

UC San Diego



University of California, San Diego **Global TIES**

Course **ENG 100D, Fall 2019**

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Project Team **Atutu & Create Purpose Design Sprint**

ATUTU

CREATE PURPOSE DESIGN SPRINT



Design Sprint Lesson Plan

Design Report

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Community Partners: Create Purpose & Atutu

Point of Contact: Lin Hein, Founder of Atutu

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Executive Summary

Our team was assigned to work with Create Purpose and Atutu. Create Purpose is a non-profit organization based in Mexico that provides hands-on education for young students. Over 400,000 children are facing problems outside their control such as parental negligence, human trafficking, and violence. Create Purposes' solution to this is to empower these children through hands-on learning and community training. Atutu is also a non-profit organization based in multiple countries such as Myanmar, Mexico, and India. This organization supports communities by providing the tools they need to enact sustainable change. Working with these two organizations has given us a better understanding of the impact our project has on the world.

Create Purpose is hosting their first Design Sprint event in Tijuana to teach native students, high school to early college age, about human-centered design concepts and the design-thinking process. A Design Sprint, traditionally, is a week-long convention-style event where teams are formed to solve problems within a theme or community context using the human-centered design-thinking process. Create Purpose is working with Atutu to coordinate this sprint in only two days, with a similar but compressed event structure. For this, they asked us to design a lesson plan. They hope, if the event is successful, to bring the event beyond Tijuana and impact multiple communities with this event and our design.

The Design Sprint is important because it will be teaching underprivileged students in Tijuana how to make change in their own communities. Without an event like this, these students may never receive proper training in these concepts, and therefore, would have to rely on charitable visitors and outside resources to tackle issues in their communities. We don't want them to have to rely on the effort of outsiders in order for their problems to be solved, we want to equip them with the means to design their own solutions effectively and within the context of their own personal experiences. The goal of the Design Sprint and our lesson plan is to inspire and empower the youth in Tijuana, and in future participating communities, to use these design concepts and processes to enact their own form of change, to encourage them and give them the intellectual capacity to design solutions in their own lives and in their community.

This team has developed a lesson plan for Create Purpose's Design Sprint in Tijuana, designed to educate these youth and empower them to identify and address issues in their own communities and find solutions using human-centered design-thinking concepts and practices. We chose to include dynamic aesthetic elements which are intended to keep their attention and stimulate their creativity. The focus of the lesson plan centers solely on the design process and human-centered concepts, mainly because Create Purpose wants to use this lesson plan for future sprints in multiple communities. In order to accomplish this in a way that we find engaging and dynamic, we included an entertaining instructional video at the beginning of the lesson plan to give an overview of the process and its concepts, which follows the same pattern as our step-by-step activity slides which will guide them through their own design. Since we will have no access to the real end users, the students in Tijuana, we also included a Google Form to collect feedback from the participants and volunteers in order to measure the success of the presentation and the event. We also provided them with a list of necessary materials to supply for the activities, which we confirmed are attainable for the organization. While the designs the participants develop probably won't be extremely substantial in a span of only two days, the most important achievement will be educating them to fully understand and appreciate these concepts and empowering them to be self-reliant.

1. Project Management

1.1 Goals & Objectives

Our team's goal was to design and execute an engaging and inspiring lesson plan presentation that can be used for multiple design sprint events with a large scope of individuals who have no prior design experience. The purpose of the lesson plan is to guide the students through the design process and educate them about the concepts of human centered design in order to equip them to go out into their communities with a sense of self-reliance, the skills for accurate problem identification, and the ability to solve problems based on their own experiences. Our hopeful outcome is and that Create Purpose will be able to use our lesson plan to hold multiple design sprint events across the globe, and that the participating students will grow into competent and eager change makers in their own communities.

We asked our contact to provide us with his own definition of our project goal, "In Baja California specifically, we see a good number of international organizations coming in and doing philanthropy work with their own vision of what the communities need as opposed to allowing the communities to self-define what their urgent needs are. As a response, Create Purpose and Atutu are collaborating on a sprint that allows us to coordinate these philanthropic efforts, where we aim to have the communities direct the philanthropic efforts. The design sprint is a way for us to create a platform through which the local participants can define and address the issues in their communities. We aim to foster a sense of ownership of the social impact initiatives that take place in the participants' communities" - Lin Hein.

We implemented some SMART Objectives that helped us meet our goals. In order for us to deliver a functional presentation, we wanted to create milestones based on the time constraints that we were given. At the beginning of the assignment, we prioritized collecting information pertaining to the event that Create Purpose wanted to hold. Our first SMART objective was to create a prototype based on the interview that we held with Lin Hein and Nicholas Sandoval. We placed a deadline week 4 so that we would have time to create the starting design sprint template. Once we created our first prototype we sent the design to Lin Hein for further feedback so we could iterate it. Our next objective was to continue working on the design sprint presentation for initial testing. We gave ourselves a longer timeline for this because we wanted to have multiple prototypes to fine-tune the design for our partner organization's preferences. We gave ourselves till the end of week 9. As we continued building upon our previous designs we ended up with four prototypes. The last prototype had everything that we discussed throughout the quarter and was ready for testing. Our final objective was to get feedback from individuals outside our class and to show them the presentation and video that we created. We created a google form to gauge the overall success of our design. We gave ourselves the rest of the quarter to get feedback and implement any changes that we saw fit.

1.2 Approach

On the recommendation of Lin and Nicholas, our team decided to create the lesson plan using the Google Slides platform. We found this platform very familiar and effective for a step-by-step event guide which we expect will be easy for the volunteers to use. While Lin urged us to keep the lesson plan simple and basic in format and content, we made the executive decision to include elements that will make the presentation more engaging and eye catching. The aesthetic format Tiffany developed on Canva.com was designed to make the lesson plan

more visually stimulating, in an effort to better hold the student's attention. We all discussed our least favorite parts of presentation lectures, as college students ourselves, and we discussed how boring it can be just watching someone talk at you and read lines off of a screen. To counteract this, we decided to include a summarizing video element to introduce the concepts, with exciting music and compelling visual aids, which Angelina developed on Moovly.com. This video intro will hopefully set a creative and energizing tone for the rest of the event.

Management strategies for this project were outlined in our team contract. Angelina usually delegated tasks based on agreement from the team and individual expertise and skills. We would decide which tasks needed to be completed and when together and assigned each other to those tasks as we discovered them, and we kept ourselves accountable through constant communication on Facebook Messenger and our meetings which primarily took place at the end of class time.

We conducted research mainly through a google form that we created. This will give us data on which portions of the design sprint presentation we could improve upon as well as which portions were successful. The feedback form included an array of question types from short answers to measurable scales. We wanted the form to be quick and easy to use for the user. We intend to have the feedback form used after each event and to test. The participants who will be asked to complete this form will be determined by each individual group member. The listed questions provided are used for all participants and hosts of the design sprint.

Which part of the design sprint are you apart of? *

Student
 Staff
 Other...

Was the video helpful? *

1 2 3 4 5
Not at all Very

What is your level of experience with design? *

1 2 3 4 5
No Experience Very Experienced

If you have experience with designing can you please tell us more about it?

Long answer text

How informative has the Design Sprint been for you? *

1 2 3 4 5
Not Informative Informative

Did you find the slides easy to understand? *

1 2 3 4 5
Confusing Easy

Which of these topics were most useful? *

Maping
 Sketching
 Deciding
 Prototyping
 Testing

Which of these topics could we work on? *

Maping
 Sketching
 Deciding
 Prototyping
 Testing

Any last comments or things that we could do to make this event better?

Long answer text

Figure 1.0: Feedback Form Questions

Figure 1.1: Feedback Form Questions

1.3 Schedule

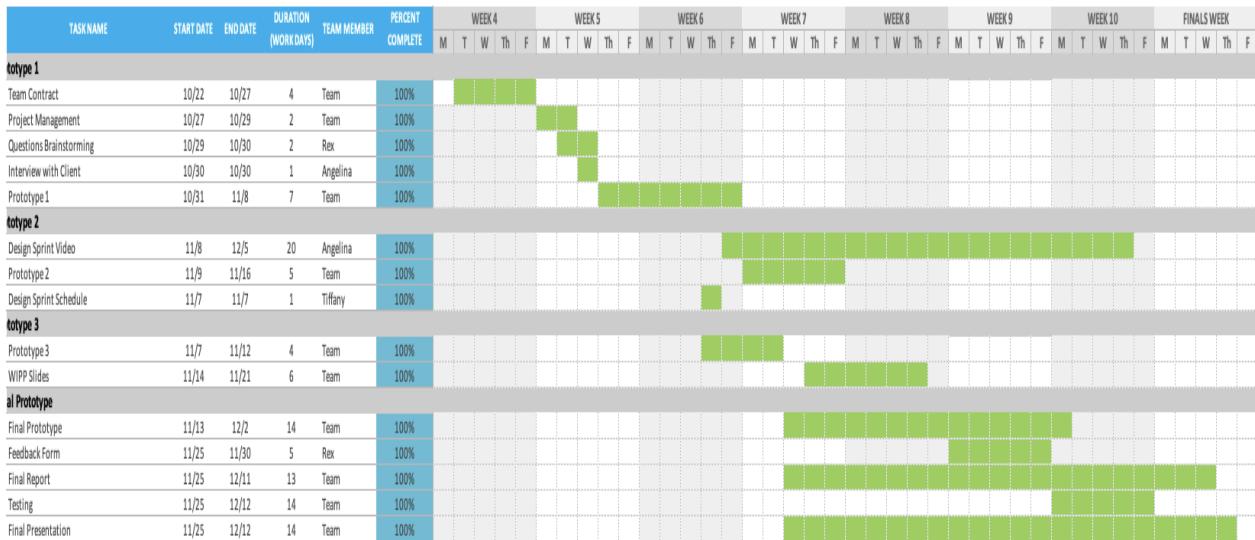


Figure 1.2: Gantt Chart

The first step we took for this project was the interview with Lin and Nicholas, because no one in our group had ever participated in a design sprint, so we really had no idea where to start. We turned to Lin and Nicholas to explain to us their goals and aspirations for this project, as well as their expectations from us and our project. Once that was shared with the full team, Rex and Dong went into research mode to find existing examples of design sprint-type events and human-centered design projects. Lin also provided us an example of a lesson plan he's followed before, and a lot of the concepts we needed came straight out of the ENG100D lectures, so we used those resources as a guide point as well.

Once we understood what it was we needed to design, we started a brain dump of just putting the concepts and bullet points that we could think of for the human-centered design process, which became our Prototype 1, a very bare presentation that gave us an idea of everything we wanted to include in our final draft. Once that was done and approved by Lin, we made a duplicate and started filling in the content, images, and descriptions for each of the slides and bullet points, explaining each step of the process and including information about Atutu & Create Purpose, along with an introduction and the conclusion, Prototype 3. All the while the video was being developed to match the presentation. This developed into a cleaner, more organized Prototype 3, leading to the aesthetic and cohesive, finalized the final design.

