

# **Toy Library Process Portfolio**

---

**June 2019**

**Audrey Chung**

**Daniel Lew**

**Ferris Yeh**

**Cameron Lee**

**Amy Ting**

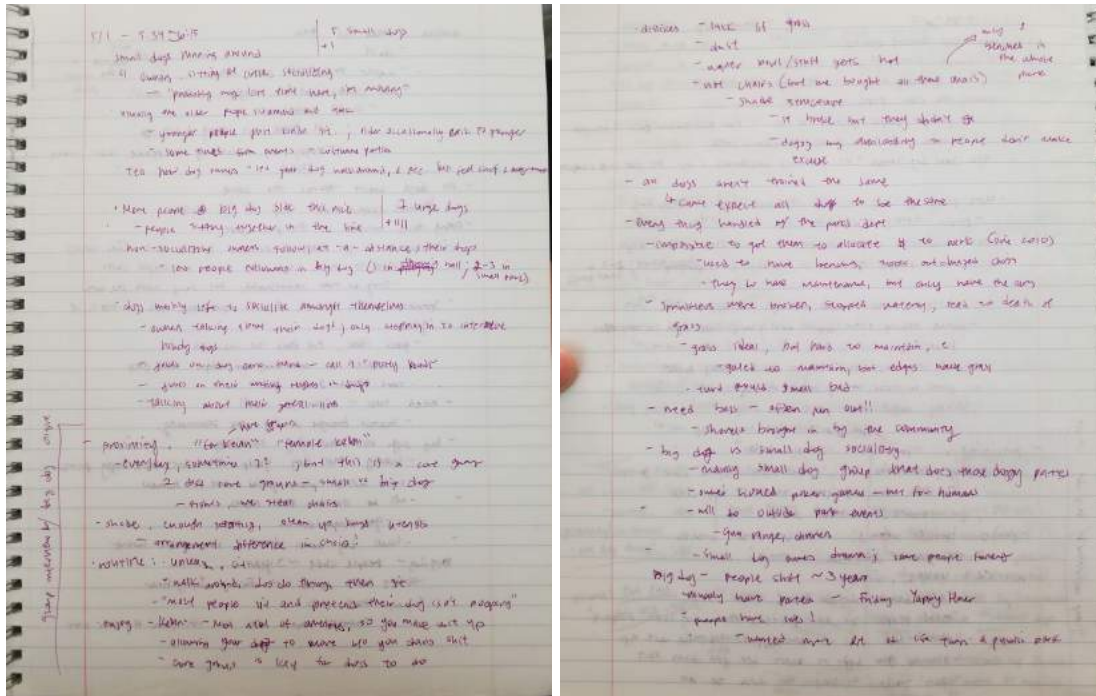
**Hunter Zeng**

## Table of Contents

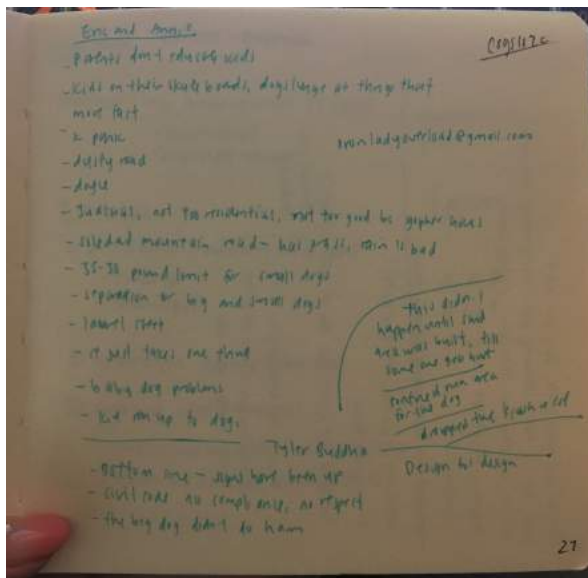
<b>Table of Contents</b>	<b>1</b>
<b>Field Work</b>	<b>2</b>
Field Notes	2
Field Photos	5
<b>Interviews</b>	<b>7</b>
Interview Protocol	7
Interview Transcripts	8
<b>User Personas</b>	<b>8</b>
<b>Storyboards</b>	<b>14</b>
<b>Sketches</b>	<b>21</b>
Crazy 8s	21
<b>Design Models</b>	<b>22</b>
<b>Prototypes</b>	<b>24</b>
Prototype Brainstorms	24
Prototype Sketches	25
Initial Prototype Sketches (Iteration 1)	25
Iteration 2 Sketches	28
Iteration 3 Sketches	29
Final Iteration Sketches	30
Prototype Process	31
Paper Prototype (Prototype 1)	31
Cardboard Prototype (Prototype 2)	34
Final Prototype (Prototype 3)	35

---

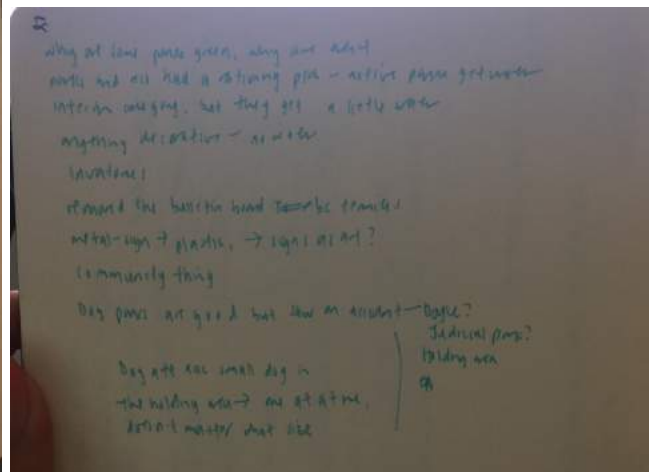


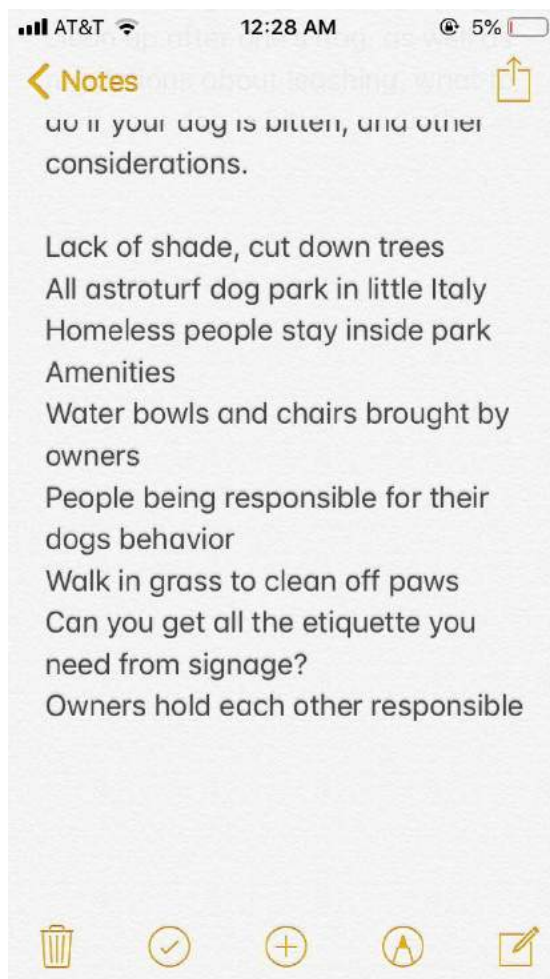
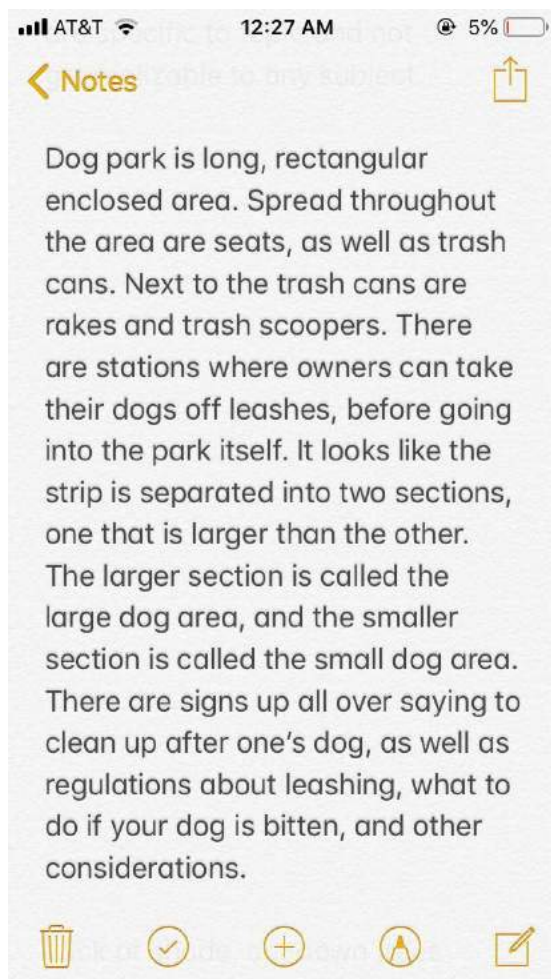


Notes in purple: returning visit, 5/1: 5:39p-6:15p. Group conversation w/ big dog owners



Notes in blue: initial interview with dog owners at Villa La Jolla Park.





