
DESIGN THINKING EXERCISES

Nick Mosher



nick@mosher.me



<https://nick.mosher.me>



@moshner

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1) Understand

Start at the End

Time: 1 hour

1. Start your project with planning what you hope to accomplish by the end. A good question to kick off this thought process is this:

"Why am I doing this project? Where do we want to be six months, a year, or even five years from now?"

The goal of this is to set a long-term goal that reflects your principles and aspirations. At this point don't worry about asking too much. The process will help you find a good place to start and make progress on even the biggest of goals.

2. **Fail Points** - Next you will want to brainstorm what could cause your project to fail. It helps to imagine that you have obtained your long-term goal, but your project was a disaster.

What caused it to fail? How did your goal go wrong?

3. **List Big Questions** - Next you will list out questions that you are tackling in the project. It is important to rephrase problems and assumptions into questions. Questions inspire. Problems make for uncertainty.
 - a. What questions do I want to answer in this project?
 - b. To meet my long-term goal, what must be true?
 - c. Imagine I've travel into the future and my project failed, what might have caused that?

Running Interviews

Time: 3-5 hours

It is incredibly helpful to understand your customer base before you get started coming up with a solution. You are not your customer, and you will have a totally different perspective. Take some time to find some real people to talk to about your ideas. Do more listening than talking.

1. Find 3-5 people to interview
2. Introduce your project and goal
3. Ask open ended questions
4. Try not to lead the interview, let it go where it goes
5. Jot down notes in the "How Might We" format (see below)
6. Record the conversations, if possible

How Might We?

It's helpful to end the "Understand" section of this process by having a first set of ideas and insights. Start this exercise by asking "How might we?" to get the creative juices flowing. Note that this is not a final decision on a direction, it is simply an opportunity to collect ideas.

Why a question? Statements have been shown to close off the mind whereas questions open the mind for creative thinking.

How it works:

1. Write down ideas on sticky notes starting with "How might I/we..."
2. Place one idea per sticky note
3. ideas can be illustrations or words
4. Post ideas to a board and group as appropriate.

At the end of your interviews, you should have several interesting groups of ideas generated.

The "How might we?" method is attributed to IDEO and described effectively in "[The Secret Phrase Top Innovators Use](#)" - HBR.

2) Define

Define Success

Time: 15 minutes

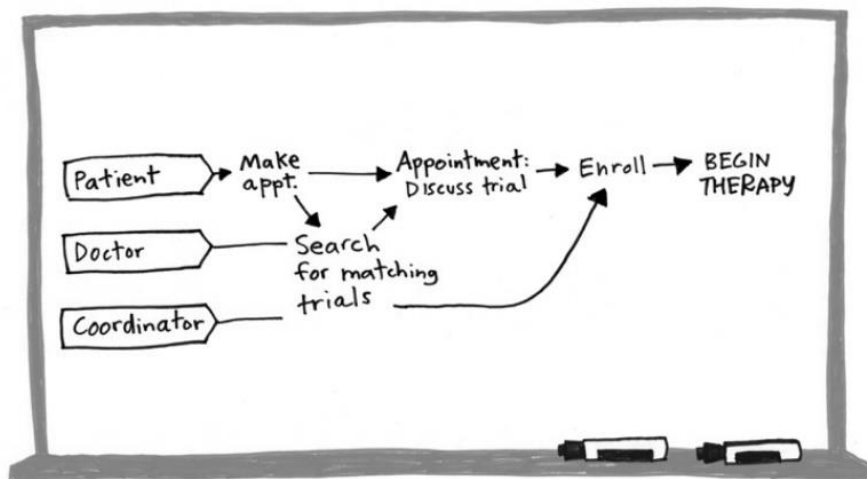
What would the world look like with the perfect product?

1. Brainstorm the ideal state for your ideal customer (5 minutes)
2. Brainstorm the same thing but from a different perspective (5 minutes)
3. Brainstorm the ramifications of your product on others (5 minutes)

Make a Map

Time: 30 minutes

Create a simple map that includes the major steps required for customers to move from the beginning to the end of your product cycle.



1. List the actors on the left
2. Write the ending
3. Words and arrows between
4. Keep it simple
5. Ask for help

It should take between 30 and 60 minutes to complete the first draft. Leave it visible and update it as needed.