1.4 Team Bios

Angelina Shea Harris - Team Leader



4th year, Graduating Spring 2020

Major: Theatre | Minor: Literature Writing and Cognitive Design
My role was mostly in project coordination and management, keeping track of our due dates and progress, delegating material, conducting our meetings and chats, and guiding our process. I conducted the first interview with Lin and Nicholas and recorded it to share with the team, and set up the brain dump for our first prototype. I made the video single handedly, wrote the introduction and conclusion slides in our lesson plan, and worked extremely hard on our work in progress presentation and team update assignments. I also proofread nearly all of our assignments to ensure that we turned in professional, grammatically cohesive work. I have no prior experience in design thinking or sprints, but I have a lot of leadership and writing experience through theatre.

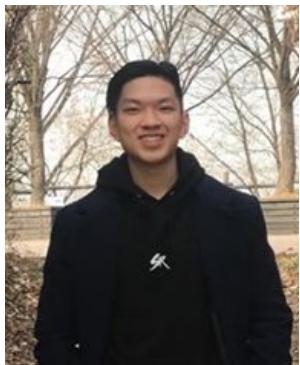
Tiffany Streitenberger - Point of Contact & Aesthetics/Theme



4th year, Graduating Spring 2021

Major: Computer Science
My role was the point of contact between Lin Hein (Founder of Atutu) and Nicholas Sandoval (Founder & CEO of Create Purpose). The role consisted of contacting Lin & Nicholas through email exchange, WhatsApp, and video calls. I initiated and created the format for the Team Summary Write Ups. I was also in charge of the aesthetics and theme of the project. It was important to incorporate Atutu & Create Purpose's design into the presentation, so we went with the purple and white theme. I was in charge of editing changes made and going between Canva to Google Docs and formatting it differently. I worked on slides predominantly on the final presentation and project submission presentation.

Rex Le - Researcher/Notetaker & Design Analysis



5th year, Graduating Spring 2020

Major: Structural Engineering
My role for the project was the main researcher for the design sprint presentation. I was in charge of formulating questions in the early stages of the quarter to ask Lin. I was in charge of the content in the final design sprint for the bulk of what a design thinking is. I incorporated existing solutions such as UCSD Designathon, Google Design Sprint, Eng100D HCD Lecture, and Lin's example presentation into the design sprint. I also created a feedback form to gauge how successful our current design is and for further use in future events. I created most of the graphs and figures for analysis and development of the project.

1.5 Stakeholder Analysis

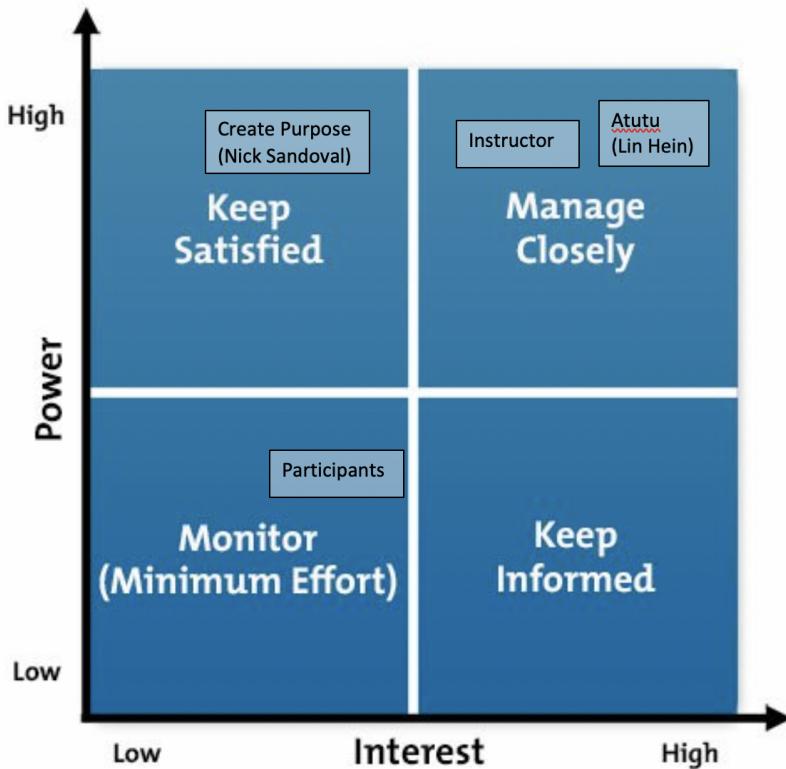


Figure 1.3: Stakeholder Analysis

Participants (low influence) - Participants are the primary users of the design sprint. They will directly benefit from the work that we have put in. The label of participant can be used for anyone that was presented with the design sprint specifically young students. They are also those that we have tested the design sprint on.

Lin Hein (High influence) - Lin is the point of contact for us throughout the quarter. He is directly involved with the progress of the design sprint. We receive useful feedback from Lin and use that to further improve upon our design.

Nick Sandoval (High Influence) - The design sprint presentation will be delivered to Nick and he is the person that will continue using it for his future events. We receive minimal feedback from him but we keep him in mind when we are creating the presentation.

Anh-Thu T. Ngo (High Influence) - Anh is the instructor for the Eng 100D course and has a high stake in the project. She works directly with the team each week to progress the project forward and gives insight on how to improve our design.

2. Problem Definition

2.1 Problem Statement

The underprivileged high school and college students of Tijuana need to be taught the concepts of human-centered design thinking in order for them to take charge of the circumstances affecting their own communities without relying on outsiders and charities.

Our group decided to tackle this project with a question: how do we create an engaging design-thinking lesson plan to educate participants who have no prior design experience? The primary and secondary sources will be listed in the references portion of the report.

2.2 Background & Context

Community empowerment refers to the endeavor of giving people the power to seize control over their own lives and affect change over their own circumstances. This idea of “empowerment” is defined by not only giving them the skills and resources necessary to affect change, but also to inspire the members of said communities to take on the responsibility of becoming their own change makers. Community empowerment is the process by which a community can gain new skills and assets, build higher capacities for problem solving and speaking out for themselves, gain access to partnerships, teamwork, networking, and exposure, and eliminate the need to rely on charities and outsiders in order to gain control of their own situation. It creates a sense of ownership and implies a call to action that explicitly aims at necessary social, political, and economic change. Community empowerment is a way of giving individuals the power to make such change for themselves and design solutions for their own community.

In communities such as Tijuana, many young students face difficulties every single day. Each day they have to deal with the struggles of living in an environment that has minimal resources and many problems outside their control. Tijuana is known to be one of the most dangerous cities in the world as it deals with the dangers of unregulated alcohol, sexual assault, medical emergencies, and gang violence. They do not have the resources to fully deal with all these issues. Imagine growing up in this environment as a child trying to learn. Create Purpose is trying to help these children by giving them outlets for growth and education. Normally these students would not have the resources to learn about design thinking and how to address the problems they see every single day.

Over time with the incremental changes and support that organizations such as Create Purpose and Atutu, the communities are able to slowly find solutions to their problems. The design sprint that Create Purpose is hosting will work with students in the Tijuana region to develop a strong connection to the community. In the future, we see that this program will spread further to other communities and more students throughout those areas. Opposed to other organizations coming into these communities and providing them with their own understanding of the problems that are there, we hope to allow the community to address their own needs first. It touches upon the root of the problems instead of the symptoms that transpire. These efforts will hopefully inspire the next generation of designers to focus on the human aspect of design. It is with this knowledge that the problems will be solved.

The event that Create Purpose is creating will be for a local orphanage in the Tijuana area. Most of the students that will participate in the design sprint will be high school level so they will be perfect for testing the design sprint. The possibilities of this presentation are not

limited to just this event, as we designed it to be multifaceted. The presentation is meant to be altered and modified in accordance with the event and what problems they want to address. The core teachings of human-centered design are embedded in the presentation but the activities are not. We hope for this presentation to be used for many events in the future and for all sorts of individuals.

2.3 User Profiles

The user profiles adapted for this report are based on participants of the design sprint. The first design sprint will be for high school students in an orphanage in Tijuana. We were unable to conduct interviews with this demographic but we were able to conduct research on students with minimal design experience. Another profile would be the staff members from Create Purpose who will conduct the design sprint. These individuals will answer questions and guide the students throughout their activities.

MARIA



Age: 16
Work: High School Student
Location: Tijuana, Mexico

EMPATHY MAP

BIO

Maria is an aspiring engineer; she wants to do well in her classes to continue her path to higher education. She has been involved with Create Purpose for 3 years now. She would like to know more about human-centered design and how she can address problems in her community in a sustainable outlook.

GOALS

- Graduate from high school
- Study Environmental Engineering

FRUSTRATIONS

- Exposed to crime within her neighborhood

NEEDS

- Mentors, preferably female that have gone into higher education, so she knows it's possible for her
- Resources to find scholarships and grants as well as more information on colleges she is interested in

SKILLS

- Fluent in Spanish and English

Figure 1.4: Participant User Profile

Journey Map:

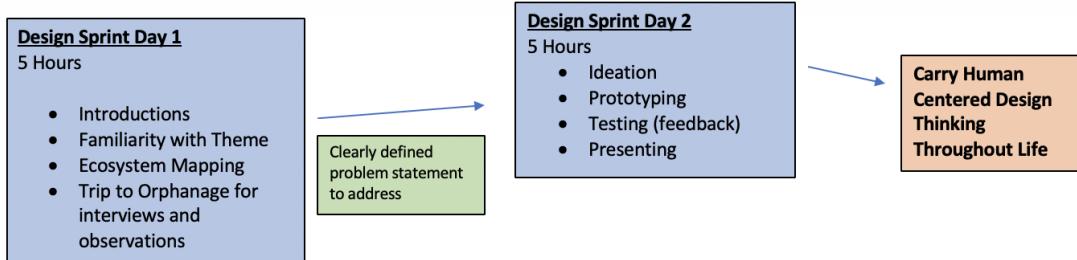


Figure 1.5: Journey Map for Participant

JOHN



EMPATHY MAP

BIO

John is a recent graduate from the Tijuana Institute of Technology. He works for a start-up company and volunteers for Create Purpose on the weekends. John has lived in Tijuana all his life and wants to bring back what he's learned to his community. He has design experience and knowledge of working in a team environment.