*Notes taken on iPhone: field notes from Doyle Park initial visits.*



## Field Photos

These photos were taken during interviews with our stakeholders as well as during our initial talks with our stakeholders. The first few images, taken at Doyle Dog Park clearly show the conditions of the park: dusty, barren, and little to no stimulation for the dogs.







## Interviews

### Interview Protocol

Introduction: Hello! My name is \_\_\_\_ and I'm working on a design project to see if there is anything to improve about this dog park and other dog parks in the area. Would it be okay if we interviewed you today?

- Purpose of the introduction is to gain consent to the interview and have the person being interviewed understand the context for what they are being interviewed for.

Why did you come to this particular dog park as opposed to others in the area?

- This question was added to see what brought these people out to this dog park.
- We add the "as opposed to others in the area" to gauge whether the person being interviewed even knows of other dog parks in the area

What is your general routine? Or in other words, what do you keep in mind as you take your dog for a walk?

- We use this question to help construct a type of "Day in the Life" model that would show us a segment of the overall structure of what these stakeholders consider when they take their dogs on walks.
- We ask the second question to take note of what these dog owners consciously watch out for when coming to the dog park.
- These answers could also make up the "I plan" aspect of a full Identity Model.

What do you enjoy about this dog park?

- We ask this question to take note of what these stakeholders appreciate about the dog park and perhaps take that into future consideration of how to design for other dog parks.
- These answers could also make up the "I like" aspect of a full Identity Model.

What would you like to be different in this dog park?

- We ask this question to see where stakeholders consciously think the park is lacking in and to perhaps take this into future consideration of what to improve on in these dog parks.



## Interview Transcripts

- [Link to Field Work Transcription \(under Cameron Notes section\)](#)
  - [Link to Interview Transcription May 24th, 2019](#)
- 

## User Personas

These user personas allowed us to better visualize our stakeholders at the dog parks. These personas were created by our team members based off of the interviews that we conducted at the park and the stakeholders we met there.

### ***Dana: Middle-Aged Woman***



“Coming here is really great for my mental health”

Dana is a caucasian woman in her 50's with health issues that prevent her from staying outside the house for long periods of time. She owns two small dogs, Millie and Benji, but only brings Millie out to the park because Benji had bitten another park goer and is banned. Millie has excess energy because she is a puppy, and Dana wakes up every day to Millie excitedly running around getting ready to go to the park. She has depression and the only thing that motivates her to leave the house is seeing how excited her puppy is to come to the park every day.

Dana and her wife come to the Doyle Park together whenever they can, and they're constantly watching what Millie is doing so that Millie doesn't get into any trouble like Benji did. Dana doesn't like how there are irresponsible dog owners that let their dogs run around without supervision. Dana is also concerned with how dusty the park is and how the water fountain for dogs attracts too many bees. She wishes there was a water fountain for humans at the park as well. The park is very close in proximity to where they live, so it isn't too difficult for Dana to get there when they want to. Parking is usually plentiful (unless there is an event going on in the field next to the park). She

enjoys how spacious this dog park is, as seeing Millie run freely and happily is what brings Dana the most joy. She also appreciates how the park is separated between large dogs and small dogs, and how there are resources like poop bags, pooper scoopers, and chairs. Chairs are particularly important to Dana because of her health conditions that don't allow her to stand for long periods of time.

The only time Dana comes out of her house to socialize is when she takes Millie out for this park experience. This is a community that is very precious to her, as her only friends are from this community as well. There is a couple that she's friends with that come over sometimes even though their dogs don't get along particularly well. She is concerned with how rules are enforced at the park, as some people take it upon themselves and the interactions do not go well. She wishes there was an easy point of contact if there are issues at the park. One point in particular is that she believes dogs should be allowed to be dogs within this space - i.e. to be able to bark freely and play with other dogs, but many "nitpicky dog owners" do not like that.

Dana represents the older small dog owner population group that enjoy socializing, as many of them go to the park not only to let their dog enjoy being outside, but also to socialize with other dog owners themselves.

### ***Edmund: Retired La Jolla Resident***



shutterstock.com • 535784173

Edmund is a 76 year old retired resident of La Jolla and is the proud owner of a beautiful labrador named Barb. Edmund comes to dog parks to allow Barb to expend his energy, defecate, and socialize.

Edmund likes to get a change of scenery whenever he takes Barb out, so he goes to many dog parks around his area instead of being a regular to any particular dog park. The appearance of dog parks is therefore

important to him, preferring the field to be open and covered with grass. He would greatly appreciate that people have a sense of respect for the rules of the park by picking up their dog's poop.

Barb is a big dog and can often be difficult to control for an elderly man like Edmund. Therefore it becomes a great comfort to have shaded areas where he can sit and take breaks. It can also be a source of anxiety for him to control his dog when people approach at high speeds (such as children, skateboarders, etc.) commanding the attention of Barb. He would very much like for parents to educate their kids on how to behave around dogs and for skateboarders/bike riders/rollerbladers to abide by rules to not go into dog areas.

Edmund enjoys the company of nice and social people at dog parks, but does not desire to develop close relationships or become actively part of their community. He says "I'm 76, I'm not here to make new friends." This makes the anxiety of bad interactions with strangers more prevalent, as there is less support from the community around him.

Edmund represents the older dog owner population that goes to dog parks out of necessity for their dog and doesn't come often enough or put in the extra effort to associate with any particular established community. They are relevant because they seek the same benefits from changes to dog parks but are more difficult to pass information to because of their separation from the community.

### ***Mike: The Almost Family Man***

## **The Almost Family Man, Mike**



Age  
**27 - 40 years**

#### **Mike and his dog, Sadie.**

Mike is a 33 year old male dog owner, who lives with his long-term girlfriend and his German Shepard, Sadie. He's a sales lead at a mid-sized company in San Diego. They live in a townhouse in a small community near the park. Every day after work, Mike takes Sadie to the dog park. He unleashes Sadie at the front gate, then follows her so he can clean up after her. He's brought his own doggie bags, as the park always seems to run out. He then lets Sadie run free in the park. As Sadie is socializing with the other dogs and stretching her legs, Mike greets and socializes with the other dog owners. They sit in chairs that they have bought for the park, the park's original 2 benches are always in the sun. They prefer to sit in the shade. He and the other dog owners joke around and then discuss their plans for the next hangout, possibly a poker game.

Mike has been taking Sadie to this park for almost 3 years. As a result, Sadie knows some of the other dogs well and can easily play together. When a new dog joins the park, Sadie becomes wary and may try to fight the new dog. Mike steps in only if Sadie starts causing trouble.

Mike represents the regular large dog owners that frequent the park. They're often in the beginning of the stable chapters of their lives. With large dogs and generally smaller

homes, they often take their dogs out to get them the space their dogs need. Their social group also keeps them coming back to the park, but they will still have hangouts outside the park. Mike reflects the desires and social interactions of dog owners: proximity, convenience, and community.

### ***Austin: Working Adult***

Austin is a caucasian male in his 30's working in the technology industry. After work, him and his wife try to find the time to take their dog to Maddox dog park near their home. Austin explains that both him and his wife take turns taking their dog to park throughout the week, as Austin, being a software developer,



sometimes has to work longer hours, which makes it difficult to always take out his dog every day of the week.

The park itself is within close proximity of his home, which he mentions is convenient since he has to commute to a different part of town for work every day. When he is at the park, Austin enjoys the fresh air and running around with his dog. Austin also enjoys the socialization aspect, talking to other dog owners as his dog plays with others, and forming new connections with individuals.

Austin represents the dog owners in industry group: a relatively young person who finds the time after work to take his dog out to the park to get some exercise and allow him to play around. She is relevant as a person due to her reasoning for proximity and convenience as well as socialization.



***Jess: A New Community Member***

Jess is a thirty-five year old health care worker who has been living in San Diego for about a year. She has two dogs, Winston and Cece, who are both small dogs. Jess has been visiting the park closest to her home for about nine months, and her favorite thing about the park is the convenience of the location.

Jess takes her dogs to the park during the day when she doesn't have work, and if she has the time she takes them after she gets home from work. Because the park is so close Jess doesn't mind the walk, and enjoys the exercise and social interaction she and her dogs receive from the park.



Jess' dogs are both small dogs, and both are sociable. Winston is a rescue, and Jess was initially concerned about his shyness when visiting the park, but after a few months Winston quickly adapted to the new social environment and Jess says that it's his favorite place in the world. Cece has been with Jess since she was a puppy, and is comfortable around new humans and other dogs.

Jess is becoming more and more involved in the community, as she gets to know the regulars at the park. She already knows about the issues that the dog owners experience when visiting the park, and hopes to help create change in the community that she has grown fond of. Jess plans to stay in San Diego for many more years, and has a vested interest in the dog park.

Jess represents a portion of the small dog owner group, but is slightly different from the rest because she is new to the community and wants to be more involved in the people and dogs that visit the park she has grown attached to. Jess is learning more about the community and the issues it faces as she socializes with the owners, and wants to help the cause. As people discover and begin to frequent dog parks, they may want to become more involved and Jess is a key persona because any community needs growth.

