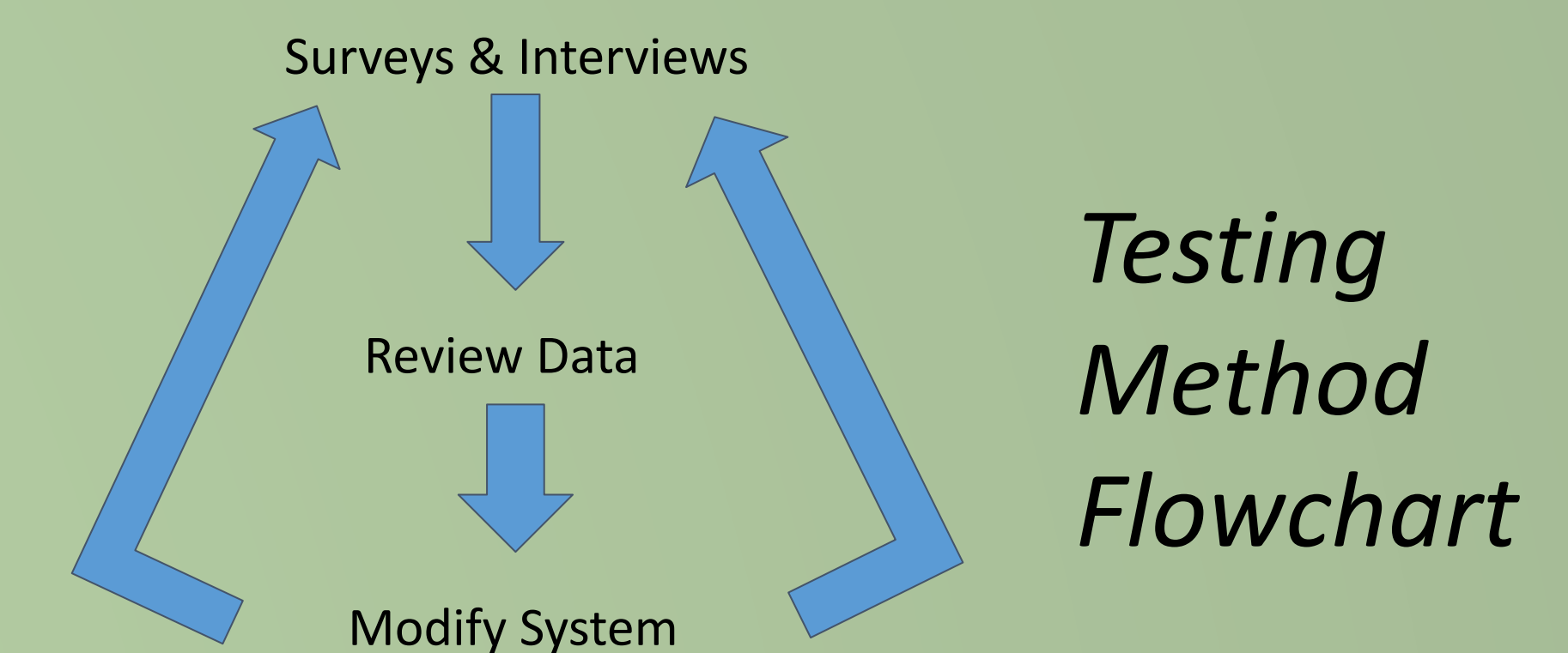
We started out by brainstorming a solution  
Gave out surveys, conducted interviews to make adjustments to our system.

Get feedback from mentor and finalize design.

