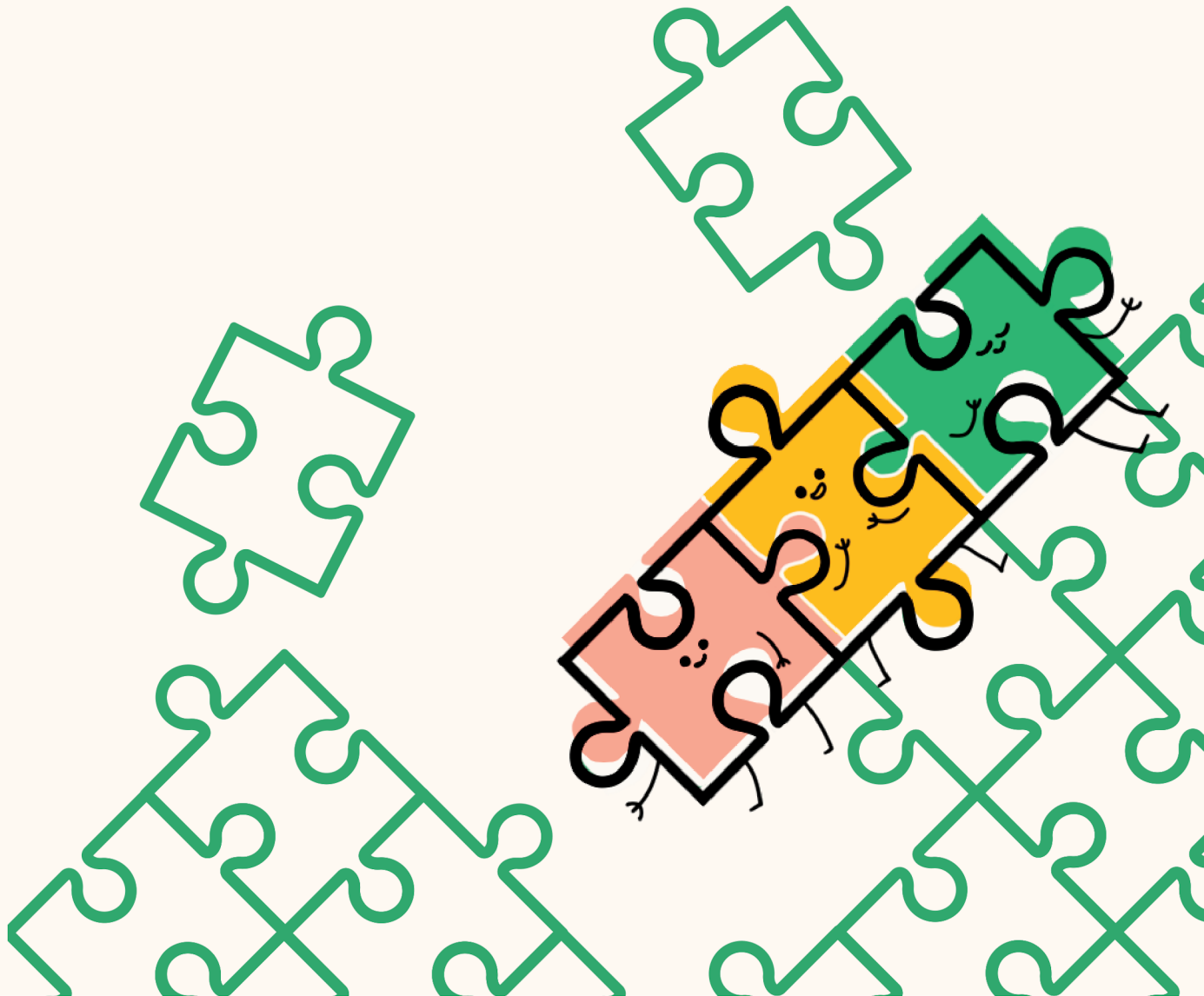


Innovation Sparker

A Design Thinking-based Workshop by UIF Sophia

Facilitation Guide



WELCOME TO THE INNOVATION SPARKER

“Innovation Sparker” is a **DESIGN THINKING**-based workshop designed by UIF Sophia. This facilitation guide consists of 8 modules within 6 workshop spaces. Each module is an invitation into a different space within the Design Thinking process and introduces an activity that can be implemented alone or in combination with activities introduced in other modules. When all the activities are combined, the result is a 2-hour (120 minutes) workshop. During the workshop, participants identify and define problems in their communities as opportunities for creating impact. By coming together to discuss issues of common interest, participants co-create a safe space where new insights and creative ideas are formulated and expressed.

WHO IS THE TOOLKIT FOR?

This toolkit is for people who wish to lead workshops for university students. The workshops are envisioned primarily for undergraduate students, but they can be adapted for younger or older students depending on the topic or challenge chosen. The toolkit can be used for workshops for groups of 10 to 30 students.



WHAT IS IN THIS TOOLKIT?

- Workshop Facilitation Guide
- Workshop Facilitation Slides
- Entire Workshop Sheet
- Contextual Landscape Canvas Sheet
- Identify Skills & Resources Sheet
- Feedback Sheet



Created by the UIF Sophia Team
Designed in collaboration with Reitaku University
students Hikari Takeda & Rin Uzawa

Sophia University
Tokyo, Japan, 2023



WORKSHOP SPACES & MODULES

WELCOME TO THE INNOVATION SPARKER

1

1. TEAM BUILDING SPACE

7

- Module 1: Warm-up Stoke (5 minutes)

8

2. EMPATHIZING SPACE

10

- Module 2: Contextualize (15 minutes)
- Module 3: Understand / Reflect / Relate (10 minutes)

11

16

3. DEFINING SPACE

19

- Module 4: Define / Reframe (15 minutes)
- Module 5: Identify Skills / Resources (10 minutes)

20

24

4. IDEATION SPACE

27

- Module 6: Brainstorm / Ideate (15 minutes)

28

5. PROTOTYPING SPACE

32

- Module 7: Prototype (25 minutes)

33

6. ITERATION SPACE

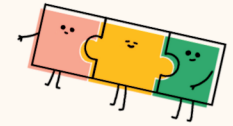
36

- Module 8: Feedback / Iterate (25 minutes)

37

APPENDIX & WHO WE ARE

40



WHAT IS DESIGN THINKING?

Becoming co-creators of meaningful solutions

Design Thinking is a co-creative approach to problem-solving that starts with understanding the real needs of the people it is meant to serve. To do so, design thinkers first need to learn the reality of the people they are designing for. This, in turn, requires an attitude of humility and openness to "being taught" on the part of the designer, in other words, empathy. Doing so ensures that an equal partnership emerges between designers and stakeholders as co-creators in the process.

Because it is human-centered and needs-focused, Design Thinking can be applied to all areas of human activity, to create anything from concrete products and services to spaces and complex systems. Regardless of the form it takes, to be effective and successful, it needs to fulfill not only the practical purposes but also the symbolic meaning and emotional significance that people associate with it.

On the one hand, the co-creative approach grounds Design Thinking ethically and aesthetically in the needs and realities of the people it is meant to serve, while on the other it allows for the formulation and implementation of long-lasting, sustainable solutions. That is because people are most likely to adopt solutions that not only add real value to their lives and experiences, but also that best fit their local contexts and realities.

