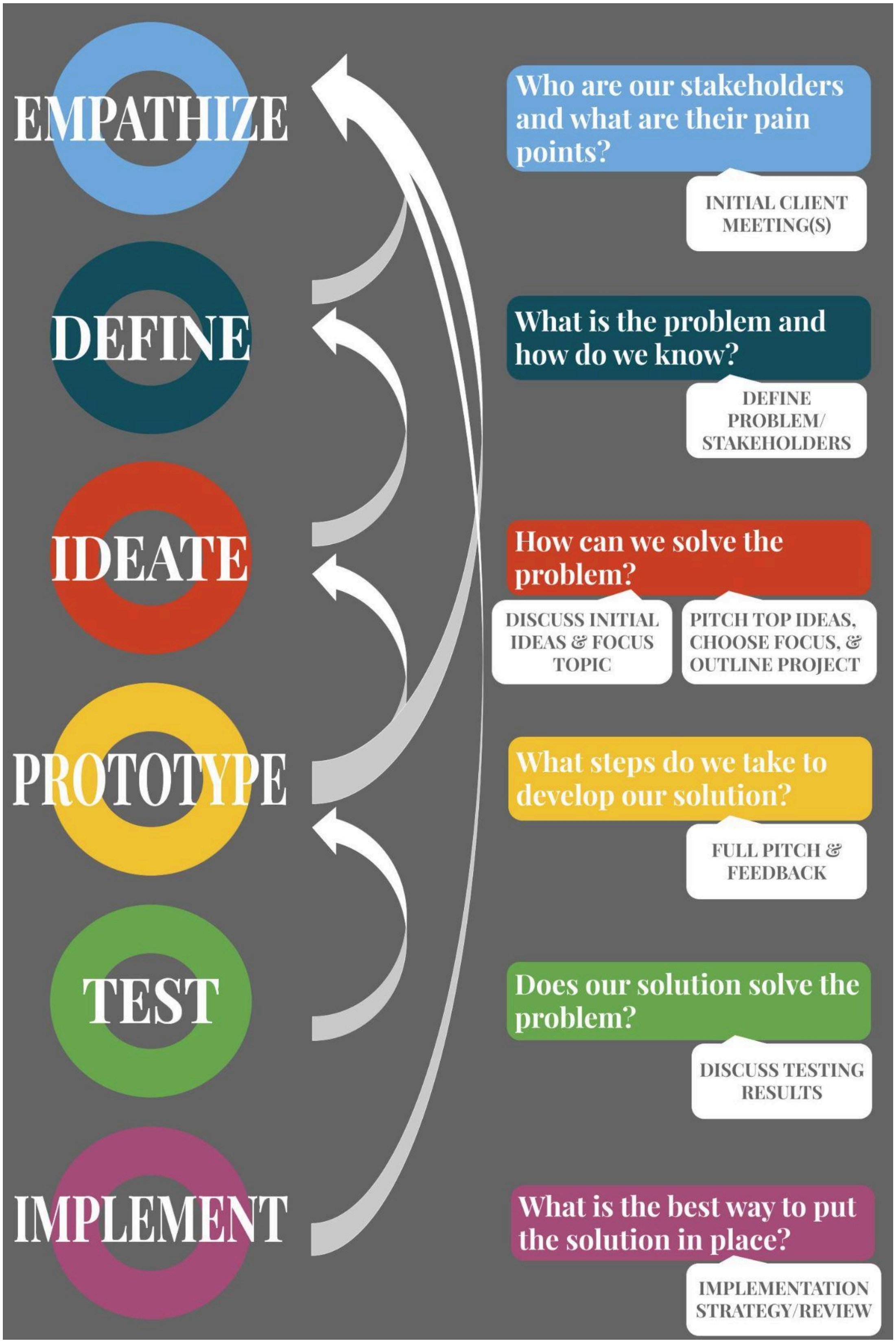
PROCESS STEPS: Description and Responsibilities



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Process Step 1: Empathize

Description: Determine stakeholders and identify pain points of issue(s)

Design thinking begins with a very human-centered approach, thinking about the primary experience and the challenge at hand.

Gathering a number of stakeholders to understand and describe the challenges from their perspective is central to the process.

Tasks:

1. Meet with your client and ask questions you have about the problem in order to clarify your understanding.
2. Work with your client and team to identify any potential stakeholders.
3. Develop a process to determine the issues (pain points) affecting stakeholders such as an interview, survey, or additional research.

Meetings

Initial Meeting:
This first meeting focuses on building a relationship between the business partners and the students and develop an understanding of the problem/project.

Use the project outline to plan next meeting.

It often takes students more than one meeting to open up, grasp the problem, and adapt to the idea that they are solving an open-ended issue--this is a new concept to many of them!

Therefore, the "first meeting" may evolve into a few meetings to help students recognize their role.

Students should continue to communicate with the business partners as they determine the stakeholders and develop the process they will use to research stakeholder needs.

Business partners may also facilitate introductory meetings with stakeholders, subject matter experts, or other parties such as consultants or vendors.

Business partner will:	**Student team will:**	**Teacher will:**
-provide short video describing project -assist students in setting up a time to meet after receiving introduction email -help students identify stakeholders and make introductions if necessary	-send initial email to introduce themselves and ask to set up a meeting -prepare questions to ask business partners -communicate with business partner and teacher whenever they have questions or need assistance -update any shared documentation as needed	-assist students in setting up a time to meet -participate in initial meetings and answer any clarifying questions from business partners and/or students about the process

Process Step 2: Define

Description: Define the problem your team needs to solve to relieve pain points

After the stakeholder groups are understood, the problem is identified. For many problems, this is one of the more difficult steps. Given the work from the previous step, the design approach for the problem needs to be centered around the experience of the different user groups.

