Carolinas HealthCare System

THE INNOVATION ENGINE GUIDE TO **DESIGN THINKING SESSIONS**

AN OPPORTUNITY TO CATALYZE YOUR STRATEGY, EXPERIENCE OR SOLUTION DESIGNS – TO GET WHERE YOU WANT TO GO FASTER

WRITTEN BY THE INNOVATION ENGINE SHERPAS

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WHY YOU SHOULD HAVE A DESIGN THINKING SESSION

A design thinking session is appropriate under the following circumstances:

1. You want to create a solution that is designed around user needs
2. You want to create something new
3. You want to do something that hasn't been done before at your organization (create a new process, service, product, etc.)
4. You want to solve a problem that traditional methods have not been able to solve

Not every problem requires a full-scale design thinking session. If the pathway to a solution is clear, a design thinking session is not needed. But if you are in one of the circumstances listed above, your problem may be best addressed through diverse stakeholder collaboration, innovative ideation and alternative problem-solving approaches.

The specific outcome of the design thinking session is up to you. Each design thinking session is an opportunity to design a prototype and get feedback. Just remember, this is not the time to convey pre-thought-out solutions but a chance to come up with the solution(s) together.

In most cases, a one- to three-day design thinking session will be enough time to cover the materials and ideate solutions. If you think a four- to five-day session will work better to serve this purpose, we encourage you to do so.

It's important to remember that first time design teams need to follow the rules with specific instructions, activities and talking points. Once you've facilitated a few sessions, you are welcome to deviate from the standard method and apply what works best for you.

GETTING YOUR TEAM ON BOARD

Asking your supervisor or team to prioritize time for a design thinking session can require thoughtful communication. Until someone participates in one of these sessions, it can be a challenge for them to immediately understand the plan for the day and what you hope to achieve.

The most compelling reason we've found for using these sessions over traditional methods is that they are a faster way to arrive at testable, human-centered prototypes. When you leave the session, your team will have actionable next steps that may have taken weeks or months to arrive at over the course of multiple meetings with multiple stakeholder and user groups.

ARE YOU READY TO CLIMB?

Every year, thousands of people from all over the world strive to reach the top of Mount Everest, the world's highest mountain, and rely on help from mountain guides, known as Sherpas.

Sherpas are local people of Nepal and Tibet, who are highly skilled and experienced climbers. Their job is to help foreign climbers navigate the extreme terrain of Mount Everest by preparing the route for climbers to follow, fixing ropes in place, and carrying the climbing kit up the mountain. Sherpas are important members of the community who are familiar with the culture, area, and people, and have incredible energy and endurance to climb.

Like preparing for a climb, preparing a design thinking session requires high energy, excellent collaboration, and top-notch preparation to reach the summit.

A design thinking session cannot guarantee a breakthrough solution, but it can lead your team to the top where the view is clearer to see which goals need to be achieved and what user needs are most critical.

We hope this guidebook will be a useful tool to help teams navigate the mountainous climb to achieve their goals and to embrace the journey ahead!

AT A GLANCE

Since 2013, our Innovation Engine "Sherpas" have been hosting design thinking sessions to help operational owners deliver reimagined and redesigned experiences to their customers.

2013 | Virtual Behavioral Health

2014 | Large Equipment Cleaning

2015 | Simulation Center

2015 | Proactive Health

2015 | Chronic Obstructive Pulmonary Disease Patient Experience

2016 | Predictive Analytics

"BE FIRST,
BE *FAST,*
AND SKIP UNNECESSARY STEPS."

A FAVORITE QUOTE OF DR. JEAN WRIGHT, *CHIEF INNOVATION OFFICER*

BEFORE THE SESSION

Figure out what to pack!

Preparing for a design thinking session is similar to planning a trip to the top of Mount Everest. Preparation happens weeks in advance and requires top-notch skills to bring in resources from different parts of the organization.

Pre-work can be demanding and time consuming. It requires building deep empathy with users, synthesizing findings, and making visual aids to display findings. This is all necessary to help participants absorb the insightful information collected from interviews and observations.

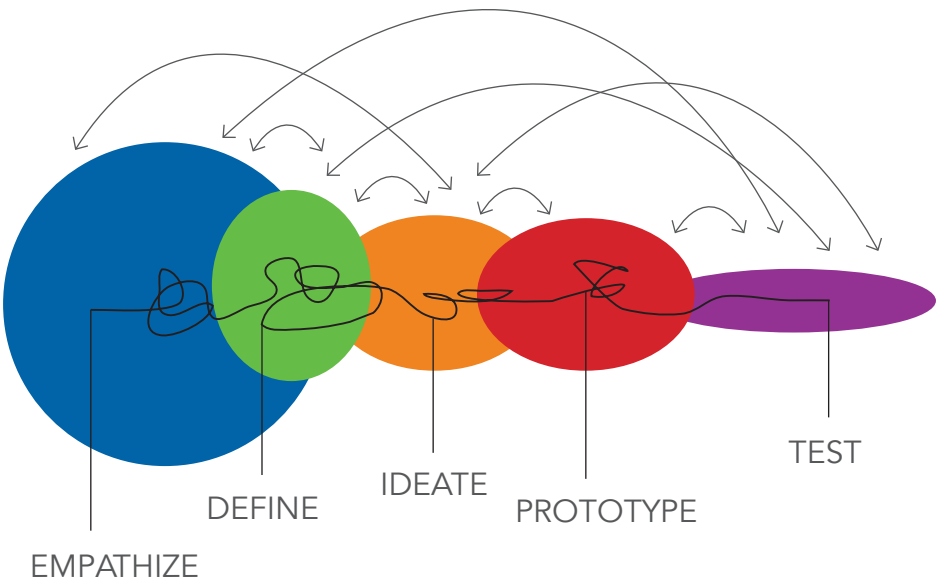
By presenting the most relevant information, people can focus on areas that really matter, and brainstorm to achieve smart solutions.

WHAT IS HUMAN-CENTERED DESIGN?

Human-centered design is all about putting users first and designing a solution with the end user in mind. It's a process that involves empathizing with users and designing a solution that matters to the people using it, instead of creating something solely from the organization's point of view. The underlying foundation of design thinking sessions is applying human-centered design principles to help you address your customers' and organization's needs.

