



Global Knowledge Initiative

Testing and Prototyping Presentation Facilitation Guide

Total Time for Training ~35Min

Key to GKI Facilitation Guide

Bold is say out loud (Directions or key points)

Regular is script/outline

Italicize is notes for Facilitator

Introduction to Presenters 20Sec	
Don't forget the Secret Code	<p>Just a reminder from the last session, we are covering a lot of material in these sprints and we have created a secret code to make it a little bit easier for you all.</p> <p>Throughout the slides we have four categories of information. When you see the first symbol, remember you don't need to master this idea or framework! It's just to help you make a mindset shift.</p> <p>Next, we're going to introduce a number of tools. We think these are great, practical tools you can take back to your team or organization and use them to improve both your current concept, but also in your broader work. We do encourage you to try a few of these with your team, though we don't expect you'll do all of them.</p> <p>Finally, this program is about collaboration. We'll use this icon to denote opportunities to work together with other teams</p>
Objective	<p>So our objectives for this session and the next few months are framed by that bigger picture.</p> <p>Our goal is to test and validate our solutions. However, this isn't a one time</p>

	<p>or time-bound task that can simply be accomplished and checked off a "To Do" list. Instead, we need to learn the mindsets and skills of prototyping and assumption testing and embed them in our teams, organizations, and everyday practices.</p>
<p>Unknown → Known</p>	<p>Coming back to this slide that you've now seen several times as a reminder, your job as an early stage innovator is to convert unknowns into knowns and unvalidated assumptions into a higher level of confidence.</p>
<p>Assumption Mapping</p>	<p>The most useful method for getting at your assumptions at this stage is likely to be simply going through each block of your solution canvas as a team and brainstorming. Of course, your team is very close to the project at this point, so it can be hard to get perspective. You can ask a member of your organization that's outside the process for input. Also, consider if your stakeholders can be involved in identifying assumptions. If that's feasible, it will be incredibly valuable feedback. And of course, your coach provides an outsider's perspective as well.</p> <p>Also recall that we emphasized assumption identification and mapping in our Root Cause Analysis, our 5 Why's Exercise, and our Stakeholder Analysis. It's likely useful to go back to those tools and notes and see what assumptions popped up in those exercises (if you did them with your team). Are these showing up again in your Solution Canvas?</p>
<p>How do we validate and test assumptions</p>	<p>Once you've listed your assumptions, the next big step is figuring out how you test and validate them. Here, we should distinguish that you probably have two different types of assumptions baked into your solution canvas.</p> <p>The first are assumptions about what is currently true. For example, you might have a certain government ministry or position listed a key stakeholder because you think that would be the role that can help you change a policy or institutionalize a new practice or program. You realize that this is an assumption, however, as you don't currently have close ties to that ministry. This would be an assumption that might simply need to be validated. Does that role have the power to do what you're thinking? Are they willing to partner with you? Etc.</p> <p>For assumptions around what is currently true, you're likely going to be using either user research techniques or sometimes, it might be as simple as quick conversation to verify. And that's fine! You don't have to make it overly complicated.</p> <p>However, as we learned in a previous session, sometimes what people think they do or say they do is different than what they actually do. Or, you as an outside observer may have some very different observations, insights and "aha" moments than what someone could simply tell you. So, you can think about how best to use these techniques and your time. Is this a simple, objective fact check? Maybe have a quick conversation. If it's something that's a bit more intangible, maybe it's user research that's</p>

	<p>required.</p> <p>The next type assumption is something you think will happen in the future. So, if you as a team do x, then Y will happen. Well, will it? That's actually something you can't just ask or observe. Instead, you need to test it. With that, you'll need to look at prototyping and experimenting.</p>
<p>Immersion and Shadowing Techniques</p>	<p>Earlier we looked at our stakeholders, we also explored a few shadowing and immersion technique from human centered design about getting to know the "users" of our solutions and our stakeholders better.</p> <p>Hopefully this slide is familiar from that previous session. As a reminder the Day in the Life Method is particularly well suited for when your assumption around a user or stakeholder is fairly broad or vague - for example, we don't know what motivates this user. Or, what's the biggest pain point in their job? You can also blend specific questions or interviews with this technique.</p> <p>The other two techniques are when you want to understand a specific experience or perhaps even something as specific as a service or a process. So this could be anything from how people collect water, or do food distribution, or collect data.</p> <p>After you've mapped your assumptions, think about which ones are really about the present reality, before you actually introduce your solution. You can work with your coach to think about whether a simple conversation, an interview, or perhaps some shadowing is the best way to validate that assumption.</p>
<p>Prototyping</p>	<p>Beyond assumptions about how things currently are, we also have assumptions about what will happen when launch the solution we have in mind.</p> <p>For example, if we host an event, people will come. What's our assumptions there? Well, we're assuming that people will think it's worth their time, that they can get to the event, that they can afford to go, etc.</p> <p>Prototyping your solution is a method for unearthing those assumptions. The trick is to hone on the ones that are riskiest to your success, and think about clever ways to cheaply test that assumption.</p>
<p>Yes, You Can Prototype!</p>	<p>Ok, do me a favor. grab a pencil and paper. If you need to, pause this recording, grab it, and come back. Now, choose either the word simple or complex. Now, draw a representation of that word.</p> <p>Ok, let's look at what you drew. Is it a perfect representation? Maybe! Probably not ☺ Is it better at communicating your idea than a one word description? Could people understand what you mean by either simple or complex better?</p>