Tasks:

1. Compile the information you've gathered from the client, stakeholders, and other research.
2. Using evidence to support your claims, identify the problem(s) causing the pain points stakeholders are experiencing.
3. Write an initial project report (each student should submit their own to their teacher and then work together to create one project report to present the client.
4. Students may present the initial project report to the client in written or presentation form.

Meetings

Initial Project Report Meeting
Students present their findings including stakeholder research, definition of the problem, and next questions/steps in order to receive feedback from the business partner.

Business partner will:	Student team will:	Teacher will:
-provide student teams with feedback; did they gather enough information on their stakeholders? Did they define the problem(s) fully? Are they prepared to move on to the ideate step or do they need to do more research or redefine the problem?	-schedule the meeting and set the agenda -prepare and present their initial report findings -ask for feedback on their findings and next steps -set next meeting to discuss initial solution ideas	-be present for this meeting and help guide as needed; after this meeting, they may determine whether they need to be present for future meetings

Process Step 3: Ideate

Description: Brainstorm potential solutions and develop a plan of action

The ideation step explores problem solving. Through ideation the groups discuss what an ideal future state would look like and the possible steps and solutions for how to get there.

Tasks:

1. Brainstorm potential solutions that will relieve the pain points and solve at least part of the problem. Remember that brainstorming should always start as no-holds-barred, unlimited ideas.
2. Meet with the client to make sure you are on the right track.
3. Narrow the focus to 2-3 top ideas and create short elevator pitches defending each. Your team may need to complete additional research to support your pitch(es).
4. Work with the client to choose one solution to focus on.
5. Complete the project outline with the client to prepare a plan of action.

Meetings

Focus Ideas
Once you have begun to narrow ideas, have a short meeting (or perhaps email) with client to make sure your team is on the right track before narrowing ideas to 2-3.
Project Outline
Deliver short elevator pitches to defend 2-3 top ideas and work with client to choose one to focus on. Complete the project outline with the client to create a plan of action.

Business partner will:	Student team will:	Teacher will:
-assist students in narrowing their focus and provide feedback -ask students to repeat any steps as necessary -add/remove steps or actions to project outline as needed for their particular project -let students know if they should consult with any additional stakeholders or subject matter experts during this phase of the project	-plan these meetings and provide agenda -prepare a document or presentation to share brainstormed ideas and ask for help narrowing their focus -pitch top 2-3 potential solutions and ask client to help narrow the focus to one idea -ask the client to help complete the project outline	-provide support as needed

Process Step 4: Prototype

Description: Develop the solution and use a pitch to present your idea to your business partner to receive feedback and make revisions

Prototyping requires that the group moves its idea into a physical, tangible form. The prototype, visualizations that are either physical or drawn, will rely on the feedback from stakeholders, be technologically feasible, and viable for the organization. Design thinking sessions require a room and resources for everyone to draw and iterate on designs.

Tasks:

1. Develop solution for product, breaking steps into sprints and assigning tasks for everyone in the team, meeting on a regular basis to update design thinking board and complete retrospectives.
2. Create pitch of solution, defending choices and providing evidence for claims.
3. Pitch solution to client and receive feedback.

Meetings

Full Pitch and Feedback
Meet to pitch solution and receive feedback.
*Students may wish to schedule additional meetings to provide updates on their progress

Business partner will:	Student team will:	Teacher will:
-use pitch rubric to provide feedback to students -recommend additional subject matter experts or stakeholders for testing phase	-schedule meeting and create agenda -present pitch -ask for feedback and tips on upcoming testing phase	-provide assistance as needed

Process Step 5: Test

Description: Test your revised prototype with stakeholders to receive feedback and make revisions

Combining all of the knowledge from the prior four steps, this process refines and iterates on feedback to create a model that can be tested and implemented. Failure should be an expected part of this process, because as with any iterative process, things are not typically perfect from the first go.

Tasks:

1. Develop a system to test the solution (test a model of the product, run a focus group, survey users, etc.)
2. Ask stakeholders to provide feedback about how effectively the solution eliminates the pain points and solves the problem.
3. Document testing results and present to client.
4. Revise the solution as needed.

Meetings

Discuss Testing Results
Meet to present testing results and receive feedback.

Business partner will:	Student team will:	Teacher will:
-approve testing procedure -review any communication sent out to stakeholders (surveys, etc) and provide feedback -provide feedback on testing results	-schedule meeting and create agenda -develop a testing procedure and ask client to approve it -send any communication going to stakeholders to client to approve in advance -present testing results in a professional manner -ask for feedback -schedule a date for implementation and/or revised pitch	-provide support as needed

Process Step 6: Implement

Description: Put your plan into action (not all projects will complete this step) and present revised pitch if needed.

In this phase, the prototype is put into action.

Tasks:

1. Work with clients to implement prototype in real-world setting. If implementation isn't possible, student teams should develop an implementation strategy (next steps) to present.
2. Students present a reflection on the implementation or re-pitch their concept with a focus on implementation (next steps), making it clear what the steps are and who is in charge of implementing them.

Meetings

Reflect on Implementation or Present Implementation Strategy
After implementation in a real-world setting or designing an implementation strategy, students present it to the client for feedback.

Business partner will:	Student team will:	Teacher will:
-guide the student team in the implementation process (What steps do they need to take? Is there anything that needs to be approved or forms that need to be filled out? Will they be able to participate in or observe the implementation process?) -provide feedback on reflection or pitch	-schedule the meeting and set an agenda -follow up the final meeting with a thank-you note	-provide support as needed