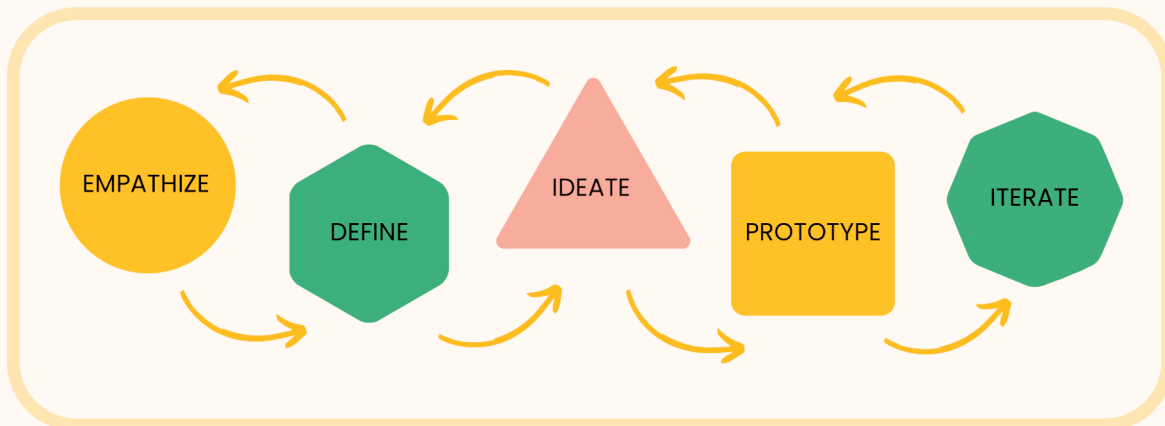


**Because it is
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WHY DESIGN THINKING?

The complexity of today's "wicked problems" requires we approach them differently. So far, however, most ideas have failed to have a transformative impact in practice because their designers have entered with preconceived notions of what the needs and the solutions are. This approach remains the norm in both the business and social sectors.

The Design Thinking process allows for alternative approaches to emerge. It contains **5 main components: empathy, defining, ideation, prototyping and testing/iteration**. Empathy is the space where one learns the context and the needs of the people one is designing for. Defining is the space where one identifies and reframes a problem as a challenge. Ideation is the space where one turns the challenge into an opportunity for which one then formulates and develops an idea solution. Prototyping is the space where the idea is turned into a product/service/system. Testing is the space where one tests the prototype and builds on the feedback received.





These components are best understood as spaces rather than steps, as they are not sequential steps in a linear process, but rather spaces where one goes in and out of on multiple occasions as the designing team iterates in light of new insight, directions, or feedback gained. Within these spaces, participants are able to learn and apply many of the foundational soft skills required in the 21st-century workplace and society, in particular critical thinking, problem-solving, communication, innovative and adaptive co-creation and collaboration skills.

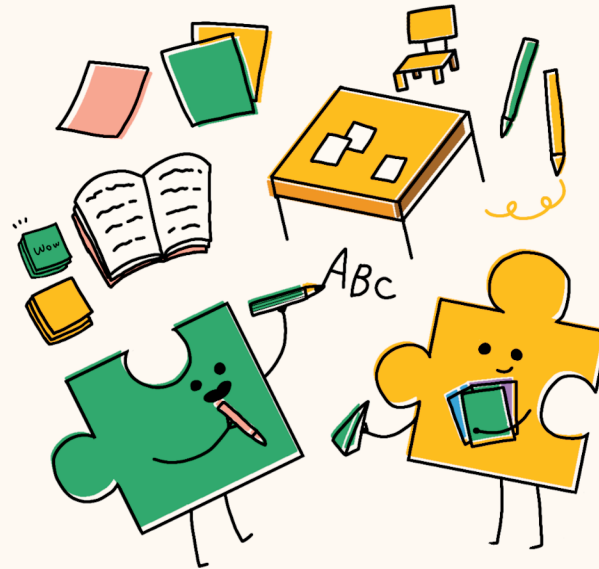
Incorporating the Design Thinking mindset and skills into our educational curricula ensures we strengthen the participatory engagement of our students, so that they develop both the responsibility that comes with caring for one's community and the agency for solving its problems. This also ensures they become vigilant democratic citizens constantly in touch with the challenges and inequities arising in their communities.

Democracy has been hollowed in its institutional forms because we have become disengaged and decoupled from our own realities in our local contexts. Shaping new age minds to take up their role as co-creators and equipping them with the tools to do so also strengthens the democratic basis of our communities and larger society at a time when its foundation is being challenged and belittled.



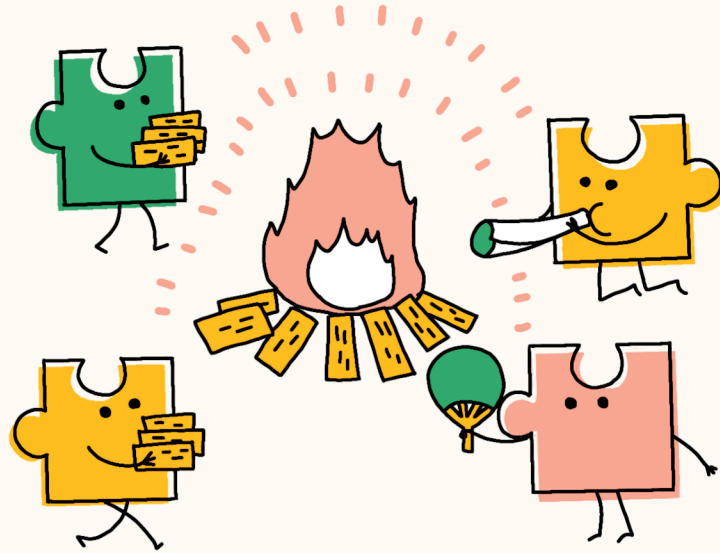
MAKE THE SPACE

Tips for preparing a workshop space

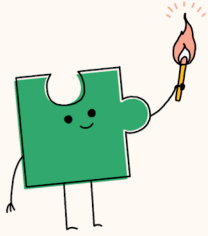


- Find rooms with movable chairs and tables.
- Position tables so that groups of 3-4 people can sit facing each other.
- Provide whiteboards or boards where participants can write down and organize their ideas.
- If you plan to host the prototyping module, create a small corner for the prototyping materials that can be easily accessed from as many directions as possible to avoid crowding of participants in one area.
- It is also recommended to space out the materials or organize them into groups of utility (writing materials, cutting tools, papers, toys, etc.) to make it easier for the participants to find.

TEAM BUILDING SPACE

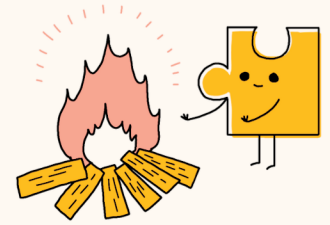


The Team Building Space aims to create a fun and relaxing atmosphere by teaching participants that doing things in a completely new way is fun, and that creativity emerges when we stop being self-conscious and worrying about being perfect. As an introduction to Design Thinking mindset and skills, this is a great way to show the value of spontaneity and importance of focusing on the creative process, allowing for new ideas and viewpoints to emerge. It also serves to get participants comfortable and open to working with each other.



Module 1

Warm-up Stokes



As the name implies, a “stoke” is a type of activity meant to “ignite a fire.” They can be used both as starters as well as transitions between different types of activities. Depending on the content, they can be great energy or focus boosters, rapport builders, teamwork enhancers, and even mindset communicators. Although stokes can serve as tools to just “recharge and reset” the workflow, they work best when their content is aligned with the overall type and aim of the activity or module they precede.

Blind Drawing

Activity Type: Pair activity



Time
5 minutes



Materials

- 2 sheets of white paper
- 2 black markers

Tip: Thick markers tend to go through the sheet and leave stains on tables, so it is best to prepare extra sheets or files for participants to place underneath.



Instructions

- Have the participants sit in pairs facing each other.
- Participants have 1 minute to draw each other WITHOUT looking down at the paper.
- After 1 minute, participants show each other their "Picasso drawing" and explain how the exercise **felt** for them.
- At the end, if time allows, ask a few participants to share with the entire group their thoughts/feelings on the exercise. Ask guiding questions (see below).
- Clarify that the purpose of this stoke is to emphasize that an important mindset for Design Thinking is valuing spontaneity and focusing on the creative process, which is the moment when we allow new ideas and viewpoints to emerge.



