

Whitepaper

Complex problem solving: How to innovate through design?



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Introduction

Complex problem solving: How to innovate through design?

Edenspiekermann does it with the Design Sprint approach, which promises to deliver innovation via viable concepts and prototypes in under a week.

The idea comes from the book 'Sprint: How to solve big problems and test new ideas in just 5 days' by Jake Knapp, John Zeratsky and Braden Kowitz.

We have been successfully applying this method for a for a couple of years now. From our experience, this is a very intense approach, which very often gets the participants out of their comfort zones. This, however, is exactly what makes the method extremely productive and efficient in finding multiple solutions to complex problems.

The Design Sprint approach not only offers a very compact and robust process to explore opportunities, develop a wide range of ideas, prototype and validate them in lean user test rounds but also allows learning from errors and fostering an iterative approach to product and business. Besides making your team work in an extremely structured way this also fosters collaboration, co-creation and therefore thinking out of the box. The fact that this is deeply rooted in design thinking methods ensures generated ideas to be user centered and fitting the market needs.

Substance

Here is how we do it at Edenspiekermann...

DAY 1: How might we...

Before starting the sprint you and the team need to understand and align on what critical problem you are trying to solve. You have to set a goal! The reality is, the more focused you are, the more effective the sprint is going to be. But how to achieve that?

In that step, participants gain an overview of different perspectives to the challenge. They might go through relevant research documents, analyze formerly prepared user interviews, watch or read input thoughts from experts, or even interview the experts if possible.

An important outcome from that day is a collection of innovation possibilities expressed in the form of “How might we...” questions developed based on the biggest gaps in the user journey. Collect them on post-it notes from all sprint participant, evaluate them as a team and apply a priority ranking. The highest voted question goes to the sprint as the most important challenge to solve.

GOAL:

Understand, analyze, prioritize, define the goal, align.

1. Review research & interview the experts. Extract and document key conclusions.
2. Map user journey, highlight gaps and challenges. They are your opportunities.
3. Formulate challenges as “How might we...” questions. Be specific and to the point.

FACILITATION PRO TIPS:

1. Bring participants together. Make them feel comfortable.
2. Allow free discussions and thought exchange but keep it moderated and constructive.
3. Document important thoughts and conclusions on the whiteboard.

DAY 2: Sketching

The second day starts with digging into inspiring references and examples related to the challenge prioritized for the sprint.

Ask participants to bring their computers, phones, tablets to the room and research examples they find useful in the context of the challenge. Each participant presents the references and the most interesting ideas are documented.

Now you are ready to define a possible solution. Each participant gets some time to collect and write down his/her thoughts before we kick off the rapid idea generation phase.

The exercise which we use the most is “crazy 8s”. Each sprint participant folds an A4 paper into 8 rectangles and sketches 8 possible solutions to the prioritized challenge in 8 minutes, 1 minute per rectangle. For example, six participants generate a total of 48 solutions, how awesome is that? You might go for a couple of rounds of this exercise to ensure an in-depth variety.

Close the day with prioritization. Participants are asked to pick the strongest idea and the last exercise of the day is fleshing in out in more details in a form of a 3 step storyboard.



GOAL:

Generate ideas, define, and individually prioritize solutions.

1. Research and share good examples. Get inspired.
2. Collect ideas and facilitate rapid idea generation. Open up to a variety of solutions.
3. Refine and flesh out the driving option in a form of a 3 step storyboard. Be concrete.

FACILITATION PRO TIPS:

1. Foster creative confidence in the team.
2. Encourage participants to get it out there.
3. Reassure them that there are no bad ideas.
4. Is the team stuck? Try a ‘reverse brainstorming’ approach.

DAY 3: Storyboarding

In day three ask participants to present individual storyboards. Analyze them and evaluate in the context of the driving challenge as well as high-level user/market fit.

Ask participants to dot vote solutions they found interesting, allow moderated discussion. Eventually, encourage the team to pick only one direction as the driving experimental solution.

It will now go through an extended storyboarding process. The goal is to refine the winning storyboard together as this one will be taken to the next day for a prototyping round. Picking one driving idea does not mean you can't use other elements from other storyboards to enhance the final solution. For example, if there is a very strong element in storyboard #1 you can integrate it in the prioritized solution if the context allows.

This stage of the sprint might bring a number of heated debates and clashes of different perspectives. Don't be afraid of that as these are normally the moments when the best ideas are born and refined.