GOALS

- Continue giving back to his community by volunteering his time and inspiring young students such as himself
- Influenced by Nicholas Sandoval to create his own non-profit in the future to provide underprivilege students with mentors

FRUSTRATIONS

- Seeing young students not having the necessary tools for growth and development

NEEDS

- Investors and like-minded individuals to start his dream of creating a non-profit organization

SKILLS

- Fluent in Spanish and English
- Degree in Business
- Technical and Computational Knowledge

Figure 1.6: Staff User Profile

Journey Map:

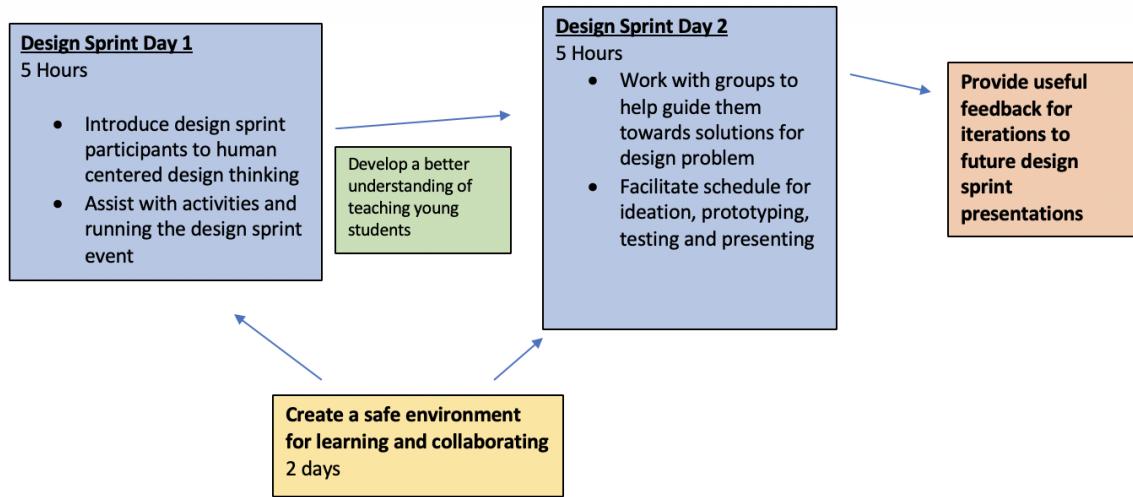


Figure 1.7: Journey Map for Staff

2.4 Design Requirements

Table 1: Measurable Design Requirements

Criterion	Requirement	Primary/Secondary
Functionality	The design sprint should be easy to understand and flow well throughout the entire process.	Secondary
Flexibility	It should be adaptable for multiple events and themes that would be used in the future.	Secondary
Sustainability	The design will be able to last and be able to go through different iterations for a broad demographic.	Primary
Inspirability	The design should have examples and through the feedback inspire participants while being educational.	Primary
Usability	How accessible is the design and can others use it without much help from the designers of the design sprint.	Primary

3. Concepts

3.1 Existing Solutions Analysis

Google Design Sprint:

Incorporated the skeleton of a design sprint with the main topics being mapping, sketching, deciding prototyping, and testing. The key difference for this example was that it was focused on coders and programmers as well the design sprint was done in one day. The examples were not representative of what our current demographic requires. Our design sprint is broken up into two days so that is also another difference that we took into consideration.

Eng 100D HCD Lecture:

The Google Design Sprint and the lectures on this topic had the same understanding of what a design sprint was. The main takeaway was the information on the topics of design sprint and the ideology of human centered designs. The activities within the lectures were insightful but Create Purpose will be using their own activities for the day of the event.

UCSD Social Innovation Sprint Day 1:

Inspired the design and layout of the our design sprint presentation. We used the same aesthetic of this example that Lin Hein sent us. We did not use the same material that was shown only the format and style of the presentation.

UCSD Designathon Seeks to Reimagine Trolley Stops:

Used the ideology of the event for how human centered designs are used in a real world situation. Listened to the speakers and kept in mind their teachings for how to create an effective design sprint for non-design influenced individuals. Used information that directly reflects on the ideas displayed during this event.

3.2 Concept Generation

Our four designs were more separate drafts than separate concepts, because we were asked to build a presentation, a very specific medium. With each prototype we wanted to improve upon the last, and how we decided what should be improved was based on a combination of feedback from Lin, Nicholas, the Teaching Assistants, and from our own personal assessments. We still had no access to the end users so relying on our own opinions as college students ourselves became extremely valuable.



First Concept: Brain Dump Skeleton

Tagline: Our first prototype was really a **blank canvas** on which we brainstormed on what needed to be included in the lesson plan.

Core Needs: It was essentially a bare skeleton, a **checklist** we created for ourselves on which **concepts** we needed to summarize and demonstrate for the students. It also helped us **prioritize** and divy responsibilities between the three of us so that we knew which concepts we would be assigned to building in the next design stage.

Strengths: Easy to follow, simple, bullet-point style slides.

Weaknesses: Bare, no real content, nothing teachable included yet.



Second Concept: Content Cultivation Map

Tagline: Building upon the outline created with the first prototype, we started filling the slides with **concept summaries**, **process explanations**, and just **necessary text**.

Core Needs: We didn't care too much about the visual elements in this phase, we just wanted to get as much **necessary content** as possible into the presentation.

Strengths: Content conception was successful. This is where we also decided we wanted to include engaging elements to make the lesson plan presentation more dynamic. We decided to start development on a video to include based on the same content included in the presentation.

Weaknesses: The content would still later be expanded again once we realized we also needed to include information about the organizations involved.



Third Concept: Organization and Visual Aids

Tagline: With the content and text all filled out from the second prototype, we started focusing on making the presentation effective as a **real-world instructional tool**.

Core Needs: We decided that we needed to start taking **visual presentation** into account, organizing the slides in a way that made sense visually and including images that would help the description of the concepts. Blanket text on a slide is not usually effective in **engaging an audience intellectually**, so we decided that we needed to design an aesthetic theme to help create a sense of coherence and formality that would still stimulate an audience creatively.

Strengths: We found and created a lot of images to fit the slides and we further summarized the text to cut down on written content so the slides would be more **balanced visually**, and we ended up still with **22** slides.

Weaknesses: Still missing an element of **formality** and **cohesion**.



Final Concept: Human-Centered Design Lesson Plan

Tagline: In the final phase of development we focused on **visual and physical organization**.

Core Needs: The full breadth of the aesthetic theme was implemented and gave **cohesion** and **visual formality** to what was previously a very basic powerpoint. We also wanted to make sure the content would **inspire community empowerment** for the participants.

Strengths: The video was completed and included at the beginning of the presentation to **introduce the design process and human-centered design concepts** in a way that is **visually stimulating and intellectually engaging**, and which we hope will spark a sense of **pride and inspiration** so the participants will engage in **change making** in their own communities long after the event. Information about Atutu & Create Purpose was also added so they receive the recognition they deserve.

Weaknesses: With still no access to the end users we could not properly conduct testing.

3.3 Concept Evaluation & Selection

For our concept evaluation and selection, the criteria we focused on was presentation format, content, aesthetic, engaging elements, educational, and time consumed. **Presentation format** focused on the organization of the slides. This was in terms of how the slides were formatted. We made sure that it was professional and concise. The **content** fixates on the material and information that we researched and included in the presentation. The **aesthetic** criteria focuses on the theme of the presentation to draw the audience's attention. The **engaging elements** criteria includes part of the visual aspects included in the presentation as well as a video component of the presentation. The **educational** criteria focuses on the lesson plan by facilitating learning and attempting to teach or improve skills to apply for the design sprint. The **time consumed** criteria focuses on how efficiently we used our time during the production process.

1. **Prototype 1** was our initial implementation and skeleton for the project. Initially, we started off with a skeleton and did a brainstorm of what was needed in terms of concepts for the presentation. Whenever we implemented a change or a new prototype, we made sure to contact Lin and Nicholas to receive feedback. In this prototype, the goal was just to explore potential topics we might want to explore for the design sprint. This meant just adding a few bullet points based on our understanding of the human-centered design process.

(+) What Worked? <ul style="list-style-type: none"> • Topics for each slide. • Layout and ordering of the slides. 	(X) What could be improved? <ul style="list-style-type: none"> • The content needs to be added into each topic. • Fixing the schedule slide to be more informative and creative.
(?) Questions <ul style="list-style-type: none"> • How many hours are in each day? • Is it possible to make the interview at the end of the day? 	(!) Ideas <ul style="list-style-type: none"> • Put the interview after Day 1 because it might take a chunk of the already limited time.

Figure 1.8: Prototype 1 Capture Grid Feedback

2. In **Prototype 2**, this was implemented after we got approval for Prototype 1 from Lin and Nicholas. They gave us some suggestions and points to improve from the first prototype. They also included more detailed descriptions of each subject area we were covering. After the approval, we duplicated Prototype 1 and added on to each topic. This included implementing the content, adding simple images, and brief summaries for the descriptions of each topic subject. With the descriptions came the information about Atutu and Create Purpose which was a big component of the presentation. We also implemented a brief introduction and conclusion.

(+) What Worked? <ul style="list-style-type: none"> • Finished almost all the content for each of the slides with informative content and data. • The diagrams and pictures included in each slide topic contributed more creativity and made it look more put together. 	(X) What could be improved? <ul style="list-style-type: none"> • The theme of the presentation should be established and relate it to the colors of Create Purpose. • Increase the content for each slide with meaningful diagrams. • The schedule for the whole day as well as Day 1 & 2 needs to be
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<ul style="list-style-type: none"> The schedule layout and task diagram. 	<p>improved and related back to the theme of purple.</p> <ul style="list-style-type: none"> Keeping it simple is also ideal.
<p>(?) Questions</p> <ul style="list-style-type: none"> How should we prepare the theme of the diagram? How will we measure and test the productivity of our slides and explanation? 	<p>(!) Ideas</p> <ul style="list-style-type: none"> Include a survey to measure how the audience and participants comprehended the material The survey will help gauge the parts that worked as well as the parts that were a bit more lacking. Focus on the purple theme, but make it more simplistic.

Figure 1.9: Prototype 2 Capture Grid Feedback

3. **For Prototype 3**, this became the almost finished product of the presentation. After showing Prototype 2 to Lin and Nicholas, we received feedback and approval from them. This was the prototype where the video could be implemented. This was a big contribution in terms of our creativity, aesthetic, engaging element, and educational criterias. We were focused on getting that finished and eventually adding it onto the presentation. For this prototype, we just bucked down on cleaning the presentation by organizing and formatting the material well.

<p>(+) What Worked?</p> <ul style="list-style-type: none"> Theme of the presentation has been improved and connected it back to Create Purpose. The diagrams were improved to be more creative, but still informative and simple. Content has been significantly improved. This included simplification and focusing on the main points without having the slide be too overwhelming. The video that will assist in explaining the Sprint for those who work better visually watching a video explanation. 	<p>(X) What could be improved?</p> <ul style="list-style-type: none"> Still need to edit the video to see if it runs correctly on the presentation. Complete the themes of the whole presentation. Fix the diagrams to fit more with the whole presentation. Fix the themes of the schedule, and add more schedule for Day 2.
<p>(?) Questions</p> <ul style="list-style-type: none"> Should we take out the “identify problem” before the interviewing portion? How can we incorporate Spanish into the presentation (if it’s even possible since we do not speak any Spanish)? 	<p>(!) Ideas</p> <ul style="list-style-type: none"> Adding to Atutu’s mission statement and getting a direct quote from Lin. Fix Create Purpose’s mission statement.