Facilitation Tips

- The entire exercise depends on participants constantly looking at one another without looking down to the drawing, so emphasize the importance of NOT looking!
- After asking participants to link the explanation to the overall goal of the workshop/intro to Design Thinking, emphasize the importance of maintaining an attitude that embraces ambiguity and willingness to get out of one's comfort zone "becoming comfortable being uncomfortable", as that is where valuable learning happens.

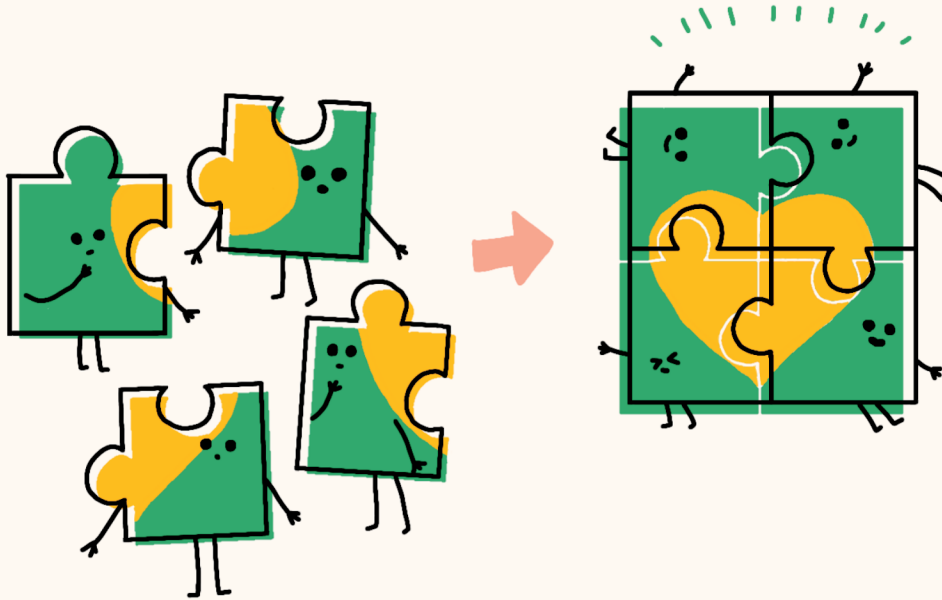


Guiding Discussion Questions

- What do you think is the purpose of doing such an exercise?
- How did it **feel** for you?
- What did you notice going through this exercise, either in yourself or from the interaction with your partner?



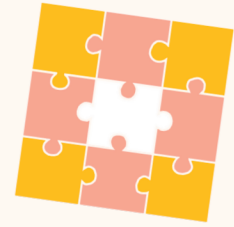
EMPATHIZING SPACE



The Empathizing Space gets participants to understand and become more acquainted with whatever the context of the workshop or discussion is, and to also get to know the perspective of other teammates at a deeper level. Here is a chance for them to reflect on what they already know, and to discuss preconceptions as needed for background knowledge. Building a common understanding of the problem at hand is imperative for creatively turning it into an opportunity.

Module 2

Contextualize



To understand the greater context of the topic/problem being addressed in the workshop in a visual way. This allows for participants to engage in deeper reflections and discussions by broadening their perspectives as they learn to see the bigger picture. At the same time, it provides them with a strong foundation that helps them to focus their perspectives and identify points of intervention (i.e., areas where taking action could have a positive effect and impact).

Contextual Landscape Canvas

Activity Type: Discussion



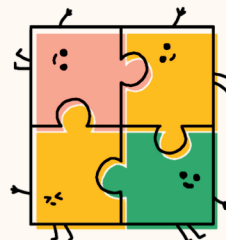
Time
15 minutes

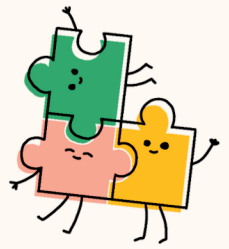


Materials

- Contextual Landscape Canvas sheet (scan QR code below or see p. 15)
- Writing tools
- Paper (post-it notes, blank paper)

Note: This module works best when it is used together with Module 3. We recommend that participants take notes on what is being discussed so they can use their notes for reference during the "Understanding the Problem" activity in Module 3.





Instructions

- Have participants pair up in groups of 3 to 4 people.
- Explain the components of the Landscape Canvas: the **middle ring** shows the **PROBLEM** areas within different categories, and the **outer ring** shows the **OPPORTUNITY** areas where there is the chance to take positive action.
- Take at least 10 minutes to explore the Landscape Canvas. Tell participants to start by looking at the problem areas in the middle ring. Then, tell them to gradually make their way outward to the opportunity areas in the outer ring.
- Clarify that participants do not have to pick an opportunity area that is written on the canvas. Rather, they can combine existing opportunity areas or create their own as long as it is related to the overall topic.
- If you are using this module together with Modules 3 and 4, tell participants to think about which opportunity areas interest their group the most after they have explored all of the problem areas. The end goal of this activity will be for participants to identify **ONE** opportunity area that they would like to work on for the remainder of the workshop.