This approach is rarely a linear process. In most cases, it's a cyclical process that requires phenomenal determination to empathize with users, define a point of view, brainstorm ideas, prototype those ideas, and test the best ones. Human-centered design is a continuous learning process with many foggy unknowns. To get comfortable using this process, refer to the questions below to help you view these problems as opportunities. More information about the human-centered design process can be found on the Innovation Engine website.

- Who is my user?
- What are his/her needs and desires?
- What are all of the potential ideas that could serve this need?
- How can I develop prototypes for the best of those ideas?
- Will my users find value in the best of those product/service ideas?
- How can we make this real for our customers and our organization?

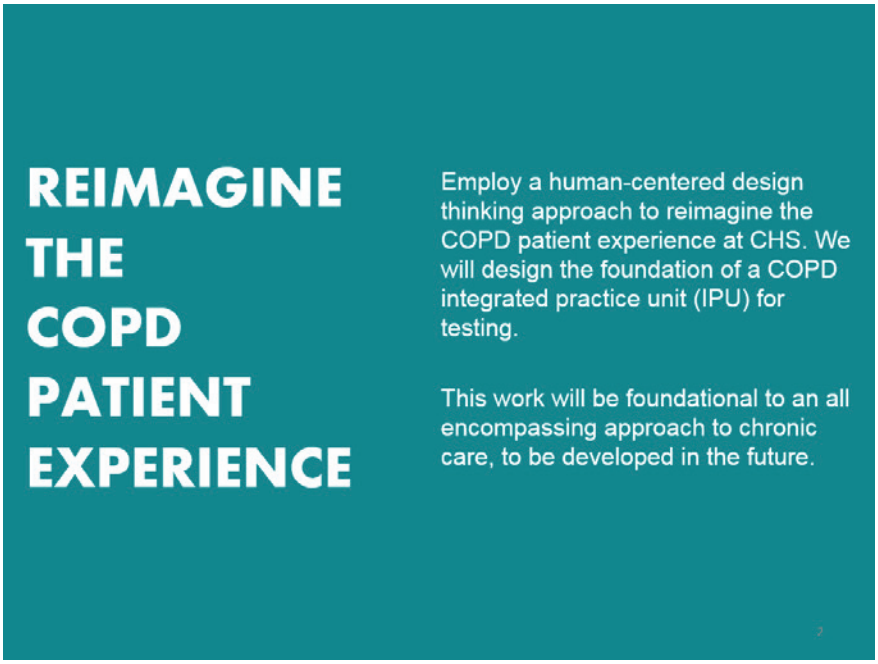


WHAT IS THE SESSION PURPOSE?

Before planning the details of a design thinking session, it's important to understand the purpose. Ask yourself, "What do I want to achieve through the session?" It's important to agree on the session purpose, so consider the following questions with your team:

- At the end of the session, it will be successful if _____.
- What is the core problem/need I am seeking to address?
- What is the "job to be done" for this session?

In innovation, the "job to be done" is the fundamental problem for which a customer seeks a resolution in a given situation. Jobs arise in our lives, and we hire products or services to do those jobs. Completing a job is all about making progress. As your team develops your session purpose statement, consider what you are hiring the design session to do for you. What progress do you hope it will help you to achieve?



▲ Example of a session purpose statement

Source: Clayton Christensen. To learn more on this method to solution design and development, the Innovation Engine has a separate manual on Jobs to be Done

Harvard Business School Professor Theodore Levitt coined the phrase, "People don't want a quarter inch drill, they want a quarter inch hole." This is a great articulation of the jobs to be done concept. And really, people don't want the hole either. They want the remodeled bathroom, or the installed light, or the picture hung on the wall. The hole is a prerequisite to achieving these end goals. Similarly, you don't want a design thinking session, you want what the design thinking session will discover and create for you. As you develop your purpose, it's critical to clearly state the job you want the session to serve.

To illustrate this concept, think about what jobs people may hire a milkshake to fulfill. You might think they hire it for a dessert. That's what McDonald's thought as well. When they hired Clay Christensen's team of consultants to uncover what people were really hiring the milkshake to do, they discovered over 40% of milkshakes were purchased between 6:00 AM and 10:00 AM. Shockingly, it seemed people were hiring the milkshake for breakfast! Why?

They discovered that the milkshake was the perfect solution to help them complete a job and achieve the progress they were seeking. It turns out that commuters were buying milkshakes for three key reasons. They needed something that...

- They could consume with one hand while driving
- Would keep them full until lunch time
- Would keep them occupied on their boring 20-30 minute commute

The milkshake fulfilled all of these jobs because it could be consumed with one hand, was caloric enough to keep the commuter full until lunch time, and it took 20 to 30 minutes to suck the milkshake up through the tiny straw.

The session purpose statement will help you develop clarity around your Job To Be Done. The statement should tell you **WHAT** you hope to accomplish, **HOW** you will do it, and **WHY** you hope to accomplish it.

Example session purpose statements from some of our Innovation Engine design sessions are below:

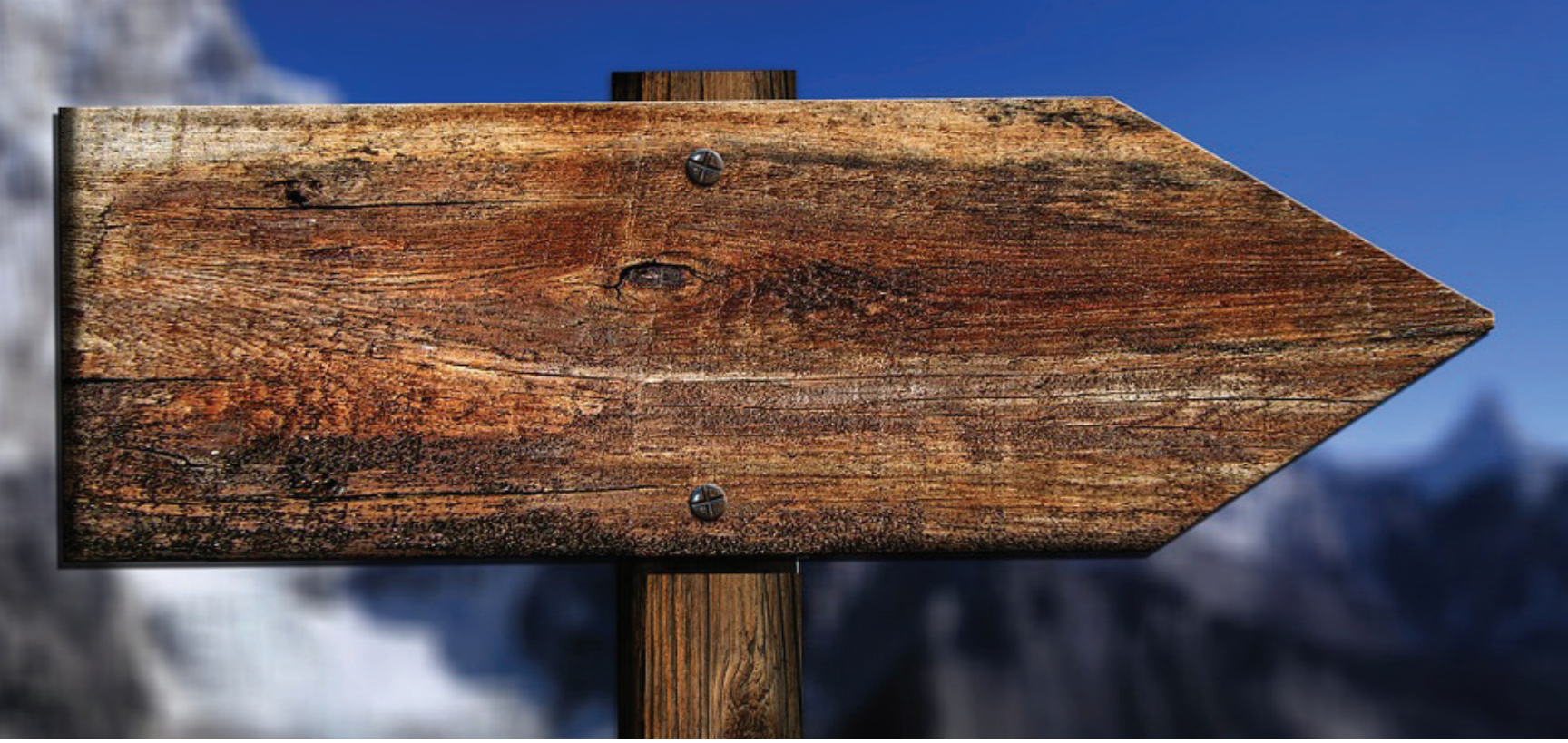
- We will employ a human-centered design thinking approach (**HOW**) to reimagine the COPD patient experience at CHS (**WHAT**). We will design the foundation of a COPD integrated practice unit (IPU) for testing (**WHAT**). This work will be foundational to an all-encompassing approach to chronic care, to be developed in the future (**WHY**).

- We will employ a human-centered design thinking approach (**HOW**) to reimagine and redesign the predictive analytics experience at CHS (**WHAT**). Through discovery and ideation (**HOW**), we will redesign the predictive analytics dashboard and develop prototypes for improved functionality (**WHAT**). We believe that an enhanced predictive analytics interface will lead to effective clinical action and improved patient outcomes (**WHY**).

WHAT PATHWAY SHOULD YOU TAKE?

Design thinking sessions are tailored to achieve the session purpose regarding the stated job – either to solve their problem or serve their need. Depending on the client's needs and desired outcome, we use one of three design session approaches:

1. **Experience Design:** One approach we frequently use is journey mapping**.** This approach is appropriate when the challenge requires a deep understanding of the end user and their interactive journey with a product or service. In journey mapping, you use a real story or a persona to create a more-complete picture of a process or experience from the user's perspective. This approach highlights thoughts and emotions to identify the user's "moments that matter." Through empathy and need identification, this approach guides our focal points for innovation. Refer to the journey-mapping how-to guide on the Innovation Engine website to see if this is the right approach for your current design challenge: www.CarolinasHealthCare.org/DesignGuide.



