Design Sprint Playbook

Pinecrest-Queensway Community Health Centre

CENTRE DE SANTÉ COMMUNAUTAIRE
PINECREST-QUEENSWAY
COMMUNITY HEALTH CENTRE

ALGONQUIN COLLEGE
Human-Centred Design Lab

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Acknowledgement

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Introduction

Pinecrest-Queensway Community Health Centre (PQ) has been working in collaboration with Pathways to Education Canada over the past several years to identify innovative ways to reach more students in need. With the onset of the COVID-19 pandemic and the resultant restrictions, PQ decided to redirect its focus on creating virtual programs and services to meet the needs of youth in PQ's catchment area. Engaging youth in the process of designing programs and services was identified as a best practice and this Design Sprint activity was one approach to that end.

The first Design Sprint was piloted in the Fall of 2021, and a second Design Sprint was completed post-pandemic, in the Winter of 2023 (2023 Cohort). Both cohorts explored in-person as well as virtual solutions for youth. The Design Sprint aims to involve youth in the design of youth programs and services and will be a regular practice within the organization.

This playbook provides everything that is needed for someone to replicate a Design Sprint process, including some basic theory and best practices, workshop agendas and activities, and tips and recommendations based on our experience. It is our hope that this playbook supports other Pathways to Education program locations and like-minded organizations across Canada that are interested in co-designing programs and services with and for youth.

Design Sprint Objectives

- To gather youth's unique perspectives and ideas in the design of youth programs and services.
- To engage youth in a fun and creative process, while they learn new skills and participate in meaningful change.
- To create a feasible design for a new program or service that could be piloted.
- To empower youth with autonomy of project decisions and design outcomes.

What is a Design Sprint?

A Design Sprint is a process that involves a group working together to design a new product, service or feature. The process uses design thinking principles, rapid prototyping, and testing on real users. As the word “sprint” indicates, the process is typically completed in a short period of time. Jake Knapp, in his book Sprint, describes the process he helped to develop while working at Google Ventures (GV):

> *"The sprint is GV's unique five-day process for answering crucial questions through prototyping and testing ideas with customers. It's a "greatest hits" of business strategy, innovation, behavioral science, design, and more - packaged into a step-by-step process that any team can use.” (Knapp, 2021)*

While Knapp’s process was developed for a large technology company, the general approach was helpful in providing a starting point in designing a process for our purposes.

Best Practices from the Literature

Research shows that co-designing with youth and children provides benefits for project outcomes (Steen et al., 2011; Trischler et al., 2019; Thabrew et al., 2018), as well as for the young participants themselves, in the form of increased confidence, knowledge and skills (Druin, 2002), and potentially to society overall (Bjögvinsson et al., 2012).

Building Trust

Taking time to build rapport with and among your group of co-designers is an important step in the process of co-designing with young users. Doing this helps build trust between participants, which makes them more comfortable sharing honest opinions and creative ideas (Druin, 2002). This is especially important when working with youth, who may be less confident than adults to express their ideas or speak in a large group.

Confidentiality & Sensitive Discussions

A high level of care must be taken when engaging youth in co-creation where the problem space may be a sensitive area of discussion. It's critical for facilitators to work with the youth to create ground rules for sensitive discussions so that they feel safe to share their thoughts, feelings and experiences and are also conscious of what may be better shared in private (Trischler et al., 2019; Visser et al., 2005; Heeks, 2019).

Motivation and Engagement

Making activities fun, interactive and age-appropriate is critical when conducting co-creation with children and youth (Bowen, 2013; Brandt, 2006; Guha et al., 2013; Percy-Smith, 2006; Steen et al., 2011). By working in small groups, creating hands-on prototypes, visuals and flip boards, youth stay engaged and are able to express their ideas through a variety of methods.

Our Facilitator Values

- Facilitators should refer to themselves and the youth as 'co-designers' to establish team unity and a sense of equality between the youth and adults.
- Introduce complex theories and methodologies gradually; a maximum of two new concepts per session works well.
- Take time to explain new concepts and encourage asking questions.
- Foster project ownership by using encouraging language, and by providing personal materials for youth to use such as notebooks and folders to store their creative work.
- Facilitators can role-model and build trust by sharing their own experiences; make a point to share relatable pain points or challenges as a way of building empathy and trust with youth co-designers.

- Discuss your own Design Sprint experience; successes, discoveries, learning opportunities.
- Foster creativity first, scalability (or feasibility) comes second.
- Recognize small group team dynamics, individual talents and strengths.

Design Sprint Kit

Resources

Activities and inspiration can be pulled from a variety of sources, including:

- Standford University d.school's Design Thinking Process and the d.school Starter Kit, which is a virtual course developed to give students the opportunity to learn design methods by doing
- InVision's Design Thinking Handbook
- Google's Design Sprint Kit
- Nielsen Norman Group

See References (pages 39-43) for a full list of resource links and specific worksheets and activities.

Materials

Daily materials for activities include but are not limited to:

- Basic craft materials; pipe cleaners, construction paper, etc.
- Post-it notes
- Blackboard, whiteboard; a large writing surface for group brainstorming
- Crayons, markers, pencils
- Glue, tape, craft adhesives
- Magazines and photos
- Paper for notes, illustrations and games

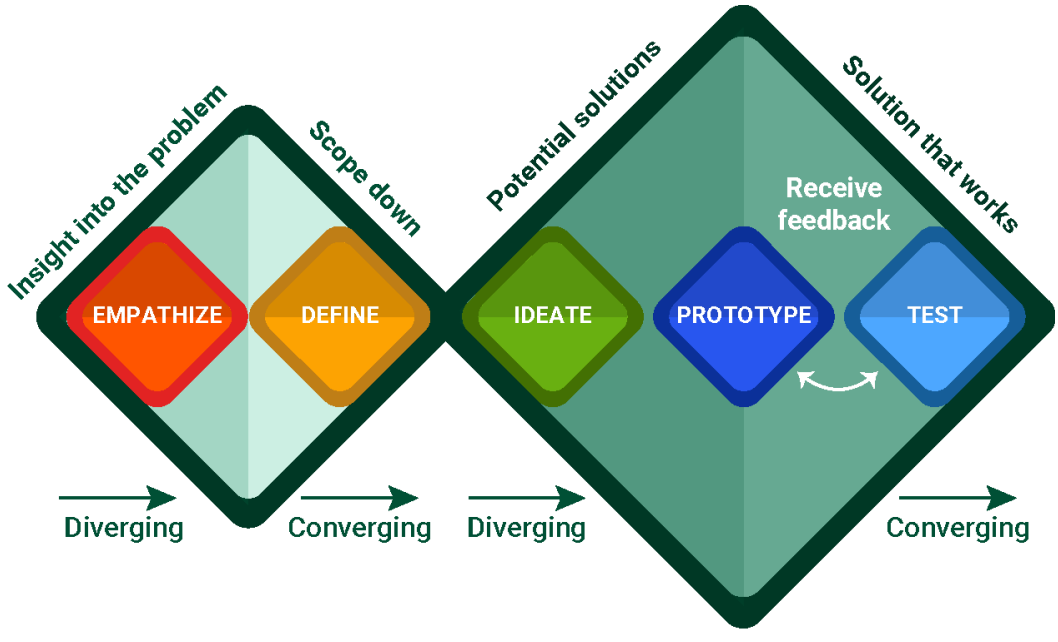
- Worksheets for storyboards, How Might We (HMW) statements, etc.

Frameworks and Structure

The Design Sprint we developed follows Stanford University's d.school design thinking process over a period of ten workshops. The design thinking process includes five distinct steps: *Emphasize, Define, Ideate, Prototype, and Test*.

In Figure 1 below, we have taken the design thinking framework and overlaid it with the Double Diamond design model, popularized by the British Design Council. The Double Diamond proposes that the design process should have four phases: Discover (insight into the problem), Define (scope down the focus), Develop (brainstorm potential solutions), and Deliver (a single solution that works). Each diamond represents a process of diverging (opening up as many findings and ideas as possible) and converging (condensing and narrowing down findings and ideas).

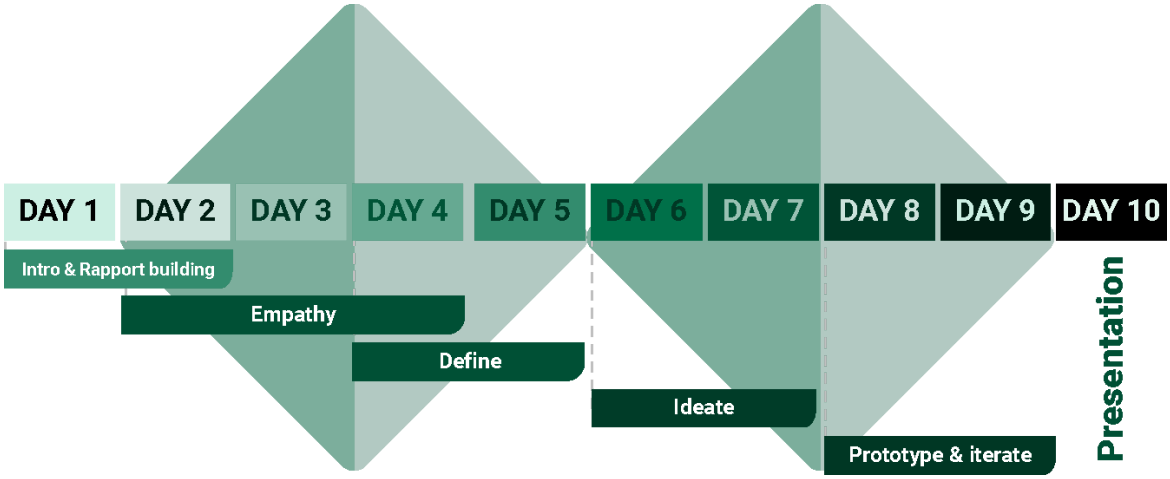
Figure 1. Design thinking framework with Double Diamond design process.



Each stage of the design thinking framework takes approximately two workshop sessions to cover. The facilitator can adjust the timeline according to the cohort's school schedule, interest and engagement, but spending ample time on rapport building

and problem discovery activities is recommended. Figure 2, below, illustrates a high-level outline of the Design Sprint workshop series that we implemented, using these two frameworks as guides.

Figure 2. Image of 2023 Cohort Timeline.



Session Agendas

Creating routine helps build comfort and trust, which is important in creative work and when regularly introducing new concepts. Using a consistent agenda format for each session (see Figure 3, below) can assist in providing this routine.

Figure 3. Example image of daily agenda.

Agenda	
Time	**Activity**
4:30pm	Setup - Move tables away
5:00pm	Dinner - Create name tag with name & simple information (e.g.what song/artist you are obsessed with right now) (30m)
5:30pm	Activity: - Step forward (15m) Session 1: (10m) - What is empathy? (examples) - Empathy vs. sympathy - Interview - Who to be a good listener (examples) - (listen and dig deeper - ask why) - How to ask right questions Activity(interview) 2: (1hr) - Design backpack (Crazy 8's) - Compare final design with user's feedback Debrief : (10m) - Any theme you found? - What will be good question you can ask? (for project)
7:00pm	What you got this week - Interview skill Introduce next week
7:30pm	Goodbye

Key Elements

The following are some key elements to incorporate into each session:

- **Intro Chat and Food**: if budget allows, each session should include food. Serving food at the start of sessions encourages youth to arrive on time. Using eating time as an icebreaker activity (we called this time 'Pizza Chat') sets a warm and welcoming tone and can also be an opportunity to informally introduce the day's theme and any new concepts. Full attendance isn't required and latecomers won't miss important content.
- **Lecture:** to explain concepts taught during the session; keep it short and sweet with lots of examples, visuals and fun videos.

- **Activities:** are linked to lectures and should complement the current Design Sprint phase. Allow extra time for explanation, artifact[1] creation and refinement.
- **Wrap-up:** circle back to the session's objectives and introduce the next session's theme. This helps the group connect the dots between sessions and understand the bigger picture of the Design Sprint.

Day 1 - Introduction and Rapport Building

Day 1	Theme: Introductions
Pizza Dinner/arrival	30 minutes
Course and facilitator introductions	30 minutes
Spaghetti marshmallow challenge	45 minutes

The goal of Day 1 is to introduce the participants to the project, some basic concepts and to one another. On this first day, introduce the design thinking steps and Double Diamond framework during the lecture, so youth can get a sense of the road map you'll be using for the Design Sprint (see page 44 for lecture notes).

Spaghetti Marshmallow Challenge

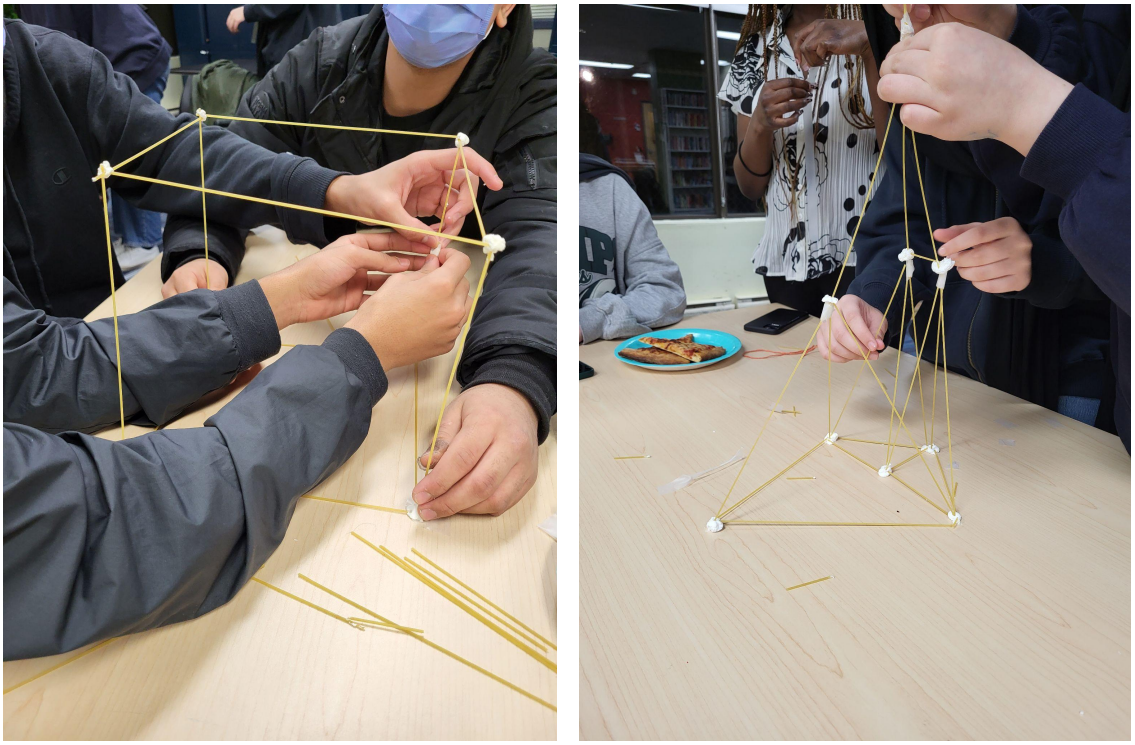
The Spaghetti Marshmallow Challenge is an introduction game to get individuals acquainted with one another, explore team communication and introduce design concepts through doing.

Instructions: The youth design and build a structure from a few pieces of spaghetti, tape, marshmallow, and string. The facilitator asks youth to organize into groups of 3 or 4 and make the tallest tower in 15 minutes (Figure 4). The facilitator encourages the youth to "fail fast and iterate"[2] during this activity.

[1] Artifacts are a common design industry term for any document, recording, sketch, or other documentation of the design process.
[2] Failing fast and iterating are also common design industry terms that refer to quickly identifying what does not work and moving on to different approaches.

Materials	Per group: 1 paper bag containing 20 pieces of spaghetti, 1 marshmallow, 1 meter of string, 1 meter of tape.
Objectives	A. Intro to Design Thinking and setting the tone for the workshops; co-designing, failing fast, no bad ideas, group dynamics, iteration. B. Light rapport-building and getting to know one another.
Facilitator Tips	Take note of participants who seem to be familiar with the space/group (e.g. friends attending together) and those who might need more support integrating into the group. Consider lengthening and/or repeating 'icebreaker' activities to support relationship-building. One option with the spaghetti marshmallow challenge is to do another round and move students into new groups for iteration experience.

Figure 4. Spaghetti Marshmallow Challenge activity.



Day 2 - Rapport Building Continued

Day 2	Theme: Ice-breaker
Pizza dinner/arrival	30 minutes
Lecture: What is Empathy?	15 minutes
Step Forward game	25 minutes
Crazy 8s: backpack edition	45 minutes

Day 2 builds on the rapport building that was established in Day 1 and encourages the youth to share more about themselves through two activities, Step Forward and Crazy 8s: Backpack Edition. Step Forward is a low-risk rapport building game aimed at getting to know one another's interests, commonalities and unique personalities. Crazy 8s: Backpack Edition is an exercise which encourages both impromptu interviewing and on-the-fly brainstorming.

Step Forward Game

This is a low-pressure introduction game that does not put individuals on the spot, unless they want to share details about themselves.

Instructions: Have the group stand-up and organize together into a circle or straight line, so long as everyone can see one another. Tell the group that if any of the questions asked apply to them, they should take a step forward. After each question is answered, ask them to step back to their original position (or you will quickly run out of room!). Ask the group various questions, e.g. "who plays a sport?" and "who likes math and sciences, or arts and literature?"

After each question, invite one or two youth to briefly share more about this aspect of their lives, such as what sport they play, where they work, etc. Start simple and then build up to more personal questions. Allow the youth to take turns calling out the questions for the group. Always let participants know that they can opt to not step forward if they do not want to disclose something to the group.