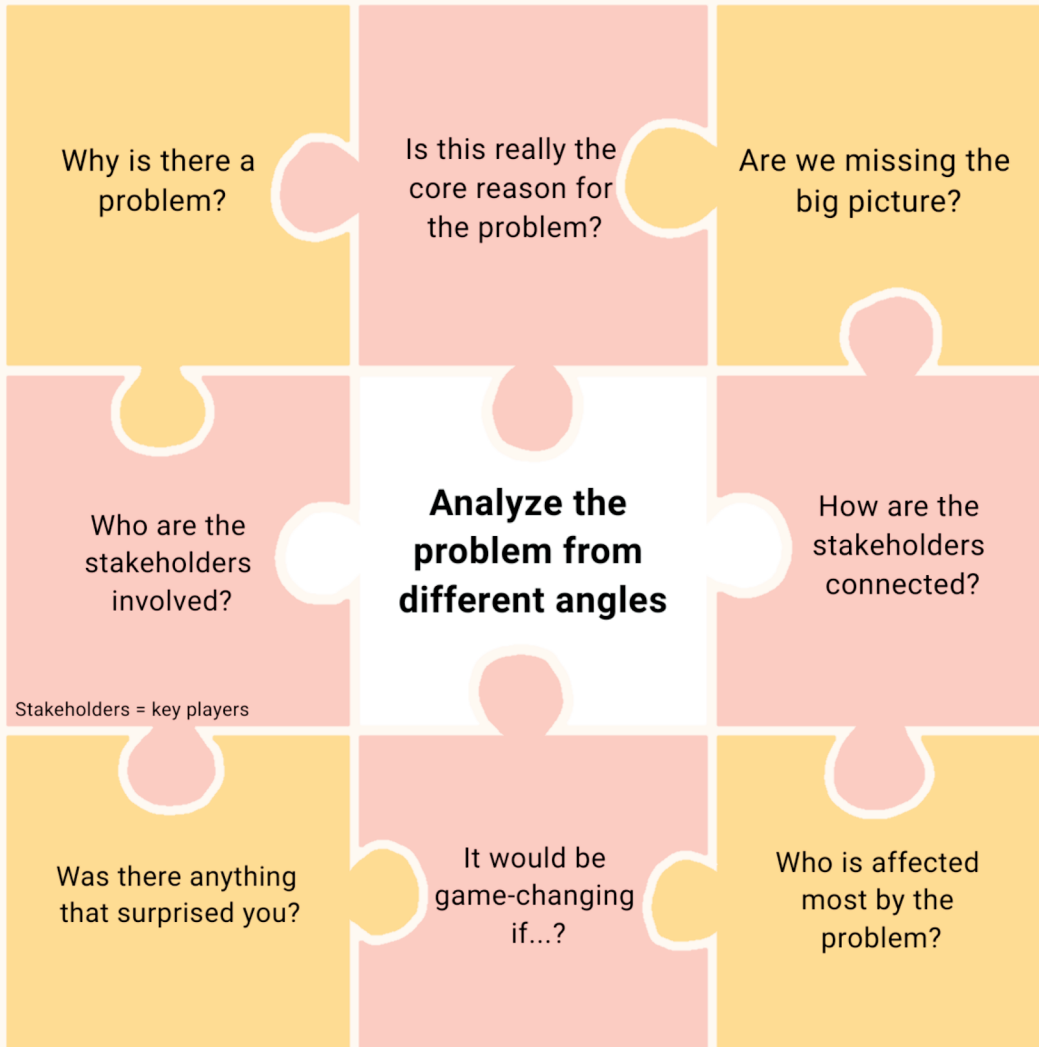


Facilitation Tips

- As participants are exploring the canvas, instruct them to discuss what they **see** and what they **do not see**. In addition, encourage them to think about how their personal experiences relate to the various problem areas and opportunity areas.
- Remind participants that the canvas does not cover every single opportunity area, so they should feel free to talk about areas that might be missing.
- Give participants a 3 minute heads-up before ending the activity. At this point, make sure that all groups have discussed both the problem areas and opportunity areas.

Additional Discussion Questions

If time allows, share the following discussion questions with participants to help them dig deeper into the problem they choose to focus on as a group:



How to build your own Contextual Landscape Canvas

Step 1: Decide a theme

- Examples: waste on the Yotsuya campus, refugee support in Tokyo, the fashion industry in Japan

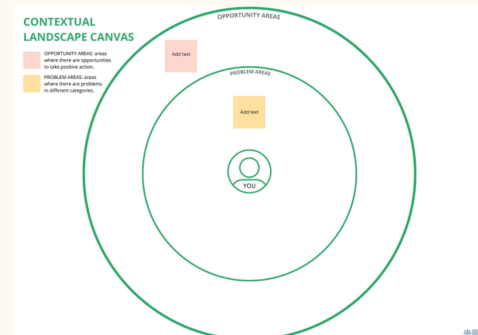
Step 2: Download the Contextual Landscape Canvas template (scan the QR code below) and fill in the problem areas and opportunity areas that relate to the theme. Keep the following in mind when writing the problem and opportunity areas:

- The problem areas should be phrased as factual statements and observations that give context to the problems that exist (see example on p. 14).
- The opportunity areas should extend from some of the problem areas and highlight what may be missing or what may already exist but stand in need of improvement (see example on p. 14).

Step 3: Add visuals, such as free vector images and icons (recommended sites: Canva, Freepik, Vecteezy).

Tips

- Use only the most important keywords and keep the descriptions brief.
- Make it as visual as possible by adding icons and illustrations.
- If necessary, divide the problem areas into categories by drawing lines within the middle ring (see UIF Sophia's Contextual Landscape Canvas for example of categories).



Module 3

Understand / Reflect / Relate



To expand participants' understanding of the topic/problem at hand, and to get to know the perspectives of other teammates at a deeper level. Here is a chance for participants to reflect on what they already know and to unpack their assumptions or preconceptions surrounding the main discussion topic.

Understanding the Problem

Activity Type: Discussion

Note: This module works best when it is used together with the preceding Contextual Landscape Canvas activity in Module 2 and the succeeding "How Might We...?" activity in Module 4.

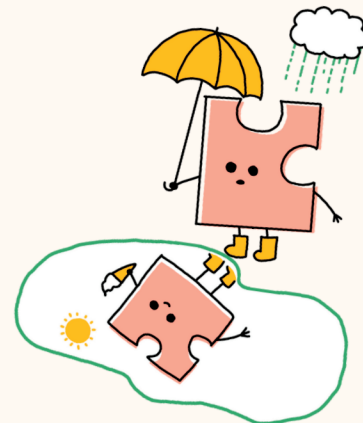


Time
10 minutes



Materials

- Writing tools
- Paper (post-it notes, blank paper)





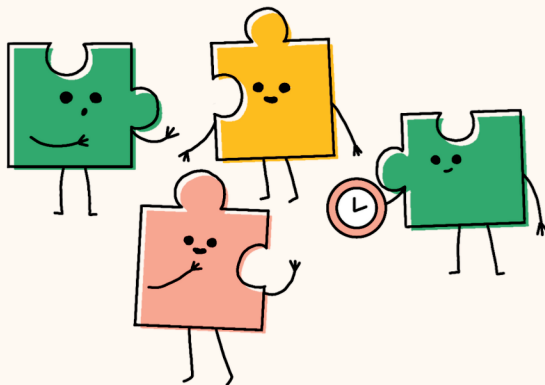
Instructions

- Have the participants pair up in groups of 3 to 4 people.
- Introduce the guiding discussion question(s).
- Have groups discuss the guiding questions for a set amount of time and remind them to write down their main points or key ideas. Participants should focus on expanding upon the questions as much as possible rather than analyzing their already brainstormed ideas.
- After the discussion, ask groups to share their main discussion points and key takeaways.



Facilitation Tips

- Set up a visible timer for participants so that they know how much time they have remaining for their discussion.
- During the group discussions, we recommend that the facilitator walks around the room to check on each group's discussion and add different perspectives or insights as needed.



Tip: Time Timer is a great visible timer that is available both as an app and a physical tool. For in person workshops, the Time Timer Original in 19cm works great!



Guiding Discussion Questions

It is important to give focused guiding questions to participants to engage them in the discussion. Key connections can be explored through either a core question or a series of questions. Here are a few examples of how to phrase the questions:

- What does ___ mean to you and how does it impact you individually? (personal connection)
- What do you like and dislike about ___? Do you think things could be thought of or done differently? (evaluation and analysis)
- Do you agree or disagree with the following statement? “___” Explain why using prior knowledge to justify your opinion. (agree or disagree)
- Which one is more ___? Which one is better? Why? (comparison)
- Have you ever had an experience where ___? Take a moment to share your reflection on it. (reflection)
- Given ___, how would you go about ___? What is your reasoning? (processing and reasoning)

Examples

- What does “sustainability” mean to you and how does it impact you individually? (personal connection)
- What do you like and dislike about the chemistry/biology laboratories in Sophia University’s Faculty of Science and Technology? Do you think things could be thought of or done differently? (evaluation and analysis)
- Do you agree or disagree with the following statement: “The current educational system in Japan pushes students to think critically and encourages them to express their opinions.” Explain your opinion based on your current understanding and knowledge of the topic. (agree or disagree)

DEFINING SPACE



The Defining Space guides participants to narrow in on the problem they would like to understand and solve. At the same time, this space encourages participants to shift their perspective from seeing the “problem” they have identified as something negative, and instead seeing it as a “challenge” that will teach them and allow them to grow. Reframing a problem into a challenge in this way also enables participants to recognize the wider opportunities for positive change. When setting out to solve the challenge at hand, an important first step towards taking action is by looking inward to recognize the relevant skills and resources one already has within arm’s reach.

Module 4

Define / Reframe



To introduce the main topic of discussion, define the problem/topic that participants want to address, and reframe it into a “How Might We...?” (HMW) statement. The activity in this module guides participants to unpack the nuanced layers of the problem at hand and to discover new possibilities for creating positive impact. By giving the participants reference material related to the topic, they can define a specific area of focus to address using the HMW framework.