Figure 2.0: Prototype 3 Capture Grid Feedback

4. For the **Final Design**, this was when we brought together all of the 3 prototypes and improved the problems. We fixed the mission statement as well as adding the direct quote from Lin. We also collectively decided to take out “identify problem” to help better the flow of the presentation. The theme is all complete and goes with the purple and white theme we decided to pursue. We did receive feedback from the TA’s, professor, and Lin & Nicholas and made sure to incorporate it in the newly designed Final Design.

(+) What Worked?	(X) What could be improved?
<ul style="list-style-type: none"> The theme of the presentation has been completed and fully implemented for all the slides The video has been incorporated and included in the beginning of the presentation. All the details and write up information has been condensed and edited. 	<ul style="list-style-type: none"> There can be more data testing and testing in regards to using the survey to get feedback Polishing up the slides with more diagrams if need be.
(?) Questions <ul style="list-style-type: none"> How can we create a more inclusive presentation in regards to communication? <ul style="list-style-type: none"> How do we translate it into Spanish efficiently? 	(!) Ideas <ul style="list-style-type: none"> If more time was given: <ul style="list-style-type: none"> Create a Spanish version of the presentation Do more user testing with the survey

Figure 2.1: Final Design Capture Grid Feedback

Criteria	Weight	Prototype 1 (Baseline)	Prototype 2	Prototype 3	Final Design
Presentation Format	1	0	+1	+1	+2
Content	2	0	+1	+1	+1
Aesthetic	1	0	-1	+1	+2
Engaging Elements	2	0	0	+1	+2
Educational	2	0	+1	+1	+1
Time Constructive	1	0	+1	+1	+1
Weighted Total		0	5	9	13

Figure 2.2: Pugh Chart

For our **final design**, we were able to collect all the feedback from Lin and our own critiques to bring a more polished and simplified presentation. We included the instructional video at the beginning of the lesson plan to give an overview of the process and its concepts. This way, there is an alternate way of explaining the instructions rather

than just listening to a presentation. It gives a good preview of the presentation explanation and gives a stronger understanding from the start. We also included a survey at the end to get feedback on how well the audience and participants understood the presentation. The theme and diagrams were perfected and analyzed to see what fit Atutu & Create Purpose best. Simplicity was what we were going for, but with some aesthetics to draw the audience in.

4. Analysis & Testing

4.1 Overview

Since we as a team will not have access to the real end users because we will not be attending the event in Tijuana, we had to come up with users similar in demographics and education in order to do any testing of our design. We each asked a few of our peers to participate in a presentation of the lesson plan and then fill out our google form to evaluate our design and give us feedback on how they thought our engagement and education fared. While we know the students of Tijuana will hopefully be experiencing this presentation in Spanish, and that they will be participating within a theme relevant to their community, we had to collect at least the research we could reach.

Table 2: Solution Summary

Evaluation Criterion	Metric	Target Value	Result	Evaluation Method
Functionality (How was the quality of the slides?)	Positive Comments	Positive Feedback	“Well thought out and well executed”	Feedback Form
Understandability (Were the slides easy to read?)	0-5 rating	4+	5	Feedback Form
Informative (How informative was it overall?)	0-5 rating	4+	4.5	Feedback Form
Usefulness (Which topics were useful?)	0-5 rating	4+	4.25	Feedback Form

4.2 Desirability & Usability

Introduction:

Hypothesis: The presentation is a clear, concise, and aesthetically appealing way of explaining the design process.

Methods/Testing Procedure:

Since we **do not have access to the end users** of those who will be attending the design sprint, we decided to focus on a similar age group that is attending UCSD. The design sprint participants will be high schoolers and college students who do not know anything about the design thinking process. We decided to interview UCSD students from different majors and backgrounds who are not very aware of the design thinking process, just like the participants of

the design sprint. We will present our final design presentation to our audience. To get feedback from the user, after the presentation we asked them to complete a survey.

Tiffany Streitenberger: <u>Interviewee:</u> Jessica Kang <u>Position:</u> UCSD Sociology Recent Grad
Angelina Harris: <u>Interviewee:</u> Teagan Rutkowski <u>Position:</u> UCSD Music and Theatre double
Rex Le: <u>Interviewee:</u> Kevin Nguyen <u>Position:</u> UCSD Bio-Chem Grad Student
<u>Interviewee:</u> Vy Huynh <u>Position:</u> UCSD Cogs Sci, Minor: Design

Results & Discussions:

Findings:

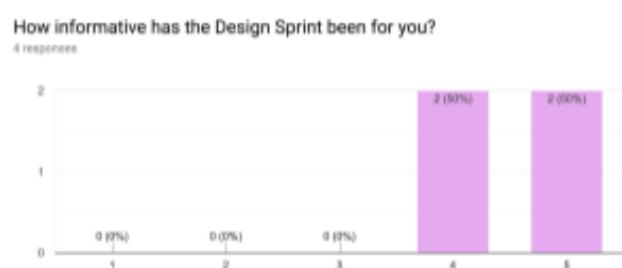
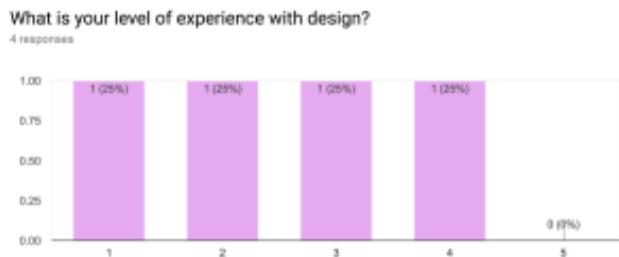


Figure 2.3: Experience Level Response

With our user testing, the results of the survey showed that there was a wide scale of the user's experience with design. This made the testing pool more diverse, which ideally we would want them to not have any understanding of design. But in the design sprint event, there is a chance that there will be those who are aware of design. This is why it is important to add design experiment in the survey (See photos in: *Figure 2.3*).

Figure 2.4: Informativity

The survey showed that all of the participants found the presentation very helpful. Our presentation did it's goal by efficiently teaching the users about design sprint (See photos in: *Figure 2.4*).

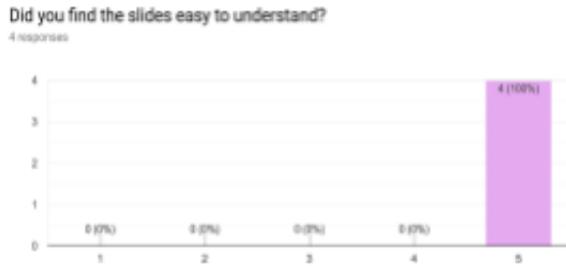


Figure 2.5: Video Response

The video proved useful where the participants rated the video as relatively helpful. (See photos in: *Figure 2.5*).

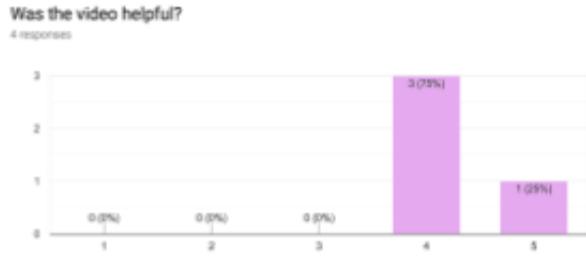


Figure 2.6: Experience Level Response

Our survey showed that all users unanimously agreed that the slides were easy to understand. (See photos in: *Figure 2.6*).

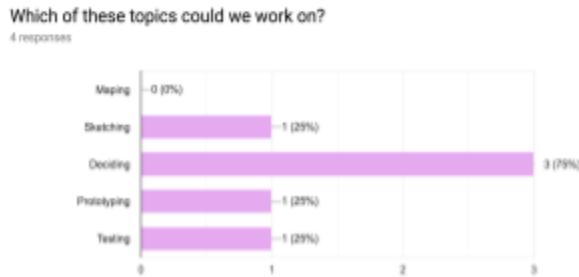


Figure 2.7: Chart of Topic Usefulness

The survey showed that Sketching and Prototyping was the most useful in understanding design. This means that brainstorming is important for the slides (See photos in: *Figure 2.7*).

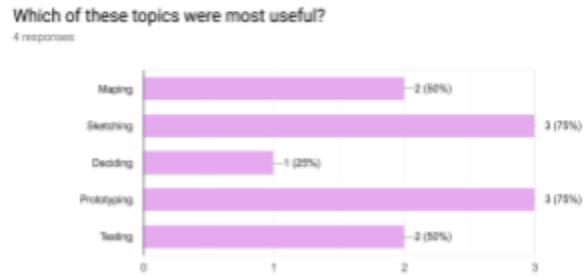


Figure 2.8: Chart for Topic Improvement

It seemed that Deciding needs to be worked on and making a clearer explanation as to what the Deciding slide comprises of (See photos in: *Figure 2.8*).

Limitations of Results:

- Our sample users were UCSD students, either considered a Student or Tester
- Although they are college students, ideally we wanted to test based on the actual participants of the design sprint.
- Some feedback we received from our sample users:
 - “Just make sure all parts of the slides are legible, there were a few that were a little hard to read since the color of the text and background were a little too similar”.
 - “Maybe if there was some sort of hands-on activity to demonstrate the different steps specifically for prototyping”.

Which part of the design sprint are you apart of?

4 responses

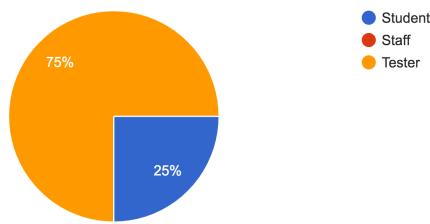


Figure 2.9: Pie Chart of Participant Designation

Conclusion:

After reviewing our results from the survey, it shows that our presentation proved it's goal of forming a new or better understanding of design thinking to the audience. The results showed that all the users found the presentation useful and they learned more about design thinking. Since it is a presentation and accessible online, it does not have any safety concerns. It is also very simple to use and the users had no complaint about difficulty of comprehension as to how the survey worked.

4.3 Feasibility & Other Design Requirements

We found that our design sprint presentation is feasible based on the responses we got back from our testers. We used a Google Feedback Form that asked questions on our design criterias listed in table 4.3. The feedback form will be more useful as the amount of people participating in the design sprint grows. We understand that these users are different from the end users but they should have insightful comments for us to gauge the effectiveness of the design sprint.