Objectives	A. Provide an opportunity to find common ground and similar interests with one another. B. Continued rapport-building and getting to know one another, build a group identity. C. Prepare the youth to practice asking their own questions.
Facilitator Tips	Take note of the youth's answers to the questions. These can be helpful hints for lesson building moving forward. For example, if most of the youth prefer music over visual art, you can draw examples for future lessons from the music industry, music theory, etc.

Crazy 8s: Backpack Edition

This is a great introduction to product design; easing into what is on the horizon for later sessions. You can introduce the concept of Empathy here as you explain how good interviews are more than just chatting, but digging deeper and actively listening to gain insights (see pages 53-66).

Instructions: Ask the youth to assemble into pairs and interview their partner to design a backpack that suits their unique needs and interests. After interviewing their partners, ask participants to fold an 8x11 sheet of paper three times into 8 panes (Figure 5).
Give the group 1 minute per pane to draw, sketch or make a note of the ideal backpack for their partner. Remind them they can incorporate any feature no matter how unrealistic: e.g. magic wands, bottomless pits, gravity-defying elements. Once the rapid drawings are complete, ask the room if any youth would like to share their designs and why it's a meaningful design for their partner's unique personality (Figure 6).

Objectives	A. Practice interviewing skills to better understand the needs and desires of the 'user' you are designing for. B. Build rapport with the group. C. Introduce foundational design skills: interviewing, ideation and light prototyping.
Facilitator Tips	After activities such as this one, give an opportunity for the youth to voluntarily share their work. The more outgoing participants typically share first, and this will encourage individuals who are more reserved to participate. Consistency in this approach and not putting shy students on the spot provides the predictability needed for peer and mentorship trust (Kriegel, O., 2023). If there are odd numbers of youth and more than one facilitator, have a facilitator participate. This emphasizes the idea of being a co-designer and part of one big, supportive team.

Figure 5. Crazy 8s paper folding instruction.

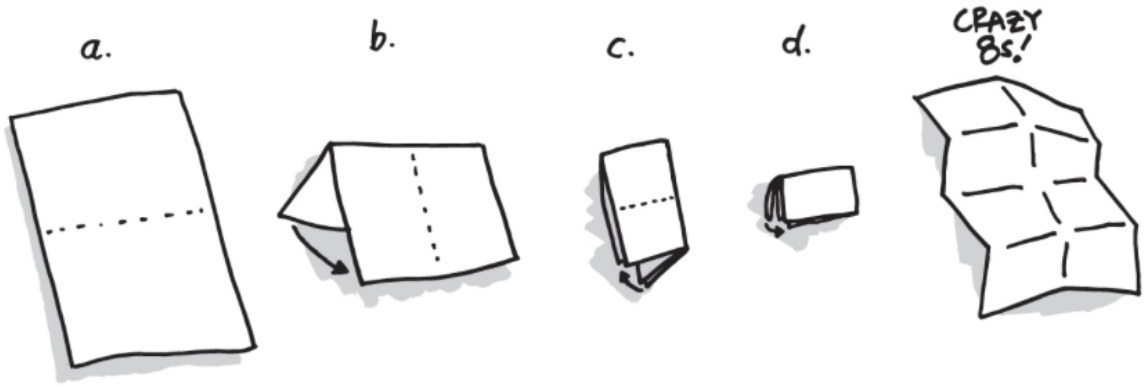


Figure 6. Crazy 8s Backpack Edition activity.

Day 3 - Define

Day 3	Theme: Empathy
Pizza dinner and chat	30 minutes
Dig deeper; role playing game	25 minutes
Lecture: Define	15 minutes
Empathy to affinity mapping	45 minutes

Day 3 focuses on the importance of interviewing and what it means to ‘dig deeper’ to understand user needs and motivations. The first day of a Design Sprint and the initial Diverge stage of the Double Diamond framework (see Figures 1 & 2) typically involve understanding and defining ‘the problem’ and brainstorming challenges. The Dig Deeper activity below followed by Empathy to Affinity mapping, aim to ignite this process and bring to light problem spaces of interest. The previous week’s lecture on Empathy explained what empathy is and how to apply it. This week’s lecture should explain how empathy can help designers identify and define important questions to explore on their path to discovering the ‘user problem’ they want to address (see pages 67-76).

Dig Deeper, Role-Playing Game

This exercise is an introduction to how we can gain insight into a problem or problems.

Instructions: One of the facilitators will share their own challenging experiences in high school. Invite the youth to interview the facilitator, encourage them to 'dig deeper' with their questions. This is an introduction for future interviewing and problem defining activities.	
Objectives	A. Break down barriers and introduce a safe place to explore feelings, ideas, etc. B. Build empathy-based interviewing skills, trust with facilitators, and rapport.
Facilitator Tips	In this role play activity, the facilitator shares an issue from their own adolescence and the youth become the interviewers. It gives the youth a safe way to explore, analyze and suggest solutions to a sensitive issue that may be similar to their own experiences but is not specifically their own experiences (Harris, T. E., & Sherblom, J., 1999).

Empathy Map to Affinity Map with Post-it Notes

This activity is a combination of two commonly used exercises during a Design Sprint, or any design project: empathy mapping and affinity mapping. It fits into both Empathy and Define days' objectives, while moving towards the first Converge stage of the Double Diamond framework (see Figures 1 & 2). The lecture for Define should help explain the empathy map, how to categorize problem descriptors and reframe problems, to support this activity (see pages 70-77).

Instructions: Prepare to have a lot of Post-it notes on hand, stickers, pens, markers and a large writing surface, like a whiteboard or chalkboard.
Participants write a descriptor, one point per anonymous Post-it, of what a user would "say" "think" "do" and "feel" for a common experience as a youth in highschool. Once all Post-it notes are in their respective category on the empathy map (Figure 8), invite the youth to start identifying trends and grouping the notes into themes. The youth

may collectively start to label the different themes which emerge, thus creating what is called an affinity map (Figure 9).	
Objectives	A. Introduce empathy mapping, affinity mapping, theme identification and card sorting[3]. B. Uncover themes for project topics with deductive problem-solving.
Facilitator Tips	Ask the youth to write one point per Post-it note on an issue/pain point that would fit into an empathy map (Figure 7), and feel free to encourage findings from the Dig Deeper activity above. Reassure the youth that the post-its are anonymous and the points written down do not go outside the workshop. Provide a large board divided into “what they say and do” “what they think and feel” “what they hear” and “what they see” (Figure 8) to encourage interactivity. Identify themes with an affinity map from these post-its and involve the youth in clustering together similarly themed expressions. Invite the youth to title these themes once trends begin to show (Figure 9). The themes will later influence groups’ problem statements for their projects.

[3] Card sorting refers to a research and design technique in which users organize topics into groups (Sherwin, 2018). This technique can provide insight into user needs, motivations, expectations, etc. and help identify problem spaces.

Figure 7. Empathy Map activity guide example.

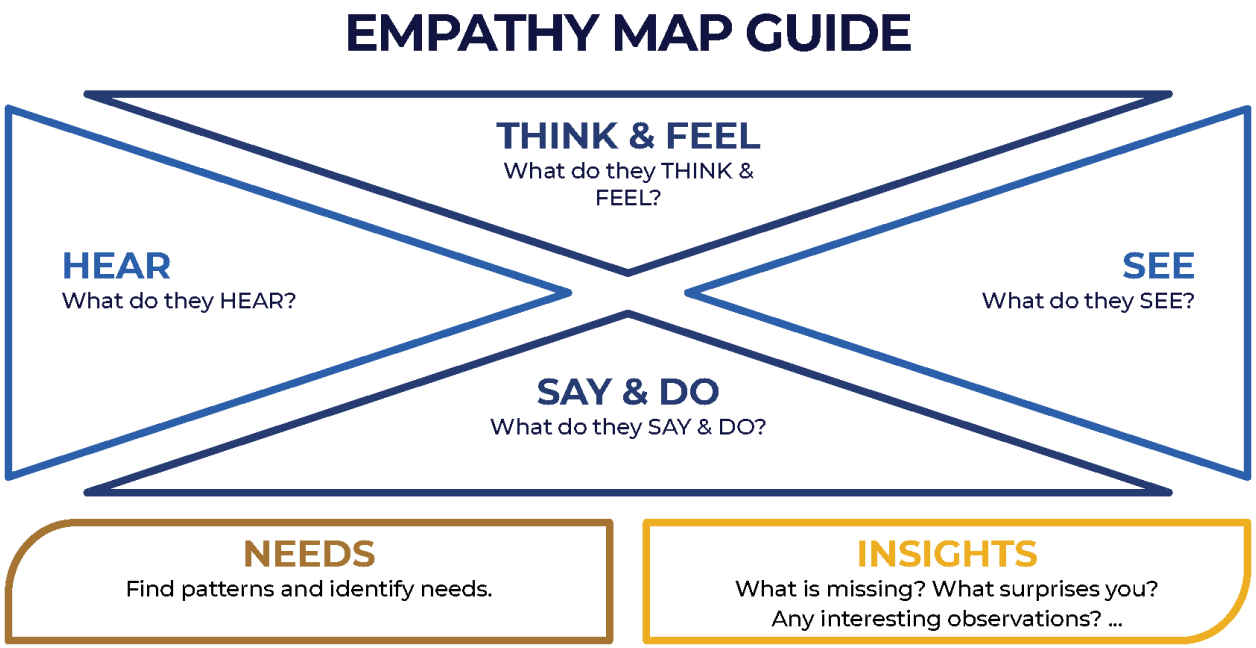
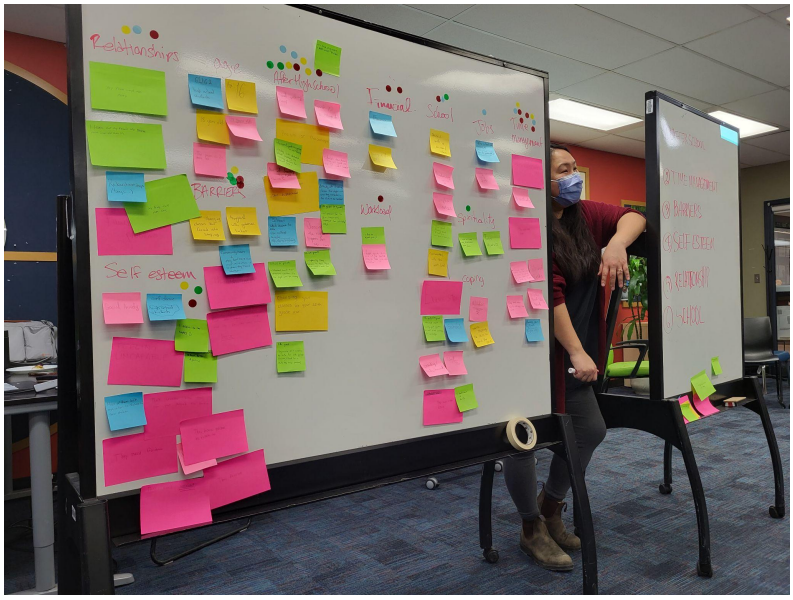


Figure 8. Empathy Map activity.

Figure 9. Affinity mapping from Empathy map.



At this stage, it is important to be mindful of the number of methodologies introduced in a session to avoid information overload. There are many techniques in a Design Sprint that can help move into the next steps, so be mindful of how many you choose to introduce in a session, and prepare to review as you progress. On a similar note, we

have found youth to be generally interested in learning new concepts, but it is important to take your time and explain clearly with lots of examples and visuals.

Day 4 - Define Continued

Day 4	Theme: Define
Pizza dinner and chat	30 minutes
Lecture: Define	10 minutes
Theme collage	20 minutes
Pesona explanation and creation	30 minutes
Storyboard explanation and creation	30 minutes

Day 4 focuses on identifying themes from the previous session on defining problem spaces, and starts narrowing down on a single problem space to explore. Once themes emerge from defining problem spaces, the next step in the Double Diamond framework (Figure 1 & 2) is to 'scope down' and converge on a specific problem to focus on. The purpose of this session is exploring creative tools and techniques for refining the issues uncovered during the define phase. The lecture should highlight these tools and techniques, like storyboarding and creating personas, the purpose they serve and how they can be used to further define the problem (see pages 80-88).

Theme Collage

A theme collage (Figure 10) is a creative activity that can help participants get into the refining process. It can also be an organic method of establishing teams to work on the ideas/projects that emerge.

Instructions: The first step for the Theme Collage is to revisit the themes uncovered during the Empathy into Affinity map activity. Supply collage materials and ask the youth to make a collage of how they interpret the Affinity map themes. Provide a variety of materials; magazines, markers, pencil crayons, glue, etc. Reassure there is no wrong answer and to be creative because design thinking is an exploration with no

defined outcome. Once collages are completed, ask the youth to share with the rest of the group the theme they chose for their collage. If they would like to elaborate and share the images they used and why, give them the opportunity to do so. From there, once all have shared their chosen theme, group individuals by theme. The groups you end up with will be the teams for the Design Sprint projects that emerge.	
Objectives	A. Provide a low-pressure method for the youth to explore their problem space of interest. B. Explore problem spaces through a creative lens.
Facilitator Tips	The physical work produced during these creative exercises are called artifacts in design. As artifacts assemble through the sessions, provide the teams a folder to keep them organized for the youth to reference as their projects progress.

Figure 10. Theme College activity.

Creating Personas

As teams are formed and themes are identified, Creating Personas is an activity to flesh out and better understand the individuals or users the teams will be designing for. Personas are user archetypes based on research and created to represent the user who will ultimately utilize the services or products designed (Figure 11). Be sure to show multiple examples of a persona during the lecture to highlight that there are many ways to illustrate users and 'problems' (see pages 86-88).

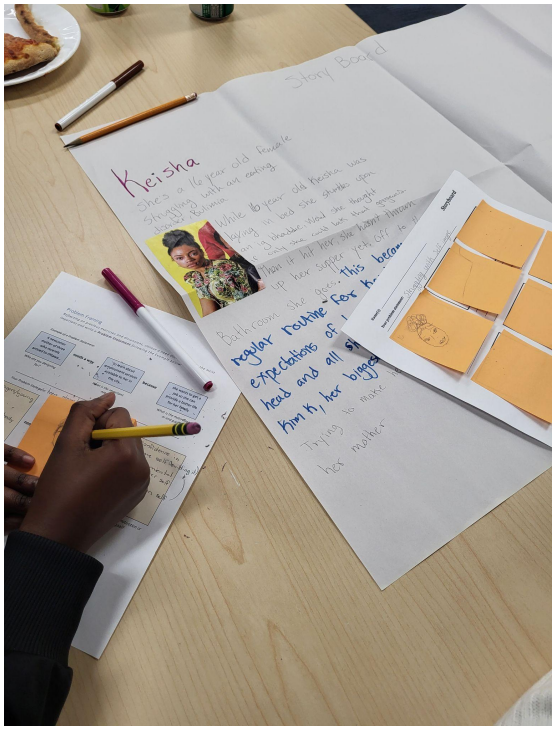
Instructions: First, show the youth sample images of personas represented in a variety of formats (e.g. collage, illustration, series of questions about a user). Spend a few minutes as a group identifying key elements across the persona examples, such as needs, motivations, challenges or pain points and goals. Next, invite the youth to get into their teams and use the materials that were available for the Theme Collage activity, to create a persona for their theme or problem of interest. Explain that a persona is a representation of a user they can imagine designing a solution for. Their persona should include the key elements identified earlier. Emphasize that the persona is not random, it should be based on research (i.e. what they know so far, from personal experience, peers in and outside the group, etc. about the theme or problem they are interested in). To help the youth get started, there are also persona templates available in the suggested Design Sprint resource links (see page 40). Personas will help the youth represent users' needs, motivations and experiences in a creative, approachable way.	
Objectives	A. Introduce a creative method of exploring user needs, motivations, experiences, etc. B. Provide another problem space exploration technique for safe projection of the youth's experiences and motivations. C. Begin facilitating solution space exploration towards the final projects; understand, and ultimately enhance, the user's journey[4].

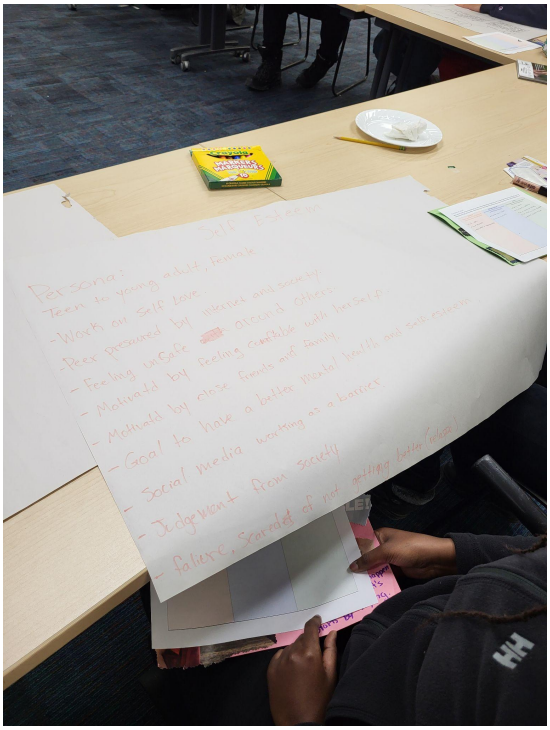
[4] The term 'user journey' is commonly used in the design industry to refer to an individual's experience of a particular product or service (i.e. the path the individual follows as they discover, buy, use, etc. the product or service).

Facilitator Tips	Note that some participants may self-identify with the user they are designing for even before creating a persona. Ensure the youth understand that they can represent personas in any way they wish, so long as they describe the persona's needs, motivations, challenges or pain points and goals (Figure 12). Details such as name, age and gender are optional. Additionally, giving options as to what types of artifacts can be used to represent their designs gives more autonomy and project ownership.

Figure 11. Fun 'Persona' example.

Figure 12. Persona, Storyboard, HMW activity.