Defining the Opportunity

Activity Type: Discussion



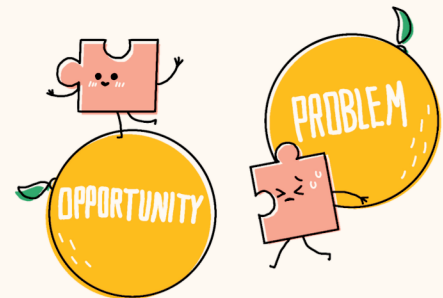
Time
15 minutes



Materials

- Printout of reference material
- Writing tools
- Paper (post-it notes, blank paper)

Note: This module works best when it is preceded by Modules 2 (Contextual Landscape Canvas) and 3 (Understanding the Problem) to provide the participants with greater context, and followed by Module 6 (Rapid Brainstorming). If this module is being used as a supplement to a lecture or group work in class, please give participants reference material and have them define a problem/challenge they would like to focus on before starting this module. See instructions below on how to facilitate this.



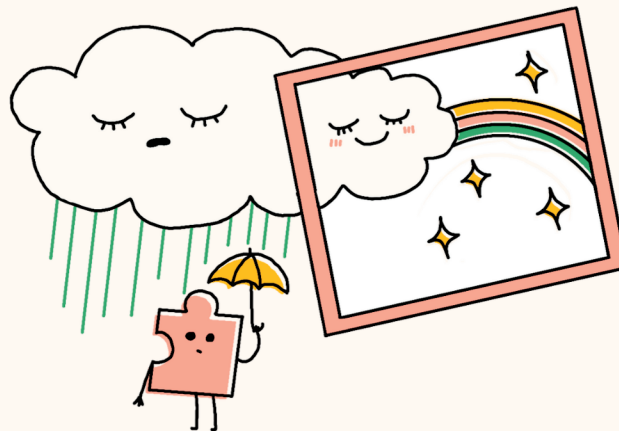


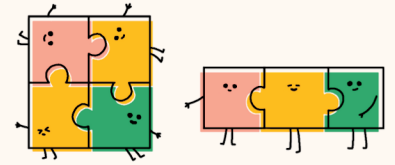
What is a "How Might We...?" Statement?

HMW statements are frameworks that help participants reframe the topic/problem in a way that launches brainstorming. The way HMW statements are worded allows participants to think about the topic/problem in a positive and future-oriented way. It is created so that points of view are broad enough so as to not limit thinking, but narrow enough so that there are still helpful boundaries.

2 things are important when creating a HMW statement:

- Include key stakeholders (people relevant to the problem).
- It cannot have a solution in it. For example, the statement "How might we create an app that helps students see food waste?" already has a solution in it (the app) which limits the problem's solution to an app.





Instructions

- Have the participants pair up in groups of 3 to 4 people.
- [If you have followed Modules 2 & 3, skip to the → arrow sign below.] Give participants a reference material from which they can pull out ideas and then ask them a guiding question to define their focus topic. For example, if the main topic of discussion is “eliminating waste on campus,” provide reference material for participants to read related to this topic. This can be a short article, infographic, or diagram about the issues surrounding waste.
- Ask participants a guiding question. The guiding question should encourage participants to dig deeper into the problem at hand, because in the following step, they will reframe their problem into an opportunity where they can start brainstorming solutions for it.
 - Example guiding question: “What do you think is the main cause of paper waste on campus? Why? (Choose one cause)”
- → By now, participants should already have an idea of the direction in which they wish to go and choose their topic of focus. Now is the time to introduce and explain the “How Might We” (HMW) framework.
- Have the participants individually write down as many HMW statements as they can using post-it notes (4 minutes).
- Give participants time to share their HMW statements within the group (2 minutes).
- If this module is used in combination with module 6, have the groups vote on one HMW statement in order to move on to the next step.





Facilitation tips

- When defining the topic of focus, make sure that the topics participants are choosing are topics for which it is possible to brainstorm solutions. If not, guide participants into discussing topics that allow for brainstorming.
- Some participants might feel lost or uncomfortable during the HMW section, but that is okay! HMW statements could be a new concept they are unfamiliar with, so this reaction is expected. Try to push participants to write down different variations of HMW statements and ask them to choose which one they feel like best guides them to take actionable steps.



Example HMW statements

- How might we design new ways for Sophia cafeteria workers to collaborate in reducing food waste?
- How might we foster a culture on campus that encourages students to make sustainable and ethical choices in fashion?



Module 5

Identify Skills / Resources



To explore the skills and resources that participants already have in their immediate environment. This module helps participants to realize that they already possess the valuable tools needed to solve the challenges they hope to overcome. This exercise also guides participants into opening up their minds to innovative ways of maximizing their opportunities with their given resources.

Identifying Skills and Resources

Activity Type: Individual ideation + group discussion

Note: This module is most effective when used after a main topic that includes a problem/challenge has already been introduced. This way participants can brainstorm skills and resources relevant to the given topic.

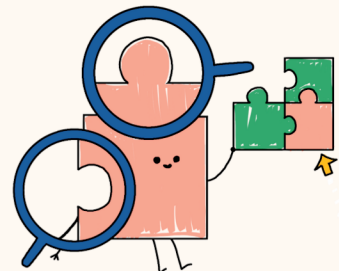


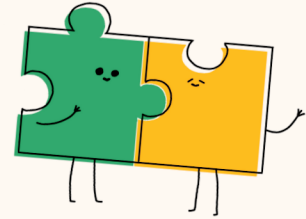
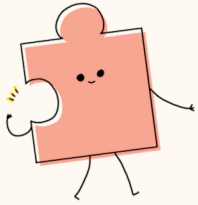
Time
10 minutes



Materials

- Writing tools
- Paper (post-it notes, blank paper)
- Optional but useful: Identify Skills and Resources sheet (scan QR code below)



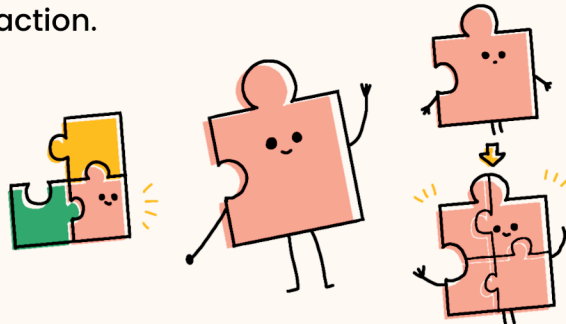


Instructions

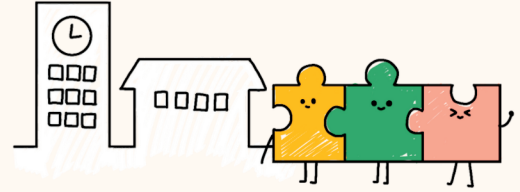
Divide the activity into 4 parts (2 minutes for the first 3 rounds, and 4 minutes for the last round):

- **Round 1:** Focus on the individual level and write down as many as possible on post-its (2 minutes)
- **Round 2:** Focus on resources you can find among your friends and family (2 minutes)
- **Round 3:** Focus on the resources you can find within the university or local community (2 minutes)
- **Round 4:** Take 4 minutes for the participants to share within their group what they wrote and to expand upon it. Ask participants to analyze within their groups the most significant resources they can put to use.

Encourage participants to take a broader view of the meaning of "resource" to include, for example, a past experience that can be related to the current challenge, a skill acquired in a different context that can be used, time, or even passion for the topic. This way they will gain more confidence in their own ability to move from idea to action.



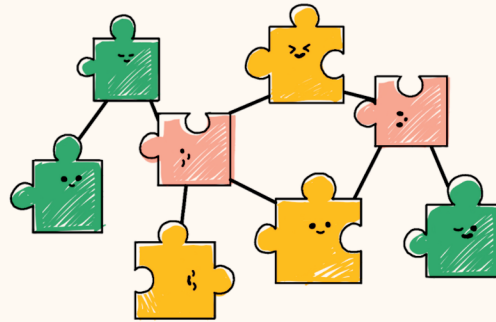
Guiding Questions



Individual level: What are some of your unique skills and areas of knowledge that can be useful for exploring the given challenge?

Friends & family level: Do you know anyone that has a special skill, network, or other resources that could help you with solving the challenge? Thinking about the challenge at hand, what type of skills and resources would be beneficial to have access to?