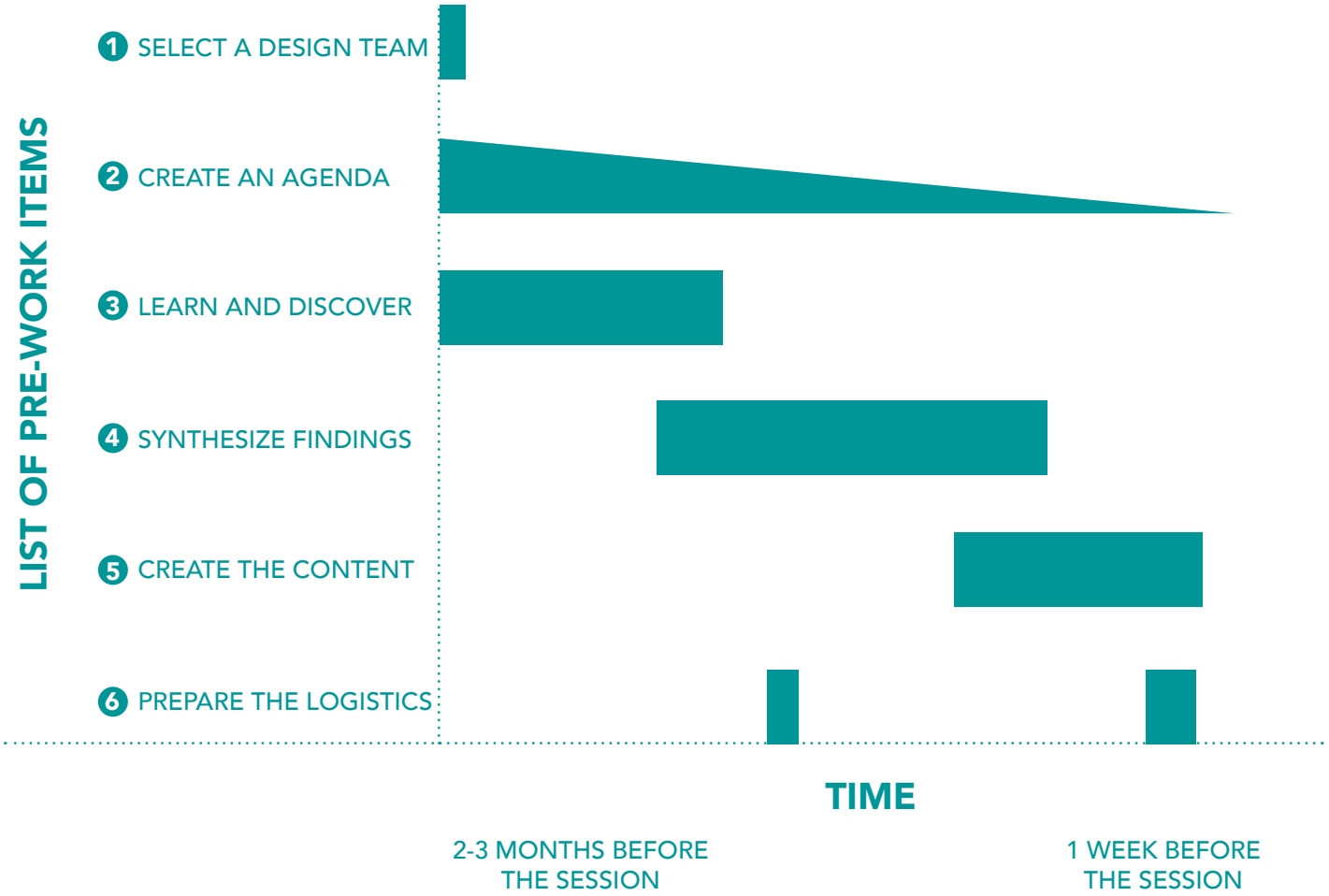
2. **Strategy Design:** A challenge focused on developing an organization's or department's future strategy often calls for a scenario-planning or business model innovation approach. Scenario planning is defined as "a process of constructing a range of plausible futures to use as a backdrop for discussing strategies." In this design approach, teams work together to develop future scenarios and accompanying business models that would succeed in each potential future. Shell has used scenario-planning for over 40 years to successfully adapt its strategy as environmental forces change. Refer to the scenario-planning toolkit on the Innovation Engine website to learn more about business model canvas, value proposition canvas and to see if this is the right approach for your current design challenge: www.CarolinasHealthCare.org/DesignGuide.

3. **Solution Design:** When the design challenge is focused on the physical design of a space, a product or a user interface, a solution design approach is the best pathway. Similar to the journey-mapping approach, participants seek an understanding of the end user's needs, and create a solution that is feasible, viable and desirable. Refer to the solution toolkit on the Innovation Engine website to see if this is the right approach for your current design challenge: www.CarolinasHealthCare.org/DesignGuide.

DO THE PRE-WORK

Once you have identified the problem statement and the appropriate track to take, you can assemble your resources in order to prepare for the exciting trip ahead.

This part of the process is a necessary step estimated and serves to clarify objectives, uncover insightful information and prepare you for the climb. The chart below illustrates time needs for pre-work items.



SELECT A DESIGN TEAM

Planning a design thinking session is time consuming and requires a design team and coordinator who can commit time and energy to iron out the details.

The design team and coordinator will serve as Sherpas doing the pre-work and leading the diverse group of professionals through the session.

The design team should consist of three to four individuals who can bring diverse skill sets and perspectives to the project. If you have a team dedicated to innovation, they might be your Sherpas for your first journey. They can help you learn the necessary skills for future sessions. The design team should help with the following components of session preparation and execution:

- Performing ethnography, user interviews and secondary research
- Synthesizing findings and developing visual aids for the session
- Preparing for activities found in the experience, strategy and solution design toolkits
- Facilitating breakout groups during the design thinking session

An ideal coordinator is someone who:

- Understands how to facilitate the design thinking process, experience design, strategy design or solution design
- Has bandwidth to take on work
- Knows the project scope and has a basic understanding of the topic
- Is detail-oriented and has experience with project management
- Is able to facilitate a one- to two-day session

CREATE AN AGENDA

Developing the session agenda is a bit like writing a script. It includes identifying roles and responsibilities, the props that are needed, backstage activities and time allocations.

- **Solidify Purpose:** Creating an agenda starts with a solidified session purpose. It is critical that the design team and the operational owners requesting the session agree to goals before building the rest of the agenda.

- **Choose a Pathway:** Once the session's goals are clarified, the design team can determine which pathway (page 10) is most suitable.

- **Timing:** Next, the design team coordinator can determine the amount of time needed for the session. Decide which session components will be most effective to solve the problem at hand, what size session is appropriate, and what research and support materials are needed to produce an effective session.

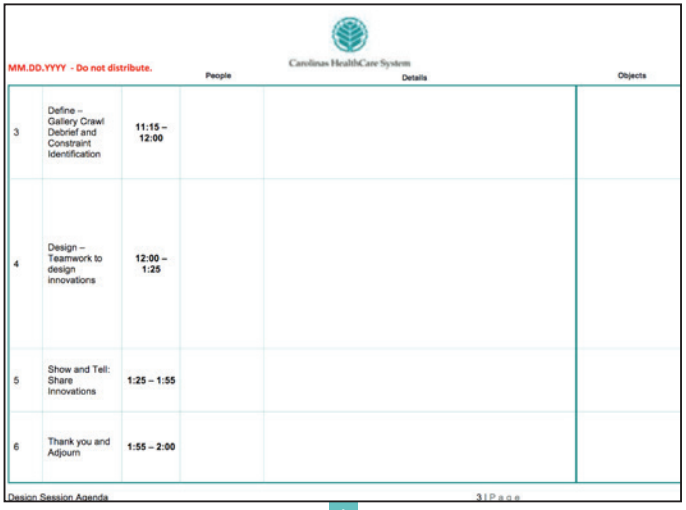
- **Identify and Invite a Diverse Group:** One of the most critical steps of session preparation is identifying and inviting a diverse group of stakeholders. You want your session attendees to have a breadth of expertise and experiences, as well as deep knowledge of key areas of interest. Consider including anywhere from 10-20 individuals from each group below:

  - End users of the product or service that is being created, redesigned or improved
  - Those with content knowledge around the design thinking session subject
  - If the session involves a patient journey map or a patient-focused solution, you will want to design with at least one patient on the team
  - Innovative or forward-thinking leaders and front-line employees
  - A mix of strategic, operational and support personnel to ensure you consider the "job" from all angles

- **Confirm Details:** After the agenda and invite list is initially drafted, the session leader should review it with the design team to ensure nothing has been omitted, timing has been appropriately estimated, and appropriate stakeholders are invited. The materials needed for the session and a logistics checklist can be found on the Innovation Engine website.