	<p>Congrats! You just created a prototype.</p>
<p>What is a prototype</p>	<p>A prototype is just an early stage version or representation of your idea that you can use to test your assumptions before your design, build and execute your full solution.</p> <p>What comes to mind when you hear "prototype"?</p>
<p>What Can You Prototype?</p>	<p>When you hear the word prototype, you may think more about products. Maybe specifically engineering or technology type products. Within the humanitarian assistance sector, we probably think about new types of shelter or medical devices being prototyped. The truth is though, you can prototype anything! Products, services, spaces, relationships, and even systems. And there are lots of methods for prototyping! We're going to share just a few of those, but this will be just a taste. So, we definitely encourage you to explore more on your own about prototyping if this is a new concept for you.</p>
<p>Three Iterative Steps of Prototyping</p>	<p>Prototyping is part of learning and iteration. So you want to follow a few simple steps.</p> <p>First, the point of prototyping is learning, so you have to decide what is it you want to learn? Whatever the assumption is that you want to test, the idea you have for a prototype has to help you answer that very specific question. Sometimes when you think about building an early version of your solution, that objective gets lost.</p> <p>Next, do as little work and invest as little as possible to get an answer to that question. This can also be a point of tension for many people as they innovate. How many of you are perfectionists? How comfortable are you showing unfinished work and asking for feedback? It's hard! Notice that tension in yourself and try to push past it.</p> <p>The third step is about what you do learn from that prototype or experiment. If it works perfectly, fantastic! The most likely scenario is, however, that you'll learn something you want to do differently. You'll change your assumptions. You may make a very big, 180 degree pivot and change course entirely. Or, you may just have a few modifications.</p> <p>Practically speaking, for the purposes of this challenge, we hope you have the opportunity to test a few assumptions in the next two months before the solution showcase and the final competition. Your solution and testing plan will be judged in part in your identification of assumptions and testing plan, but also from what you're learning and how you're adapting from what you learn.</p> <p>As you create your testing plan, think organically about what needs to happen to test your solution over the long term. Also think about what</p>

	<p>how you integrate prototyping and iteration into your organization and your individual work as a mindset.</p>
<p>Prototyping is not a pilot</p>	<p>Often we think in terms of pilot and then scale. It's important to understand that a prototype is not a pilot. It comes before a pilot or possibly during a pilot. Often in development and humanitarian context, we just pilot and we don't prototype, so this might be a new concept and even a new phase for some.</p>
<p>Low and High "Fidelity" Prototypes</p>	<p>Along with the concept of learning and iteration comes the concept of fidelity and early or later stage prototypes.</p> <p>Because you are investing the least amount possible to communicate and test your idea, and then learn and modify, you'll have early stage prototypes and later stage prototypes.</p> <p>Did you know that almost every website or app that you use went through an early phase prototype? It likely started as a series of sketches, then went to an intermediate phase, and was eventually built out? Typically, the feedback happens before a line of code is ever written!</p> <p>It may be hard to envision how to prototype something less tangible than an app, so we'll look at just a few examples to get you started</p>
<p>Method: Storyboarding</p>	<p>Typically when we teach prototyping, we might start with how you prototype physical products which can be easier and more tangible to understand. Then we move to more intangible prototypes like prototyping a service, or a program, or a system. Since most of you have more complex solutions that don't have as much to do with a product, we're going to jump right into the deep end!</p> <p>A very useful method for prototyping programs, processes, services, interactions, relationships, etc. is storyboarding</p> <p>You simply draw your solution step by step, illustrating how the user or stakeholder interacts with your solution. You draw what happens, how others react, why it's valuable to the participants, etc. Essentially, if it were a movie, how would you envision it going? Then you walk others through your idea step by step and ask for feedback.</p> <p>Drawing might feel a little silly at first, but did you know sketching is a highly encouraged practice in the world of innovation? The benefit of drawing is that it forces us to think in concrete and simple terms. And like our drawing exercise of simple and complex, it helps us communicate our ideas to others quickly and get specific feedback.</p> <p>Here's an example from an innovation team at WWF. They created a crowd sourcing website for data and solutions related to climate change and this story board shows how they envision working with peace corps</p>