GOAL:

Evaluate solutions, flesh them out into a winning storyboard.

1. Present individual storyboards. Stay open to a variety of options.
2. Evaluate solutions in the context of the challenge and user/market fit. Be pragmatic.
3. Decide for and build a winning storyboard. Empower decision maker to make choices.

FACILITATION PRO TIPS:

1. Use dot votes to moderate discussion.
2. Document and consolidate the strongest arguments. They might be helpful while prototyping.
3. Elevate the role of decision maker. Call for his/her vote during the most heated debates.

DAY 4: Prototyping

This is probably the most fun and inspiring day of all. Here we play, explore, experiment and build. The team takes a winning storyboard and decides for the most fitting and efficient prototyping method.

The goal is to get it out fast, to be honest, there is a deadline and it's the end of the day. It's a real sprint.

There are many ways to prototype. Depending on your goal you might go for a Keynote, InVision or Marvel for digital solutions and 3D printing approach for physical ideas. I personally saw just paper prototypes work very well too! Possibilities are endless. But make sure you have a clear goal for your test.

An assumption board is a great tool to get you structured here. Collect your assumptions and define a test script. You will be testing your solution on Friday with users. Get ready!



GOAL:

Visualise the idea. Build a prototype!

1. Pick the right prototyping method
2. Build your prototype
3. Define test assumption board

FACILITATION PRO TIPS:

1. Be creative while picking the prototyping method. Think what would be the most efficient to get your idea across.
2. Not everyone has to prototype. Define roles and split. Someone can prepare dummy content while others prepare Friday test settings.
3. Nail the assumption board. Only strongly defined assumptions are going to generate strong insights.

DAY 5: Test, Learn & Iterate

This, on the other hand, is probably the **most important day**.

The moment has come to validate your idea with the users. Run tests and interviews and document your findings in a form of a learning card. This will be the most important input for you for further iterations.

There are multiple ways to recruit your testers, via Facebook, Instagram, company blog or personal circles. Make sure you coordinate with them before the sprint starts so they are available for the team on day 5.



GOAL:

Validate your idea. Get an input and feedback from your audience.

1. Prepare interview script based in formerly defined assumptions.
2. Prepare interview room.
3. Conduct interviews.

FACILITATION PRO TIPS:

1. Onboard participant to the process. Encourage interviewee to be honest. Ask open questions.
2. Prepare settings where the entire team can observe interviews.
3. Structure and document debrief in a way that everyone is aligned.

Making it happen

Few of the most common mistakes we've learned about so far ...

1. Single-minded participants

The number one rule is to make sure that the Design Sprint Team is multidisciplinary. You need people with different perspectives, backgrounds, and skills.

2. Lack of a clear goal

The challenge in focus has to be clearly defined. It's absolutely crucial for the entire Design Sprint Team to ideate around the same challenge. Otherwise, ideas are too broad and can't be prototyped and tested.

3. No decision maker

With such a vast amount of opportunities and generated ideas, it's very important to have a decision maker in the room. Someone who can eliminate irrelevant options and help the team to focus on the core.

4. The facilitator is too nice

With such a vast amount of opportunities and generated ideas it's very important to have a decision maker in the room. Someone, who can eliminate irrelevant options and help the team to focus on the core.

5. The facilitator is too involved

Avoid working with facilitators who are too involved and have strong opinions about the challenge you are trying to tackle. There is a high risk they are going to steer the discussion in the direction they already have in mind.

6. Lack of testing

Make sure you plan the full fifth day for testing, creating learning cards and drawing conclusions. In order to keep it lean take care of all organizational topics like searching for users, scheduling, room booking before the sprint start.

7. Not doing them at all

And naturally, the biggest mistake you can do is to not do the design sprints at all. If your management or stakeholders group is not convinced, use those methods anyway without naming them upfront. Announce it to be a design sprint when they start recognizing the results. From that point, there is no way out.

Go and experiment: Explore, Ideate, Prototype, Validate & Repeat!

By now you've got a solid idea on how to run a successful Design Sprint.

There is no better way to learn, than simply by doing. So if your organisation or team suffers from lengthy unproductive discussions and brainstorming sessions or simply needs to innovate, I encourage you to try and experiment with those approaches.

You and your team will love them from the first sight!





Written by Anna Maria Ciupka
Product Owner

Do you need help with business ideation? Get in touch:
mail a.ciupka@de.edenspiekermann.com