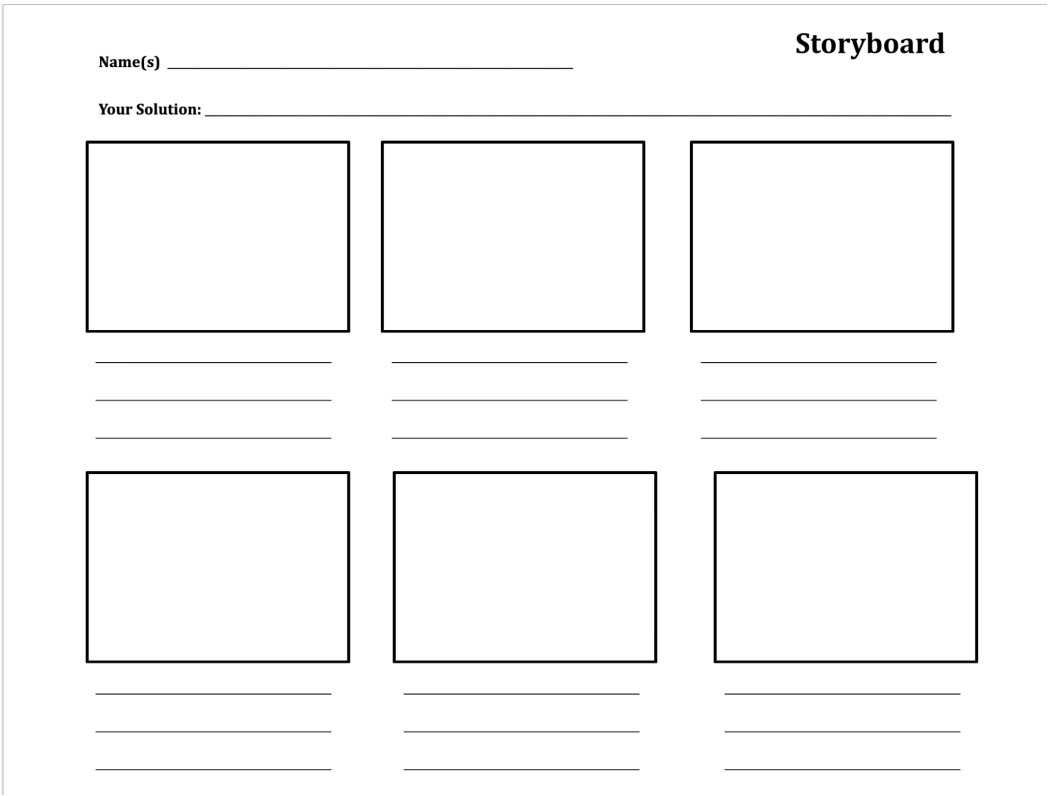
Storyboard

Storyboarding is another activity commonly used in design to 'scope down' during the first Converge phase of the Double Diamond framework (Figure 1 & 2). Storyboarding does not require a worksheet, but one can be helpful especially if it is the first time someone is creating a storyboard. Showing multiple examples of storyboards during the lecture can help reassure the youth that this is a creative, flexible process and that they may develop a storyboard however they wish (see pages 86-88). The main objective of the activity is to help visualize, and thus better understand, 'the problem'. Note that a storyboard is a popular exercise that can be used at other points in a Design Sprint, for example, as a way of illustrating a user's journey or a solution.

Instructions: Show the youth images of sample storyboards (as in pages 81-82). You may also provide each team with a storyboard template worksheet (see Figure 13) to start from, as well as flipchart paper and a variety of writing utensils (e.g. pencils, colourful markers). In their teams, ask the youth to create a storyboard to show their problem of interest as experienced by the user they are designing for. They should use

a combination of illustrations and text (within each box, if using the worksheet) to start to organize and picture problems as series of events with various potential points for solutions. To get them started, offer prompts, like: *what time of day* and *where* can you imagine the user using the product or service? *How* and *why* are they using it? *How do they feel* when they are using it? Once most of the teams seem to be finished working on their storyboard, encourage someone from each team to share their work with the whole group.	
Objectives	A. Understand problem framing through visualization of problem spaces as potential systems with accessible focal points. B. Map out problem statements in a format more relatable to the youth, with sequences of events showing a problem or solution space.
Facilitator Tips	Some may really like to draw or write while others may not feel very confident in their skills in these areas. Offer the option of using only graphics or only text and/or working outside of any worksheets provided, to ensure their creativity is not hindered by the process itself. Remind the youth that the activity is not about creating the perfect picture or storyline, but about capturing the problem in a relatable, visual way. Additionally, encourage the youth to identify similar themes across their work, acknowledge one another's view of the problem or problems, and embrace different perspectives.

Figure 13. Storyboard template example.



Day 5 - Define & Refine

Day 5	Theme: Define and Refine
Pizza dinner and chat	30 minutes
Lecture: Define and refine; recap last week	15 minutes
Persona and storyboard refine	30-45 minutes
How Might We (HMW) statements	30-45 minutes

The previous session introduced personas and storyboards based on the youths' identified problems. On Day 5, the youth will further define and refine their problems. They will do this by revisiting their personas and storyboards, sharing their work and getting feedback across teams. Based on this feedback, each team may want to tweak their problem, spend more time on the previous day's activities or create a new artifact altogether. If there are any teams still exploring a problem space, and needing to 'scope

down' to a problem of interest, facilitate a constructive brainstorming conversation with that team to help uncover themes while others work on refining. Once all teams have a clearly defined problem, with Day 4 artifacts to support, you will be ready to move on to "How Might We" statements, to reframe the problems and begin to explore solutions.

"How Might We" Statements

During the Ideate step of the Design Sprint, you begin the second Diverge stage in the Double Diamond framework (see Figures 1 & 2) and start to explore potential solutions. Commonly used in design, How Might We (HMW) statements are problems re-written as questions.

How Might We (HMW) questions give us an opportunity to look at problems from different perspectives and encourage defining the problem as a goal or opportunity (Figure 14). For example, for the issue of decision-making after high school we can move from "youth find it difficult to choose between post-secondary programs to apply for" (the problem) to "how might we provide youth more relevant information for post-secondary education?" (the HWM statement). How Might We (HMW) statements help us see that, with a clearly-defined problem, there are many potential points for a solution. The How Might We (HMW) activity below should help reframe the issues explored earlier in the storyboards.

Instructions: Provide each youth with a How Might We (HMW) statement template or worksheet (like in Figure 14). Read through the worksheet as a group. Offer a couple of examples of problem spaces (different from the ones they are working on) and respective HMW statements. Emphasize that HMW statements should be structured as follows: How might we (do what)_____for (user)_____in order to (desired outcome)____?

Then, have each team member independently fill out an HMW worksheet for their team's problem. Once finished, team members can discuss their HMW statements with the rest of the team. Many ways of reframing the problems will likely result from the group discussion.

Objectives	A. Goal-defining through adopting different perspectives on the problem or issue being addressed. B. Clearly define problems and begin identifying points of opportunity for problem solving.
Facilitator Tips	Finding the language to fit into a HMW statement, and sticking to the HMW structure may be challenging for the youth. Once they have had a chance to try crafting their HMW statement on their own, it may be helpful to travel around the room to help re-work individual HMW statements, where necessary. When it is time to share HMW statements within teams, facilitate collaborative discussion amongst team members. Observe which teams are actively conversing and who may be unsure of how to start the 'How Might We' discussion. Visit each group and assess their progress and direction and be prepared to think outside the box alongside the teams.

Figure 14. How Might We worksheet example.

'How Might We' questions help us to start to frame the problem in a way that gets us thinking about possible solutions.

Need, Goal/Motivation, Barrier	How Might We…?
Key Needs: • People they can rely on • Motivation (internal) • Good mental health • Educational Support • Hard work • Safe learning spaces • Being organized • Getting involved (with sports, etc.) • Fun Classes • Active lifestyles • Good/Healthy diet • Safe environment • Their voices to be heard • Caring teachers and workers	
Motivations and Goals: • Friends and family • Good grades • Picturing myself in the future • To be successful • To be certain in themselves • People to be proud of them • To be in a well reputed university • To learn and understand things/concepts	

Day 6 & 7 - Ideate

Day 6	Theme: Ideate
Pizza dinner and chat	30 minutes
Lecture: Ideation	15 minutes
What IS this?	30 minutes
Crazy 8s: Ideation focused	30-45 minutes

Day 7	Theme: Ideate
Pizza dinner and chat	30 minutes
Lecture: Recap ideation	20 minutes
Studio time; visit with teams	60 minutes

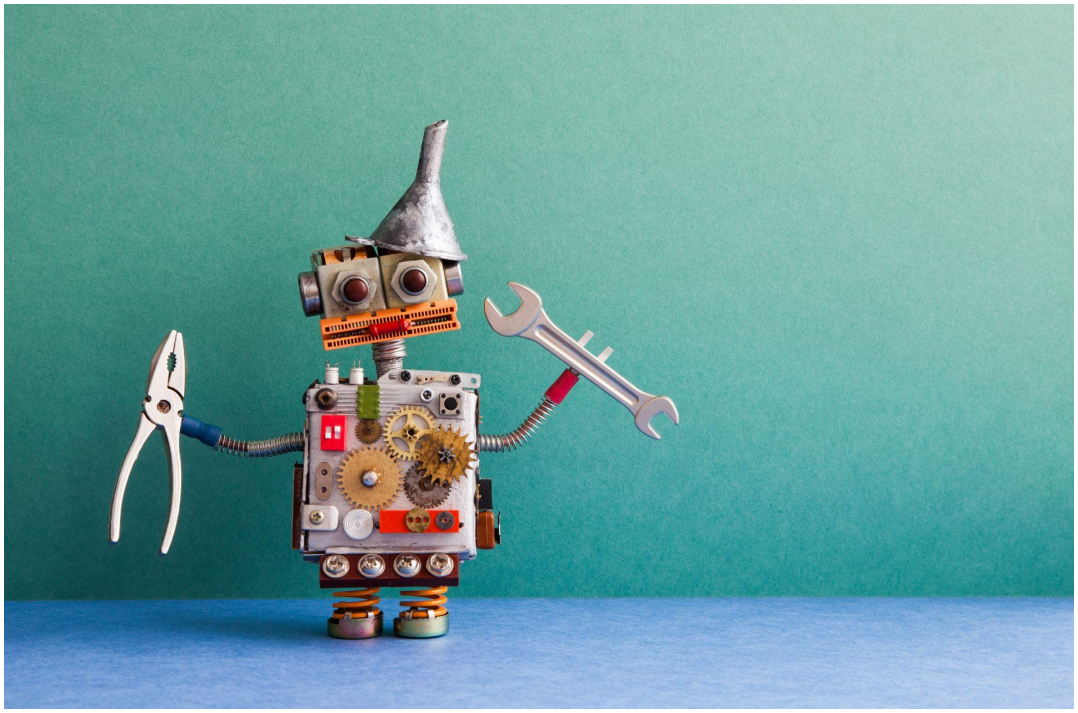
The intention with sessions 6 and 7 is to explore ideation or solution brainstorming; first, together as a group, and then, within each team. Brainstorming activities like the ones below (What IS This? and Crazy 8s: Ideation Focused) will be helpful in coming up with, and sharing a wide range of ideas quickly and effectively. In the lecture, include some guidelines for brainstorming (as in page 93), to structure and set a positive, collaborative tone for the sessions. By way of background, and as an interesting fact for the youth, you may wish to include that the term 'brainstorm' was popularized by the ad agency executive Alex Osborn in his 1953 book Applied Imagination (though he had outlined his method in a 1948 book, Your Creative Power). Osborn claimed that by organizing a group to attack a creative problem "commando fashion, with each stormer attacking the same objective," creative output could be doubled. His rules for brainstorming were:
1) Defer judgement,
2) Go for quantity, and
3) Build on ideas (of others) (Curhan, J. R., 2022).

What *IS* This?

What IS This is a fun, warm-up game to introduce the Ideation phase of the Design Sprint.

Instructions: Show the youth a series of images of silly robots (as in Figure 15) on slides or any format that the entire group can look at together. First, ask the youth to independently think about and share a purpose or service they think the robots can provide, or a problem they can solve. Offer thinking prompts such as: what does the robot do? How does it work? Who is it for? Then, ask the youth to write their answers down or make illustrations to describe the services, products or solutions they imagine. Once everyone has recorded their thoughts, encourage individuals to share their results with the entire group.	
Objectives	A. Start the creative thought (ideation) process and reinforce the idea that there are no wrong answers, only fun problem-solving opportunities. B. Practice describing ideas and concepts, and actively listening to other participant's ideas.
Facilitator Tips	Highlight that, even when working from the same image or series of images, there can be a wide variety of resulting ideas for products, services and solutions and ways of executing or achieving them. There are no right or wrong answers.

Figure 15. “What IS This?” activity image example.



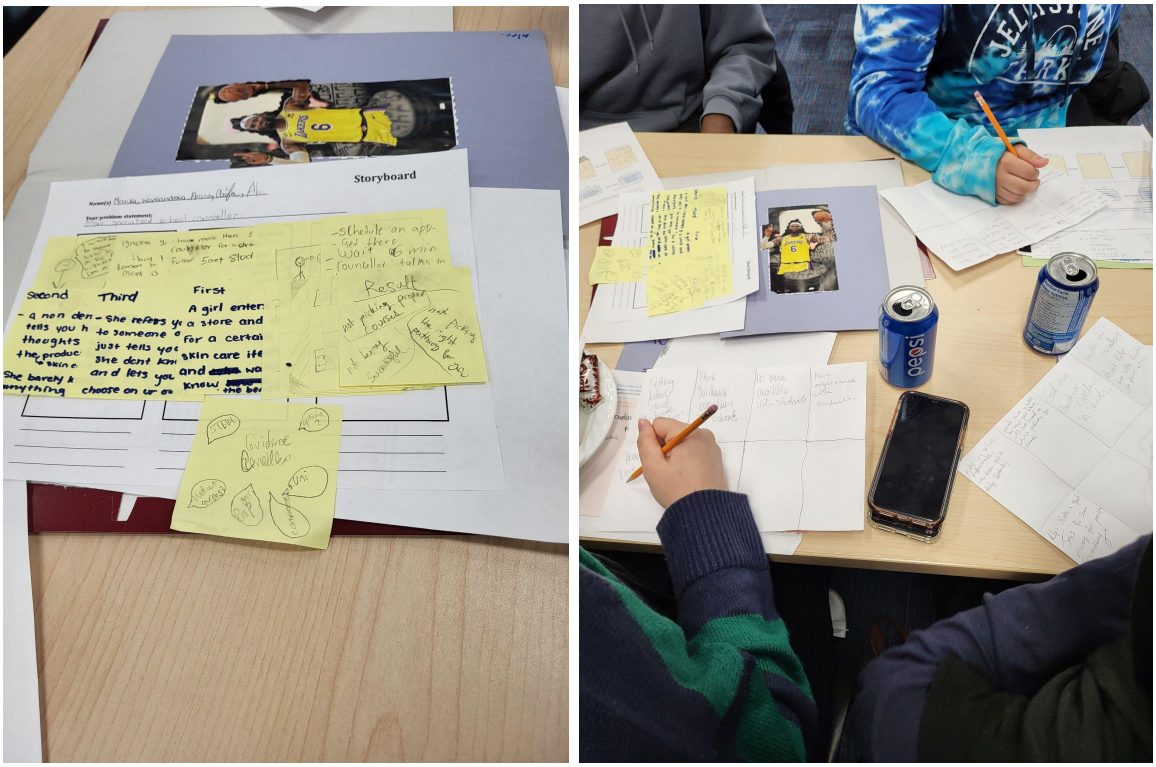
Crazy 8s: Ideation Focused

Ultimately, the Ideation phase of the Design Sprint (see Figure 1) involves sketching out, and deciding on, a solution that will later be developed into a prototype. On the Double Diamond framework, the second Diverge phase is underway (Figure 2). This round of Crazy 8s should yield a lot of ideas, sketches, messy notes and a joke or two. The main intention behind this activity is to explore the potential of free, subconscious, creative thought as a means of producing feasible solutions for a problem.

Instructions: By now, the youth should be well acquainted with the problem space and the users they are solving for. Re-introduce the folding and sketching portion of Crazy 8s, as described on pages 15-16. This round of Crazy 8s does not require any preemptive interviewing like in Day 2. Ask the youth to organize into their teams but ensure everyone has their own piece of blank 8x11 paper and writing utensils to work with. Explain that, this time, instead of sketching a backpack for a peer, they should

sketch out a solution or solutions to their team's problem. They will do this independently first, and then share their results with their team. Some may also choose to share with the whole group afterwards. Remind the youth that there are no right or wrong answers. Every idea can be reframed to become feasible later.	
Objectives	A. Explore free expression and engagement with underlying subconscious ideas as a means of problem solving. B. Demonstrate that ideas are flexible and can evolve into feasible solutions; e.g. an illustration of someone with a magic clock that can slow down time can lead to something like a time-management service involving timers and colour-coded agendas.
Facilitator Tips	Keep encouraging an "anything goes" approach. Feasibility will come later on. Limiting ideas with feasibility restrictions could be stifling. Youth may ask questions like: "can we even build a webpage/app/SaaS?" The best answer for these types of questions is: "solve for your users first, ideas can always be adjusted later." Touch base with each team to see how brainstorming and idea sharing is going, and be sure to ask the more reserved students about their ideas, too. Model appreciation for interesting perspectives from different team members and remind the youth to get curious about differences.

Figure 16. Crazy 8s: Ideate focus activity.