Source: *"Sprint: How to Solve Big Problems and test New Ideas in Just Five Days"* by Jake Knapp

3) Ideate

Crazy 8s

Time: 8 minutes

This exercise will stretch the creative muscles and prepare the ground for interesting new ideas. How it works

1. Grab a piece of blank paper and large markers
2. Fold the paper into 8 squares (fold in half 3 times) and open to reveal 8 squares.
3. Set a timer and start drawing. 8 minutes only.

Ideally this exercise will be repeated several times to continue to focus in on ideas or on separate interface elements. This technique works particularly well when designing a single component or screens.

Source: “*Sprint: How to Solve Big Problems and test New Ideas in Just Five Days*” by Jake Knapp

Worst Possible Idea

Time: 1 hour

Look for the worst solutions in this inverted search process. It is helpful for relaxing the brain, stoking creativity, challenging assumptions, and gaining new insights.

This technique can help overcome the obstacles of traditional brainstorming, cast assumptions aside and locate crazy new ideas. The search for these bad ideas has been shown to cause groups to loosen up by writing down horrible ideas, empowering them to get on track towards what would work.

To play this game:

1. Come up with as many bad ideas as you can.
2. List all the properties of those terrible ideas.
3. List what makes the worst of these so very bad.
4. Search for the opposite of the worst attribute.
5. Consider substituting something else in for the worst attribute.
6. Mix and match various awful ideas to see what happens.
7. What can come from Worst Possible Ideas?

In identifying a rotten-looking or “preposterous” idea and deconstructing it to see what makes it tick as such, design team members can find powerful insights that may serve as kernels of good plans elsewhere.

“BAD IDEAS STARTED FLOWING. "HERE'S A REALLY BAD IDEA," SAID ONE BANKER. "WE COULD ROUND DOWN EVERYONE'S DEPOSITS TO THE NEAREST DOLLAR. MOST PEOPLE PROBABLY WOULDN'T NOTICE." SAID ANOTHER, "LET'S MAKE MISTAKES IN THEIR FAVOR, GIVE EVERYONE EXTRA MONEY EVERY TIME THEY MAKE A TRANSACTION. NOW THAT'S A BAD IDEA!" MORE LAUGHTER," BUT IF YOU'VE EVER SEEN THE BANK OF AMERICA "KEEP THE CHANGE" SAVINGS PROGRAM, PERHAPS IT BEGAN IN THIS SESSION.”

— Bob Dorf, Co-author of The Startup Owner’s Manual (writing about Bryan Mattimore)

Source: <http://lifehacker.com/think-of-questions-not-answers-when-brainstorming-1746881765>

\$100 Test

Time: 30 minutes

In this method of prioritization, you will assign relative value to a list of items by spending an imaginary \$100. By using the concept of cash, the exercise captures more attention and keeps you more engaged than an arbitrary point or ranking system.

To set up the game,

1. Brainstorm or create a list of items to be prioritized,
2. Set up in a matrix with space reserved for the amount spent and reasoning why.
3. You have a \$100 to spend on the list of items. The dollars represent importance of items, and you must decide how to allocate the dollars across the list.
4. Take your time assigning values and write a brief explanation for the amount.
5. When the matrix is complete consider the reasoning and importance.

The matrix can then be used as a guidepost for future decision making on a project; specifically, what items are important and of higher priority than the others.

More at <http://gamestorming.com/games-for-decision-making/100-test/>

4) Prototype

Time: 3-5 hours

Pick the Right Tools

You only have a short time to create a prototype. You have a big challenge ahead. What do you do? Pick the right tool for the job. The goal by the end of this step is to have a working prototype that only **looks real**. Most projects can be prototyped in Keynote or PowerPoint. What? PowerPoint? Yes.

Keynote or PowerPoint provide a great tool that everyone knows how to use. By copying picture of buttons and other interfaces elements it can even look as real as a website. The best part, it can be made full screen and emulate just about any application.

If your product is on a screen: Try tools like: Keynote or PowerPoint

If your product is on paper: Design it with Keynote, PowerPoint, or Word

If your product is a service: Write a script and ask some friends to be your actors

If your product is a physical space: Modify an existing space

If your product is an object: Modify an existing object, use cardboard and paper, or prototype the marketing materials.

5) Test

Running a Test

Time: 3-5 hours

- Schedule 3-5 sessions, each about an hour long
- Ask open ended questions
- Do not lead them
- Dig for details
- Get a scribe or record it to watch later

What Happened

Time: 30 minutes

- What do users like and dislike in the prototype?
- What would they like to improve?
- Can they use it as intended?
- What would you do differently next time?