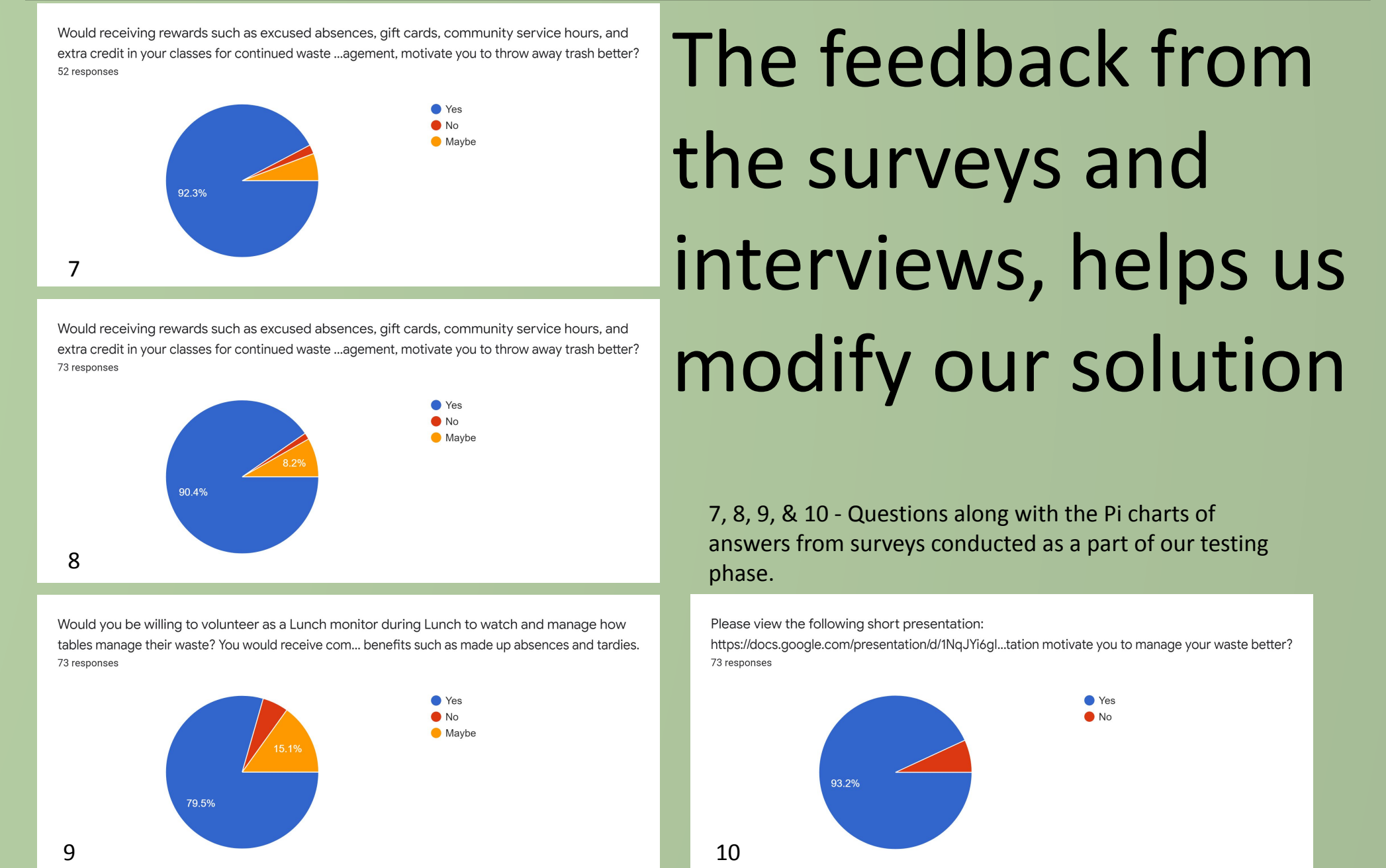
*Design flowchart and initial designs*  
*Group progress*

6 - Discussing our approach towards a presentation to present our progress to the Capstone class

## Testing Method



## Testing Results



The feedback from the surveys and interviews, helps us modify our solution

7, 8, 9, & 10 - Questions along with the Pi charts of answers from surveys conducted as a part of our testing phase.

• **Dr. Shelton 3/07/2022:** Dr. Shelton found our solution to be a great out-of-the-box solution and one that made sense for the SAMOHI community. He agreed on many of the places where we wanted new trash cans and said that the reward system was very plausible. Overall, he seemed very pleased and said he was willing to help if we needed any.

From our research document, a summary of the interview with Dr. Shelton

## Conclusion/Next Steps

Overall, we believe that we have created a solid outline for a functioning waste management system that could be applied at any school. Our next steps would be to actually implement the system and see how it works and what needs to be changed on the large scale.

## Solution

Our solution mainly involves a 3 step process  
1-Redesigning the trash cans at school  
2-Raising awareness for waste through presentations and assemblies  
3-A reward system which encourages students to throw-away their trash.

## Justification

Through different surveys and interviews we discovered that these three methods are likely the best to try and solve the waste problem at samohi. Redesigned trash cans, waste awareness and rewards all play into making waste management an easier and more encouraged process.

## Viability

Similarly, through our survey results and feedback from interviews and our mentor, we believe that these solutions will encourage students and our testing results support that claim.