Day 8 - Prototype, Test and Iteration

Day 8	Studio Sessions
Pizza dinner and chat	30 minutes
Lecture: Iterations	10 minutes
Studio Time: Guest feedback sessions	80 minutes

Day 9	Studio Sessions
Pizza dinner and chat	30 minutes
Lecture: Presentation tips	15 minutes
Studio time: Presentation prep	75 minutes

Days 8 and 9 are all about creating prototypes or simple mock-ups for each team's design, and preparing for the final project presentations. During these Studio Sessions,

as we called them, the youth will likely be more independent and require less guidance. This is a good time to review skills and tools acquired during previous sessions, and emphasize how far you have come as a group and how well ideas have developed. Encourage the youth to utilize all of this and keep refining their solutions, to prepare for the upcoming presentations. Note that while we allotted one Studio Session to prototyping, testing and iterating (Day 8) and another to presentation preparation (Day 9) in the tables above, prototyping/iterating and presentation activities can spill over from one studio session to the next, as long as by the end of Day 9, all teams have a final presentation to go along with their prototype.

In advance of the Test and Iteration activity, we highly recommend inviting one or more individuals working in design (industry experts) to attend and provide feedback on the youth's projects. The youth will be excited to show their ideas to someone in the field. We found that a fresh look at the projects from an expert they could look up to also re-inspired the teams and supported final tweaks and revisions.

Prototype

In the fourth step of the Design Sprint, a simple but realistic prototype is made, whether a physical product or an app, to bring ideas to life. In the Double Diamond framework, we start to Converge again (Figure 2) as teams develop the details of their solutions. The lecture for the Studio Sessions should include a variety of examples of low-fidelity prototypes (i.e. the quickest and simplest representations of a design), and a wide range of methods for creating them, such as illustrations, written guidelines for use, physical representations made from common household objects (see pages 102-104). The main point of this activity is to provide the youth the opportunity to represent their solutions in a tangible, visual way, and to create something they can get user feedback on.

Instructions: Working in their teams, the youth will design and craft their prototypes. Try to provide the entire session time for this activity, as there should be a lot of trial and error. Invite the groups to get creative by arranging a wide variety of materials, such as craft supplies, sticky notes, flipchart paper, standard and construction paper,

laptops, etc. at the center of the room for easy access and inspiration. Ask the youth to work together (still in their teams) to create the simplest representation of their solution using materials of their choice.	
Objectives	A. Test different ways of representing and explaining a design concept and its features. B. Narrow in on the details of the proposed solutions and develop a tangible means of testing and receiving feedback on them. C. Encourage a more 'realistic' perspective on each project, acknowledging the need for modifications and team work for actualizing ideas and solutions.
Facilitator Tips	Revisit previously taught techniques and tools like storyboards, personas, simple illustrations, etc. Be supportive and make yourself available for helpful, constructive feedback. Encourage the use of the artifacts gathered through the sessions to show and reflect on their journey and to reinforce previously learned skills, like storyboarding and persona development. You may see some groups revisit and edit parts of their project. This is common during any Design Sprint. We recommend showing a Ted Talk with Tom Chi (see References on page 43) on the prototyping of Google Glass. This talk demonstrates that even very complex ideas requiring sophisticated technology can begin from a similar 'arts and crafts' process to the one used in these Studio Sessions.

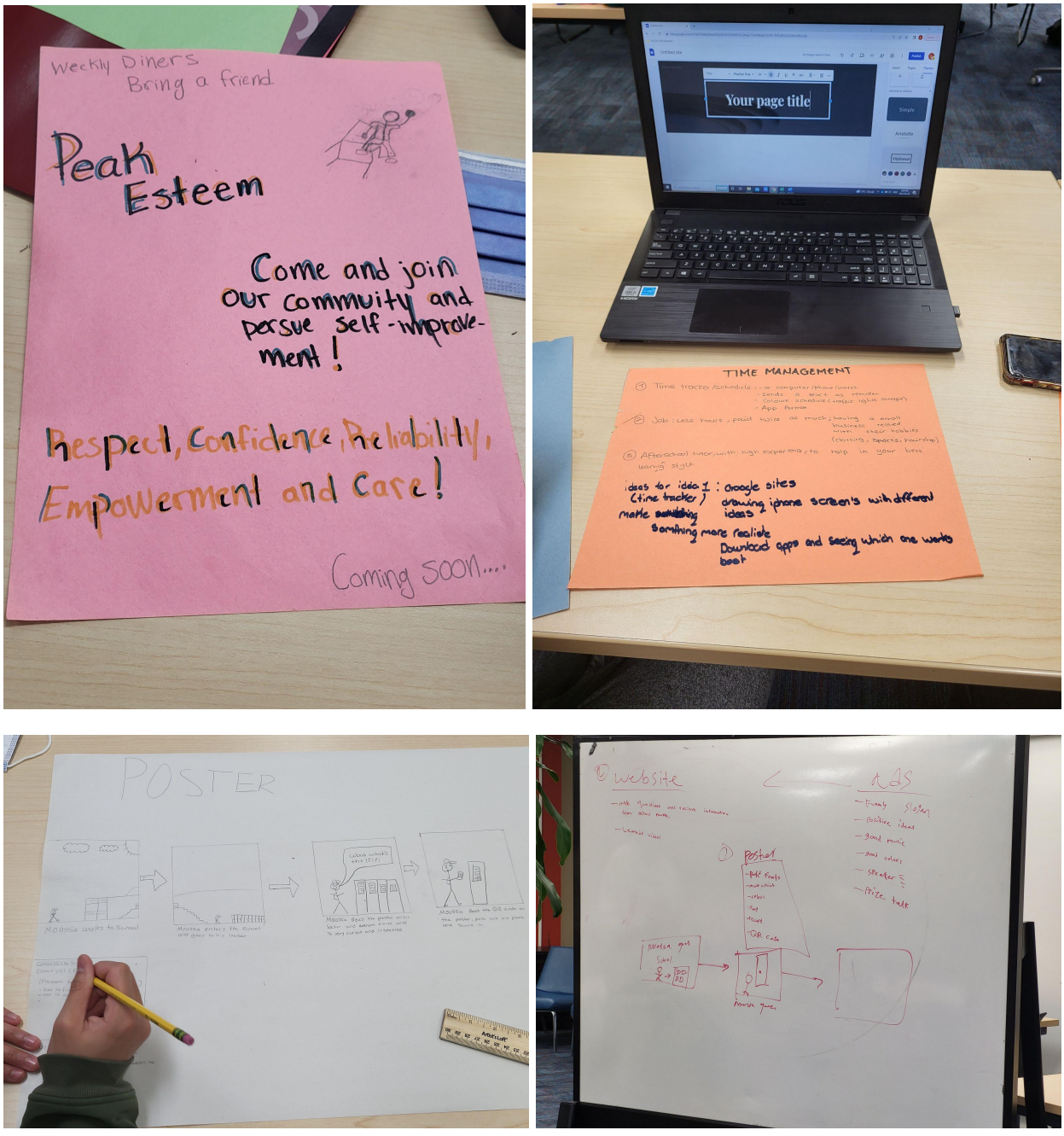
Test and Iteration

The fifth step of the Design Sprint, Iteration, involves validating the prototype/solution by testing on real users, to gather feedback and incorporate it into the product (Figure 1). In

the Double Diamond framework, we see this stage as the final Converge, where solutions are finalized and ready to be presented (Figure 2). The lecture for the Studio Sessions should also provide examples of how to show, explain and test prototypes, and how to invite and apply constructive criticism (see page 31). The main goal for the Test and Iteration activity is to learn to gather user feedback, pivot and use it to improve designs, in ways beyond each team's original ideas.

Instructions: In their teams, have the youth prepare an elevator pitch (i.e. a clear, brief presentation of their solution). Explain that this is how they will showcase their work to a guest attendee from the design industry (if applicable, or otherwise, to the other teams), for feedback. Then, have your guest(s) visit each team in turn (or, once pitches are ready, have the teams visit each other), listen to each pitch and then provide feedback specific to each project (e.g. on the ideas/solution, how to develop or continue to develop the prototype, the pitch, etc.). Once all teams have received at least one round of feedback, provide time for the teams to incorporate it into their prototypes and pitches.	
Objectives	A. Learn to accept and incorporate constructive criticism into solutions. B. Improve presentation skills and get comfortable answering questions. C. Practice presenting projects in an informal, dry-run setting.
Facilitator Tips	If a guest is in attendance, ask them to introduce feasibility in their questions and feedback, to help the youth think about scope and scalability. Above all, ask them to be encouraging and supportive. You may also wish to have a follow-up discussion with the youth, to help them integrate the guest's feedback. Ask them what was helpful from the guest, as well as what suggestions they want to adopt (or not) and why. Ensure they give some thought to project feasibility and scalability and ask if they have any new additions to their solutions based on this.

Figure 17. Prototype, Test and Iteration activity.



Presentation Preparation

The last activity for the Studio Sessions is preparing presentations of the designs for the final event. Each team will have already prepared and presented an ‘elevator pitch’ as part of the testing and iteration activity. They can work with the pitch to integrate any

feedback received, more detail on their solution and any other visuals they wish, such as a slide presentation with photos of artifacts.

The youth will likely be used to developing slide presentations from school, and so may be inclined to choose this as their presentation format. But slides are not necessary. A presentation template can be provided, but let participants know that any format is acceptable, as long as the presentation covers key information on their team and design. Provide a variety of crafting materials, such as Bristol board, colourful markers, stickers, decorative supplies, etc. as an option, and where possible, also provide laptops or devices for those who prefer to work on a digital presentation. At the very least, the presentations should include: an introduction of the group members, the name of their design and any other group identities they formed, such as a team name and a name of the product or service designed. The introduction is a good way for each team to set the tone they wish to convey. They should also include an overview of the problem space they wish to address (i.e. what was the problem they identified, how was it identified, etc.). Lastly, remind the youth that they have many artifacts to help showcase their progress, and that showing visuals of the methods they used to find their design intervention can be interesting and engaging for the audience. Encourage the youth to show photos or scanned images of their work. Images of before and after storyboards, personas or illustrations of prototypes and any other artifact they created during the Design Sprint are great additions to the presentation.

When practicing presenting their solutions, ask the youth to focus on the ‘who, what and how’ of the design. Ask them to explain who they are solving for, what the expected design outcome is and how it will help to solve the problem space explored. Remind the youth that “moving the dial just a little bit towards a better situation” is an incredible achievement.

Throughout the Design Sprint you will become familiar with the youth and their different strengths, values and personalities. In most groups, there will be some who are more comfortable with public speaking than others. Make sure to compliment each

participant on how their presentation skills have developed throughout the Design Sprint and encourage each group member to take the opportunity to have their ideas heard during their final presentation. A helpful review of standard presentation practices can help the youth feel more confident and set appropriate expectations for how the final presentations should go.

Survey

Finally, it is important to get feedback on the Design Sprint by including an anonymous survey to be completed by as many of the participants as possible during the Studio Sessions (as in Appendix B). This feedback will provide you valuable information for quality improvement and reporting purposes. Create open ended questions to give the youth an opportunity to give detailed answers if they wish to elaborate on what was important and impactful for them.

Day 10 - Final Presentations Event

Day 9	Presentations
Pizza dinner	30 minutes
Presentations and Feedback	75 minutes
Congratulations and Wrap-up	15 minutes

The final presentation event is not only an important showcase of the hard work and remarkable creativity achieved over the course of the Design Sprint, but it is also an opportunity for the facilitators to share their experience and acknowledge the participants. This is your opportunity, as facilitator and co-designer, to be creative and show your appreciation. Here are a few tips and recommendations for the final presentation event:

- Put together a slideshow presentation to introduce the Design Sprint group. Include an overview of activities, skills acquired and highlights.

- Mention the ways you grew, how you were inspired and how the experience made you a better designer.
- Invite a panel of judges from industry; encourage praise and constructive feedback for the youth.
- Create an outline of criteria for the judges to keep score; consider prizes for winners and honourable mentions.
- Bring treats and food (as always!). Make it a celebration!

Resources and References

Resources for Design Sprint Activities

Stanford d.school

https://dschool.stanford.edu/

Spaghetti marshmallow Challenge

https://dschool.stanford.edu/resources/spaghetti-marshmallow-challenge

Nielson Norman Group

https://www.nngroup.com/

Empathy Map

https://www.nngroup.com/articles/empathy-mapping/#:~:text=Definition%3A%20An%20empathy%20map%20is,2

Affinity Map

https://www.nngroup.com/articles/affinity-diagram/#:~:text=Affinity%20Diagramming%20in%20UX,about%20UX%20strategy%20and%20vision

Google Design Sprint Kit

https://designsprintkit.withgoogle.com/

Crazy 8s

https://designsprintkit.withgoogle.com/methodology/phase3-sketch/crazy-8s

Workshopper

https://www.workshopper.com/post/workshop-activities-for-getting-started

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Appendix A - Workshop Slides from 2023 Cohort

2023 Cohort's Day 1

Agenda	
Time	**Activity**
4:30pm	Setup ● Make spaghetti challenge bags ● Arrange room for challenge
5:00pm	Dinner Lecture ● Introductions to team (10 mins) ● Matt to introduce workshop (5 mins) ● Lecture about Design Thinking (10 mins)
5:45pm	Spaghetti Marshmallow Challenge ● Distribute supplies in bags ● Introduction to challenge (5 mins) ● Break into 5 teams of 3 (5 mins) ● Run challenge (20 mins) ● Measure outcomes (10 mins) ● Discussion around outcome (5 mins) ○ Comparison of kindergarten vs. PhD ○ Why is that? ○ Full circle back to co-design lecture
7:00pm	Introduce next week
7:30pm	Goodbye

Speaker notes:

Let’s ask a question: How might we design something useful and meaningful for our partners?

Speaker notes:

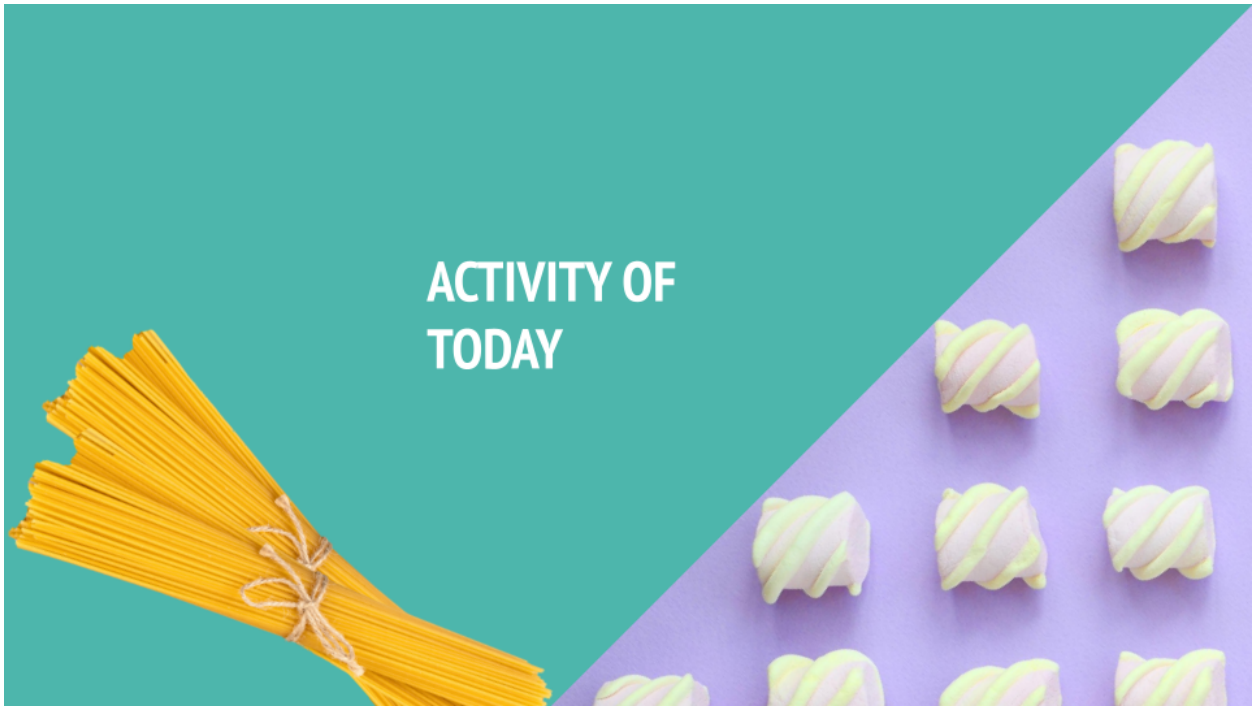
A human-centred approach looks like this: How do we find the problem?: We are gonna talk to one another, have brainstorming session and talk to our friends and peers **(EMPATHIZE).**

How will talking to friends and brainstorming help?: We can identify similar themes shared among the people we talk to **(DEFINE).**

How will these themes inspire a project?: This is the FUN part (well, it's all fun). We can brainstorm concepts, share some cool projects we like and see where our ideas go **(IDEATE).**

How will our wild ideas come to be a doable project?: What will we make? We're not sure yet! We are going to model out YOUR ideas. **(PROTOTYPE).**

How will we know what we made is a final product?: Design is never done! But, don't let that discourage you. It's an exciting project to alter, build off of and keep testing and getting real feedback from users **(TESTING).**



Speaker notes:

This process is what we're going to be doing over the next 10 weeks, but we thought it would be fun to give you a taste of an important aspect of design - prototyping and iterating.' but instead, we are going to focus on prototyping and testing.

In groups of four, build the tallest freestanding tower you can in 10 minutes using only these materials

Speaker notes:

20 sticks of spaghetti + one yard of tape + one yard of string + one marshmallow

Speaker notes: What was the hardest part/easiest of this challenge?

- What have you learned?
- (if they had a chance of iterating)Why is testing so important?
- What would you do differently if you had the chance to rebuild the tower? (-> This is called testing and iterating your design)

Many people spend most of their time planning and very little time testing. When you work this way you risk your prototype failing too late to make needed changes.

Next week

First step is building empathy for our users!

We will be interviewing one another to gain insights for user needs when developing a new idea!

