



6 THE PROTOTYPE






01

REVIEW & VOTE

Take some time to review all the ideas that your chapter generated from **Activity Sheet #5 Ideas Overload**, and get ready to vote!
15-20 minutes

This next stage is known as **Convergent Thinking** - rather than branching out to as many ideas as possible, we're narrowing them down to the best ones.

Before you begin, here's what you need:

- Your chapter's HMW question written somewhere large and visible for everyone to see (e.g. on the board, chart paper on the wall)
- List of ideas in clusters or themes on Canva from **Activity Sheet #5 Ideas Overload**
- **Metrics Method Cards**
- Voting Stickers (3 colours) 
- Black markers (Sharpies)

Individual Voting

- Each person has 3 votes, one for each of the following categories.
 - **Impactful:** Which idea will create the biggest transformation for your team's persona?
 - **Delightful:** Which idea sounds the most exciting and fun?
 - **Easy:** Which idea seems the easiest for your team to implement?
- To vote, place a sticker on the idea (on the sticky note or wherever the idea is written). Make sure to use different coloured stickers to mark the categories.
- Discussion is allowed but should be kept to a minimum. This is the time for each member to make their own judgment.
- Once everyone has finished voting, count the votes and identify the top 3 ideas with the most stickers regardless of colour/category.



02 DISCUSSION

Your chapter now has to discuss and decide on which idea to move forward with. *30 minutes*

Identify and Refine Your Ideas

- Use the **Metrics method cards**, discuss how each of the top 3 ideas contribute to the metrics:
 - **Looks:** Will it make the space more inviting and welcoming?
 - **Usage:** How often will it be used?
 - **Value:** What good does it bring to the user?
- If it helps your group to decide, consider giving scores to each idea based on these metrics and count the final scores

Advice for Your Team

- **Consider the persona:** Always go back to the persona's perspective and their context. Use the persona's story to remind the team that we are designing for this particular persona. What will this person think of the idea, given what we've imagined about him or her?
- **Don't get tied up in execution:** A lot of these ideas, if imaginative, will not have been implemented before (that's what we're here for!) . Encourage the group to vouch for ideas that will achieve a great impact, even if the idea is unheard of, or a little crazy. We'll worry about making it happen in the prototype phase.
- **Combine, add, reimagine:** Don't be afraid to combine ideas, tweak ideas, or add new ones if something comes up in the discussion. Have the team explore the experience behind the ideas - what value does the idea bring? Is this idea the best way to bring that experience to the persona?
 - Eg. A theme park in the middle of the city for kids to have fun - What kind of fun does a theme park provide for kids? Is a theme park the best idea to bring that kind of fun out?

By the end of this section, your chapter should arrive at a project idea to design and prototype. Make sure to share this idea with your Mentor and Program Coordinator so we can give you feedback!



03 PROTOTYPE 1.0:

It's time to create your chapter's first prototype!
60+ minutes

As you build the first prototype of your idea, you will begin to encounter challenges and constraints that you did not anticipate before. Fear not! This is exactly why we prototype - it is part of the problem-solving process your chapter needs to work through to make your project a reality.

Your chapter can create physical and/or digital prototypes of your project idea based on the available resources, interests, and skill levels.

If you are creating physical prototypes, here is our recommended supplies list:

- Coloured construction paper
- Cardboard
- Plastic straws
- Popsicle sticks
- Pipe Cleaners
- Sponges
- Clear tape
- Scissors
- Coloured markers
- Thick markers (Sharpies)
- Toilet paper rolls
- Aluminum foil
- Garbage bags for clean up
- Any other recyclable material!

If you are creating digital prototypes, here is a list of apps and software you can use:

- 3D modeling software: SketchUp, Rhinoceros 3D (advanced)
- 3D building game: Minecraft, Roblox
(Make sure to ask your teacher supervisor for permission)
- Illustration: Adobe Illustrator
- Photo editor: Adobe Photoshop, Canva

Some of these digital solutions will require payment but may have free trials or student discounts available.

Before deciding which option or tool you use to create your prototype, speak to your Teacher Supervisor about what's available at your school. Your Mentor may also be able to point you to relevant resources and tutorials.



03 PROTOTYPE 1.0: (CONTINUED)

Create your prototype(s)

- If your chapter has more than 4 members, split into smaller groups. Each group should have no more than 4 members
- Distribute the art supplies (if using) between the groups
- For the next 30 minutes (set a timer!), each group should create a prototype of the team's project idea using the art supplies
- Variations between each group's prototype are encouraged!
- Depending on the nature of your project idea, your prototype can be 2D (like a map) or 3D (like a model of a structure or building)
- **Important: this is not an art class assignment.** Your prototype does not have to be perfect. As long as you are able to convey the project idea to others, your prototype has done its job!

Presentation and Team Discussion

Ask each group to share their creation with the rest of the chapter. Allot approximately 5 minutes per group to share the prototypes and have a discussion about the similarities and differences between the prototypes.



04 PROTOTYPE 2.0

After sharing prototype 1.0 and discussing the similarities and differences of the different prototypes, it's time to build an MVP: Minimum Viable Product. *45 minutes*

Minimum Viable Product is the smallest thing you can build to show your users and gather feedback from them.

Questions to consider

- What: Give it a name. What is the idea? What does it do?
- How: How does it work? How does it improve the experience of the persona?
- Why: Why do we need this at the site? Does it address the issue or challenge that the persona faces?
- What's the smallest component of your prototype that still retains the biggest idea?
- What can you build with materials that you can buy from a place like Home Depot?

Tips and Advice

- From this point on, the productivity of your team's discussion is crucial. Make sure the conversations remain focused, and that everyone's ideas are heard and considered
- Draw your ideas on a large sheet of paper so all your team members can see and discuss together.
- Build different iterations to help steer your discussions.
- Invite people outside of your chapter to provide feedback.

Examples of MVP

- If you are designing furniture (e.g. bench), try making a mock model with cardboard boxes or other sturdy materials to test dimensions and features.
- If you are transforming a public space (e.g. a street), try using masking tape or painter's tape on the floor to outline areas for your idea.



05 SUBMISSION

Complete the following items before your second check-in with your Mentor and Program Coordinator (mid-February):

Add these items to your chapter's whiteboard on Canva:

- At least 3 photos of your prototypes and a caption for each photo
- A 75-word description of how your idea responds to your chapter's HMW question

* SNEAK PEEK: ACTIVITY SHEET #7 WARM-UP ACTIVITIES

These warm-up activities can help your chapter members refine their pitching, presentation, and communication skills.

You can play one or more of the following games with your chapter members before you start Activity Sheet #7.

- Impromptu elevator pitch drills (naming an object/product and having members create and present a pitch of it within a short period of time)
- Players are given a set amount of words (e.g. 5) and must tell a story incorporating all the words in it
- Game where a player says a statement, and players repetitively ask them "Why?", to which the player must continue to elaborate on their statement over and over again)