- **Share the Agenda:** Next, the team should share the agenda with the operational owners to explain the flow of the session and demonstrate how the session purpose will be accomplished. Operational owners are clinical or administrative service line leaders who will carry the developed solution, service or program forward once it becomes part of day-to-day operational processes. Essentially, they will "own" the solution that is developed from the design thinking session and be responsible for the outcomes of that solution.

- **Final Review:** You should plan to review and finalize the agenda with the operational owners a week ahead of the session. This will provide an additional opportunity to level set on the session purpose statement and structure, ensure the owners are comfortable with the session flow, and give them an opportunity to ask questions. The detailed agenda – shown in images A and B *(below)* – is shared with the design team and operational owners. However, participants should not receive this level of detail. They should be provided with an abbreviated agenda that includes high-level components of the session, as shown in image C *(below)*.



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			People	Details	Objects
3	Define – Gallery Crawl Debrief and Constraint Identification	11:15 – 12:00			
4	Design – Teamwork to design innovations	12:00 – 1:25			
5	Show and Tell: Share Innovations	1:25 – 1:55			
6	Thank you and Adjourn	1:55 – 2:00			

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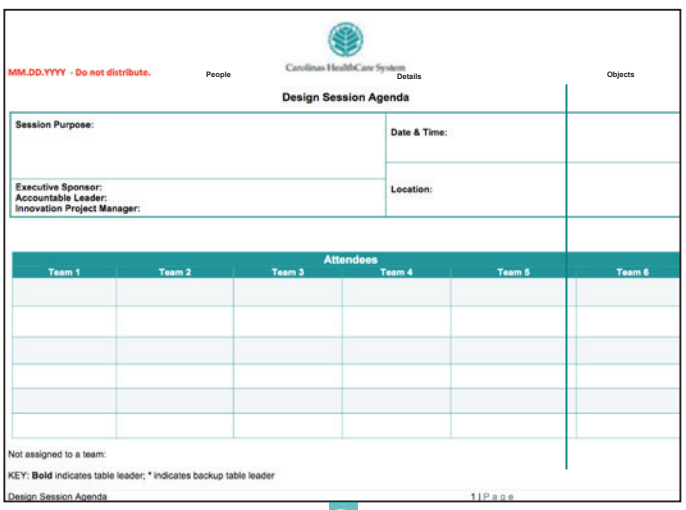
A



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People Details Objects

Design Session Agenda

Session Purpose:	**Date & Time:**
Executive Sponsor: **Accountable Leader:** **Innovation Project Manager:**	**Location:**

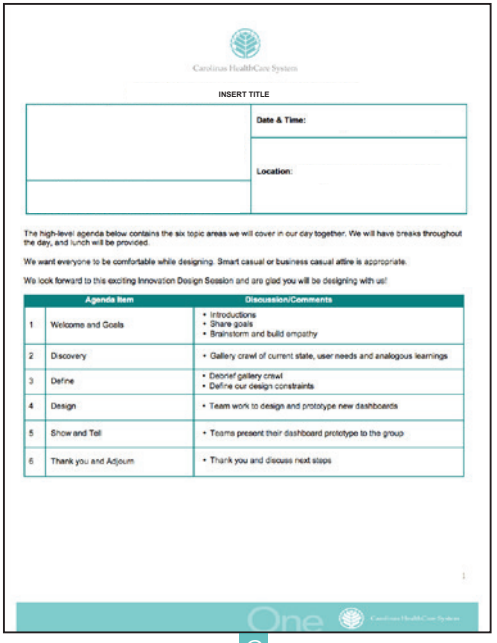
Attendees					
Team 1	Team 2	Team 3	Team 4	Team 5	Team 6

Not assigned to a team:

KEY: **Bold** indicates table leader; * indicates backup table leader

Design Session Agenda 1 | Page

B



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INSERT TITLE

	Date & Time:
	Location:

The high-level agenda below contains the six topic areas we will cover in our day together. We will have breaks throughout the day, and lunch will be provided.

We want everyone to be comfortable while designing. Smart casual or business casual attire is appropriate.

We look forward to this exciting Innovation Design Session and are glad you will be designing with us!

	Agenda Item	Discussion/Comments
1	Welcome and Goals	• Introductions • Share goals • Brainstorm and build empathy
2	Discovery	• Gallery crawl of current state, user needs and analogous learnings
3	Define	• Debrief gallery crawl • Define our design constraints
4	Design	• Team work to design and prototype new dashboards
5	Show and Tell	• Teams present their dashboard prototype to the group
6	Thank you and Adjourn	• Thank you and discuss next steps

C

LEARN AND DISCOVER

The discovery process is essential to understanding your user's environment, experience and needs. Discovery will frequently involve both primary and secondary research and is likely to include a variety of the following methods:

PRIMARY RESEARCH

- **User and stakeholder interviews:** Interviews are a great way to avoid making assumptions about what your user really needs or wants. When interviewing, try to avoid questions that lead to short yes or no answers. Instead, start with broad open-ended questions ("Tell me about yourself") and gradually ask more project-related questions that encourage participants to explain their motivations and rational/ irrational behaviors. ("Why is _____ important to you?")

- **Ethnographic observations:** Pay attention to what people are saying and doing, in order to understand what they are thinking and feeling. People assign meaning to objects, places and activities but usually can't tell you exactly what it means. Ethnographic observations are a way to understand those hidden meanings and identify non-obvious user needs.

- **Interviews with industry best practice leaders:** Often, there will be industry best practice leaders who inspire aspects of the project. Interviewing a representative from one of these organizations is a good way to seek helpful tips and ask about challenges they've faced in order to accelerate the design thinking process.

- **Field trips to visit industries facing similar challenges:** Identify and visit organizations outside of your industry that face similar project-related challenges. Retail, hospitality and technology companies are good places to start and are frequently identified as those that actively deliver great experience to their customers.