2023 Cohort's Day 2

Agenda	
Time	**Activity**
4:30pm	Setup - Move tables away
5:00pm	Dinner - Create name tag with name & simple information (e.g.what song/artist you are obsessed with right now) (30m)

5:30pm	Activity:
	- Step forward (15m)
	
	Session 1: (10m)
	- What is empathy? (examples)
	- Empathy vs. sympathy
	- Interview
	  - Who to be a good listener (examples)
	  - (listen and dig deeper - ask why)
	  - How to ask right questions
	
	Activity(interview) 2: (1hr)
	- Design backpack (Crazy 8's)
	- Compare final design with user's feedback
	
	Debrief : (10m)
	- Any theme you found?
	- What will be good question you can ask? (for project)

7:00pm	What you got this week - Interview skill Introduce next week
7:30pm	Goodbye

Design Sprint 2023

Week 2

Where we are now

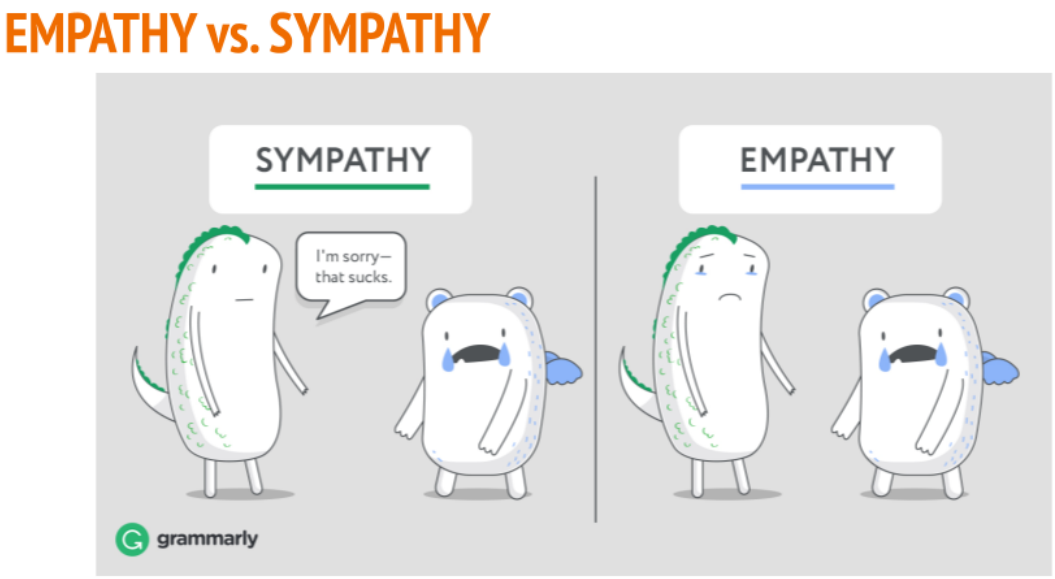
EMPATHY

: is a journey into the feelings of others

Speaker notes: (Note : From design thinking handbook)

Speaker notes: What is empathy? Here's one way of looking at it.

Retrieved from YouTube: Big Bang Theory; Sheldon Discovers Empathy



Grammarly. (2019, May 16). *Empathy vs. sympathy*. Grammarly. Retrieved February 7, 2023, from https://www.grammarly.com/blog/empathy-sympathy/

Speaker notes: Empathy and Sympathy often get confused. Which is ok, there are some similarities. Empathy can be instantaneous when relating to friends and family about shared experiences, or it can take some effort when a person or situation is new to you.

Empathy starts by getting to know one another, even just a little ...

Speaker notes: " At a distance, interviewing looks just like the everyday act of talking to people, but interviewing well is a real skill that takes work to develop."

"Interviewing can be used to help identify what could be designed"

Excerpt From:

Interviewing Users: How to Uncover Compelling Insights

Steve Portigal

https://itunes.apple.com/WebObjects/MZStore.woa/wa/viewBook?id=0

“Listening is a matter of paying deep genuine attention, with eyes open and seeing, mind open and learning, heart open and feeling. This is how we pay fundamental respect to our conversation partner and the dialogue itself.”

— R. Cooper and A. Sawaf, Executive EQ: Emotional Intelligence in Business

Know what you want to find out about someone

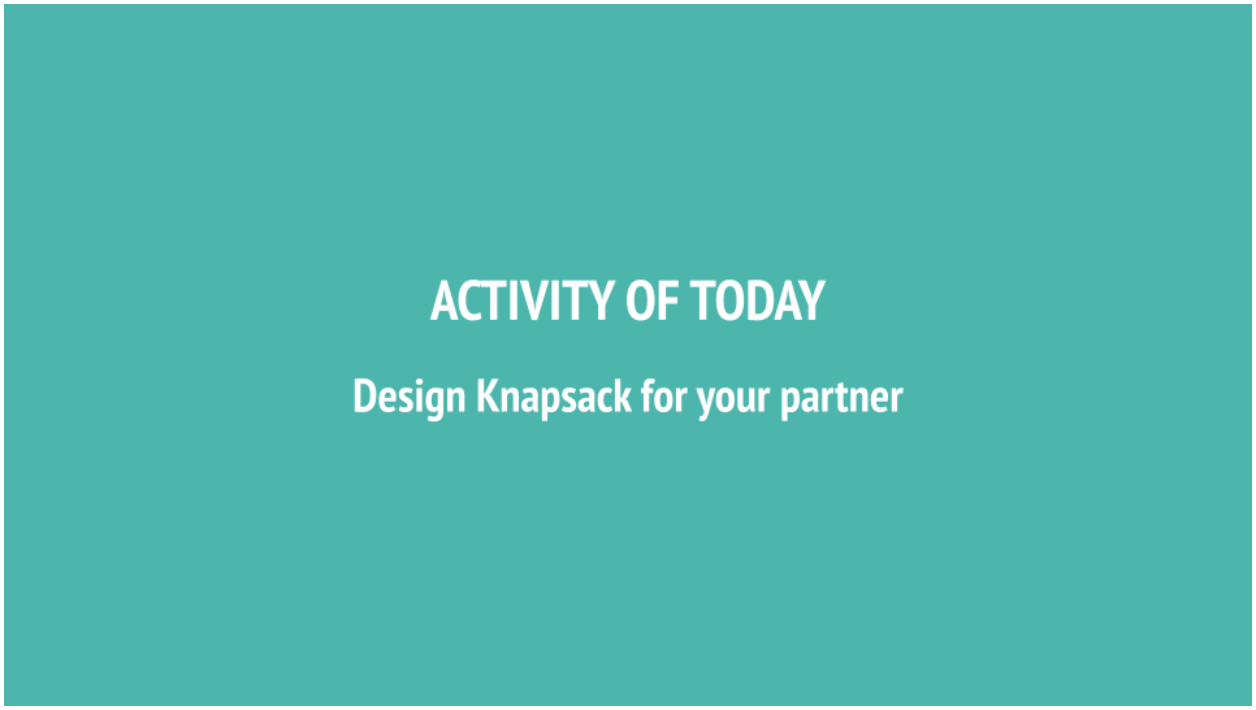
Speaker notes: Talking points - Their interests, likes, dislikes, skills, hobbies. What they already know, what they are learning and what they hope to accomplish.

Interviews are more than just conversations

Speaker notes: Talking points - It's tricky though. It is more than just chatting and requires some structure to get the information you need, but you want people to feel comfortable sharing details about themselves. So, be empathetic! You don't need to be interested in the same things; be fascinated that these details make up an individual and motivate them to set goals and accomplish them.

Ask right questions

Speaker notes: Talking points - If you were making a knapsack for someone, what questions would you ask them? Favourite subjects in school? Hobbies and interests? Likes and dislikes? Minor frustrations? Maybe have them describe what they do when they arrive at school everyday, see where that conversation can lead.



How might we design something

USEFUL and **MEANINGFUL**?

Speaker notes: INTERVIEW!

Design Knapsack

Interview 1

Speaker notes: Let's start by first understanding who we're designing for. As a starting point, ask your partner to walk you through the contents of their knapsack.

- ☐ When do they carry their knapsack?
- ☐ Why do they have a particular item in there?
- ☐ What do the things in their knapsack tell you about their life?

Take note of things you find interesting or surprising. Interview your partner for 4 minutes. We will take a turn.

Design Knapsack

Interview 2 - **Dig deeper**

Speaker notes: Let's dig deeper into the information we've collected. Forget about the knapsack, find out what's important to your partner.

- ☐ Why does she/he carry all their textbooks?
- ☐ When was the last time she/he carried a lot in their current knapsack?
- ☐ What does she/he remember most about his/her first day of school?"
- ☐ Ask why these particular memories stand out?

Design Knapsack

Capturing your findings

Speaker notes: I want you to organize your notes into two groups - your partner's **needs** and **insights** you found.

- **Needs** are related to your partner's knapsack and life. Think about both physical and emotional needs. For example maybe your partner needs to minimize the number of things they carry, or needs to feel like they are supporting the local community.
- **Insights** are discoveries that you might be able to get a hint when creating solutions. For example, you might have discovered the insight that buying with their own income makes your partner value the purchase more and take more care with decisions. Or, that she sees a knapsack as a reminder and organizing system, not a carrying thing.

Design Knapsack

What is the problem you found?

___ needs a way to ____ because (or but or surprisingly) _____ .

Speaker notes: Take a stand by specifically stating the meaningful challenge you are going to take on. This is the statement that you're going to address with your design so make sure it's juicy and actionable! It should feel like a problem worth tackling!

Your point-of-view might be -

- "Janice needs a way to feel she has access to all her stuff and is ready to act. Surprisingly, carrying her purse makes her feel less ready to act, not more."
- Or "Arthur needs a way to socialize with his friends while eating healthy, but he feels like he isn't participating if he isn't holding a drink."

Design Knapsack

Create multiple ideas!

Speaker notes: I now want you to create solutions to your problem that you just wrote down. Focus on your problem. Focus on a solution that solves the problem.

This can be a service or a system or a product. It can be physical or digital. It can be large or small. We are going to play Crazy 8s. -> we will do Crazy 4s. Let's fill each box: 1 minute with per new solution.

Design Knapsack

User feedback on the design?

Speaker notes: Note likes/dislikes and builds on the idea, but also listen for new insights. Spend the time listening to your partners reactions and questions. This is not just about validating your ideas. Fight the urge to explain and defend your ideas. This is another opportunity to learn more about your partner's needs, feelings and motivations.

Design Knapsack

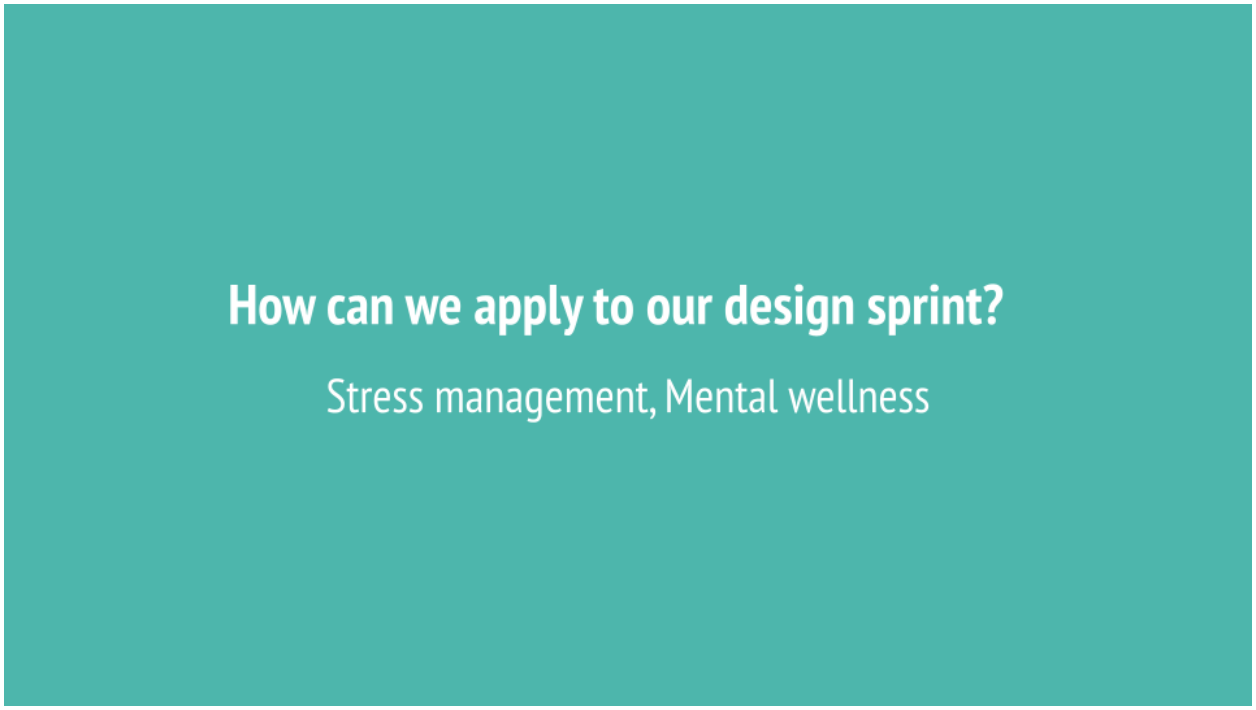
Design a solution :)

Speaker notes: Now, take a moment to consider what you have learned both about your partner, and about the solutions you generated. Does your problem statement need to change? This solution may be a variation on an idea from before or something completely new!

Design Knapsack

What worked? What could be improved?

Speaker notes: What worked? What could be improved? Questions about solution? New ideas that emerge?



Speaker notes: Let's have a discussion how can you apply on your project. Think about what question that you can ask to find a problem that you can design for them. And bring it next week so you can launch your journey of designing :)

2023 Cohort's Day 3

Agenda	
Time	**Activity**
4:30pm	Setup - Table setup (U shape)
5:00pm	Dinner - Pizza talk: opportunity to set the tone for the day's activities and rapport build. Fun, hypothetical "what if" questions as people arrive. - Ask the team about if they uncovered any themes about stress management; if they aren't able to share, Alex will share her experience as the first cohort of Ontario highschool students without OAC (5th year) and the stress that came with it.
5:30pm	Activity 1: - Interview Alex/Hypothetical user from the team's observations over the past week (Interview + empathy map) 30 minute - The objective is to allow the team to open up to sharing their own insights and observations; also an opportunity to "dig deeper" in an interview. Lecture: POV (aka Define) 10min Activity: Define activity 50 min - Brainstorming session to define problem statement - Build an empathy map based off of the team's observations over the week. - Divide into themes - Any common characteristics with whom you talked to? (Persona)
7:00pm	What you got this week - Interview skills - Empathy map - Define and Reframe (POV) Introduce next week
7:30pm	Goodbye

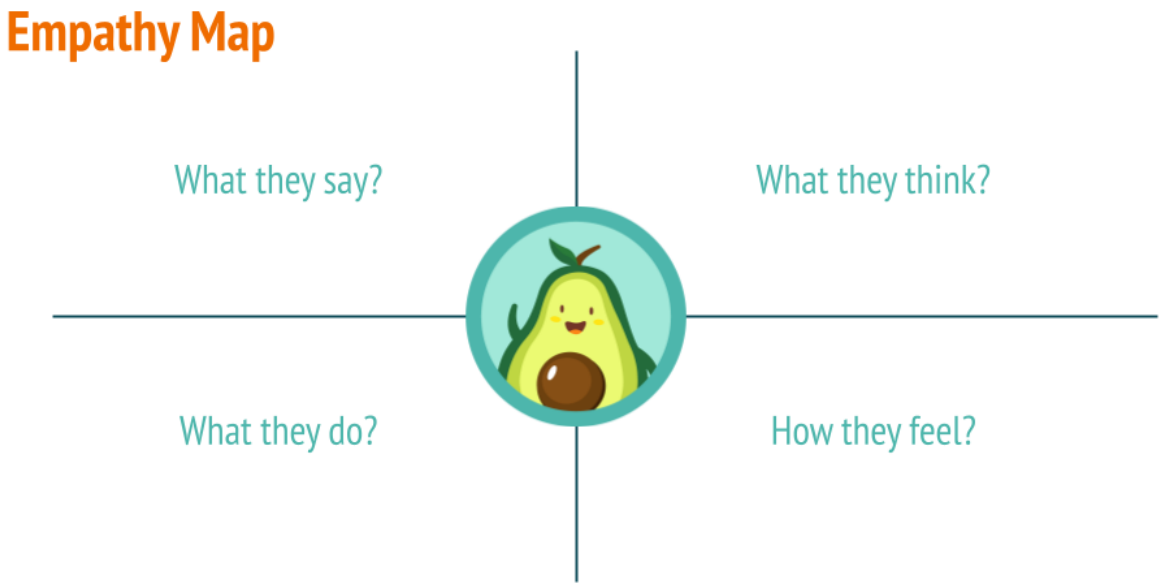
Design Sprint 2023

Week 3

Where we are now

Speaker notes: During the Empathize phase of the Design Thinking process, you collected stories and insights from your users. This Define phase will give you an opportunity to synthesize these findings and come up with a problem statement, called a point of view (POV), that can help you reframe the problem and open new and

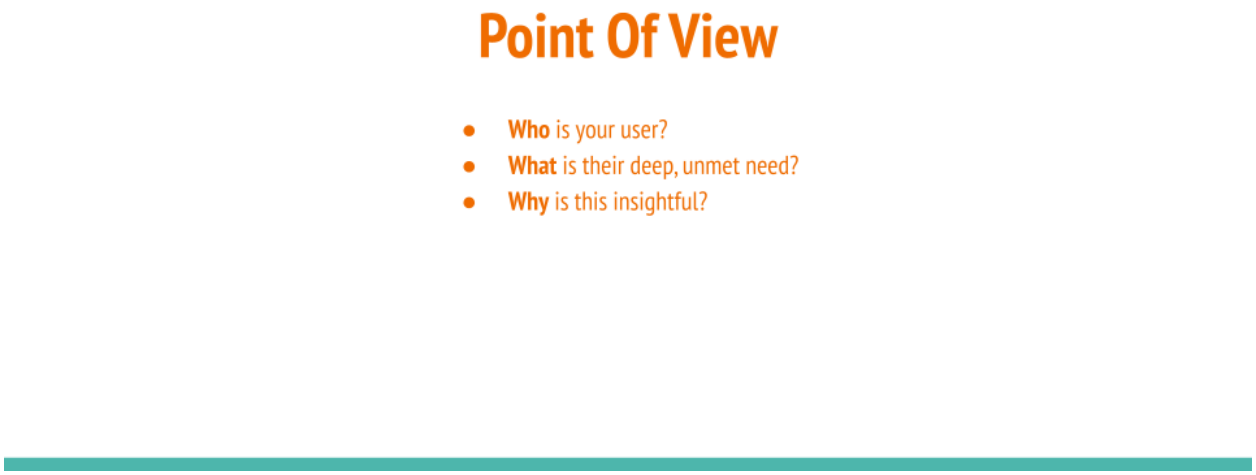
innovative solution spaces.