Table 3: Solution Performance Analysis Based on Design Requirements

Criterion	Requirement	Performance Analysis
Functionality	The design sprint should be easy to understand and flow well throughout the entire process.	Slides were rated highly and was easy to understand based on the overall feedback
Flexibility	It should be adaptable for multiple events and themes that would be used in the future.	Core information is informative and won't be changed entirely but activities and examples are easily added with Google Slides
Sustainability	The design will be able to last and be able to go through different iterations for a broad demographic.	Based on how well received the design sprint is for the upcoming event will determine how sustainable it is but the content will stay relevant for future use
Inspirability	The design should have examples and through the feedback inspire	There are few examples but can be added based on the themes and events

	participants while being educational.	that will take place.
Usability	How accessible is the design and can others use it without much help from the designers of the design sprint.	The design sprint format is very accessible and easy to use because of the platform used

4.4 Sustainability

We have determined the sustainability of our lesson plan design based on the following factors:

Table 4: Sustainability Rating

Ecological Sustainability	Economic Sustainability	SocioCultural Sustainability	Solution Elements	Areas for future improvement
Minimizes need of materials	Low cost to implement	Culturally appropriate, useful to users of these demographics	Minimum materials, designed for lamen	Could be translated into a more native language
Minimal waste	No effect to user financial security	Community plays an active role in the process	Human-centered design activities	Themes for activity (C.P.)
Accessible	Low cost to maintain	Easily replicated	Online content	
Reliable and multi applicable	Designed for self sufficiency	Promotion of social justice and community empowerment	Google Slides presentation format & video	Implementation of Google Form feedback

As you can see, our design is very **ecologically sustainable** in that it is an online presentation with a format that is ripe for improvement and adjustment through data gathered from presenters and participants by filling out our **built in feedback form**, and because it is a **low-waste solution** requiring minimal supplies and materials, which also makes it **ecologically sustainable** due to online access and low materials cost. Finally, the activities and community empowerment tools make the design **socioculturally sustainable** through the education and implementation of human-centered design and change making empowerment.

5. Design

5.1 Overview

The lesson plan design once it was fully developed became a beautifully **organized, visually engaging, aesthetic** presentation which implemented **dynamic elements** such as video, images, and described step-by-step activity through **human-centered design concepts** and **content** that would not only **equip** the participants with **design development, problem identification and assessment, and solution finding skills**, but would also inspire them to address these problems with **self reliance** and give them the **confidence and inspiration** to become **change makers** and build **community empowerment** through the experience gained through the **design sprint event**.

Use Scenario:

It is specifically designed for the Create Purpose design sprint event, the first of which will take place in Tijuana, Mexico, and will be used, as we have established, to educate students in Tijuana about the design thinking process and the concepts of human centered design, and to empower these students to go out and assess problems that they can design for themselves through self-sufficiency and community engagement.



Figure 3.0: Examples of Slides in our Lesson Plan

5.2 Detailed Design

Our design is a Google Slides powerpoint presentation with step-by-step instruction on the concepts and process of human-centered design thinking, complete with visual aids, definitions and summaries, a dynamic video, introduction and conclusion. We designed it to be both visually engaging and intellectually stimulating, with the goal of leading participants to become active change makers in their respective communities.



Figure 3.1: The Final Design in Edit Mode

Usability

The concepts for education include human-centered design, community empowerment, the design-thinking process with demonstrative activities and how-to slides, a schedule of procedures to go through during the sprint, and a brief introduction of the host organizations, Create Purpose and Atutu. The presentation explains what a design sprint is, and walks through each phase of the design process with the participants, ideally to be explained by the volunteers as the groups reach each phase of the sprint.

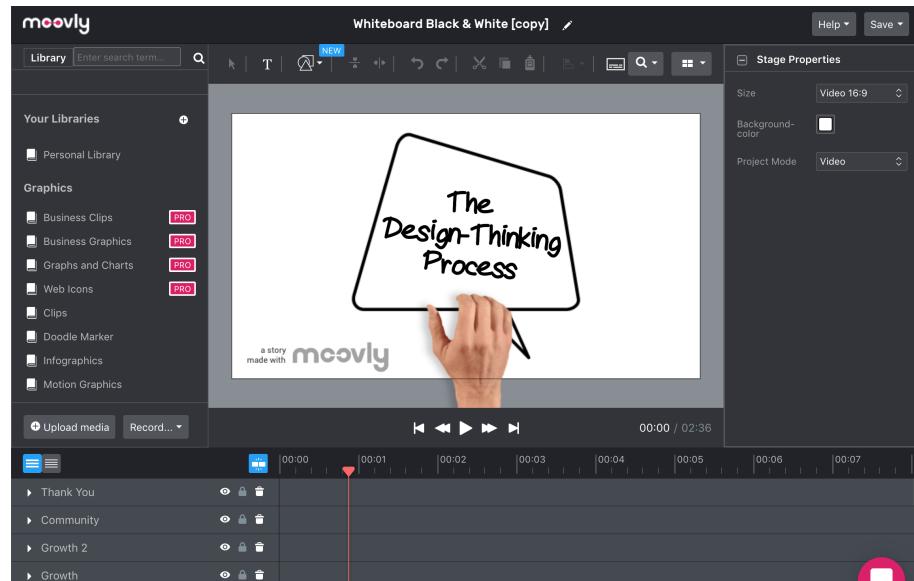


Figure 3.2: Moovly.com Editor

Desirability

Lectures and presentations can be repetitive and boring when there are no dynamic elements to promote entertainment and participation. Our lesson plan design combats this tendency to be boring through our use of activity building topics and dynamic elements. Our summary video which presents the concepts in a fast-paced rendition of the process accompanied by exciting music, animated moving visuals and transitions, and with a call to action at the end which not only kicks off the design sprint event, but urges the participants to remember these lessons and implement them when they return to their daily lives, promoting community empowerment and self sufficient design practices.

Feasibility

This lesson plan can really accommodate events of any size, from a single start-up group of five, to a hundred-person event with teams of thirty. Create Purpose wanted a design that was simple, educational, and multi applicable to any themes, communities, and audiences of their choice. Since the presentation is accessible online it is available anytime, anywhere, with access to the link.

The screenshot shows a Google Feedback form titled "Design Sprint Presentation Feedback". It begins with a congratulatory message: "Congratulations on completing the design sprint! We hope you have come out of this experience with a better understanding of what human-centered design is." A note indicates that the "Student" option is required. The next section asks, "Which part of the design sprint are you apart of? *", with three options: "Student" (selected), "Staff", and "Other: _____". Below this is a question about experience level: "What is your level of experience with design? *", with a scale from 1 ("No Experience") to 5 ("Very Experienced"). The "Student" option is selected at the 1 level.

Figure 3.3: Google Feedback Form

Sustainability

The growth strategy for this project is built around the use of our Google Feedback form. The students and volunteers participating in the design sprint event will ideally fill out this form at the end of the event to create data on the effectiveness of the event and the presentation which can be implemented by Create Purpose and their team. The Google Slides presentation is a live electronic document on the internet, and as long as the permissions are shared correctly, the document can be edited and expanded or cut down in any way the program permits. Future endeavors like translating the presentation into different languages, adding new concepts and adjusting to fit future themes and new technologies, and even changing the length of the presentation to accommodate fluctuating time constraints, are all extremely attainable goals for improvement within the realm of this design. It is also low-cost, low-waste, and low-resource requiring because the activities involved require no more than paper and pencils, unless the Create Purpose team chooses to expand upon them.

Images of each individual slide can be found in the appendix, figures 4.1-6.3.

6. Implementation & Impact

6.1 Implementation

In order for us to create a wide spread design sprint presentation, we must work directly with our partner organization to ensure they are moving in the right direction. Our main goal of having our design reach a large demographic lines up with Create Purpose's Problem Statement. Their goal is to equip local communities within the Tijuana Community with tools to empower their youth for sustainable solutions. Along with Create Purpose, Atutu is also available to adopt our design sprint for their personal use in educating their demographic. One obstacle that comes to mind is the language barrier between all the demographics that Atutu and Create Purpose are working with. This was first seen in our brainstorming session at the beginning of the quarter. None of our group members were fluent in Spanish which was a cause for concern. We had to move forward with our design and have the foresight to translate the slides and video into other languages in the future. The design sprint will have real world implementation once we hand our design to Nicholas Sandoval, the founder and CEO of Create Purpose. We place our design and trust onto Nicholas to move forward with the project.

6.2 Failure Analysis

Table 5: FMEA

Major Process Step	Potential Failure Mode	Potential Effect of Failure	Severity (Rate 1-10)	Cause of Failure Mode	Occurrence (Rate 1-10)	Detection (Rate 1-10)
Deliver design to Nicholas	Design was not delivered	No design for future events	10	Lost in translation or file corrupted	1	1
Continue design to next event	Unable to adapt design to new theme	Not able to have as relevant sprint w/o new examples	7	Unable to access file	1	1
Have participants take feedback form	Participants don't take feedback form seriously	Unable to have data to improve design sprint or know how effective it was	5	Did not give enough emphasis on feedback form at the end of the design sprint	7	1

Table 6: Scoring Scale

Severity	Description	Frequency	Description	Detection	Description
1	No actual impact to project	1	Infrequent	1	Simple to identify
10	Entire Process would fail and have a negative impact	10	Daily occurrence	10	Impossible to identify

6.3 Monitoring & Evaluation Plan

In order to see how well the program has done in the future we have some indicators that will give us a representation of the effect of our design. We hope that the impact creates a domino effect for the communities that are involved with the design sprints that Create Purpose will create. We hope to see that the design will continue to inspire many students for many years to come. Since the presentation and the format for our design is online we hope to collect data in order to monitor the progression of the design sprint. This is with the vision and direction of Nicholas so we are unable to provide any more feedback in this regard.

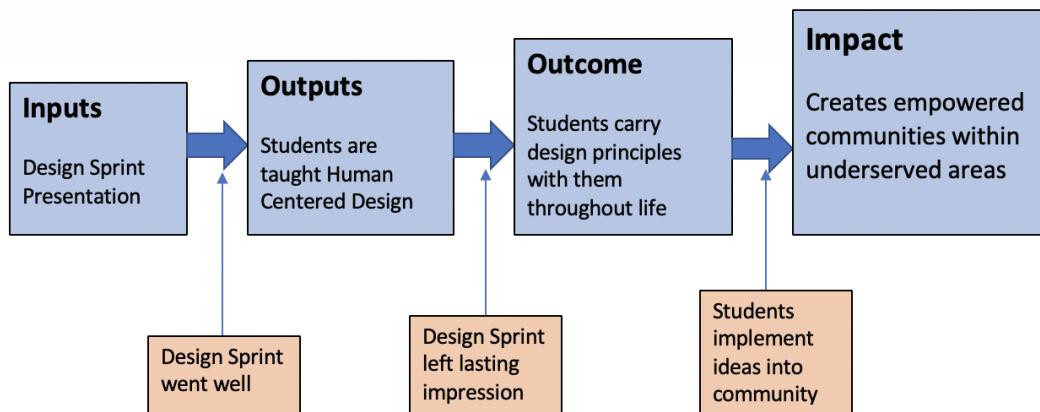


Figure 3.1: Theory of Change

Table 7: Monitoring and Evaluating Table

	Objectives	Indicators	Baseline	Target	Means & Timeline of Verification
Inputs	Design Sprint Presentation	Events produced by Create Purpose	0	3 per year	Check in with Create Purpose occasionally

Outputs	Students are taught HCD	# of students participating	0	10-30	Check in with Create Purpose occasionally
Outcomes	Students carry design principles with them	No real indicator (individual indicator)	0%	60%	Feedback form in the future
Impacts	Creates empowered communities	Increased Standard of Living	Standard Rate	Positive Rate	News reports in the area

6.4 Ethical Analysis

The people who benefit most from our design are the participants of the design sprint. These individuals will have the most impact from design thinking. Hopefully it will inspire them to create change within their own communities. The main demographic when we were creating the design sprint were young students that have no experience in design. This will give them a basic understanding of how effective design thinking is. Each event will be different so each participant will come out of the event with a different understanding and perspective. But the main points should be followed through and emphasized with activities and examples that the moderators will create for each event.