## Flora: Recent Graduate

### Flora Liu

Flora is a 24 y/o graduate from UCSD who works at a biotech company. She is the owner of a 2 year old beagle named Cookie and is a frequent patron of Nobel Leash-Free Dog Park due to its proximity to her workplace as well as its leash-free allowance. Unfortunately, the park is less green that she would like - it is actually very dusty and she often needs to bathe Cookie because of how dusty Cookie gets after playing in the park.

Cookie is a very active and friendly dog, and enjoys playing with the other dogs at Nobel Park. However, Flora is worried because Cookie is a relatively small dog. She has talked to other small dog owners who have had their dogs hurt because larger dogs who want to play unintentionally crush the smaller dogs.

Flora doesn't have very many dog-owner friends as she has a very busy lifestyle and only takes Cookie to the park at set times in the morning and evening, when the other dog owners aren't around. Nonetheless, she isn't too worried, as she plans to stay in San Diego only a few more years before she moves up to the Bay Area, where her family is and where she knows there'll be better parks for her dog to play at.



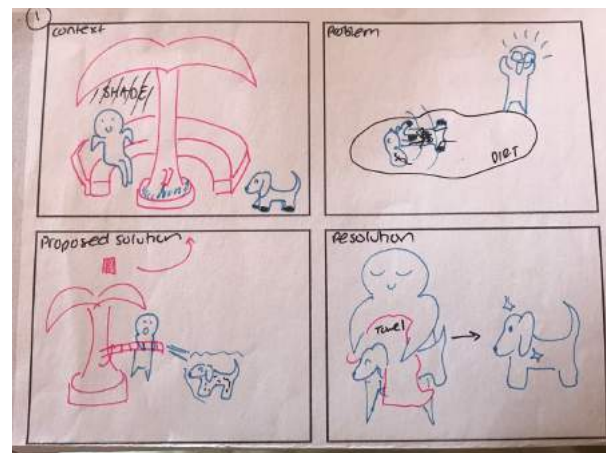
Flora represents the small dog owner stakeholder group: a relatively young person who lives in the La Jolla area and is familiar with the dog parks around UCSD. She is relevant as a persona as many of her traits coincide with the traits of the patrons of Doyle Dog Park: she is relatively young, familiar with the area, belongs to a group (small dog owners), but likely will not stay in San Diego for too long. She is a patron for a few reasons: proximity, convenience, and social aspects.

## Storyboards

While brainstorming for our prototype, we came up with several ideas to address some of the problems that we saw at the dog park, like dog boredom, cleanliness, and a lackluster environment. Some of these solutions included the Palm Tree Shade, Water Fountain, Toy Library, and May Pole. While some of these storyboards never came to fruition, it gave us a better direction and led us to our final prototype, the Toy Library.

### Palm Tree Shade 1

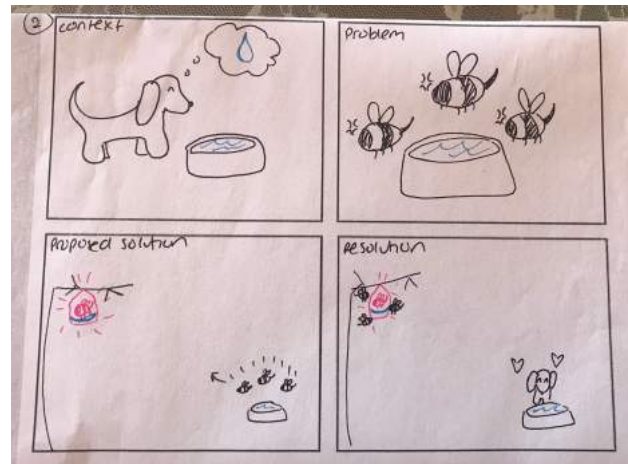
This solution was the first adaptation of the palm tree shade idea described in our ideation section. A couple problems that dog owners had described are acknowledged here: lack of shade, not enough park-installed seating, there is no way to clean off the dogs after they get all dirty from the dust, and that the dogs don't have enough sources of water.



Everything drawn in pink is part of the design, and essentially there is a palm tree art installation with a wide enough base to hold a water system inside. There is a circular bowl at the bottom of the trunk to catch water for the dogs to drink, and the spout that releases the water is flexible so you can use it to wash off your dog after the dog is done playing. The catch is that the owners will have to bring their own towel if they want to dry off their dog. The circular bench around the tree is installed not only so that there is more seating, but also to encourage socialization as the semi circular design brings people together as they relax in the shade that the leaves of the palm tree cast.

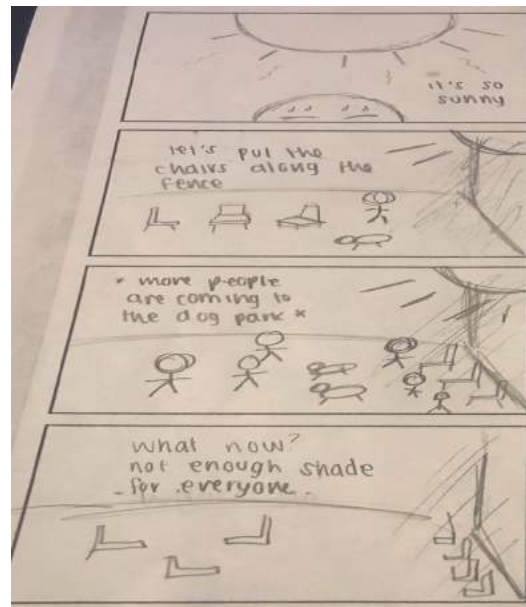
### Water Jug

One concerning issue that some of our interviews brought to light was how the only water area for the dogs at the park is usually surrounded by bees, which is dangerous because the dogs like to snap at the bees and can potentially be stung. The proposed solution here is to have a hive-like jug attached at a higher up area (like a tree relatively nearby) that has a mixture of water and maybe a sweet substance like nectar so that bees would be more inclined to go to that jug than to the water bowl that the dogs drink from.



### Chairs/Shade

The first storyboard discusses the issues with shade at Doyle dog park. A few dog owner patrons have expressed their concerns with the lack of seating provided at the parks as well as the lack of a shaded area to sit under while their dogs are playing. At first they said that they had brought their own chairs and had lined them up in the back fence area since that is where they are able to get the most shade during the time of day that they go. But as more and more people begin to use the dog parks, and that dog owners from the other section of the park occasionally bring their chairs over to their side, they want to find a more permanent solution for them to sit and have shade.





## Boredom

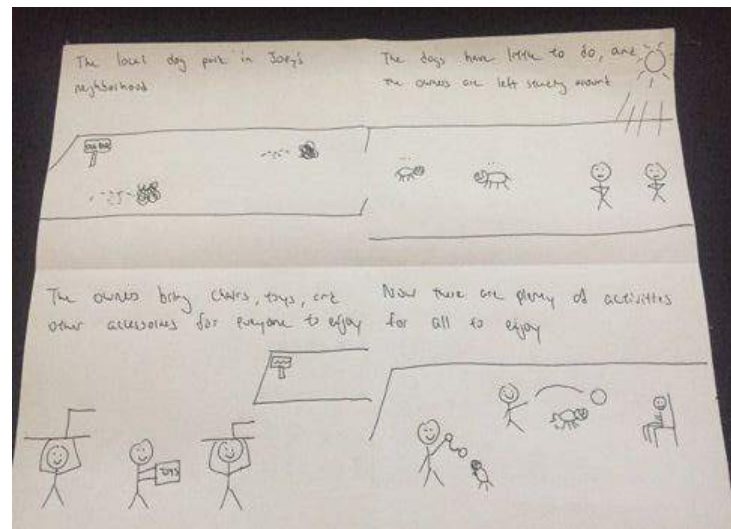
The second storyboard talks about how there seems to be a sense of boredom that some of the owners feel at the park. One such dog owner expressed that it was her first time visiting a dog park, only due to the fact that she was at the regular park right next door for a party. She explains that she normally goes on walks around neighborhoods instead, mentioning that “sitting around and watching the dog run around while I am doing nothing” does not appeal to her at all. She also mentioned that she does not think that she would actively attend another dog park again unless it's completely out of convenience.



## Community

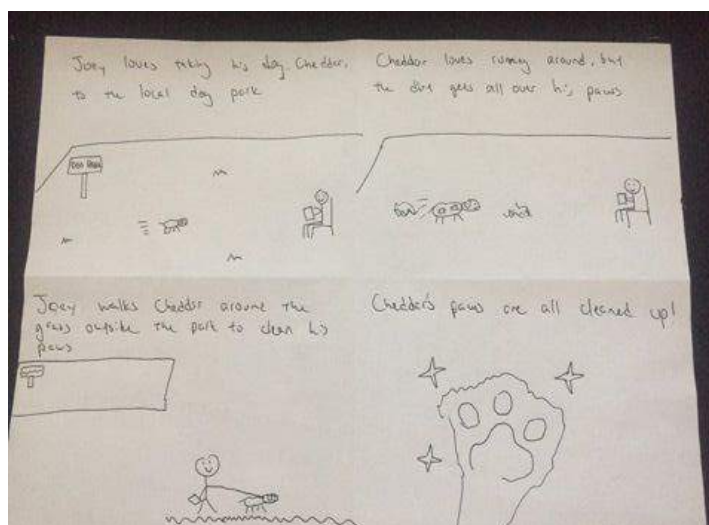
The first storyboard demonstrates how the community came together to make the park a better place. When we arrived at the park to do interviews and observations, we noticed a lot of toys, bowls, and chairs that didn't necessarily look like they were a part of the park. When we asked the owners, they told us that the dog owners of the area all contributed to bring the items to the park.