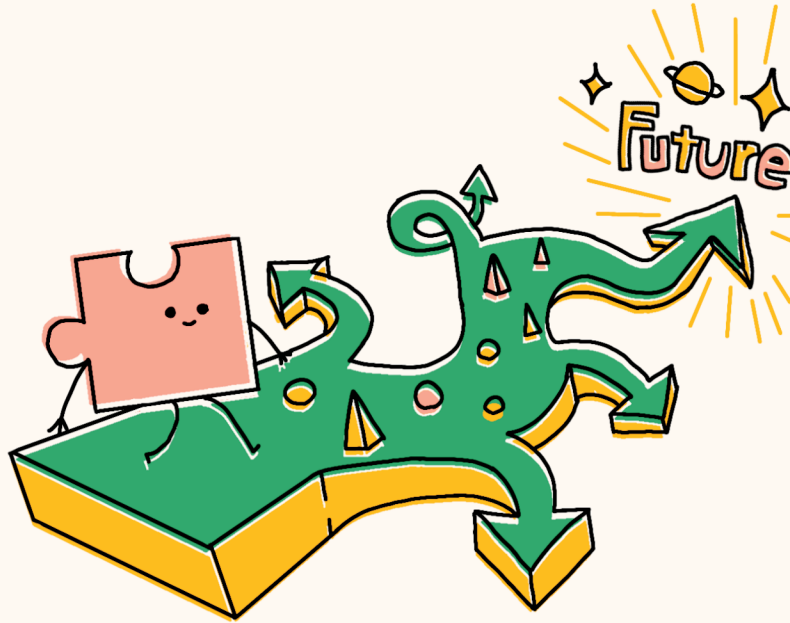
University or local community level: What types of resources does your university or local community have that can help you with solving your challenge? (This can be financial support, network, space, support from professors, marketing help, etc.)



Facilitation Tips

- Be clear on time and when to move on to the next round (visible clock and clear announcement from facilitators).
- Emphasize that this exercise will help participants to realize that they can make a change using resources already available to them.

IDEATION SPACE



The Ideation Space provides an environment that forces participants to think differently about the task at hand. Through a fast-paced process that aims to take the brain "by storm," participants first learn that fast-thinking and focus on quantity releases them from preconceptions and value judgments. They learn how to sift through the large quantity of ideas produced by using different constraints to identify the "potentially great" idea that they will later prototype. This space is characterized by a non-judgmental open "Yes, and..." rather than a "No, but..." attitude.

Module 6

Brainstorm / Ideate



To guide participants in coming up with as many ideas as they can within the limited amount of time and the given constraints. This phase might feel the most fast-paced for participants, but rapid brainstorming enables participants to generate together and very quickly an abundance of ideas. The time limitation and constraints help participants to think in more creative and out-of-the-box ways, leading to innovative solutions. Depending on the topic, constraints may need to be revised or changed accordingly to properly suit the situation.

Rapid Brainstorming

Activity Type: Brainstorming



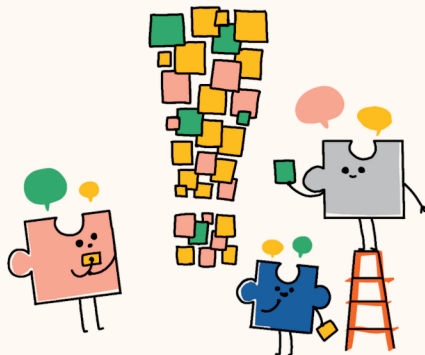
Time

15 minutes



Materials

- Writing tools
- Post-it notes

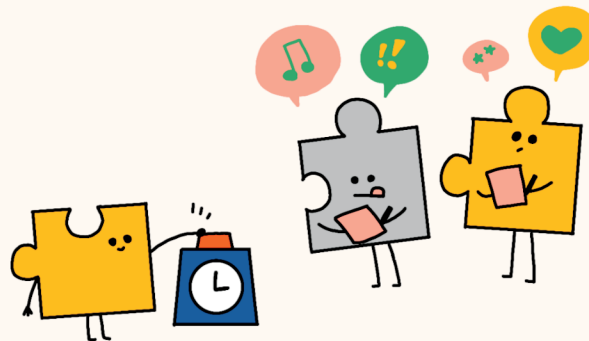


Note: This module works best when it is used together with Module 3 (Understanding the Problem), Module 4 (Defining the Opportunity), and Module 5 (Identifying Skills and Resources).



Instructions

- Before beginning the brainstorming session, mention a few rules for brainstorming:
 - Try not to judge your or other's ideas now.
 - Your idea does not have to be realistic.
 - Use "Yes, and..." statements to build on each other's ideas.
 - Be as visual as possible.
 - Go for **quantity** over quality.
- If you are using this module individually (not in combination with other modules), introduce the brainstorming topic by stating, "Now let's brainstorm [insert topic]." Examples of phrasing can be as follows:
 - Let's brainstorm as many different solutions we can think of given the problem/task at hand.
 - Let's brainstorm as many forms of transportation we can think of available throughout the world.
- If you use this module in combination with Modules 4 and 5, have participants brainstorm solutions using the HMW statement they wrote during Module 4 while also taking into consideration the resources identified in Module 5.





Instructions (cont.)

Round 1: Free Brainstorming without constraints (that is, without limitations)

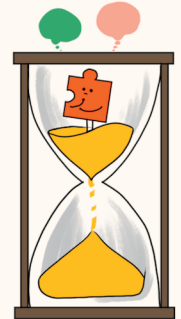
- Come up with as many ideas as you can think of. Be crazy because you have NO constraints!

Round 2: Money Constraint

- Next, we are going to do another round of brainstorming, but this time with constraints. The first constraint is: What if you have only 10,000 yen?

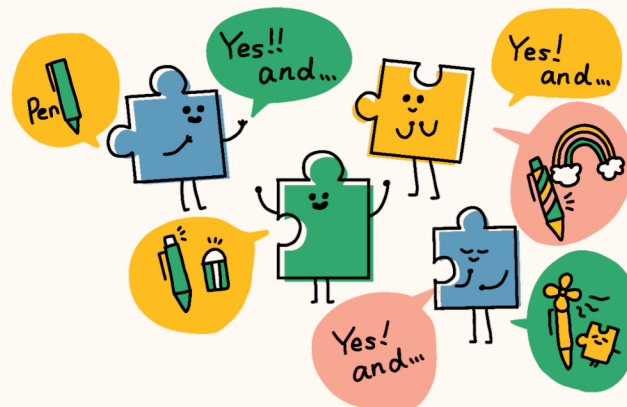
Round 3: Time Constraint

- The next constraint is: What if you only have 2 weeks?
 - The money constraint does not apply here.
 - Imagine you have all the money you need, but only 2 weeks to do it.



Round 4: Build on Each Other's Ideas

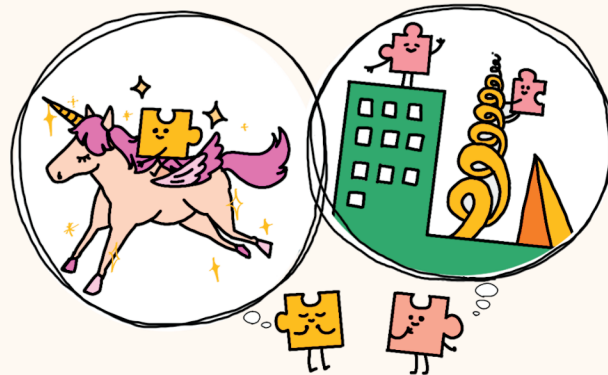
- Look at all the post-its and build on their ideas to make them more exciting with a “Yes, and...!” (The “Yes, and...” method is a form of brainstorming that facilitates open thinking and collaboration by saying “yes” to another person’s idea and then adding something to build upon that idea in an effort to make it even better.)