SECONDARY RESEARCH

- **Identification of current best practices:** Cast a wide net and search for organizations that are doing a good job of solving the same or similar problems. Be thorough and descriptive about what makes those best practices different or similar, and how they can be carried over to solve your project-specific problem.

- **Literature review of available published research:** Find additional resources on theories and models to better understand the core components of your problem from an academic standpoint.

Visit the Innovation Engine website to learn about other customer discovery methods. There you will find a detailed how-to guide on Jobs to be Done interviewing and the Experience Group Session methodology. Once you have a solid understanding of the current state of the environment, the range of opportunities for improvement, the user, and the industry landscape and prevalent best practices, then you are ready to synthesize your findings.

SYNTHESIZE FINDINGS

Synthesizing your findings is the process of making sense out of the disparate pieces of information you uncovered during the discovery phase. Some ways to do this:

1. Experience Design:

Based on what you discovered through your ethnography and interview research, you'll want to follow a process of theme and insight identification, resulting in needs identification and visionary "how might we..." or "it would be amazing if..." statements. See the next page for a template you can follow when developing these statements.

2. Strategy Design:

To better understand your internal resources, processes and priorities, as well as the external industry landscape, you'll want to perform key stakeholder and customer interviews. You'll want to supplement interviews with secondary research. Similar to the experience design approach, you will want to highlight key quotes, themes and insights that arose from those discussions. Pull out the most salient information you want design session participants to focus on and determine the best way to visualize them. An example of what this looks like can be found on the Innovation Engine website.

3. Solution Design:

To ensure that you understand the end user's needs, you'll want to follow the same process as experience design in order to pull out key insights to inform session members in their design thinking. You will also want to identify themes associated with effective solutions, either in the same or analogous industries.

WHAT IS THE JOBS TO BE DONE STATEMENT?

As you synthesize your research findings, you need to clearly articulate the customer's needs and jobs-to-be-done. But before you do, it's important to understand the difference between needs and jobs. The Christensen Institute explains it this way, "jobs are made of needs, but needs are not jobs." They go on to describe needs as:

> *"something that persists over time, regardless of circumstances. For example, safety, food, water, and health are needs. People require these things their entire lives, no matter who they are, where they live, what's happening around them, or how they feel. Yet nobody spends every second of every day trying to fulfill these needs, it's not even possible to do so. People must prioritize and decide how to allocate fixed resources among them. Jobs Theory explains how this prioritization and allocation results in adoption of a new solution."*[1]

Jobs don't exist entirely apart from needs. They include the package of functional, social and emotional needs and desires that take priority in a particular situation.[2] There may be multiple needs to meet, but for the purpose of this design session, the group should focus on a few that are the most impactful and impactable.

A job is the progress someone seeks in a given situation. A job has two parts: the progress someone is seeking and the context or the situation that they are in. Understanding your customer's jobs and articulating them in jobs statements will help participants stay focused on the customers' desired behavior or progress.

Use the following framework to create jobs statements for the customer.

When I am _____, **help me/ help me avoid/ I need to** _____, **so I can** _____.

context | progress

Jobs have three key dimensions, and you may or may not have a statement for each type of job:
Functional jobs describe how the consumer gets a specific task done or achieves a functional goal.[2]
Emotional jobs describe how the customer feels or wants to feel.[2]
Social jobs describe how the customer wants to be perceived by others.[2]

When creating the jobs statements, take the time to consider not only the customer's functional job but also their emotional and social job, if appropriate.

1 Health for Hire: Unleashing Patient Potential to Reduce Chronic Disease Costs (https://www.christenseninstitute.org/wp-content/uploads/2017/10/Health-for-Hire.pdf)
2 Strategyzer (http://support.strategyzer.com/knowledgebase/articles/1194400-how-do-i-add-customer-jobs-to-my-value-proposition)

TIPS ON HOW TO CREATE A GOOD JOBS-TO-BE-DONE STATEMENT

At this point in the process it is critical to focus on the customer's job – the progress they are trying to make in a given situation – not the solution. Solution development comes later, and to develop the most-effective solutions for our customers, we must clearly articulate their jobs to be done. An example job statement is as follows:

When I am unable to maintain my health on my own, help me get customized guidance and support so I can get on track and stay on track for my future.

Notice how this job statement describes the **progress** the customer is seeking: "get on track and stay on track for my future." It doesn't provide a solution. The brainstorming phase of your design thinking session will help you identify a number of possible solutions, and a good jobs to be done statement is critical for effective idea development.

MAKE THE CONTENT

After you've synthesized the findings, they must be visualized in a tangible and accessible way. This involves development of posters, presentations and other visual aids. Give yourself several weeks to put it together – this preparation will pay off. You want to create a presentation and interaction with visual aids to prime your audiences' thoughts for creativity. Consider mixing still images, in-person storytelling and videos for the biggest impact. Some best practices for presentations and posters include:

- **No death by PowerPoint:** Fewer slides, more images and less text is better.

- **Establish ground rules:** 1) Be Present. 2) Choose curiosity over judgment. 3) Trust the process. 4) Have fun!

- **Provide clarity of purpose:** Introduce the goal of the session and a pathway to achieve it. Remind individuals to trust the process. Design may not be familiar to the attendees, and it is important to acknowledge that you are entering the "foggy unknown"with them. People fear the first step. Let them know that it is okay and the design team exists to help them.

- **Use images as much as possible:** Picture superiority effect is the phenomenon that people focus and remember content better when there are images to accompany blocks of text. Use this to your advantage.

- **Create posters to supplement slides:** Slides are on the screen and when they disappear they are often forgotten. Leaving posters around the design room, and walking the participants through a gallery crawl, helps participants better interact with and absorb the information at hand. A gallery crawl is an exhibition technique where presenters share posters to a group of participants in an engaging, informative way. Posters are left up when teams move on to the design portion of the session, allowing them to refer back for inspiration and insights. These posters make findings and insights visual and accessible.

  Posters should at least be 4' x 6' with font size no smaller than size 25 in most cases. Gallery Crawl posters are a critical component to all types of design sessions and a tutorial on how to create good posters can be found on the Innovation Engine website.