	<p>volunteers to upload ideas, solutions, and data from communities. They used this very low fidelity prototype to get feedback before they committed funds to the idea they had in mind.</p>
Examples	<p>Here's another example from an innovation team working to empower adolescent girls in Ethiopia.</p> <p>They drew up a storyboard about using role models in public places and shared it with colleagues who had deep expertise and experience working with adolescents in these particular communities. They got specific feedback about whether or not these experts felt their idea was feasible, but most importantly, they gave them very specific ideas about how to improve it. That probably would not have happened without this storytelling component.</p> <p>Notice, you don't have to be an excellent artist to do this!</p>
Method: Role-playing	<p>If your concept is based more on interactions, such as services or trainings, you might want to start with simple role playing, even just with your team. Try acting out an interaction that you'd like to see take place.</p> <p>Again, these might not seem comfortable at first, but acting out the interactions will help you spot issues during the very first prototype.</p> <p>Here's an example from a team in Egypt that was exploring an innovative social business models for harassment free tuk tuk drivers. In order to learn more about a very dicey topic, the team did simple role play sketches with members of the community watching. At points they paused their role play and asked community members for feedback and reactions. These prototypes helped inform whether their assumption were correct - that the public image and perception of tuk tuk drivers could be changed through the activities the had in mind.</p> <p>As we watch this timelapse video of the team, I want to point out how cheaply and quickly this is accomplished. The team started with some role playing amongst themselves as their first prototype. Then, they had a little fun making these quick props and finalized what their role play would be. They recruited a few community members to help them out and give feedback, and then they did it! This is something that should take you a few hours to a day max. It's intended to be simple and cheap.</p>
Method: Experience Prototypes	<p>Another method is full experience prototypes. This is another team from CARE, about five years ago. They were launching a social business for smallholder farmers and they wanted to test the channels they were using to communicate with farmers, obviously a key box on a business model or solution canvas. They created this cart and loudspeaker for advertisements and tested it before committing to a channel.</p>
Method:	<p>This is an example you can read more about from the ELHRA Blog.</p>

<p>Experience Prototypes</p>	<p>Researchers from Sussex University wanted to create better impact assessment methodologies for humanitarian trainings. Part of their plan was to use video to capture before and after of participants performance in different training exercises.</p> <p>They tested their prototype during a Training-of-trainers and they did it London and in two other regions. What's clever about their prototyping plan is that a) they did it during internal training of trainers activities. So, it was extremely low stakes and free. They could start with a super low fidelity version and test a few very basic assumptions.</p> <p>Second, they were able to quickly try it in 3 different locations so they could see how different settings and different cultures had an impact. So, comfort levels with videos, recording, dealin with equipment and microphones - would everyone respond more or less the same, since this was going to be a global methodology.</p> <p>I particularly wanted to highlight this example because it's a great peek into how we can truly apply prototyping to our day to day activities. Prototyping doesn't need to be reserved for a big innovation project that you're launching. It could be that you want to tweak your assessment methodology and you prototype with your team with no real disruption to your regular jobs.</p> <p>https://www.elrha.org/project-blog/prototyping-impact-assessment-methodologies-in-humanitarian-training/</p>
<p>Systems are like a Pinball Machine</p>	<p>Who has played pinball or seen a pinball machine or game? Ok, picture a pinball machine in your mind.</p> <p>This example comes from Matthew Chow, Director of Organizational Design at IDEO.</p> <p>How do you win at pinball? Do you look at the ame and start strategizing about where you can et points and how the ball will go? Nope! Doesn't work like that. You drop the ball in and start playing and learn the game. Then you start understanding how to maximize your score.</p> <p>Complex systems are like pinball games. It's not really possible for our brain to plan out and strategize where the pain points or possible points of change are. Instead, we have to drop a metaphorical ball in and see what happens. That's where prototyping comes in, role playing and small experience prototypes are especially important for complex systems.</p>
<p>Method: Physical and Paper Prototypes</p>	<p>Another prototyping method is building physical or paper version prototypes that people can interact with.</p> <p>Here's an example of both a physical, paper prototype and an experience prototype from a Team that Coach Mark and I (Whitney Adams) worked</p>