This demonstrates a leverageable interest that the owners have towards putting forth their own efforts to make the park better.



## Park Environment

The second storyboard shows a thing that most owners at the dog park learned to do, whether from each other or through intuition. Because the park surface is mostly dirt, and could contain sharp objects, the owners take their dogs to the grass after playing in the dirt to remove those objects. This could be a design solution that doesn't have to be external to the park itself.



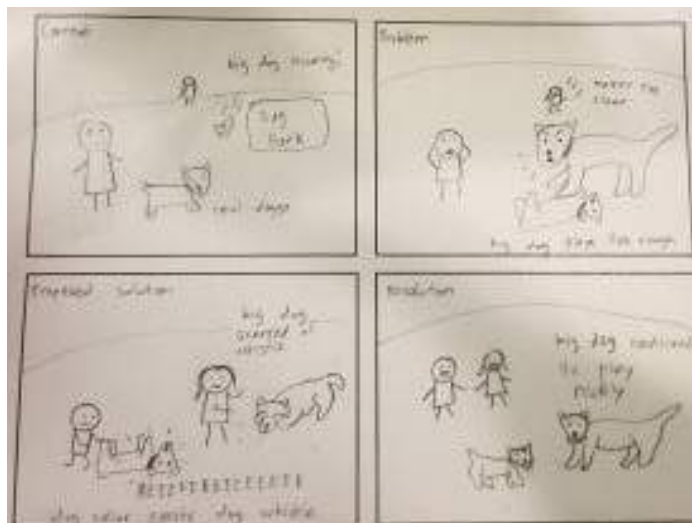
## Quiz Lock

Instead of focusing on their not being enough things to do, this storyboard highlights the bad things that owners do when they don't know the rules of the dog park. In our stakeholder interviews, we discovered that many complaints about dog owners were that they did not supervise their dog, leaving them feel uneasy that they would not be able to control their dog in a confrontation and that they neglected to clean up after their dog by picking up poop or fixing holes that are dug into the ground. A quiz on the park rules could help to keep dog owners aware of their responsibility and would hopefully reduce misconduct.



### Dog Whistle Collar

In this storyboard, a small dog owner goes to the dog park. From our interviews we found that a source of fear from small dog owners comes from big dogs that play with their dog. The big dog may mean no harm but still may pose the risk of hurting the small dog. The dog whistle collar emits a harsh tone that is unpleasant to dogs in the near vicinity and continues to chime until the big dog no longer is trampling the small dog. This conditions the behavior of the big dog to not play roughly with the small dog.



### Palm Tree Shade 2

This Palm Tree installation was derived from a crazy 8 idea, similar to Audrey's idea in the previous storyboard but lacks the water system. From the first panel, the dog owners are complaining about the heat. They complain how their chairs, despite their attempts, catch no shade, the park layout doesn't allow for it.

Owners currently have their chair aligned to the back fence of the park to try and catch as much shade as possible. In the third panel, the palm trees are installed, providing lots of shade. The fourth panel showcases the palm trees' other uses, like hanging more doggy bags from it; a common complaint that the park runs out of the bags too quickly.



### Toy Library



In the first panel, a dog owner walks his dog to the park. Upon unleashing his dog and letting the dog wander, the dog goes to bite at some roots. The owner is annoyed, as the dog has dirtied itself from digging at the root. Several owners have made this complaint. In the third panel, the owner notices the toy library. The owner borrows from the library and entertains his dog, preventing the dog from digging around the park for more curious things.

### May Pole



In the first panel, a dog is shown to be bored while his owner chats away, ignoring the dog. The dog notices the May Pole, where other dogs and their owners are shown to be playing and interacting. The dog wants to play with the other dogs as well, so he runs over to the May Pole. His owner, noticing him running away, chases after him, and notices the May Pole as well. In the last panel, the owners and dogs are interacting and having fun.



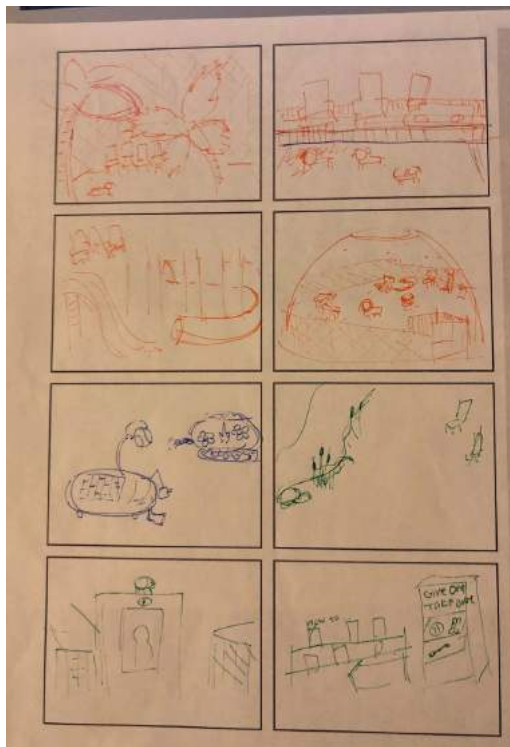
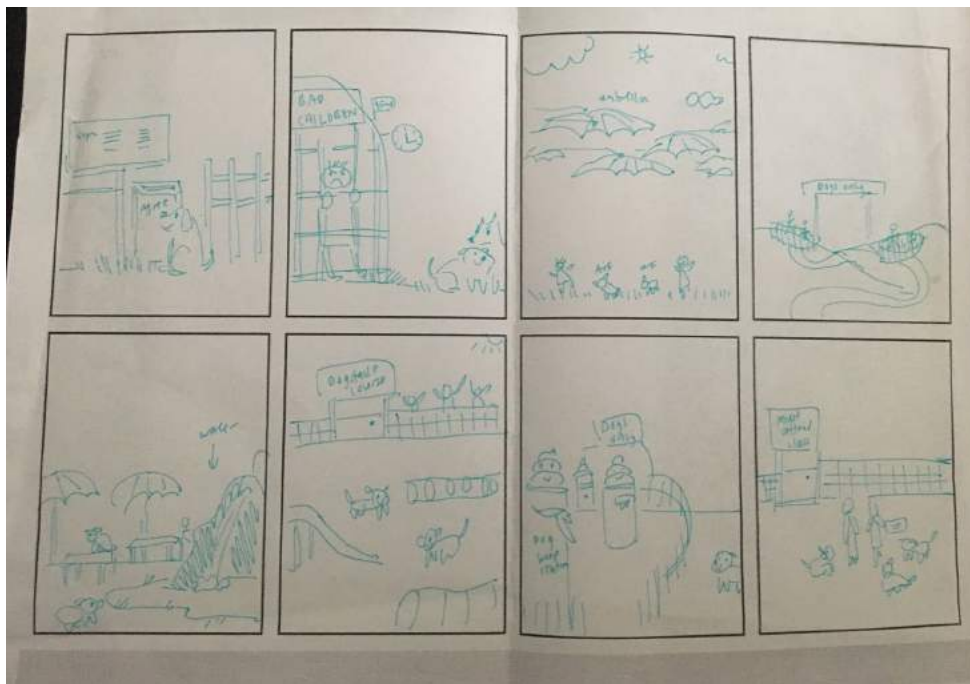
### Dog Fountain

It is an extremely hot and sunny day at the dog park - both owner and dog are sweating. The dog park itself is also looking very barren, and the dog wants some water - but there are no water bowls. However, the owner notices the dog fountain, where other dogs and their owners are socializing while also cooling off/drinking water. The owner and dog run over to the fountain, where they meet other owners and dogs, while their dogs cool off and take a break from the heat of the day.