Speaker notes: Interview alex or mock-up scenario(inspired/suggested by one of cohort)? ‘A’ picked up new hobby during Covid.**

An empathy map can help guide us to define and re-frame the problem.

Speaker notes: How talking help?!



Speaker notes: Talking points: A POV is composed of 3 elements

- Who is your user? (Note as many specific details as possible.)

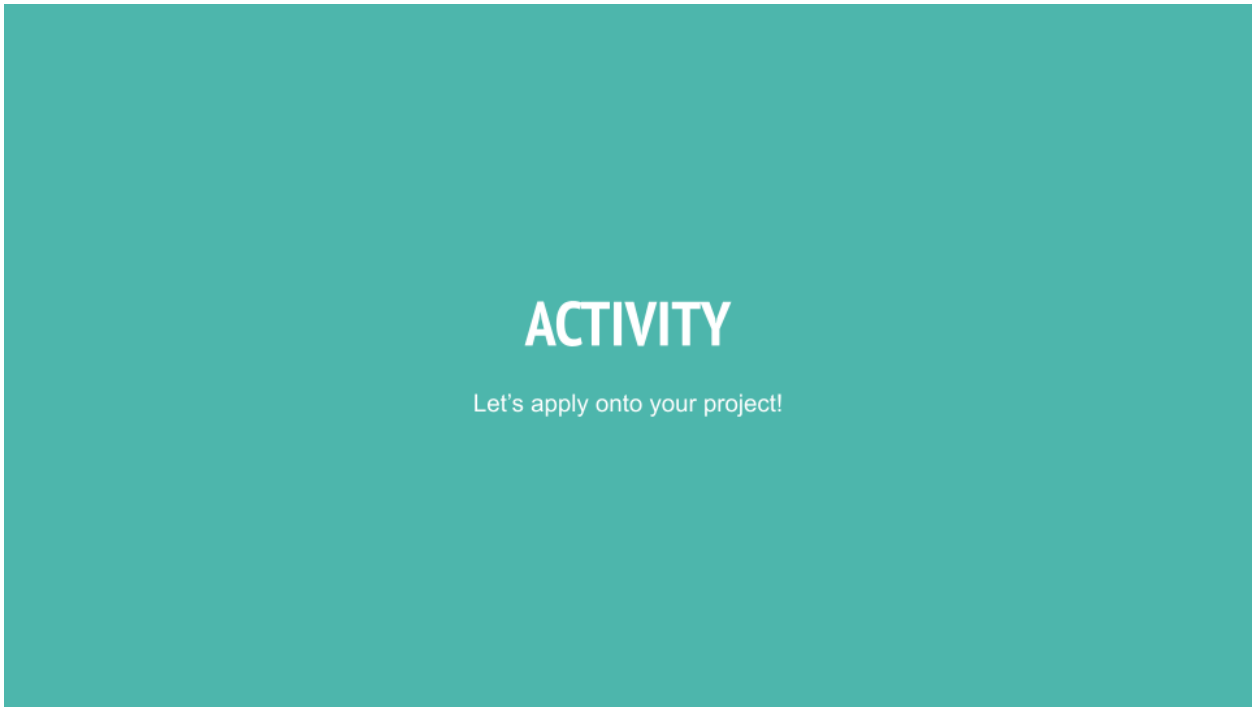
- What is their deep, unmet need? (this is uncovered when you start to share trends you have noticed while talking to your friends about stress management and how they cope, or how they wish they could fix a problem)
- Why is this insightful? (List the insights you uncovered from your empathy based approach to interviews/conversations)

Reframing the problem / Rephrasing questions

Speaker notes: Reframing the question, isn't quite like this…

Retrieved from YouTube: The Simpson's: Homer talks to a cult

Speaker notes: Now, think of different perspectives to express the same problem statements. This is more than an exercise in paraphrasing. Reframing helps you stumble upon questions/ perspectives that you might not have considered and lay a base on which to build your interview questions.

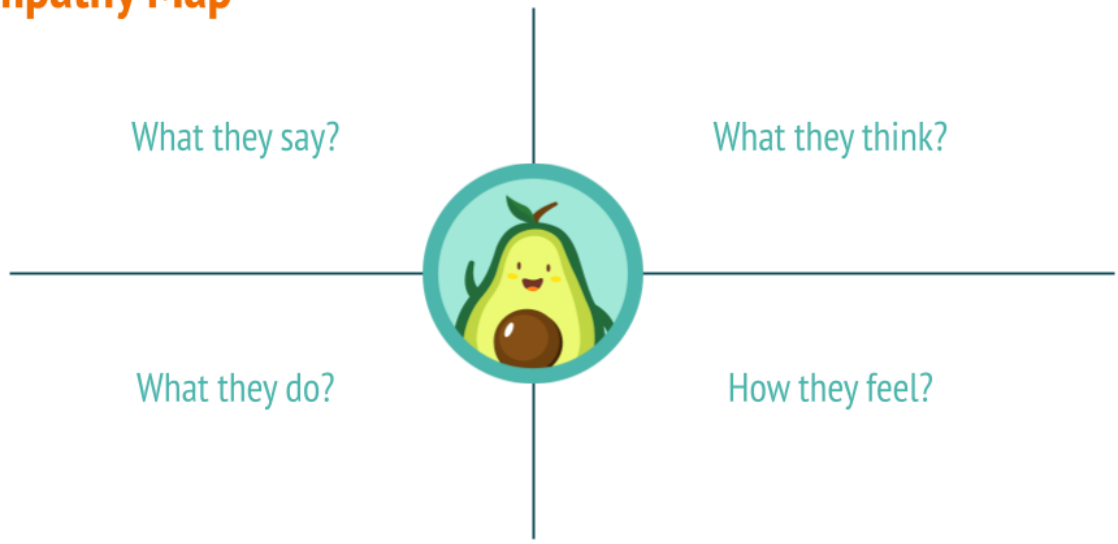


Brainstorming

What did you hear?

Speaker notes: Put stickies on the board!

Empathy Map



Speaker notes: Showing this image while they are doing sticky notes activities.

Let's organize stickies

Any themes?

Let's dive deeper

We met ____

We were amazed to realize that ___

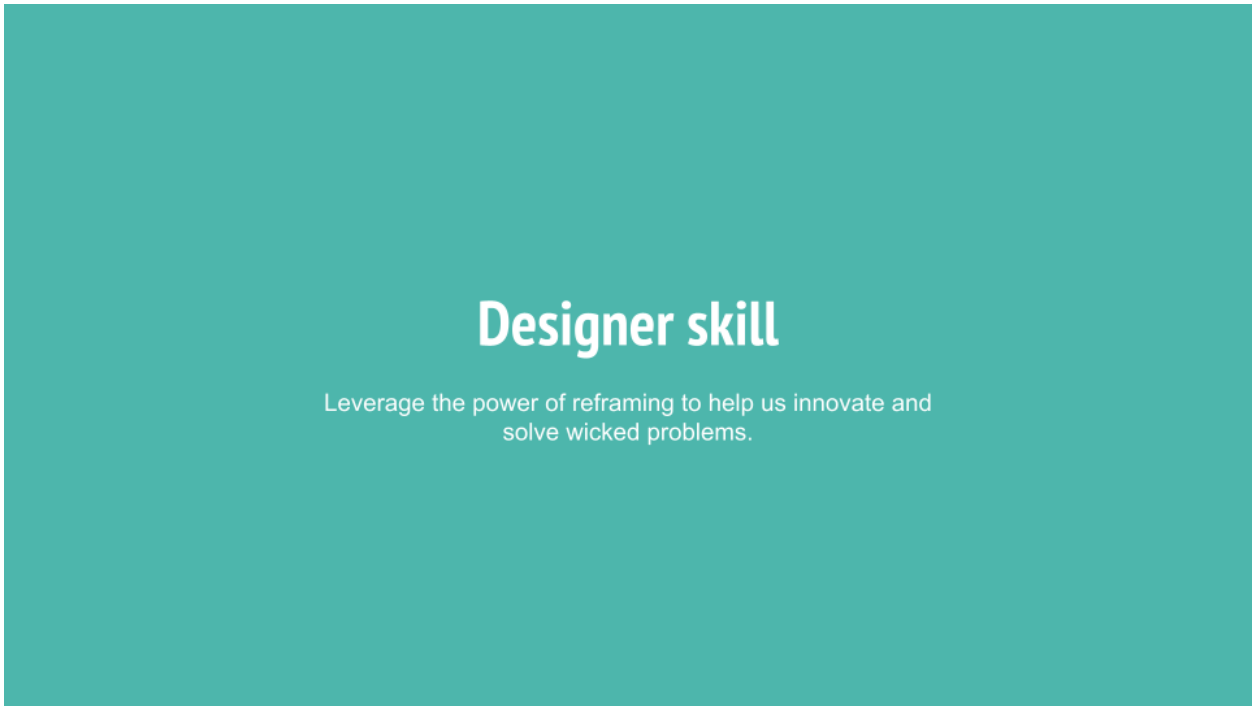
Reframing the problem

How might we?

Speaker notes: This can be changed later. We are just exploring opportunity areas.

A How might we (HMW) question can generate lots of creative ideas. Here are some examples of How might we questions.

- How might we uncover why people are stressed?
- How might we uncover what is the main stressor?
- How might we discover if this would be a stressor for the majority of people?



Speaker notes: Last week we experience interview, empathy. This week we went through define phase.

- identify problem space (empathy mapping)
- Discover theme around finding (Persona)
- reframing to open new and innovative solution spaces. (How might we)

2023 Cohort's Day 4

Agenda	
Time	**Activity**
4:30pm	Setup - Table setup (U shape)
5:00pm	Dinner - Pizza talk : Terrible design; OCTranspo (something majority of students use)
5:30pm	Activity 1(Define): - Divide group into problem space: - Create individual collage - Find a partner to explain and share collage themes to - Review other collages together and create teams Lecture: - Reframing problem statement; Worksheet - Persona collage/illustration - Storyboard; imagining user experience and commonalities of problem Activity 2 (Ideate): - Brainstorming - Back up: Crazy 8's
7:00pm	What you got this week - Introduce next week
7:30pm	Goodbye

Design Sprint 2023

Week 4

Where we are now

Speaker notes: During the Empathize phase of the Design Thinking process, you collected stories and insights from your users. This Define phase will give you an opportunity to synthesize these findings and come up with a problem statement, called a point of view (POV), that can help you reframe the problem and open new and

innovative solution spaces. Today we are going to ‘refine’ our define session from last session.

Re-cap: Do you remember this?

Speaker notes: Re-framing the problem (https://www.goodnewsnetwork.org/terrifying-terrific-man-redesigns-medical-machine-delight-children-instead-scare/)

Persona

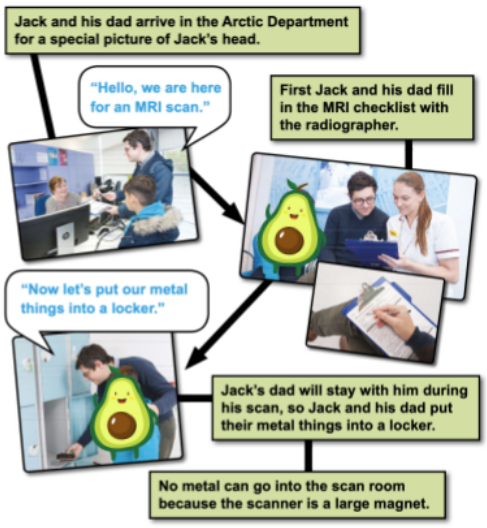
7 year-old

Avocute-o Jr.

"Headache makes me upset and my mom sad"

Speaker notes: Personas are archetypes or characters based on research, developed for the design project to reflect the user who could utilize the service, product, website or app.

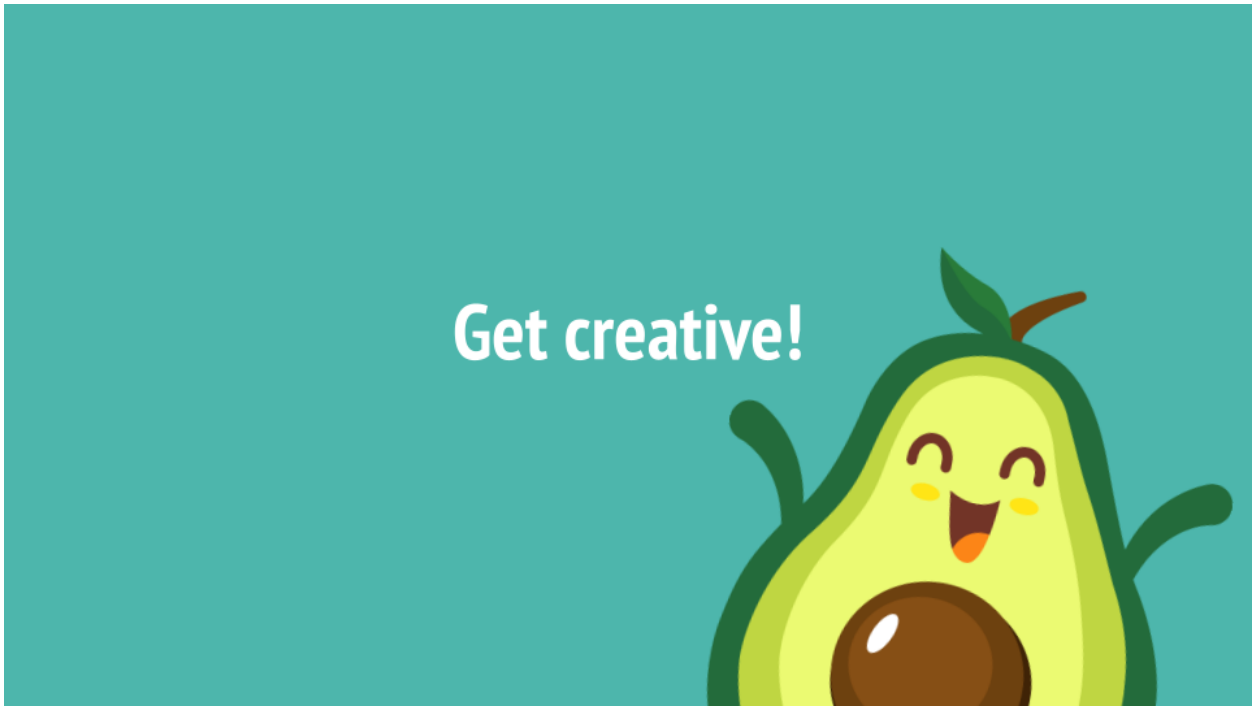
Storyboard



Speaker notes: Storyboard is a visual representation of a user's journey. They communicate the journey through a combination of graphics and texts. The purpose is to communicate a vision.

Other example of storyboard

Speaker notes: Here is the template for storyboarding we are about to hand out. Looking at this approach, how do you visualize the beginning, middle and end of a journey?


Get creative!

2023 Cohort's Day 5

Agenda	
Time	**Activity**
4:30pm	Setup - Table setup (U shape)
5:00pm	Dinner - Pizza talk : What we (Alex&Suzie) are doing during our reading break / What is your plan for March break?
5:30pm	Activity 1(Define): 20 min - Groups share with students last week what they have worked on so far - Recruit more teammates(Who absent last week) - Problem statement Lecture: 5 min - Revisit last week lecture to bring absent students up to speed Activity 2 (Refine): 60 min - Continue persona/storyboard sessions with all students caught up - Finish "define" with a problem statement Activity 3 : 10 min - Present their problem statement and first artifacts(persona & storyboard) Parking lot - If there are time, we will encourage them to start brainstorming together for possible solution idea
7:00pm	Introduce next week - Example of cool programs and initiatives associated with their project (other design projects, art installation, community wellness hubs, talk about the current podcast "Next Steps" being produced): https://youthwellnesslab.ca/point-of-view/ https://cafe.youthrex.com/ https://youthrex.com/community-board/ https://urbanoproject.org/when-we-see-each-other https://open.spotify.com/episode/66tRirGLN8xcMBuOw7AHNc?si=FCoGnzgMTmu0IH48A0q9Ug&nd=1
7:30pm	Goodbye

Design Sprint 2023

Week 5

Where we are now

Persona

7 year-old

Avocute-o Jr.

"Headache makes me upset and my mom sad"

Speaker notes: Let's try to understand the user. What is their need? Goal? Motivation? Obstacle?