Instructions (cont.)

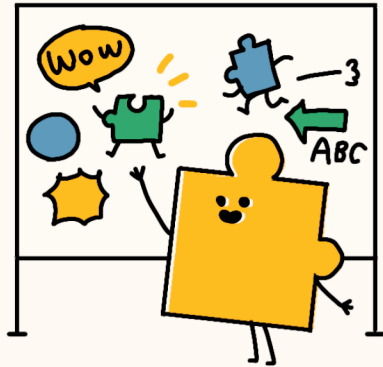
- Before starting the timer for brainstorming, explain that the brainstorming will occur in phases, with each one introducing a different kind of thinking constraint/limitation. Here we give 4 rounds, but you are free to include as many or as few as you need.
- The purpose of brainstorming with constraints is to guide ideation by allowing one to look at a challenge/topic from a focused angle. As mentioned earlier, you might need to revise or change the constraints accordingly so that they are relevant to the given topic. Rapid brainstorming usually requires a minimum of 2 minutes for each phase.
- Upon completing the different rounds of brainstorming, ask each group to choose one solution from ALL the ideas that excites them the most. They can build upon this idea in the following modules.



Facilitation Tips

- Keep reminding participants to let their imagination go wild. Their idea could even include a unicorn!
- Tell participants not to spend this time discussing but instead to use this time to write or draw as many ideas as possible on post-its. They will get time to share their ideas with others later.

PROTOTYPING SPACE



The Prototyping Space enables participants to think about their proposed solution in a different way. It is a chance for them to bring their abstract ideas into a visible and/or tangible form so they can test their solution before implementing it. Prototyping is meant to be cheap and quick, and it can be created in a variety of different ways, from sketching a storyboard to building a physical representation of the idea with craft materials. Designers can use their prototypes to test the validity of their ideas and assumptions and make appropriate changes based on the feedback they receive.

Module 7

Prototype



To have participants create a prototype, that is, a concrete expression of their brainstormed solution. In order to see if a solution will work or not, it is essential to test it out. Prototyping is a crucial phase in the Design Thinking process in which participants build and test versions of their ideas and solutions in order to better visualize them and to show them to others to receive feedback.

Prototyping

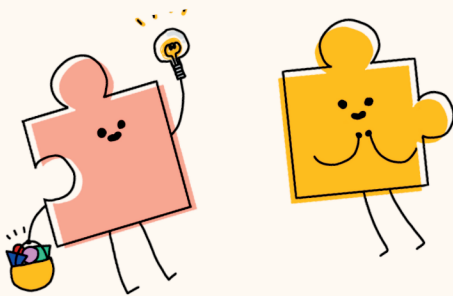
Activity Type: Building prototypes



Time
25 minutes



Materials
• See list of materials below



Writing:

Markers
Pens
Colored Pencils
Paper

Brainstorming:

Post-it notes
Stickers

Tools:

Scissors
Rulers
Measuring tape
Tape
Glue

Pencil sharpeners
Stapler
Rubber bands

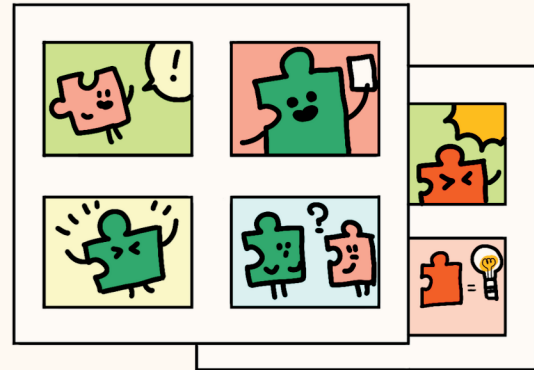
Building:

Legos
Sticks or skewers
Cotton balls
Playdough or clay
String or yarn
Wire
Fabric
Cardboard
Magazines



Instructions

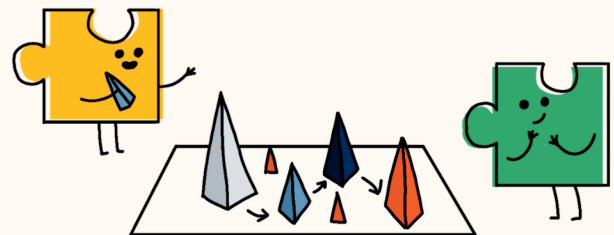
- Explain the different ways to prototype. For example:
- **Storyboard:** can be a comic strip highlighting the identified problem opportunity, who/what is affected, and what can be done to resolve it.



- **Role Playing:** similar to storyboard but instead of drawing a story, you are actually acting it out. This prototype works well if your idea is actually a service, rather than an object.



- **Physical prototype:** when the solution is something tangible, you can build a simple version of it to get a better grasp of your idea and what you are trying to make.



- Show the prototyping materials to participants.
- Ask participants to come pick the materials they want to use to build their idea.

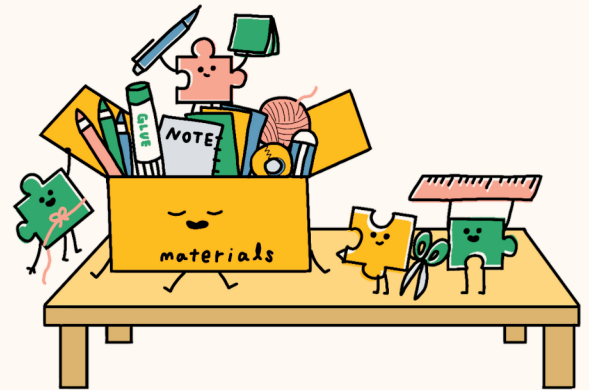


Prototyping Materials

To be more environmentally-friendly, we recommend working with the materials you already have lying around or reaching out to your organization, university, or friends to see if they have any craft materials they would be willing to donate.

Don't worry if you cannot secure all the items listed above. Here is a shorter list of the basic items that would be useful to have for a simple prototyping session: Pens/markers, paper, string, post-it notes, scissors, rulers, and tape.

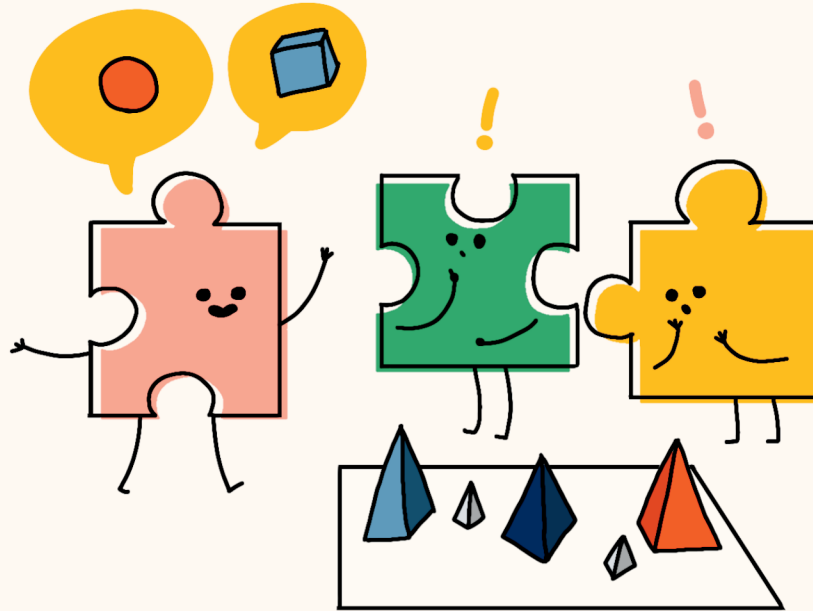
If you would like to borrow our UIF Sophia mobile prototyping cart, feel free to reach out to us at: sophia.uif@gmail.com.