The main people that will have to take on the most consequences will be the people running the events. This will take time away from their own lives to host this event. Create Purpose is a non-profit organization so they will heavily rely on volunteers. There will be no monetary incentive but will lead to a more enriching experience. There should not be any unintended consequences or problems from this design because the ideas are widespread and positive in the sense.

7. Conclusion & Recommendation

For their first sprint to be held in Tijuana, Create Purpose and Atutu tasked us with designing a lesson plan that would explain and demonstrate the concepts of human-centered design and the design thinking process in a way that would be engaging and empowering to participating communities. Since the three of us had never participated in a sprint and had no idea what an event like that would look like, we held an interview with Lin Hein and Nicholas Sandoval, our respective points of contact to gain some clarity into the organization's needs and expectations for our design. Once we had a clear idea of what we were asked to create, which we determined was an educational presentation, we decided to first approach this with a brainstorm session which resulted in a brain dump powerpoint of concept bullet points, a skeleton upon which we would build the rest of the educational content. With each of our design phases we added more content, revised and organized said content, received and implemented feedback from Lin, Nicholas, and our instructors, and added or eliminated elements based on effectiveness and usability. Our final design was an aesthetic, organized, visually engaging Google Slides presentation with a step-by-step explanation of the human-centered design process with activity descriptions, visual aids, a summarizing introduction video, information about Atutu and Create Purpose, and an explanation of the mission of the design sprint. Without access to the end users of the design, we chose to conduct testing on a similar audience, peers and students at UCSD with no prior design experience, of the same educational and age level. Our findings were promising and confirmed that our design was effective and successful, with room for improvement.

Growth is always a potential in every design endeavor, and we specifically created this design with channels for improvement in mind. As an online Google document, the product is live and editable by those with email permission, which is granted to Nicholas and Lin, and can be expanded to include necessary editing parties within the organization. In order to track and assess the product's continuing effectiveness, we have embedded a Google Feedback form at the end of the presentation, so Create Purpose can collect feedback both from the students who participate in the sprint, and from the volunteers presenting the lesson plan, so that we have feedback which can improve the design on both ends. Further recommendations for implementation in the future first includes the endeavor we were unable to undertake ourselves due to time constraints, translating the presentation into Spanish so the native students who struggle with English can more easily understand the concepts and summaries within the lesson plan. This is also applicable to any other languages in any other countries in which Create Purpose plans to host similar future design sprint events. Giving participants the option to learn complex concepts in their native tongue bridges a gap of true understanding that even bilingualism doesn't necessarily always solve, and it can create a better sense of comfort and support as the students venture out of their comfort zones into the world of design.

This team, **Design Sprint Lesson Plan**, through the collaboration with Atutu and Create Purpose as well as the ENG 100D course at UCSD, Winter 2019, created an online Google Slides presentation formatted **lesson plan for human-centered design sprint events** which is intended to **educate and empower communities** through the design thinking process. This is a low-cost, low-resource lesson plan that can be implemented in numerous types of design sprints, and we hope that it will be used by Create Purpose to impact a wide range of underprivileged individuals and communities.

8. References

Primary Sources:

Hein, Lin. Personal Interview. 30 Oct, 2019.

Huynh, Vy. User Testing Google Feedback Form. 11 Dec. 2019.

Kang, Jessica. User Testing Google Feedback Form. 10 Dec. 2019.

Nguyen, Kevin. User Testing Google Feedback Form. 10 Dec. 2019.

Rutkowski, Teagan. User Testing Google Feedback Form. 11 Dec. 2019.

Sandoval, Nicholas. Personal Interview. 30 Oct, 2019.

Secondary Sources:

Atutu.Org, 2019, <https://www.atutu.org/>.

"Create Purpose". *Create Purpose*, 2019, <https://www.createpurpose.org/>.

"Designathon Seeks To Reimagine Trolley Stops - UCSD Design Lab". *UCSD Design Lab*, 2019,

<https://designlab.ucsd.edu/designathon-pepper-canyon-mobility-hub-trolley-stop/>.

Ngo, Anh-Thu. "Lecture 2 HCD". 2019.

Reynante, Brandon. "Social Innovation Sprint". 2019.

"Share And Engage With The Design Sprint Community". *Designsprintkit.Withgoogle.Com*, 2019,

<https://designsprintkit.withgoogle.com/introduction/overview>.

"What's A Design Sprint And Why Is It Important?". *Medium*, 2019,

<https://uxplanet.org/whats-a-design-sprint-and-why-is-it-important-f7b826651e09>.

9. Appendix

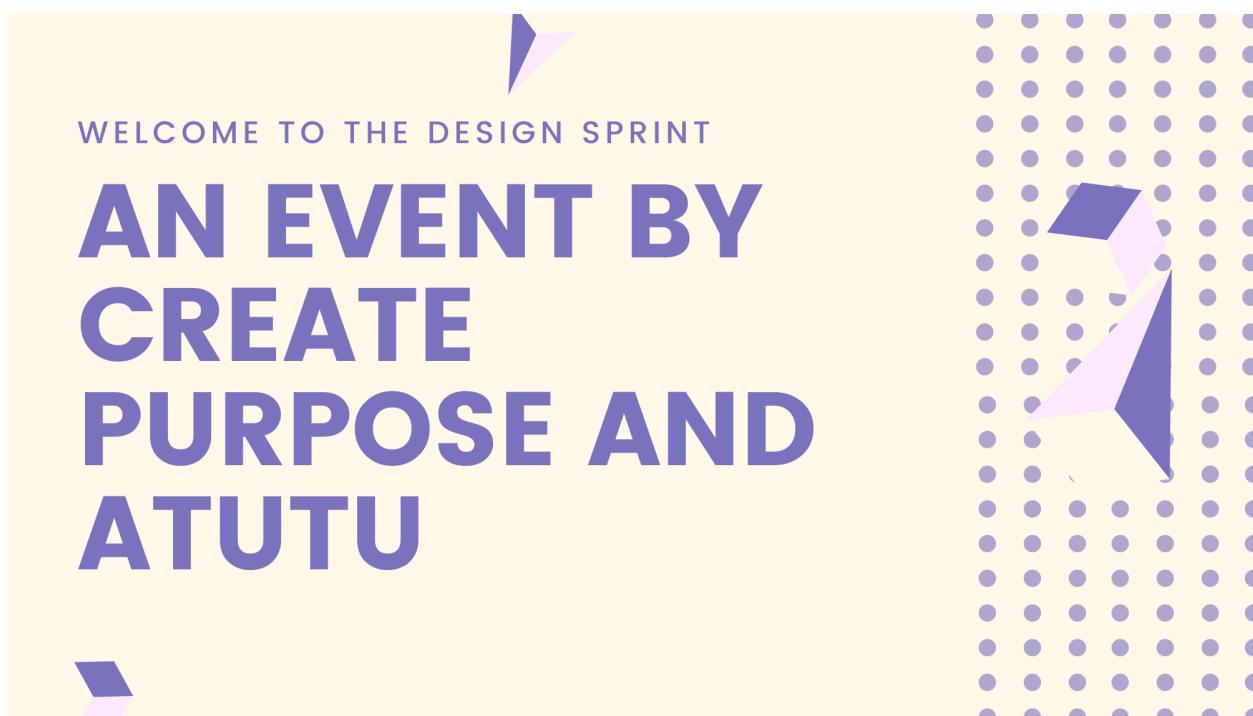


Figure 4.1

A slide comparing two organizations. On the left, the "Atutu" logo is shown, which consists of a white stylized figure on a grid of blue dots. Below it, the text "Atutu" and a brief description: "Non-profit organization that works directly with communities Myanmar, Mexico, and India to develop change from within". On the right, the "CREATE PURPOSE" logo is shown, which is a blue and green circular icon. Below it, the text "CREATE PURPOSE" and a brief description: "Based in Mexico, wants to provide hands on education for young students so they can carry this knowledge throughout their life". The "create purpose" logo also includes the text "create purpose" next to the icon.

Figure 4.2

Create purpose mission statement

Promote sustainable and equitable community development through research and educational programs for children and adolescents in vulnerable situations that facilitate their integral development and identification of their life purpose.



Promover el desarrollo comunitario sostenible y equitativo mediante la investigación y programas educativos para niñas, niños y adolescentes en situación de vulnerabilidad que faciliten su desarrollo integral e identificación de su propósito de vida.



Figure 4.3

Introduction

We welcome you and thank you for joining us in the design experience!

You will be guided and instructed through the stages of what we call

THE DESIGN THINKING PROCESS

We'll use the process to design a product or system that benefits the community or solves a problem among the individuals we interview. You can be as creative or as practical as you feel is necessary in this project, and we encourage you to push the limits of what you think you can achieve. Never used design thinking before? Don't worry, we've fashioned this presentation to help you every step of the way. To kick us off, here is a video to demonstrate how design thinking works.