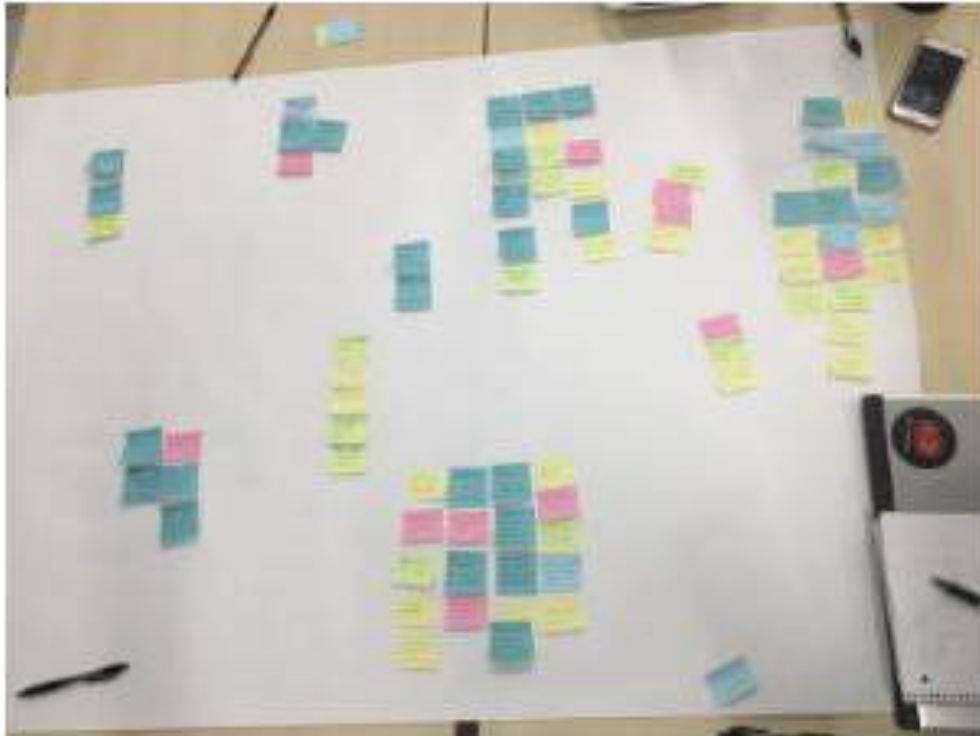
## Sketches

### Crazy 8s



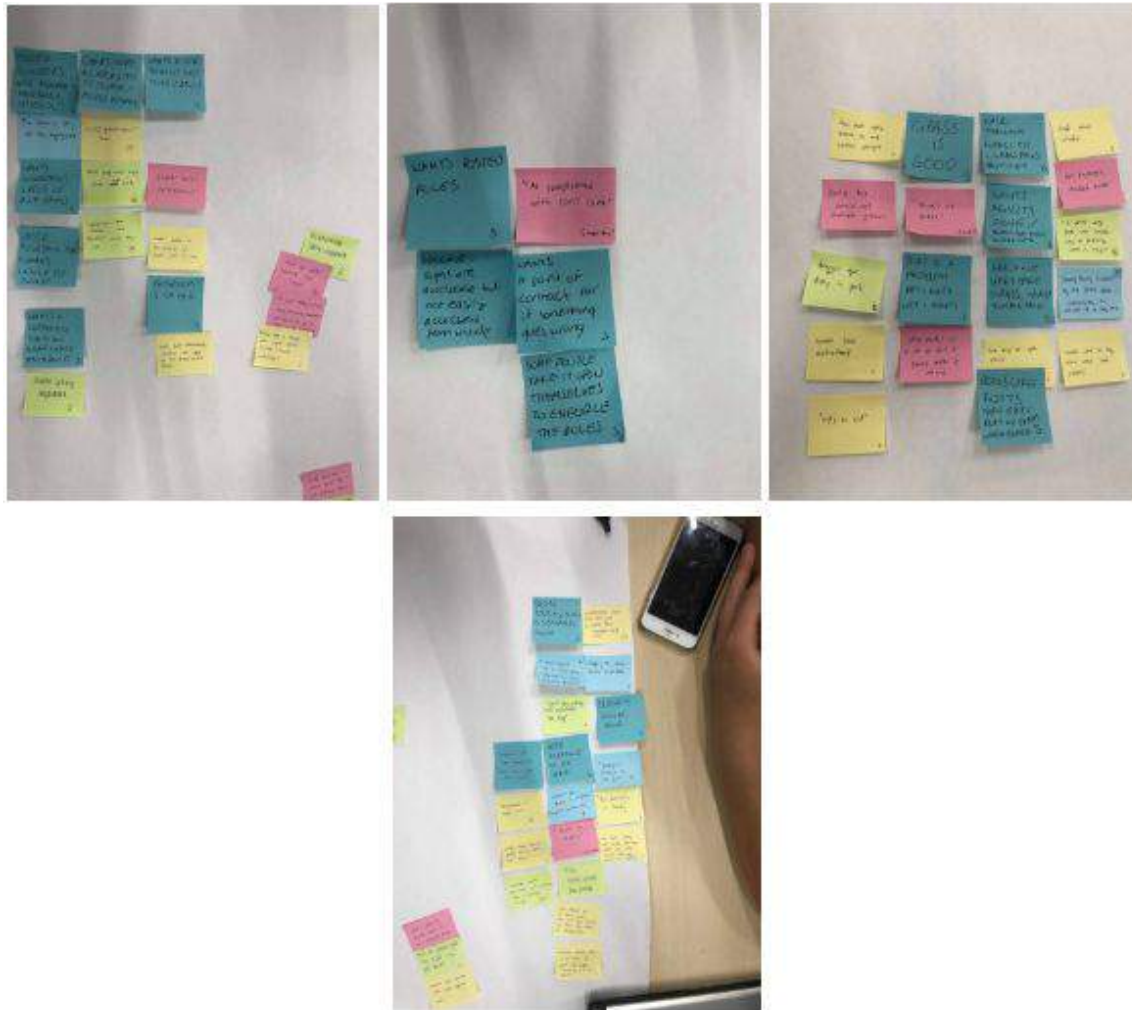
## Design Models

Our group focused on the affinity diagram design model to help us organically sort our data points. While we collected a lot of data from our interviews and in-field work, many of the points did not really group together until we looked at each data point and sorted them into categories, which helped us see the bigger picture and overall theme.



Affinity diagram after initial division (left to right, top to bottom):

- Dog socialization
- Proximity
- Mental wellness (2x, blue)
- Equipment
- Community park etiquette (4x, green, pink, pink, yellow)
- Socialization
- Community rules
- Routine
- Environment
- Kids (3x: pink, green, yellow)



Affinity Diagram Subsections from left to right, up to down:

- Park maintenance
- Community etiquette
- Park environment
- Community/Socialization



## Prototypes

### Prototype Brainstorms

We narrowed down our prototype ideas to three main ideas: the Palm Tree Shade, Toy Library, and May Pole. Ultimately, our group decided to go with the Toy Library.

### Palm Tree Shade

Create a palm tree art installation in which its leaves would be very wide to cast large shadows for the dogs to lay in. Palm tree instead of using an umbrella because another complaint that was how bare and “ugly” the park was. There was no art or plant life to make the park look nice. Attached to the trunk of the tree would be many retractable cords connected to rags or towels so that owners can dust off their dogs before leaving the park, as dogs leaving the park dirty was another huge complaint that the dog owners had. One of the people we interviewed even mentioned how she’d be happy with there being just a bin of old rags at the park for dog owners to use to help wipe the dirt away. The retractable cords are added to the tree so that the rags will return to where they were originally and minimize the risk of the rags being taken from the park.



### Toy Library

An owner borrows a toy from the library, preventing his dog from experiencing boredom and digging/biting at roots.