Persona example

Speaker notes:

https://www.behance.net/gallery/100170209/CHARACTER-DESIGN-Funny-characters

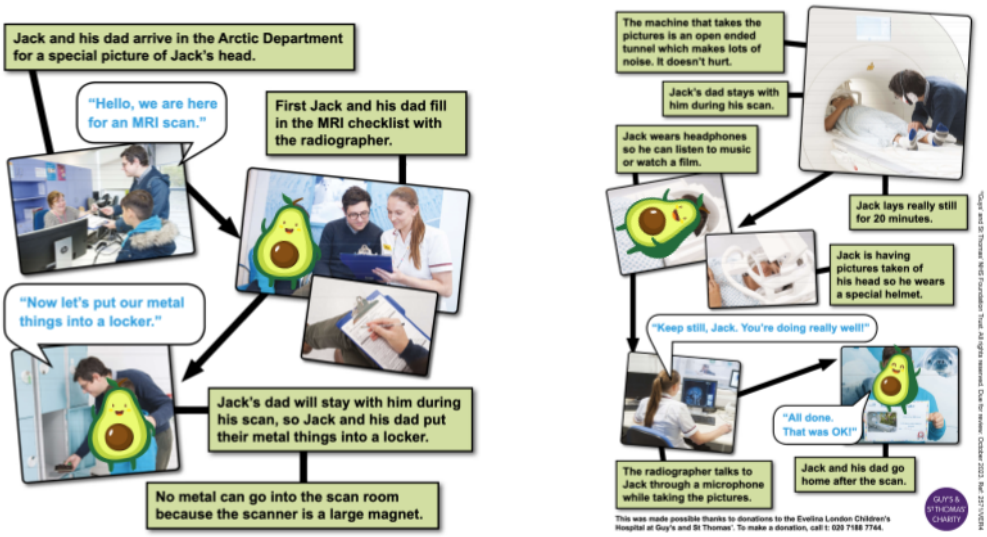
Persona example

Speaker notes: https://www.justinmind.com/blog/user-persona-templates/

Persona example

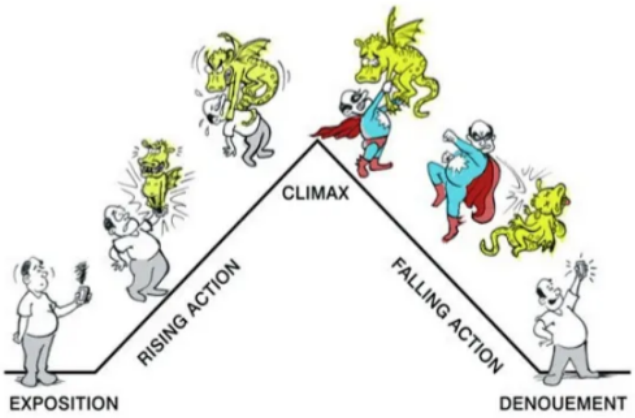
Speaker notes: https://www.pinterest.ca/pin/fun-persona--264023596891257261/

Storyboard



Speaker notes: Storyboard is a visual representation of a user's journey. How do they interact/fit with your problem statement?

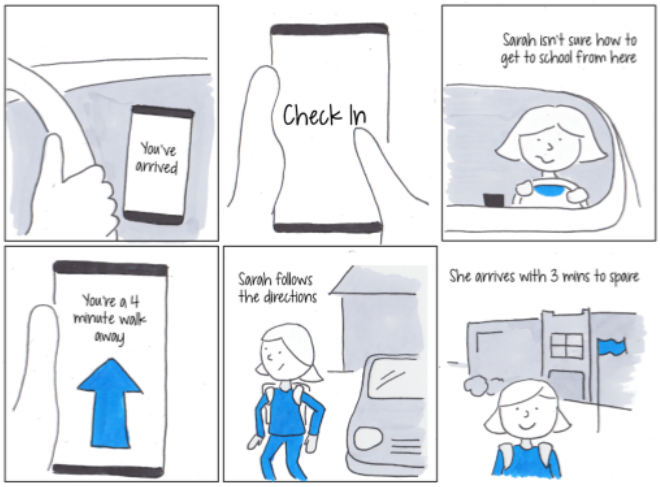
Storyboard



Speaker notes:

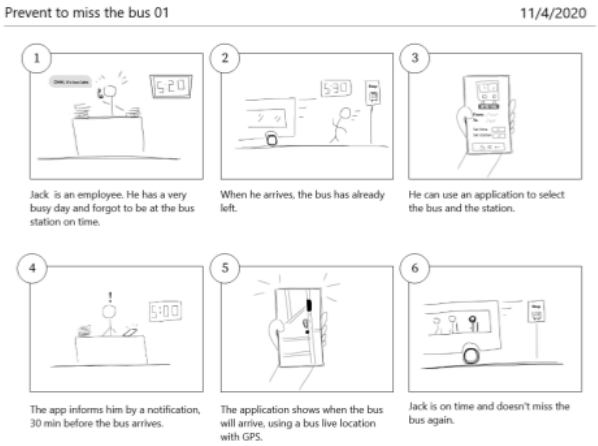
https://medium.com/@katy.strik92/whats-a-storyboard-and-how-do-i-use-it-3bffe342ace3

Storyboard example



Speaker notes: https://uxdesign.cc/ux-storyboarding-2ce43875f3de

Storyboard example



Speaker notes:

https://bootcamp.uxdesign.cc/storyboarding-in-user-experience-ux-design-7eba60e10fa0


Create your first team artifacts
Persona & Storyboard
6:50 PM

2023 Cohort's Day 6

Agenda	
Time	**Activity**
4:30pm	Setup - Table setup (U shape)
5:00pm	Dinner - Pizza talk : Lecture on brainstorming - Alex Osborn rules+ - What makes brainstorm session great
5:30pm	Activity 1: 20 min - Moving around improv game (Knife, baby, angry cat) 5-10 min - Crazy solution brainstorming 5- 10 min - Team name 5 min Activity 2: Ideation 60 min - Crazy 8's iteration (40 min) - Team discussion (20 min) - Quick presentation: what is problem statement & Solution area
7:00pm	Introduce next week - Prototype
7:30pm	Goodbye

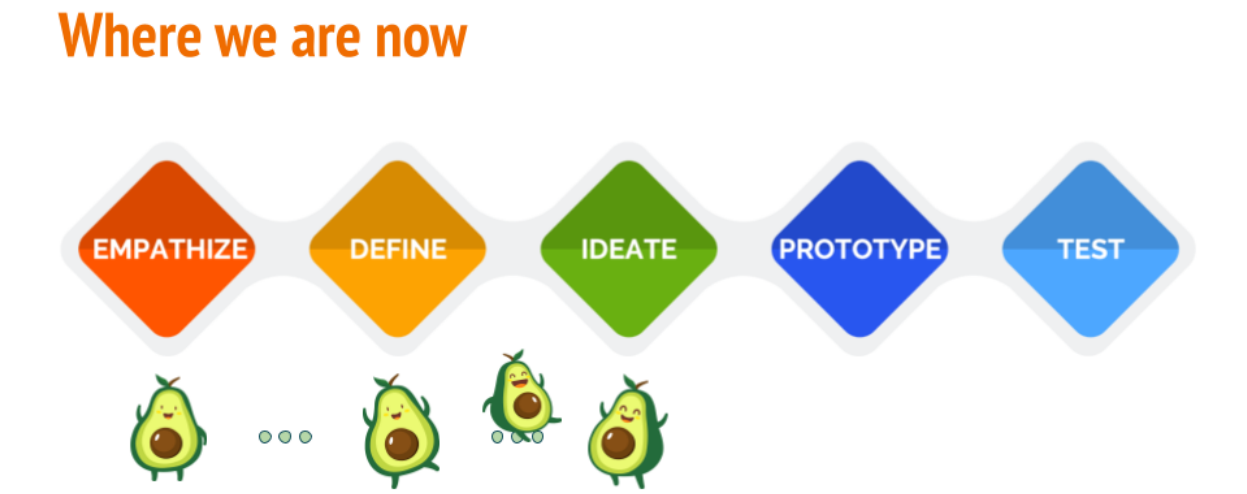
Design Sprint 2023

Week 6

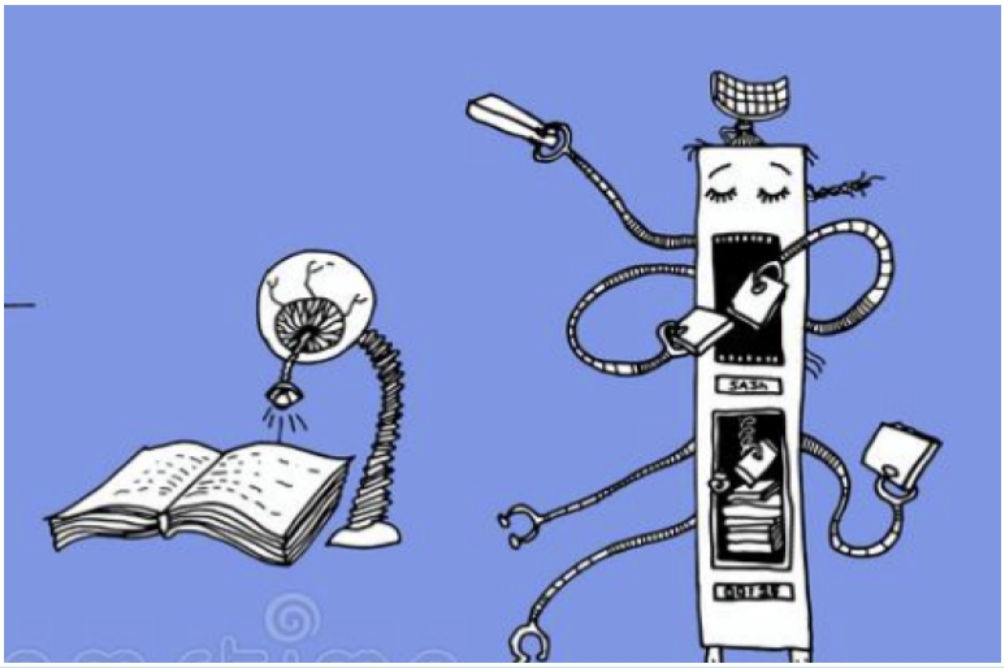
What makes a good brainstorming session?

- **Defer judgment**
- **Go for quantity**
- **Build on ideas (of others)**

The term "brainstorm" was popularized by the ad agency executive Alex Osborn in his 1953 book Applied Imagination (though he had outlined his method in a 1948 book, Your Creative Power). Osborn claimed that by organizing a group to attack a creative problem "commando fashion, with each stormer attacking the same objective," creative output could be doubled.

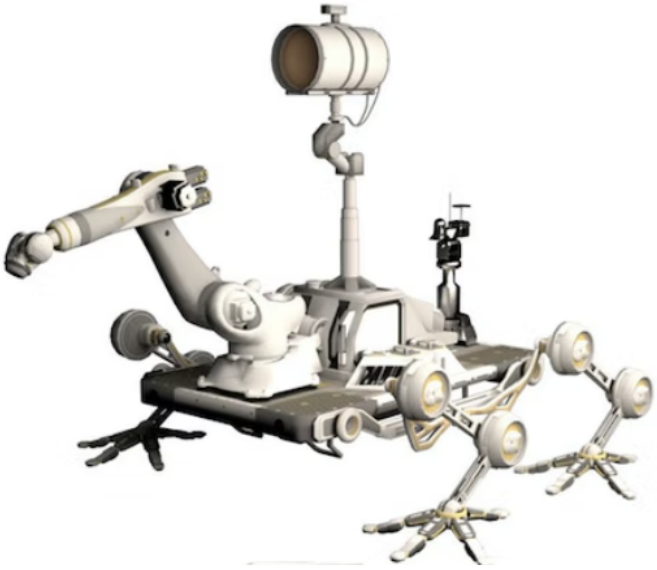


Speaker notes: After each image ask: What does this product do? Who is it for? Why is it important?



Speaker notes: Image retrieved from -

https://www.dreamstime.com/illustration/crazy-robots.html



Speaker notes: Image retrieved from -

https://pixels.com/featured/nasa-mars-rover-perseverance-jackie-burns.html

Do you remember

Design backpack?

Speaker notes: Focus on your problem statement. Focus on a solution that solves the problem statement. At each step of the crazy 8s activity, explain what they need to do/end up with, especially what you mean when you say 'iterate'

Fill each block with your idea

We will spend 1 minutes for each box

Pick your favourite 4 ideas

Let's iterate them!

Speaker notes: What element sticks out? Is it having questions about post-secondary answered by someone who knows? Finding a job with skills you can use after highschool?

Talk about your idea

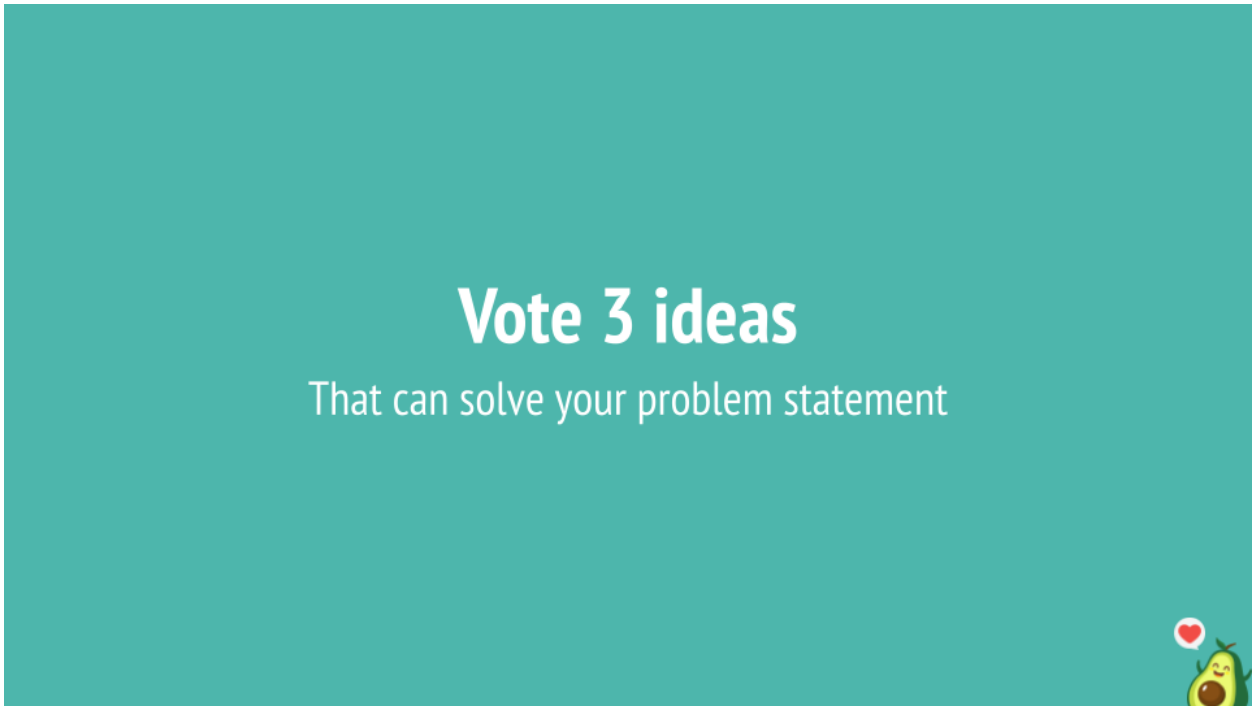
Pick your favourite 2 ideas

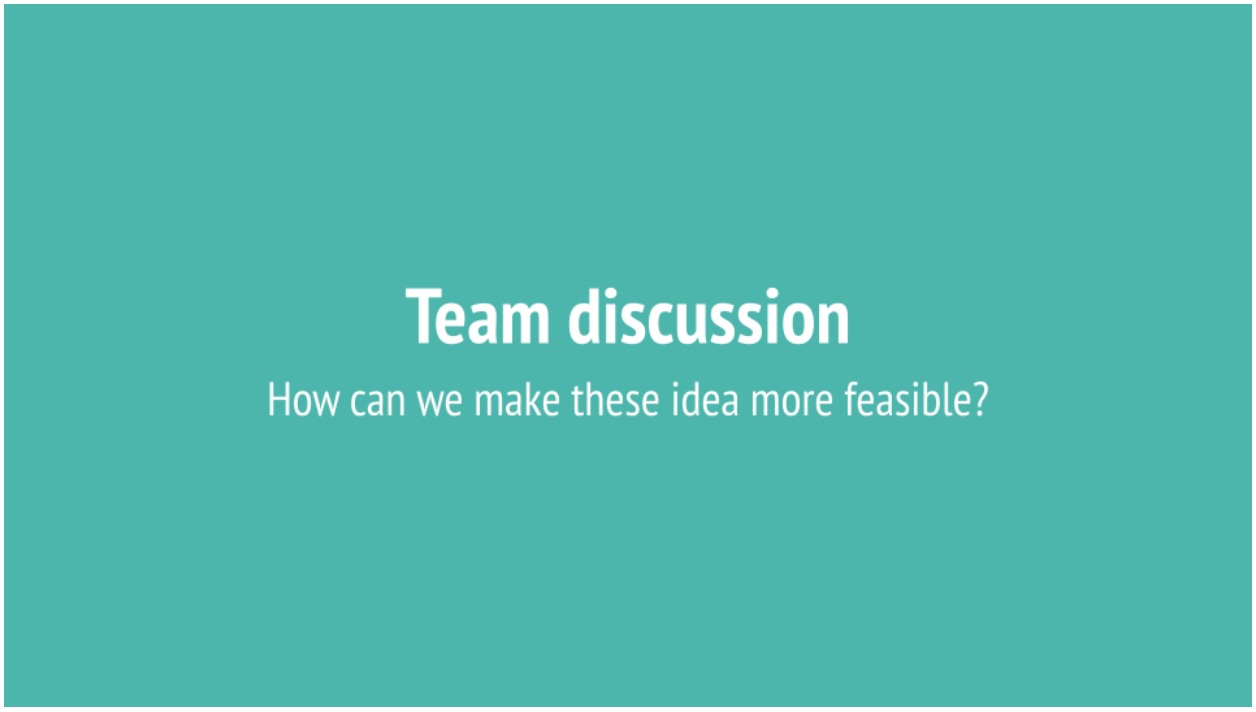
Iterate them again!