Figure 4.4



Figure 4.5



Figure 4.6

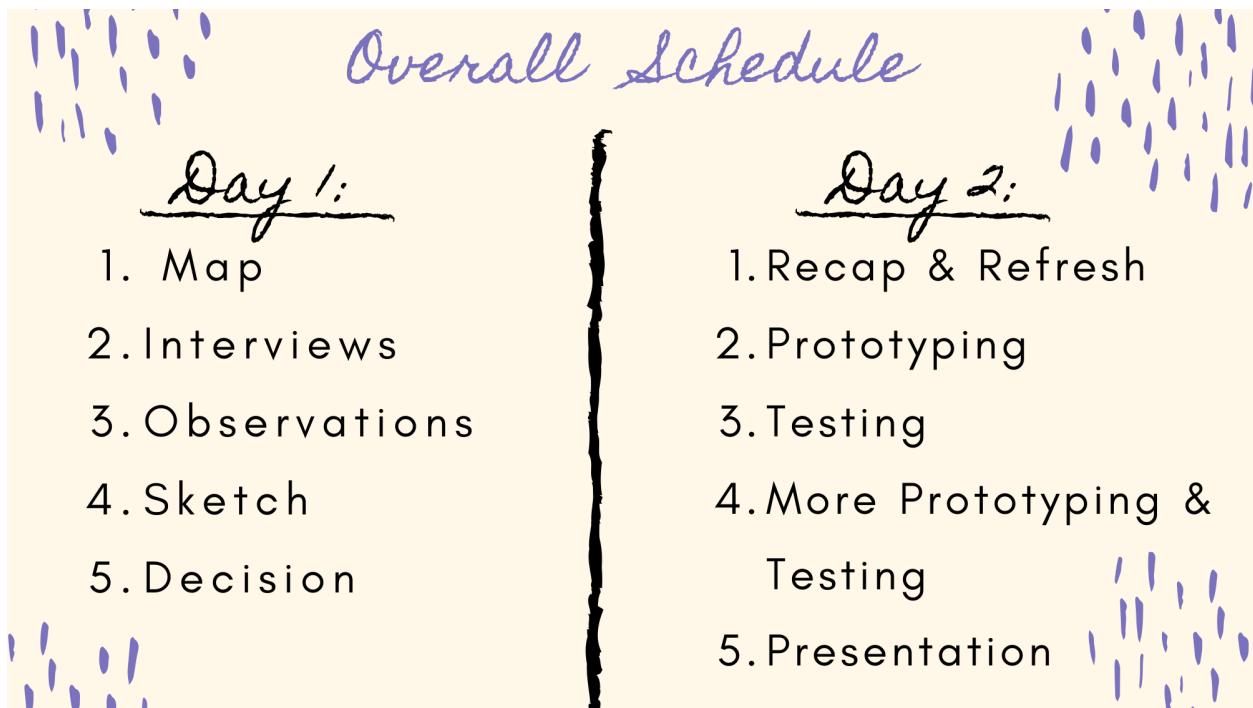


Figure 4.7

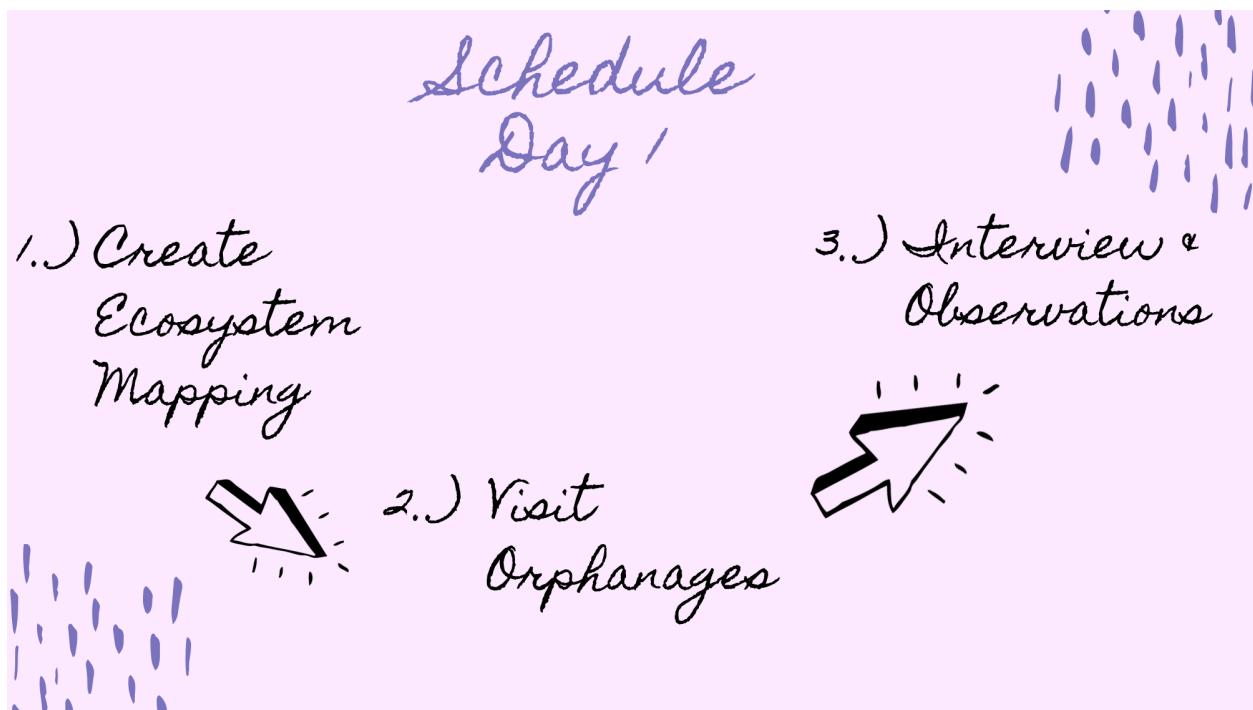


Figure 4.8

Let's put this process into practice!

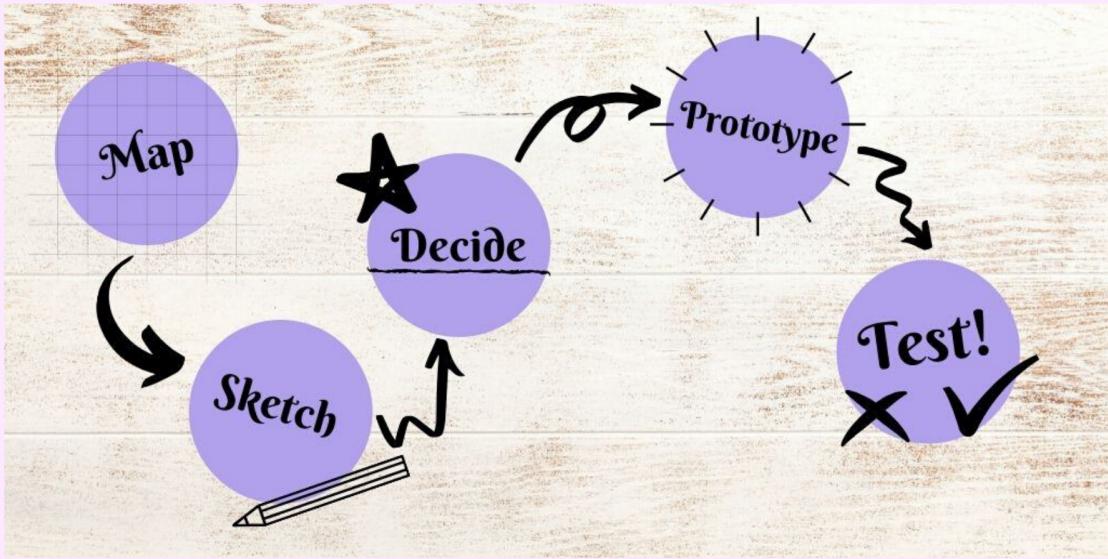


Figure 4.9

Map

Understand the problem at hand and map out the critical areas to focus on:

- Who are the users?
- What are the users' needs?
- What is the context?
- Competitor reviews
- Formulate strategy

Understand to be understood. The first part of the Design Sprint requires inviting the “right” people to share business goals, technology capability, and user needs. The goal of this stage is to expand the understanding of the product and project.

Figure 5.0

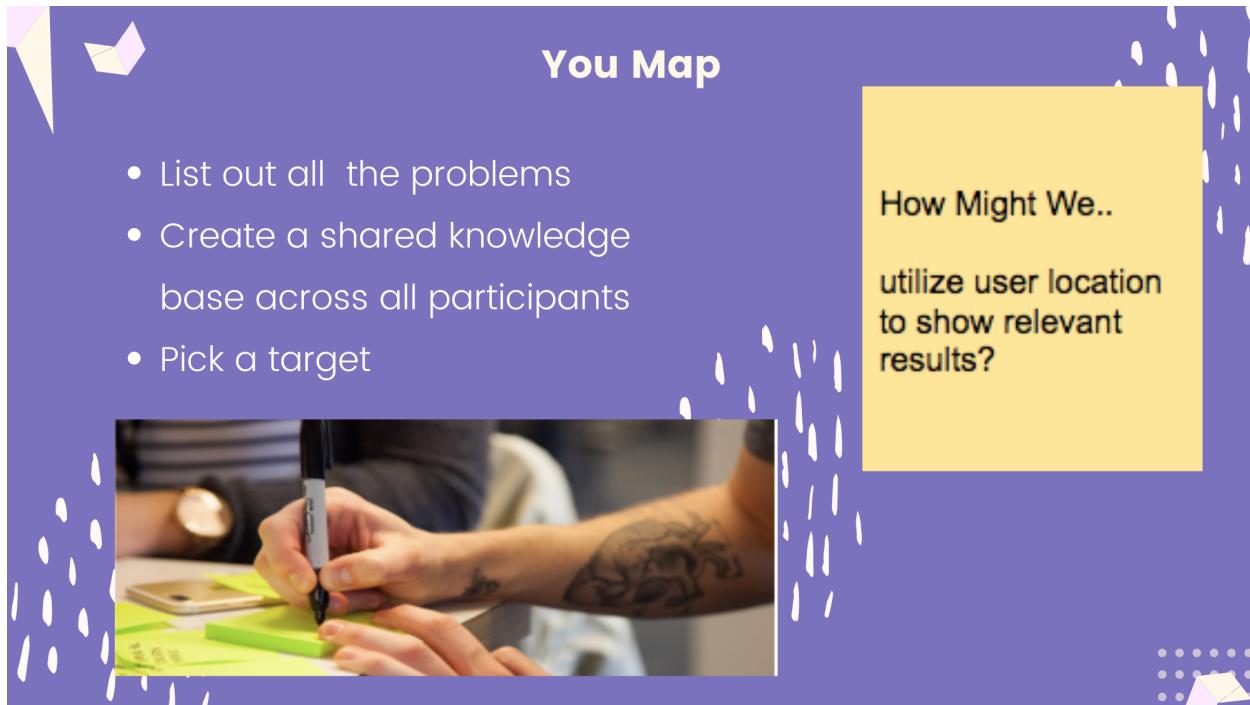
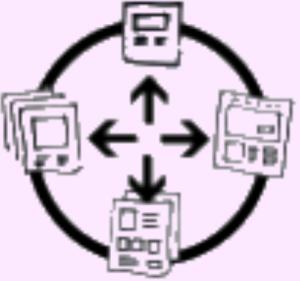


Figure 5.1

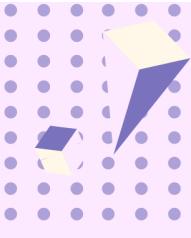


Figure 5.2



Sketch & Ideate

Ideate. Sketch out competing solutions on paper.