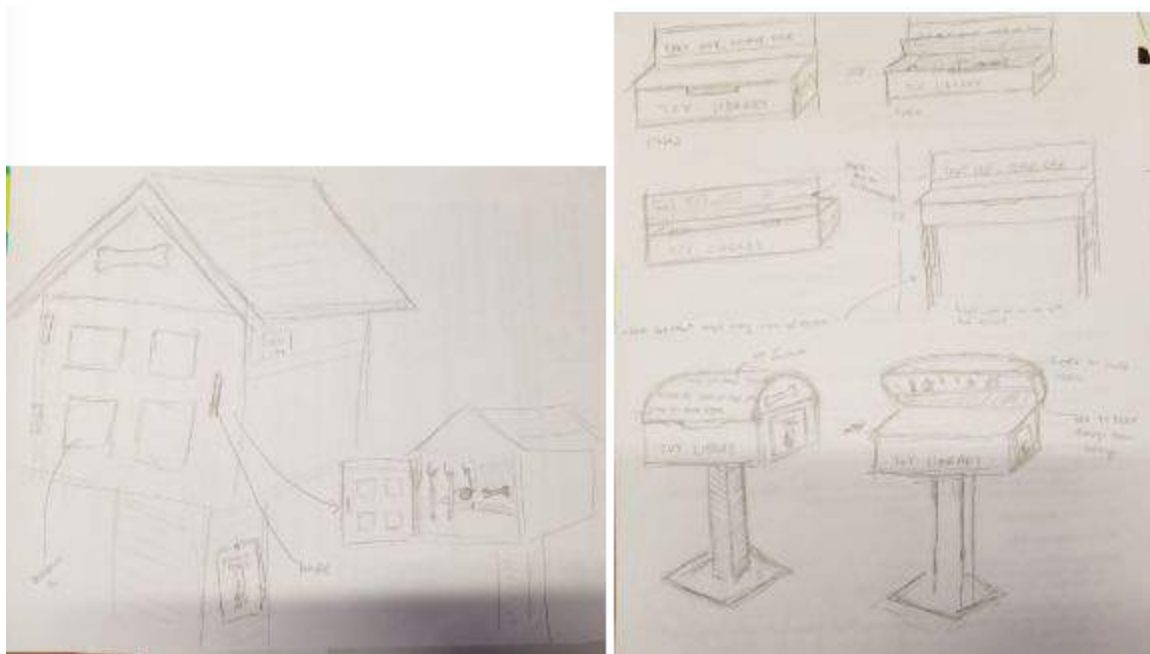
### May Pole

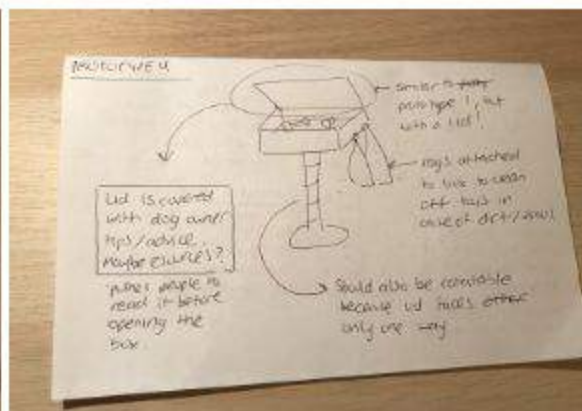
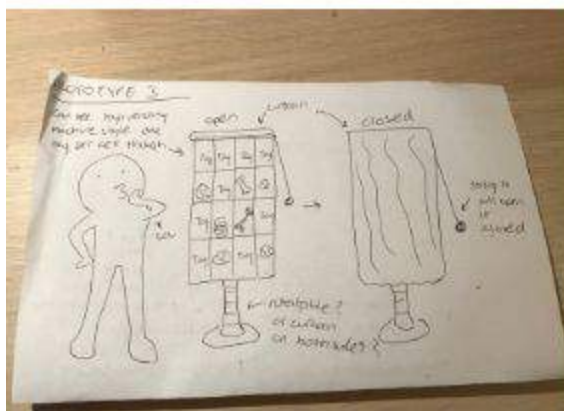
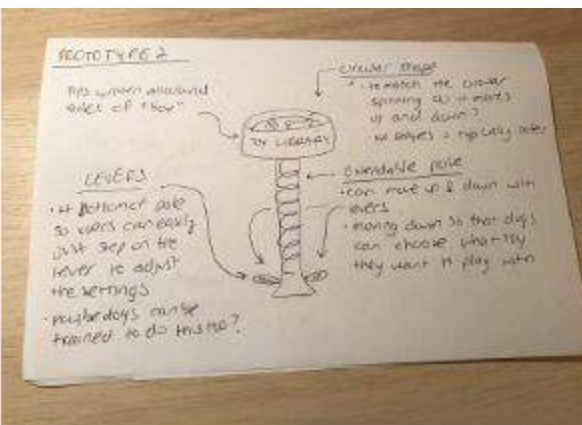
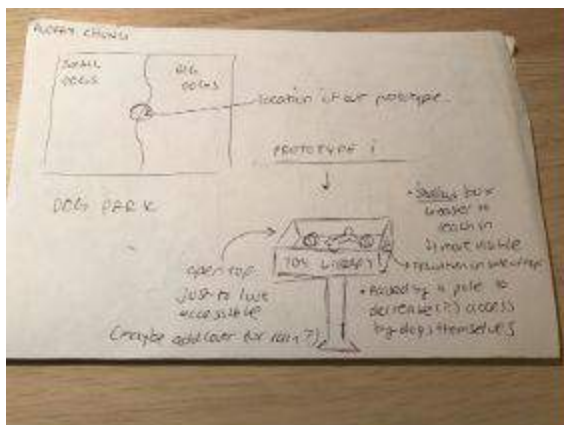
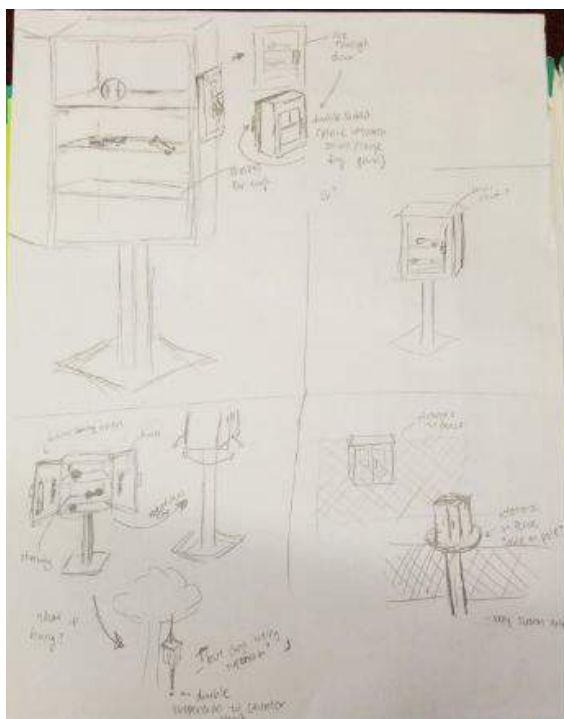
Tackles dog boredom and increases dog interaction without the dogs “fighting” each other.

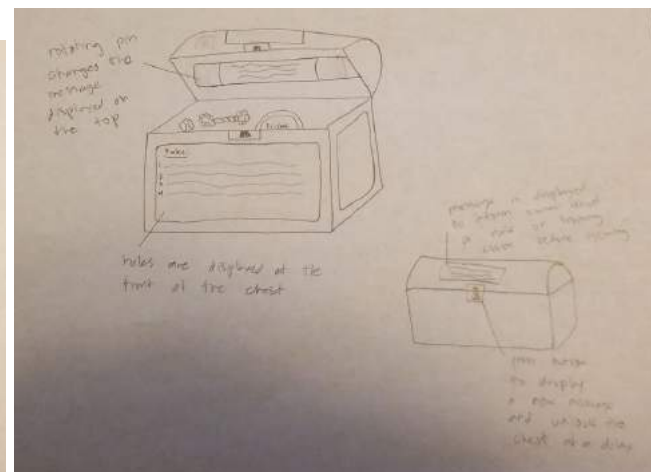
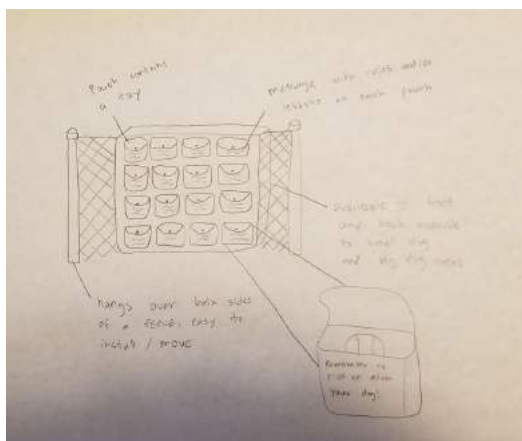
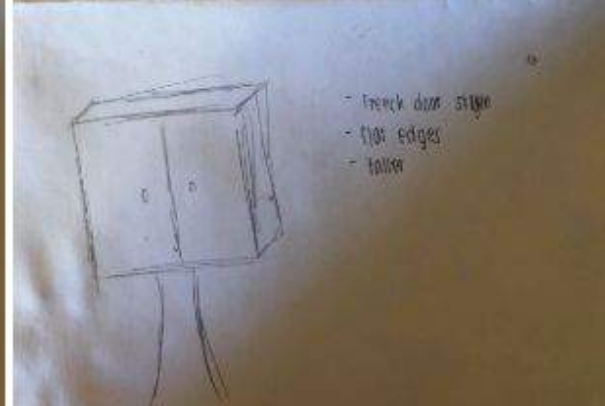
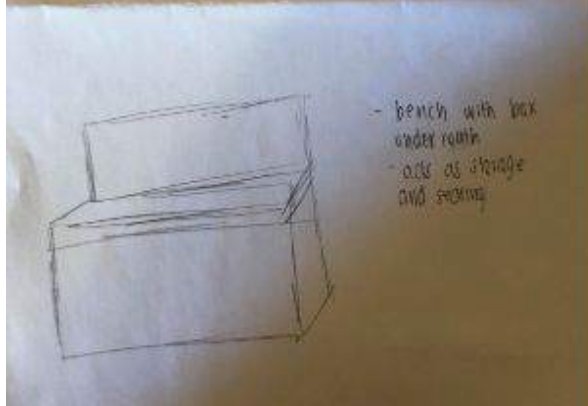
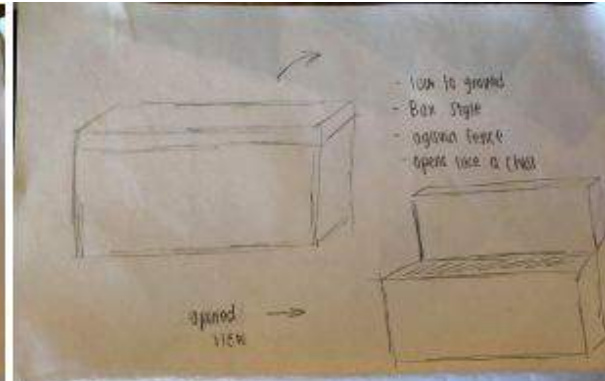
### Prototype Sketches

After deciding on our prototype, the Toy Library, we began sketching ideas on what the library should look like, addressing problems like materials, door designs, height, and more. We had four rounds of sketches, categorized below, which were created concurrently with each iteration of our prototype.