Introduce your ideas to team

What can be a possible solution?

Speaker notes: Even the crazy ones! Your teammates may see a scalable solution in a whacky idea





Speaker notes: Are those ideas solving your problem statement? How can it be better?

Brain storming, Mindmap, drawing, .. in any formation you want

Speaker notes: We are going to bring your ideas to life, and will bring in craft supplies, but, if there is anything you want to bring in from home, or, want to make sure we are bringing in (like markers, extra storyboard worksheets, magazines etc) just ask!

2023 Cohort's Day 7

Agenda	
Time	**Activity**
4:30pm	Setup - Table setup (U shape)
5:00pm	Dinner - Pizza talk
5:30pm	Activity 1: 20 minutes - Catching up (For the team that was away) - Dot voting : Narrow donw to one idea. : How team think about that result? Activity 2: - Peer review 30 min: - How feasible your idea is? 10min - Ted video: Rapid prototyping Google Glass - Tom Chi 10 min - Intro of prototype: How can we make it more tangible? : Do your research! What kind of material you may need?
7:00pm	Introduce next week - Prototype and iteration!
7:30pm	Goodbye

Need explain we just repeat the lecture of what we did on Day 6 because of the march break.

In this particular agenda it is important to mention that this was during March Break and low attendance should be anticipated and planned for. The recommendation is to be prepared to review the content shared this week the following week again, only, reserve lengthier lectures and explanations for full attendance sessions. The previous week, a group was absent, so, a facilitator spent some time updating that team separately.

2023 Cohort's Day 8

Agenda	
Time	**Activity**
4:30pm	Setup - Table setup (U shape)
5:00pm	Dinner - Pizza talk: Quick team alignment time - Where are you guys are at? - What it the solution you will create prototype? - Why you need to create prototype (this will meet your hypothesis's end goal?) - How to take constructive critique
5:30pm	Activity 1: 30 min - Make agreement for final solution - Building prototype before guest arrive :What is the simplest way to show your solution? Activity 2: 60min - Introducing our guest - Feedback from guest : How can make it more feasible? : What can be enhanced to create bigger impact? - Iterate your idea from feedback! (Alex and Suzie will walk around to visit each team to check/ help iteration phase)
7:00pm	Introduce next week - Prepare for presentation : How you gonna present your idea?
7:30pm	Goodbye

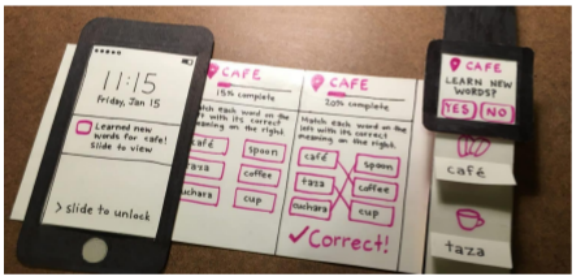
Design Sprint 2023

Week 8

Where we are now

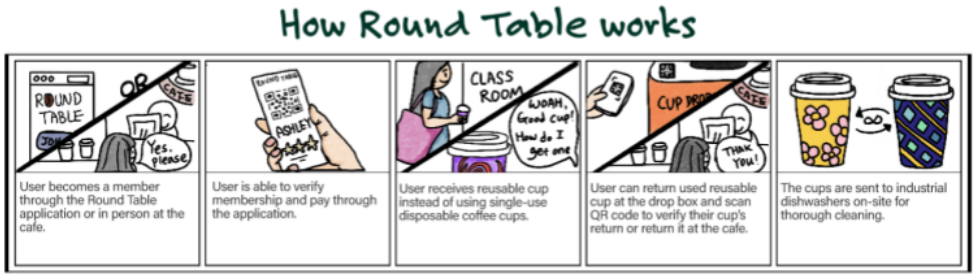
Prototype

Prototype example



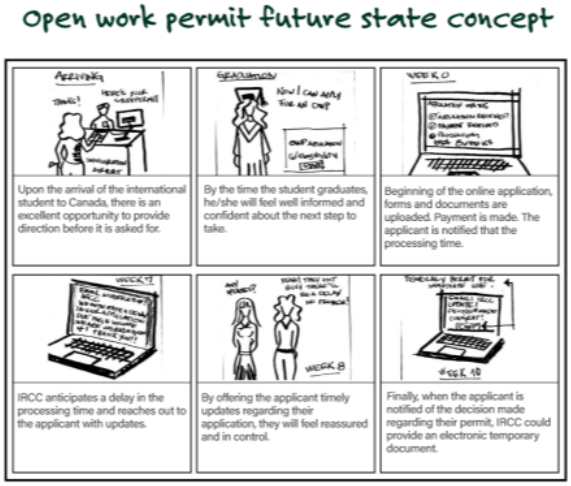
Speaker notes: An app prototype generally looks like this! Surprising? You can make a prototype of anything!

Prototype example



Speaker notes: Storyboard format can be effective for prototyping

Prototype example



Speaker notes: Here's one of the solution in storyboard format

Prototype example

College students recruitment storyboard

Prototype example

Toolkit - User Flow

Initial touch point

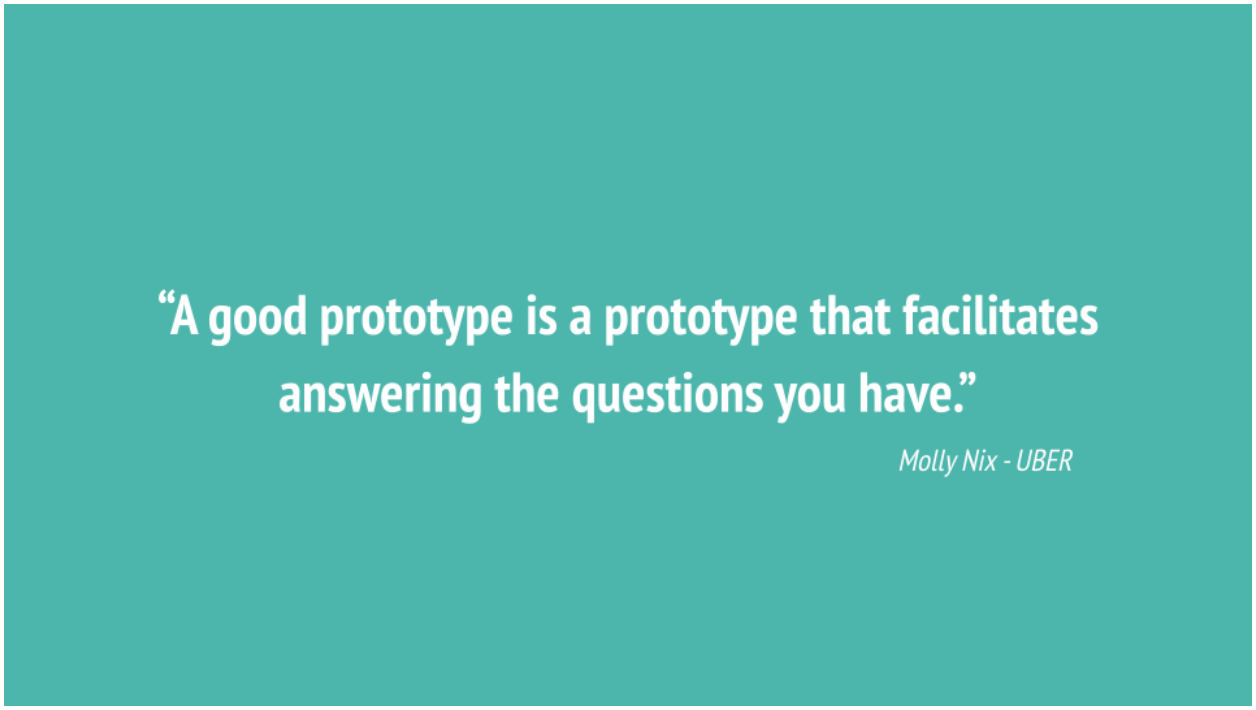
Our volunteer meets haitians and talks about their present situation, resources available, IVR etc.

Marketing

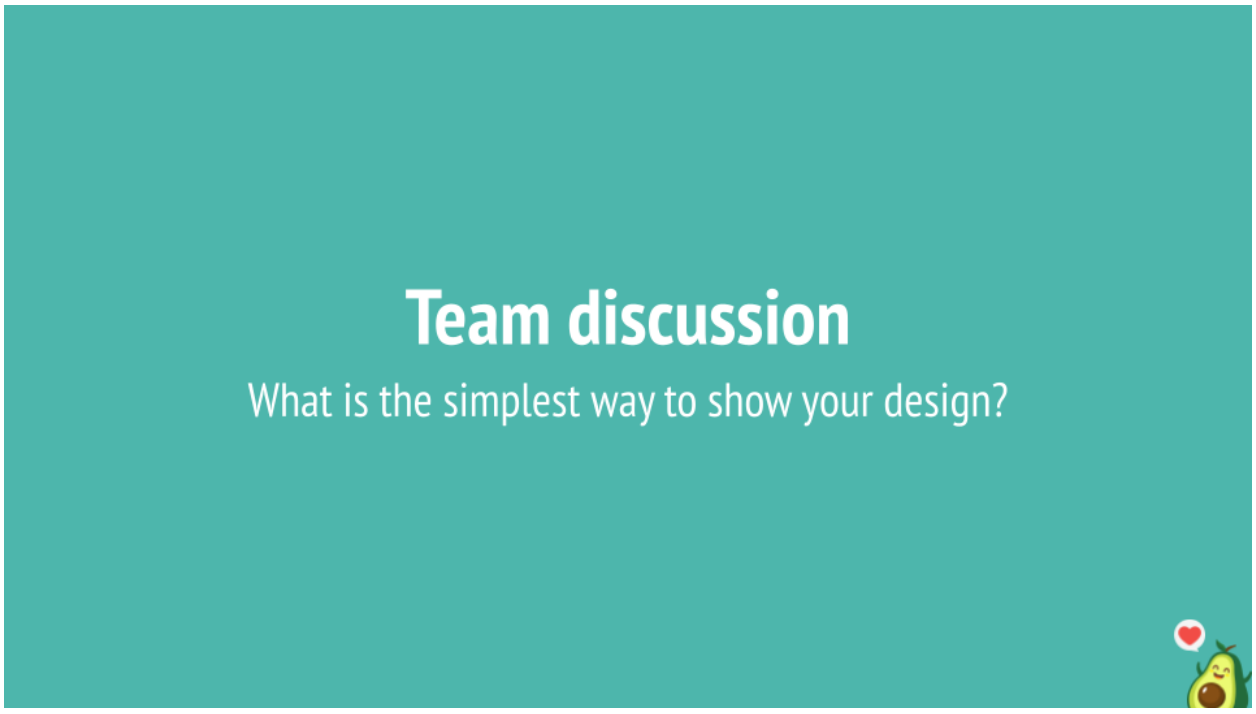
Creating awareness about our service on local radio, community gatherings, SMS in haitian neighbourhoods.

Sipɔ - Strategy

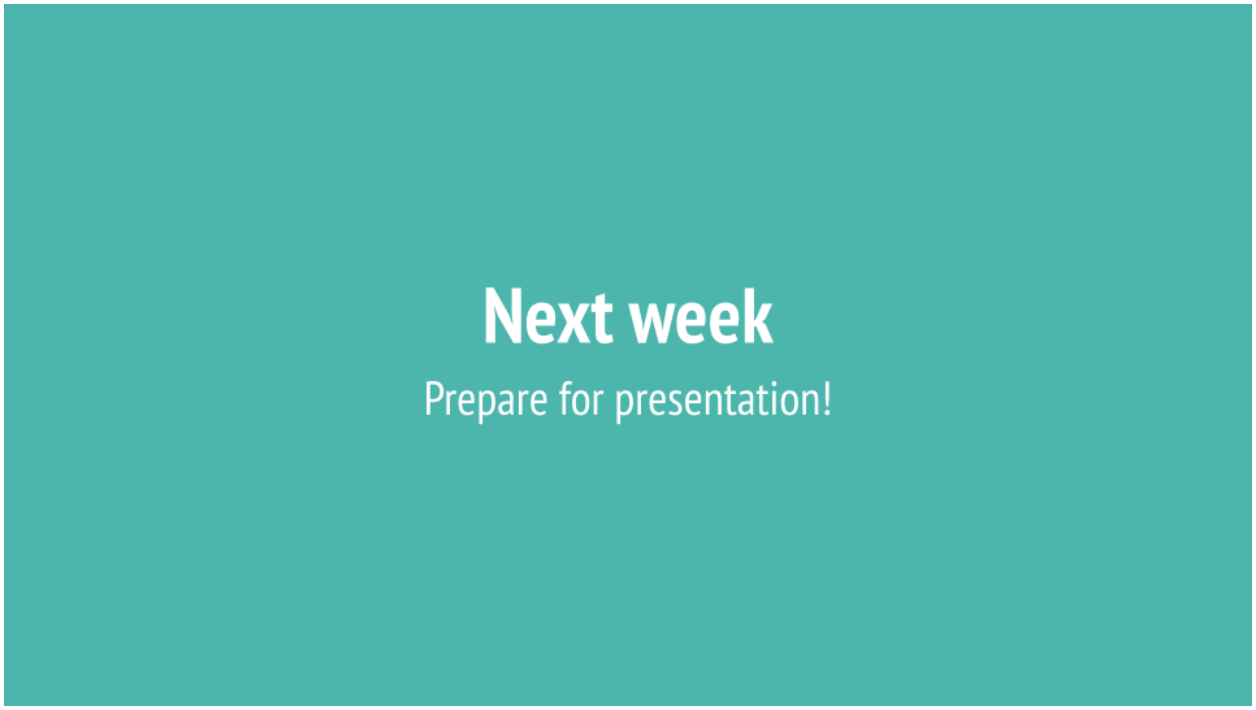
Speaker notes: You can also have a step-by-step journey and the user journey in this format. **There is no wrong answer!**



Speaker notes: Keep it simple. Consider what is the simplest the way to communicate your idea?



Speaker notes: What way do you see yourself showing your solution? Let’s discuss!



Speaker notes: Next week we have a special guest coming. He works in the industry as a UX designer and has extensive experience. Prepare to give a brief overview of your project; nothing formal, and he will be very interested to hear about how you came to your solution spaces and where you see them going.

2023 Cohort's Day 9

Agenda	
Time	**Activity**
4:30pm	Setup ● Table set up: 4 island (each group gather and sit together)
5:00pm	Dinner ● Pizza talk Lecture : 5 - 10 minutes ● Spontaneous with presentation framework TBD ●
5:30pm	Activity 1 ● Finish your prototype : 20 minute ● Presentation prep : rest of time Activity 2 ● Survey : while they are working, we will ask one person each time to fill google form on Suzie & Alex's computer
7:00pm	See you at Algonquin college(Little explain how to get UX lab) !
7:30pm	Goodbye

Design Sprint 2023

Week 9

Speaker notes: Focus on your problem statement. Focus on a solution that solves the problem statement.

Good Storytelling is Simple

- These are good storytelling aids and can be used for answering complex questions, authentic interviews and even building a presentation.

- It's just a few mental shortcuts that help organize a cohesive thoughts using "chunking", like how we remember a phone number.

- What? So what? Now what?
  - Good for introducing a product, service and explaining why it's necessary and the next steps.
  - I find this has been naturally occurring in my group conversations sometimes. Great building block for presenting an idea and interesting to note when they happen without.
  - OSB: Opportunity, is what to fix. Solution is the project outcome. Benefit is how it helps the user.
  - PREP: Point to state the fact. Reason is why it matters. Example will provide evidence. Point to state the fact again and emphasize importance. intention

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Appendix B - Design Sprint 2023 Survey

Survey questions

Hello fellow designer!

We would like to thank you for participating in the Design Sprint. We kindly ask you to fill out this survey about your experience so we can improve future workshops and programs for Pathway students. Your feedback is anonymous and appreciated.

Question 1. I would recommend the Design Sprint program to a friend.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

Question 2. Please explain why you would or would not recommend to a friend.

_____

Question 3. I enjoyed the different activities I participated in.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

Question 4. Were there any activities that stood out for you more than others? Why?

_____

Question 5. I felt comfortable and encouraged to share my ideas, thoughts and opinions.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

Question 6. I felt guided through projects and activities with clear instructions and support.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

Question 7. I learned new skills and information throughout the project.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

Question 8. Is there any particular skill or method you learned during design sprint that you would like to further develop? Why?

_____

Question 9. I was able to learn about and explore creative thinking and problem solving.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree

- ☐ Strongly agree

Question 10. What were the most important reasons why you continued to participate? Choose all that apply

- ☐ Learning new things
- ☐ Volunteer hours
- ☐ Honorarium
- ☐ Seeing my friends
- ☐ The food
- ☐ Contributing to the creation of a future program or service for youth
- ☐ Other

Question 11. Please rate the following workshop components by putting a checkmark in the desired response box.

a. Learning new terminologies
   - ☐ Unsatisfactory
   - ☐ Poor
   - ☐ Average
   - ☐ Good
   - ☐ Excellent

b. Engaging activities / Exercises
   - ☐ Unsatisfactory
   - ☐ Poor
   - ☐ Average
   - ☐ Good
   - ☐ Excellent

c. Supper break / Food
   - ☐ Unsatisfactory
   - ☐ Poor
   - ☐ Average
   - ☐ Good
   - ☐ Excellent

d. Staff (Friendly and encouraging)
   - ☐ Unsatisfactory
   - ☐ Poor
   - ☐ Average
   - ☐ Good
   - ☐ Excellent

Question 12. Rate how cool the facilitators are (Alex & Suzie)

- ☐ 100%

- [ ] They are the BEST
- [ ] I will miss them so much