PREPARE THE LOGISTICS

Design thinking sessions often use methods and approaches that most people do not encounter in their daily work. To help participants prepare for these sessions, it's essential to provide them with pertinent information in advance for them to familiarize themselves with such innovative approaches.

- **One week before:** Send logistical and pre-reading information a week before the design thinking session to provide participants with ample time for review and understanding of the material. It also helps to explain why there is homework involved, and that it is in the best interest of the participants to read it. This will make the best use of their time. Visit the Innovation Engine website for email templates and pre-meeting materials. The content will be dependent on the design pathway you are following.

  During the session, participants will divide into breakout groups to brainstorm ideas and develop a low fidelity prototype. **There should be work tables available for the breakout groups and a designated leader at each table who understand the design thinking process and can lead the breakout group.** More details on breakout group facilitation tips can be found on the Innovation Engine website.

- **24 hours before:** Send an email to participants the day before the design thinking session to remind them about homework, attire, location, meal, and other logistical aspects of the session.

- **18-24 hours before:** Use this time to set up the room, arrange tables, display posters, buy snacks and order the meal for the next day. Once the room is set up, practice a dry run to ensure facilitators feel prepared to lead and to troubleshoot the slide deck and any videos. This is a must for anyone who hasn't facilitated a design thinking session. Visit the Innovation Engine website for a checklist of last-minute tasks.

DURING THE SESSION

Lead the way!

Attendees may not be familiar with the design thinking process. They are faced with unfamiliar people, a new environment, and they do not know exactly what to expect. Use the guidelines in this section to lead a group through the adventurous problem-solving process. Helpful tips on how to facilitate a large group can be found on the Innovation Engine website.

WELCOME AND GOALS

Make people feel comfortable and excited about the day ahead. You made it! It took weeks to prepare the materials for the design thinking session and now your participants are in the room anxiously waiting for you to start. Take a deep breath and begin with a big welcome. This portion of the session should include the following components:

- Welcome people to your space
- Go over the session purpose
- Do the Amy Cuddy power pose as a group[1]
- Have everyone introduce themselves
- Share design thinking session goals for the day
- Walk through innovation methods and design guidelines

SET THE DESIGN THINKING SESSION GOALS

Session goals need to be shared with participants at the start of the session. Goals should be clear and reflect key elements that will lead to the desired transformation, or achievement of the session purpose. Session goals should match your agenda objectives, and should be limited to 3-5 per day. As part of the introduction, include a roadmap of where in the design thinking process (page 7) the participants are going to go during the session, and where the design team will take the project after the session.

▲ Example of a session goal

1 **Source: Amy Cuddy** (https://www.ted.com/talks/amy_cuddy_your_body_language_shapes_who_you_are?language=en)

WARM UP

Before jumping right in, play a brainstorming or team-building game for participants to build the creative muscles necessary for the rest of the day.

A warm-up game allows participants to have a chance to get comfortable sharing a lot of ideas! These are some of the brainstorming exercises we've used in the past that worked really well:

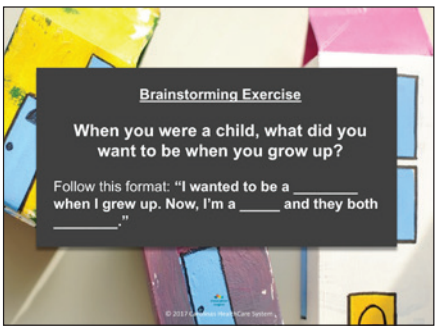
- Beaches vs. Mountains
- When you were a child, what did you want to be when you grew up?
- What is the best packaging for bananas?
- Marshmallow Challenge
- Design a better lawn

Why do we do those exercises at the start of a design session? Do they only serve the purpose of breaking the ice, or getting the conversation started? Well, they do that, but science shows they do so much more. Research demonstrates that groups that begin a session with brainstorming, quick idea creation, or analogy exercises will increase their total number of ideas.[1] When you do that kind of activity as a team, the ideas increase even more. Hours later, long after the laughter has died down from the ridiculous ideas you have shared or heard, your ability to come up with more ideas will still be improved over those groups who did not brainstorm at the beginning of the day.

Studies have shown that improv comedy is a great model for idea creation.[2] Why is that? Improv artists think quickly, in the moment, and rapidly link unrelated ideas together. How do they do that? It appears there is a part of the brain that is uniquely efficient at this skill.

Most jokes are built around two components that are seemingly unrelated. But there is a part of the brain – anterior superior cingulate gyrus – that connects those two ideas, and finds the humor, or the "ha ha." That same part of the brain finds the application for two seemingly unrelated ideas.[3] And in that part of the brain we find the "ah ha," or our "eureka" moment. So, "ha ha" and "ah ha" are located in the same part of the brain. And when we stimulate the area with activity early in our journey, it benefits us for longer than we realize.

1 Fast Company, Jessica Hullinger (http://www.fastcompany.com/3032418/the-future-of-work/the-science-of-brainstorming_
2 Harvard Business Review (https://hbr.org/2015/03/3-improv-exercises-that-can-change-the-way-your-team-works)
3 What happens when 'Aha!' strikes (https://nsf.gov/discoveries/disc_summ.jsp?cntn_id=135833)



▲ Facilitation tips on how to lead these brainstorming exercises can be found on the Innovation Engine website.

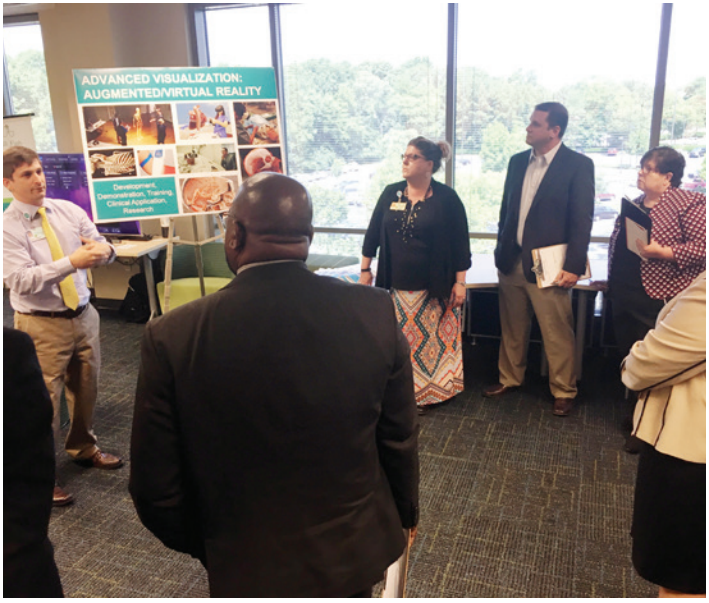
LEARN TO UNDERSTAND

Creating a learning environment where participants can be on the same level of understanding is an essential part of a successful design thinking session.