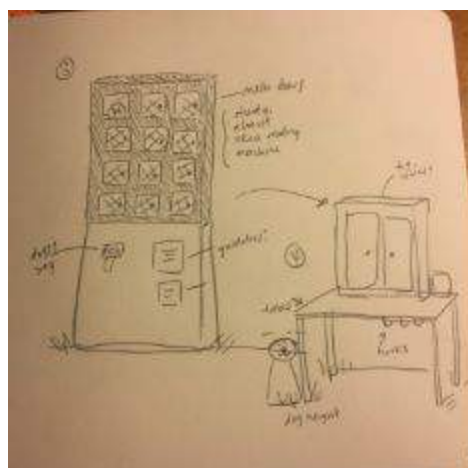
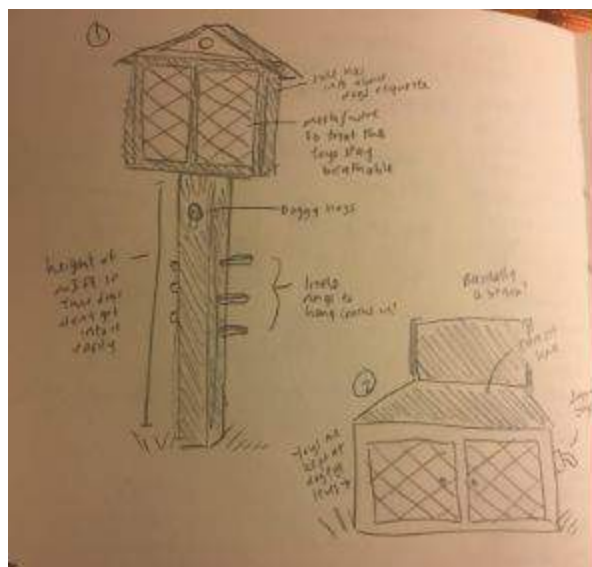
#### *Initial Prototype Sketches (Iteration 1)*



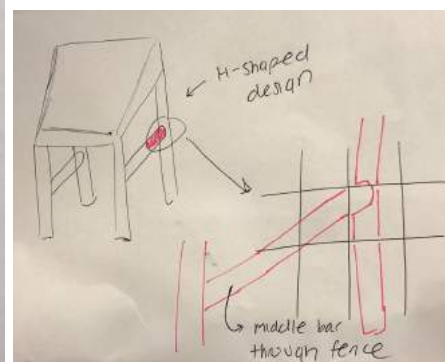
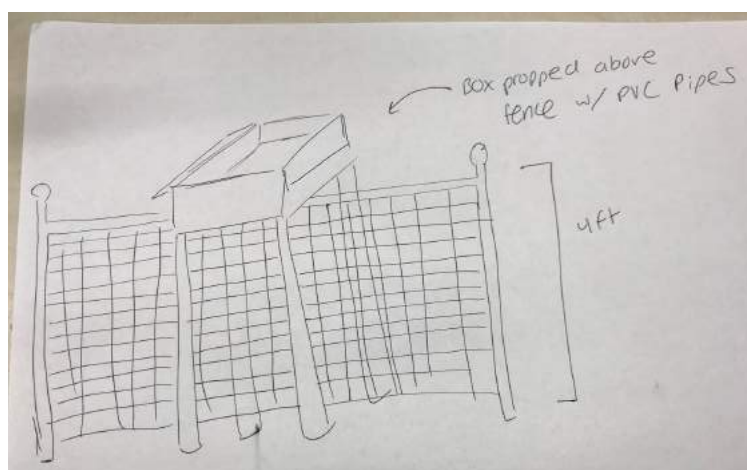




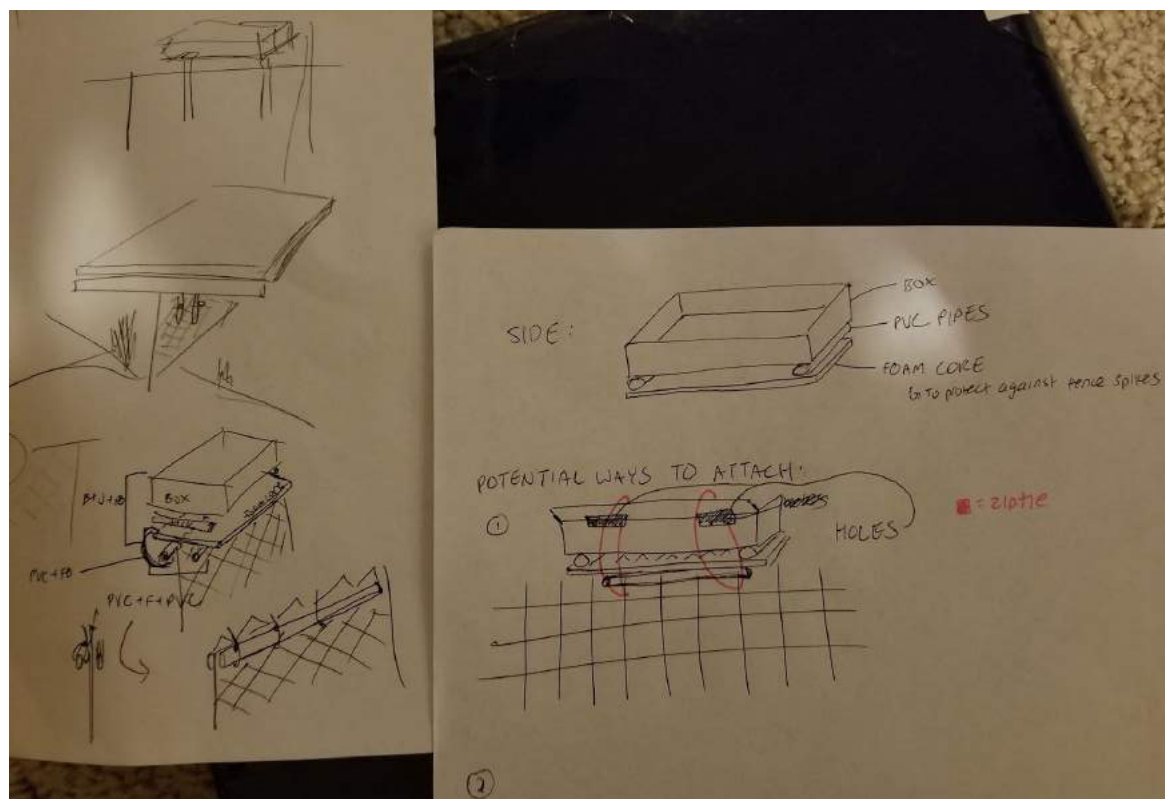
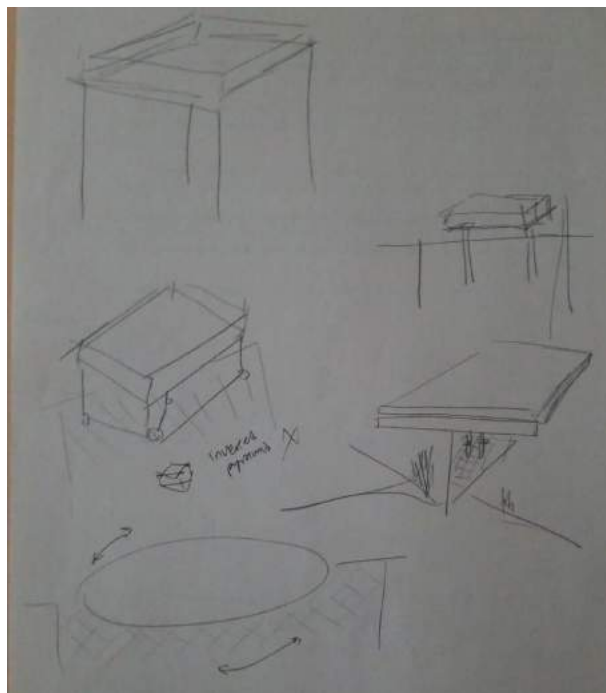