	<p>with previously. AloWeather had launched a successful weather and farming advisory system for rural farmers. They were interested in using SMS messages to scale, but they had assumptions they wanted to test: Would a farmer really understand and take action from just an SMS? What makes them trust an SMS? What would make their SMS different from other spam messages? Would they prefer a voice message instead?</p> <p>So the team actually used paper messages as seen here. They printed out pictures of feature phones with superimposed SMS messages like the one you see here, which was just make using MS word. They also prototyped recorded voice messages to test with the farmers and see how they would react to each form of message. They gathered valuable information from the farmers about how they could ensure the messages were read and not seen as spam. How they could make their brand trusted.</p>
<p>Method: Physical and Paper Prototypes Pt. 2</p>	<p>This is another example that you can read more about from ELHRA. Oxfam was interested in new ways to record personal data and minimize the collection and use of data from vulnerable people. They were also interested in exploring new methods of getting informed consent.</p> <p>So they used paper prototypes to test new systems for feedback, data storage and consent.</p>
<p>Method Physical Space</p>	<p>When you're prototyping your solution, physical space is unlikely to be the main component, but it's one that's easy to forget about. Yet it's a key driver of both people's comfort and a driver of cost.</p> <p>This is an example of a physical space prototype and a paper prototype</p> <p>The National Association of Domestic Workers in Ecuador were interested in opening restaurants which would help them generate revenue for their Association. By making a physical representation of their restaurant with construction paper, stickers and other materials, the women were able to visually lay out what their restaurant would look like. The prototyping process also enabled them to try out different ways of how the restaurant should look and think through what would be most appealing to customers, how many tables to have, where the kitchen would be, etc. By making a low fidelity prototype, the women could try out different layouts for the restaurant without actually going through the process of renting or buying a physical space and not having it work out for them. One of the assumptions the women had when they were building the prototype was that they would cut some costs by having a garden next to the restaurant where they could get fresh fruits and vegetables for the restaurant. After visualizing this through the restaurant they made (you can see the garden on the photo on the left) they realized they were going to need a big area (to make room for the restaurant and the garden). They also realized trying to rent or buy a big enough space for all of this would be very expensive and not financially feasible– the restaurant was trying to help</p>

	<p>them generate money, not spend it! By prototyping their restaurant the group was able to address some of their assumptions without spending the time, money or energy renting a restaurant space and having to fail big.</p>
<p>How Can you Involve your Stakeholders in Your Prototype</p>	<p>As you think about what methods you can use to prototype, also consider involving your stakeholders and the users of your solution in your prototypes as often as possible.</p>
<p>Constraints are your friend</p>	<p>Finally, remember that time constraints are actually your friend! As you are thinking of possible prototypes, try restricting the amount of time you have to see how quickly (and cheaply) you can actually test your idea? If you start to feel yourself errin on the side of building something complex, challenge yourself to come up with an idea prototype an idea in just 1 one hour with no money.</p>
<p>Rules of Prototyping</p>	<p>Here are the rules of Prototyping</p> <ol style="list-style-type: none"> 1. You can Prototype anything! 2. Prototypes should have a specific learning purpose 3. Spend the least amount of time, money, and effort required to test your assumption 4. Prototypes should communicate your idea 5. You should get feedback on your prototypes and iterate 6. Involve your stakeholders in creating and testing prototypes whenever possible <p>Stick to these rules of prototyping and you will do great!</p>
<p>Your Testing Plan</p>	<p>Now let's look at this very simple format which you can use to create a testing plan. Here on the left we've created a column with the boxes from the solution canvas. In the column on the right you can write your riskiest assumptions. You will probably have at least 1-2 assumptions for every box here. After reviewing your confidence level for each assumption, you can return to those and prepare a plan to validate and test the risky and low confidence assumptions.</p> <p>Finally, please propose a few outputs, or base milestones with which your program success may be assessed. Note this is not an outcome or an evaluation, it is an output. Some examples might be related to getting your project started such as hosting a workshop, doing a launch or signing an agreement with a new partner.</p>