Facilitation Tips

- Lay the materials out on a table in categories (e.g., writing, building, brainstorming, and tools).
- Emphasize to the participants that there are no set rules, so encourage them to be creative. However, they should be clear about what their challenge is, what their resources are, who is being affected, and what their solution is.
- Prototyping is visual!
- Remind the participants that messy is good. Their prototype does not have to be perfect, because this is just a first draft. The purpose is for them to get their ideas out so that they can continuously improve. They will learn more about their idea as they build it. Their ideas may also change as they go.
- If participants cannot decide what parts of their idea to prototype, tell them to prototype the parts that they are the most curious about, not the parts they think are an easy win.

ITERATION SPACE



The Iteration Space allows participants to test their physical prototypes against the different user needs. This is where designers need to take in and incorporate the feedback received. This space calls for an attitude of detachment from personal preference on the part of the designing team and maintenance of an attitude of curiosity and willingness to improve/change the initial prototype.

Module 8

Feedback / Iterate



To introduce the process of giving and receiving feedback, and to walk through how to iterate an idea to further improve it. After participants build concrete prototypes of their ideas in Module 7, the next step is to present it to another set of eyes and have them look and comment on the idea from their perspective. Then with the received feedback, the final step is to have participants take some time to reflect on the feedback and tweak their original ideas and improve their first prototypes.

Feedback and Iteration

Activity Type: Giving and receiving feedback + iteration
(improving initial prototype)



Time

10 minutes feedback +
15 minutes iteration on
prototype/idea



Materials

- Writing tools
- Prototyping materials
- Feedback sheet
(scan QR code below)

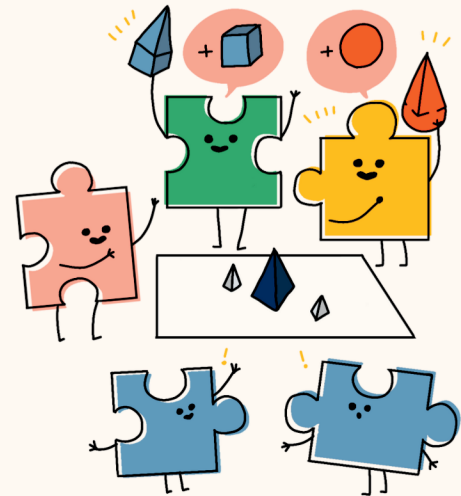




Instructions



- Prepare and distribute feedback sheets for each group. This feedback paper will be where participants will receive feedback from their peers.
- Organize the groups for feedback. Have 1 to 2 members of each group move to another group in a clockwise direction to give feedback. The remaining members then welcome the other team's member(s) to whom they present and explain their prototype (briefly explaining how the idea originated, what the solution/idea is, stand out points, etc.).
- After the remaining members explain their prototypes/ideas (2-3 minutes), the incoming members give constructive feedback while the remaining members take notes of the feedback using the feedback paper (7-8 minutes).
 - What works and what does not;
 - What is clear and what is not;
 - Any questions and/or new ideas.
- When time is up or it looks like groups are finishing their conversations, have all members return to their original teams to discuss the feedback received.
- Give participants time to tweak and/or revise their prototypes taking into consideration the feedback.
- As a conclusion to this module, we recommend giving time for the participants to present their different ideas and solutions at the end of this activity and to have them share with everyone what they came up with.





Facilitation Tips



For feedback

- Make participants aware that clear and constructive feedback allows them to find blindspots in the prototype. Remind them to take notes as they will need to share the feedback with their team members.

For iteration

- During the iteration stage, they are free to tweak their prototype any way they see fit so as to respond to the feedback received. Remind them that they are prototyping for someone else, and so they need to reflect their needs and requests in the prototype. The point is to work collaboratively, that is, to **co-create** with their stakeholders toward the best solution for them.

For presentation

- In the final stage of the workshop, participants present their solutions and their journey.
- Every member should participate when presenting, and every member should be involved.
- In the presentation, ask them to explain what the problem was and how it will change after the solution is implemented (before/after). Also, share how the group could use the resources and skills they identified to implement their solution moving forward.





Appendix

Workshop References

These are some references that our UIF Sophia team used to create this toolkit. This section includes other workshops and activities that might aid you in designing an appropriate experience that suits your needs. If you want or need more than our toolkit provides, take a look at what other design schools, organizations, and companies are doing to spread the benefits of Design Thinking and innovation.

Full Design Thinking Workshop

- The **Wallet Project** is offered by Stanford d.school. It is a great introduction to Design Thinking with a facilitator's guide that includes a script, facilitation tips, and setup suggestions (dschool.stanford.edu).
- **Design Dash** is a fast-paced introduction to Design Thinking methods and mindsets created by Molly Clare Wilson. The Design Dash exercise templates and facilitation guide can be downloaded on their website (molly.is/writing/design-dash).

Stokes

- The **Energizer** section of the Sessions Lab website provides multiple examples of other stokes and ice-breakers to energize participants (sessionlab.com/library).



Inspiration

- **Design Lab** is another design platform for innovation, creativity, and collaboration that originated from the University of Twente. Check out this reference if you are looking for inspiration or curious to see what other educational institutions are doing to incorporate design into the academic curriculum (utwente.nl/designlab).



References (cont.)

Learning

- **Design Kit** is a platform provided by IDEO.org that provides a wealth of resources to learn human-centered design (designkit.org).
- The **Field Guide to Human-Centered Design** is a step-by-step guide by IDEO.org that introduces key mindsets, design methods, and case studies for understanding how to apply human-centered design (designkit.org).
- IDEO's **Design Thinking for Educators Toolkit** contains Design Thinking processes overviews, methods, and instructions that help you put Design Thinking into action from an educator's point of view (ideo.com).

Introduction references

- Tim Brown and Jocelyn Wyatt (2010) "Design Thinking for Social Innovation", Stanford Social Innovation Review, Winter 2010, pp. 30-35.
- Marco Dondi et al. (2021) "Defining the skills citizens will need in the future world of work", McKinsey & Company.
<https://www.mckinsey.com/industries/public-and-social-sector/our-insights/defining-the-skills-citizens-will-need-in-the-future-world-of-work>
- Design to Improve Life Education, Teacher's Guide,
https://issuu.com/index/docs/edu_uguide02_indhold_eng_print

Toolkit worksheets

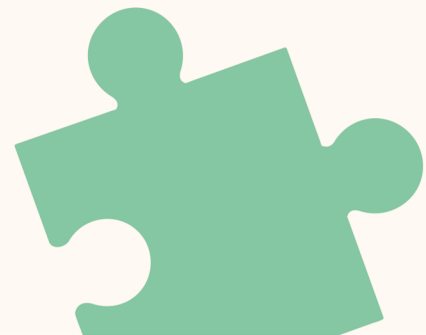
- To download the worksheets included in this toolkit, visit uifsophia.com/toolkit

Stanford d.school Change Forward Journal

2020-21 Edition



2021-22 Edition



WHO ARE WE?

University Innovation Fellows (UIF) Sophia is a community of students and faculty at Sophia University who received Design Thinking training from Stanford University's Hasso Plattner Institute of Design (d.school).

The **University Innovation Fellows (UIF)** program empowers students and faculty (**Faculty Innovation Program-FIF**) to become agents of change at their schools. The program has trained 2,668 students and 52 faculty at 302 schools around the world (as of Jan. 2023).

Student-fellows range from undergraduates to PhD students and from engineering majors to architecture majors. All of them demonstrate a passion for innovation, creativity and the entrepreneurial mindset, as well as a drive to make a lasting impact at their schools.

These student leaders work to open up spaces and create opportunities to help their peers build the creative confidence, agency, and entrepreneurial mindset needed to address global challenges and to build a better future.




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**START WHERE WE ARE
USE WHAT WE HAVE
DO WHAT WE CAN
WITH WHO WE CAN**



by UIF Sophia