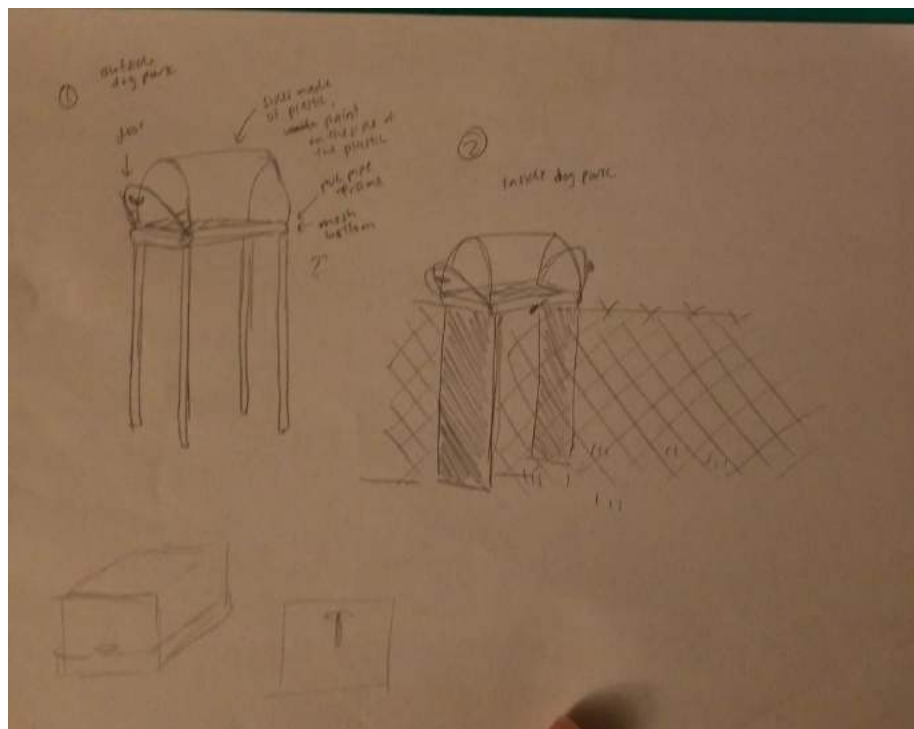
## Iteration 2 Sketches



### Iteration 3 Sketches



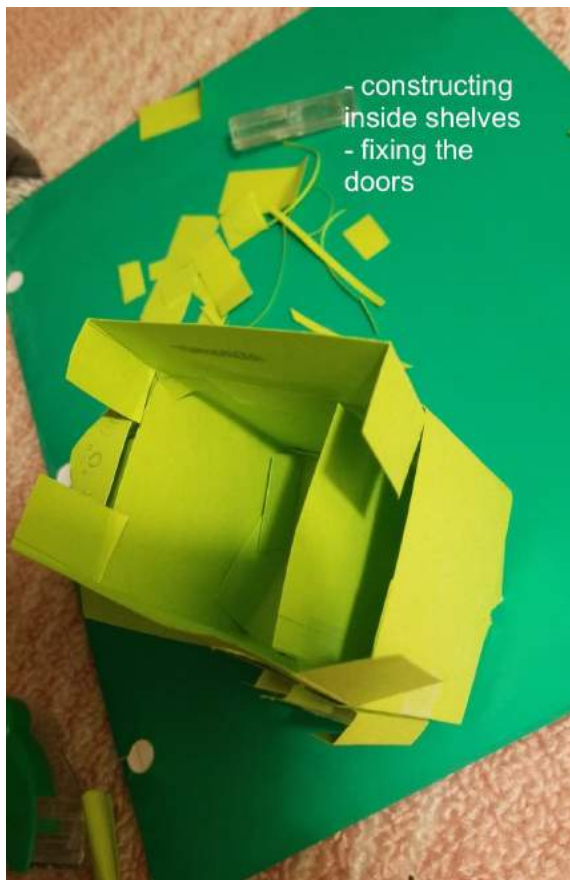
### Final Iteration Sketches



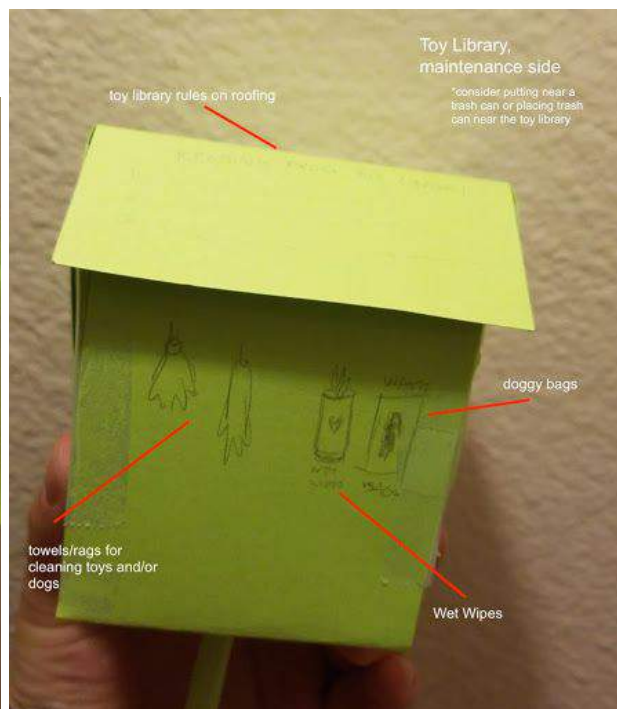
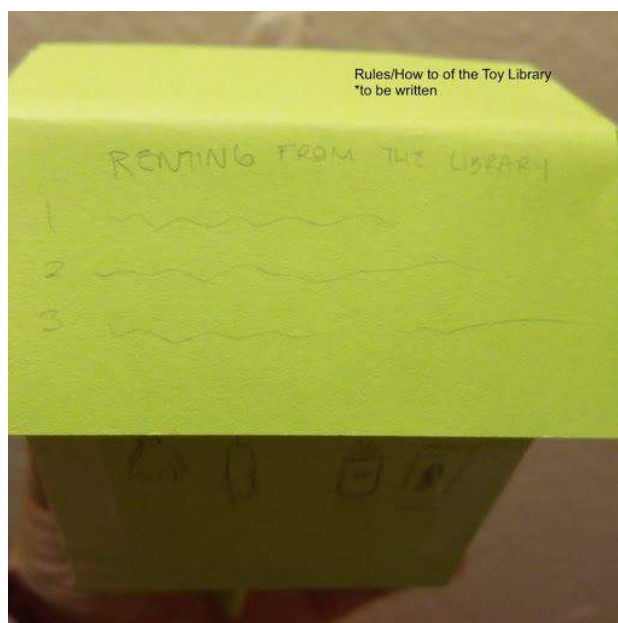
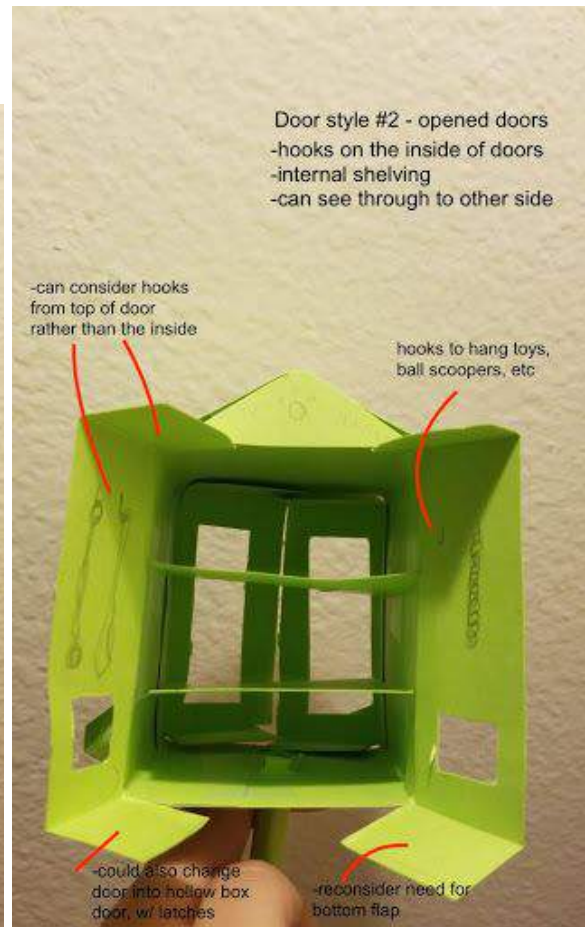
## Prototype Process

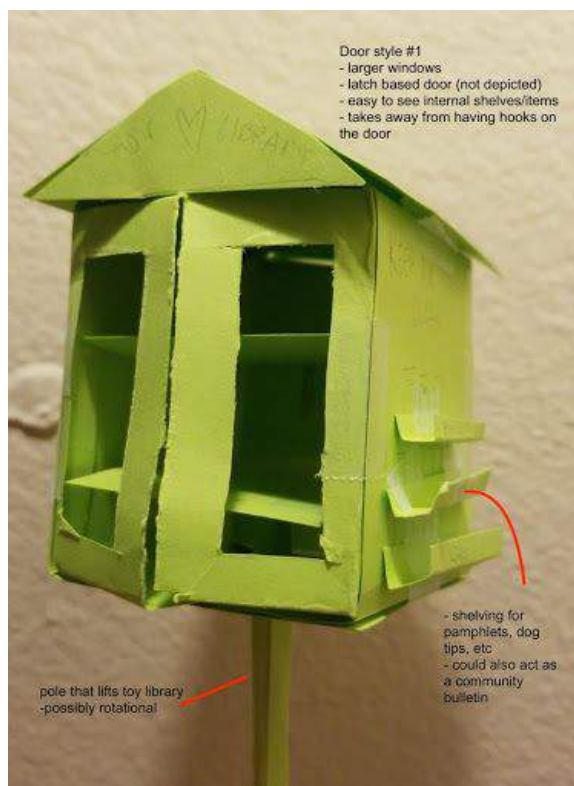
We had three main stages for prototyping: our paper prototype outlined the general shape, idea, and form of our product, the cardboard prototype allowed us to have a more physical (although quite lo-fi) version that we could test in the dog park to get more feedback, and our final prototype.

### *Paper Prototype (Prototype 1)*









The paper prototype gave an idealized version of what we wanted the toy library to be. The elements created with this prototype that did not make it to the final iteration were cut due to stakeholder responses/data or financial/construction restrictions.



*Cardboard Prototype (Prototype 2)*



Prototype has a piece of foam core underneath to serve as a point of contact with the fence, allowing the fence to puncture it and hold it steady. PVC pipes act as stabilizers. The doors at the top of the prototype allow the box to vent so that mold doesn't grow under damp conditions outdoors in the dog park.

*Final Prototype (Prototype 3)*



Toy library installed with twine and zipties. Mesh pockets sewn inside to compartmentalize cleaning equipment (rag, hand sanitizer, brush, hand wipes). Basket made with breathable, woven material.



Carabiner acts as a latch, so dogs cannot snoop into the library without an owner around. (Big dogs are quite tall against the fence). Twine uses as further reinforcement. Zipties are the primary stabilizer.





Small dog shown to be able to jump high on the fence, with capability to knock over toy library if hitting from under. Reinforcements are believed to be strong enough as from bigger dogs pushing the fence the library is held down to.

---