Generate a broad range of ideas, and narrow down to a select group. Team members are given time and space to brainstorm solutions on their own: they can look to comparable problems for inspiration, take note, boost idea generation, share and vote, and narrow down to one well defined idea per person, creating their own detailed Solution Sketch.

Figure 5.3



You Sketch

- Start by looking for inspiration, such as solutions in alternative spaces
- Individually generate and share a broad range of ideas
- The team narrow down ideas as group to a single, well-articulated Solution
- Sketch per person



Figure 5.4

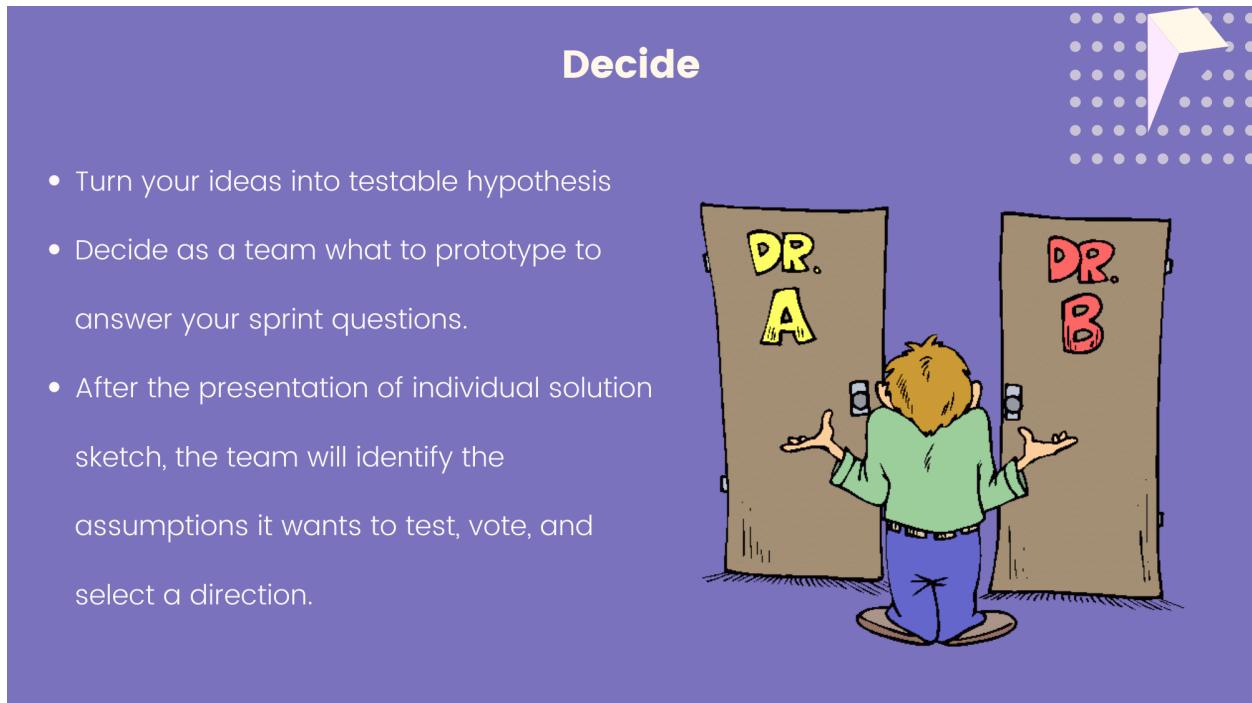


Figure 5.5

You Decide

Select the strongest approaches from the sketches and combine them into a storyboard to guide the way your prototype will work

User Value (X)	Testimonial Difficulty (Y)
-1.5	-1.5
-1.5	1.5
1.5	-1.5
1.5	1.5
0.5	0.5
0.5	-0.5
-0.5	0.5
-0.5	-0.5

Figure 5.6

Recap of Day 1

What we learned yesterday:

- Mapping
- Sketching
- Deciding

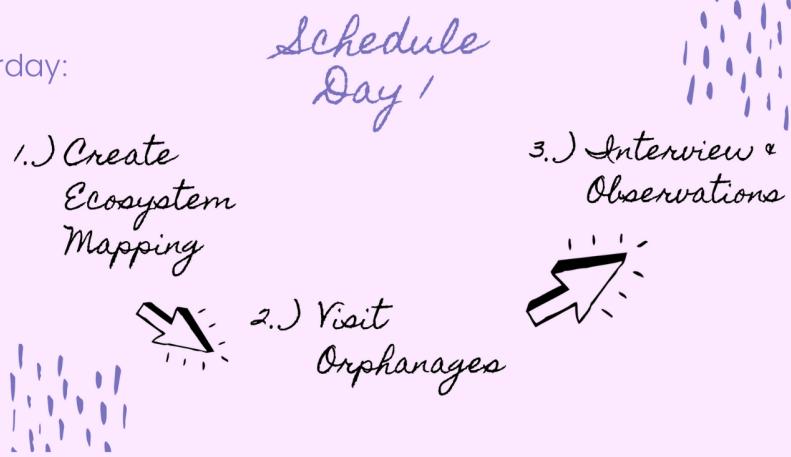


Figure 5.7

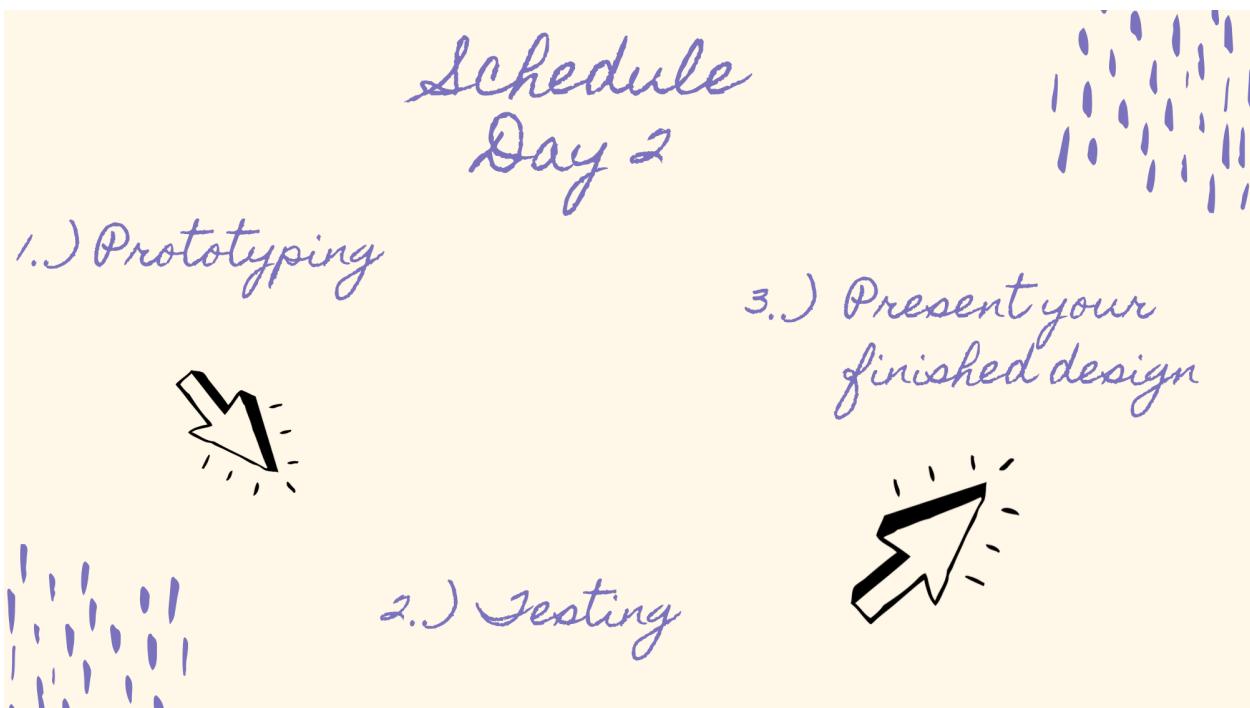


Figure 5.8

Prototype

- In a design sprint prototype you want to create a product that does not have to be fully functional
- It needs to deal with a problem that you have mapped out earlier and can lead to testing
- Does not have to be perfect this is why we prototype so we can continue to improve our product



Figure 5.9

You Prototype

Put your sketch and ideas to life with a Prototype

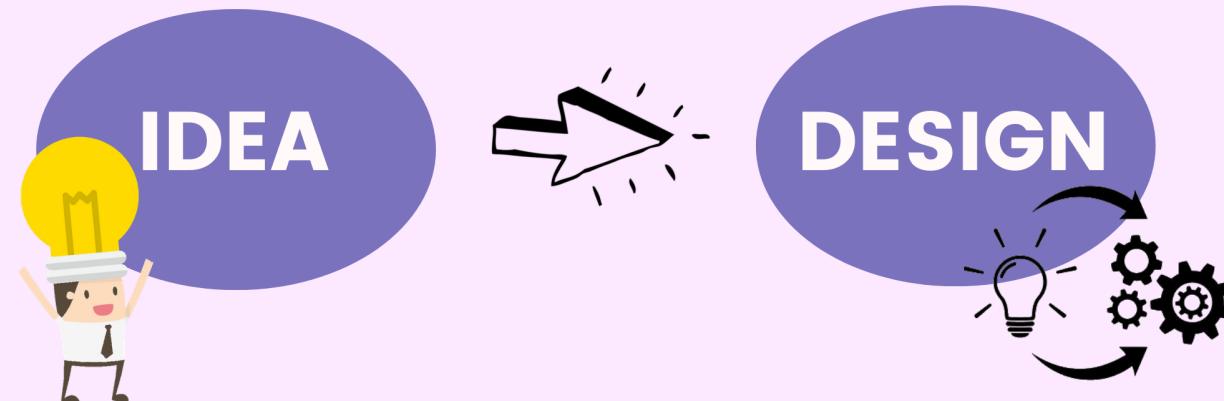


Figure 6.0

Test

- The main point of testing is to get feedback from your audience it helps to ask people that are similar to the end user
- The easiest way is to ask close friends or family so they can give you comments to improve your design
- For the design sprint if you validate your assumptions or did not validate it, you still have made significant progress



Figure 6.1

You Test

You can ask the group next to you see how you can improve your design!



Figure 6.2

Conclusion

WHAT AN INCREDIBLY DESIGNED SOLUTION!



We hope you are proud of what you achieved here and that you are prepared to present your design and your use of the design thinking process with joy and confidence. Now that you understand design thinking, we hope you continue to use this process in any career path you may choose, and in any aspect of your life. We set out to equip you with a specific solution building mindset, did we succeed? Go out and use these skills to change the world!

Thank you again for designing with us!

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Figure 6.3

Presentation link:

https://docs.google.com/presentation/d/1zSk-tGYzOe6kERpGI1sYt_GGlVvhNpoxdAYGhiwn7PY/edit#slide=id.p