A gallery crawl is an exhibition technique where presenters share posters to a group of participants in an engaging, informative way. These are a great way to quickly deliver key information like jobs statements, user needs, market trends and background research. Listed below are examples of gallery crawl boards and more information can be found on the Innovation Engine website.

- Overview
- Current state
- Industry leaders
- Interview outcomes and personas
- External and internal competitors

Gallery crawls work best when one person is in charge of presenting each board and the groups rotate between boards every 12-15 minutes. During this time participants can take notes on palettes, a one-page list of questions, to capture interesting information that will be shared during the gallery crawl debrief. The template of the palette can be found on the Innovation Engine website.



AGREE ON DESIGN CONSTRAINTS

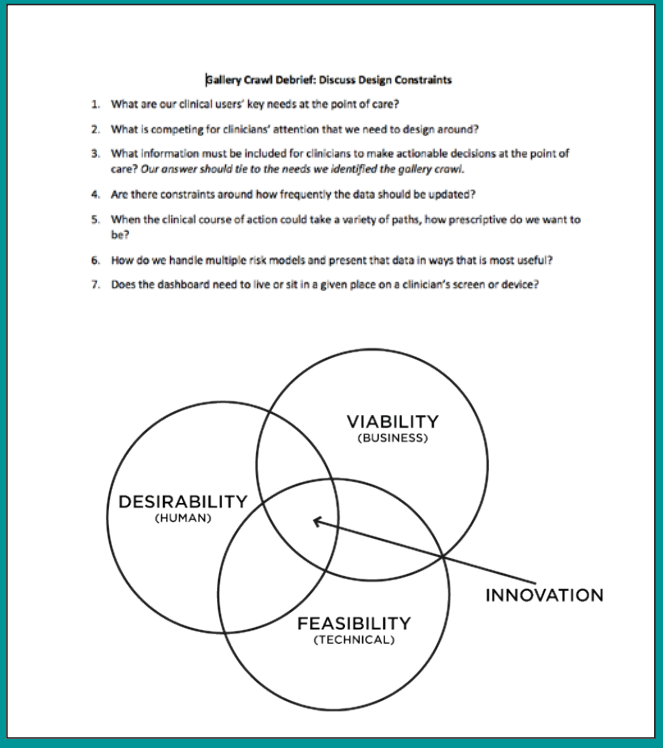
Capture the "ah-ha" moments and constraints to build smarter solutions.

After the group completes the gallery crawl, there is a brief 5- to 10-minute break to allow people to process what they've just seen. Then we gather the group back together in a living-room style discussion. Here we debrief on "ah-ha" moments that individuals experienced during the gallery crawl.

It is essential to discuss key design constraints based on the end user's needs and to level-set on all constraints before dividing the entire group into breakout groups. To ensure all potential innovations are held to the same standards, everyone needs to agree on what constraints they are designing around.

Constraints are typed up during the discussion and quickly printed once finalized. Printing the constraints allows all groups to refer back to the constraint list during design. It's frequently too detailed to project on a slide, so a printed Word document works best.

Once everyone is in agreement, teams can start to design!



Gallery Crawl Debrief: Discuss Design Constraints

1. What are our clinical users' key needs at the point of care?
2. What is competing for clinicians' attention that we need to design around?
3. What information must be included for clinicians to make actionable decisions at the point of care? *Our answer should tie to the needs we identified the gallery crawl.*
4. Are there constraints around how frequently the data should be updated?
5. When the clinical course of action could take a variety of paths, how prescriptive do we want to be?
6. How do we handle multiple risk models and present that data in ways that is most useful?
7. Does the dashboard need to live or sit in a given place on a clinician's screen or device?

▲ Example of a list of questions for discussing constraints

BRAINSTORM IDEAS

At the beginning of the session, participants had a chance to do an exercise to prepare for this part of the session: brainstorming project-specific ideas. This is an important step in the design thinking session because it will lead straight into making a prototype.

It's critical that someone from the design team lead the breakout group. The breakout group facilitator's role is to encourage participants to build on the ideas of others and to keep the dialogue going. Key points are listed below and additional facilitator tips can be found on the Innovation Engine website.

Be a good listener: Assuming everyone in the group has a slightly different background, it's important to consider the point of view of all participants.

Come up with many ideas: This is very important because it's a great way to avoid being tied to 1-2 ideas. Encourage them to write down 10-15 ideas and discuss it with everyone at the table. Generally, the first few ideas are similar among the participants and the last few turn out to be unexpected solutions that spark new discussions.

Steal great ideas: Coming up with anything from scratch is really hard work and takes up a lot of time. Be inspired to "borrow" ideas from the analogous learning gallery crawl board and encourage participants to browse on the web to research companies who are doing it really well.

Be visual: Start practicing line drawings and rough sketches to help others visualize what they are thinking. To help groups keep track of ideas, we highly encourage Post-It notes or white boards so that ideas don't get lost after the initial brainstorming session.

MAKE A PROTOTYPE

It's time to get that game-changing idea out of peoples' minds and make it (sort of) real!

A fundamental component of the human-centered design process is to test a prototype before spending a lot of time and money perfecting the first model. Inform participants that the purpose is not to prototype a perfect solution but to start with something good enough and make incremental steps to make it better.

Every project will require a slightly different way to deliver a prototype. These are some tips on how to build a good prototype based on what works best for your group:

Make it quick: This is not the time to worry about the details to make it look perfect. Create a prototype that communicates your intentions and move forward.

Make it cheap: Don't go out and buy expensive materials to build a low-fidelity prototype. In the past, we used flip chart sheets to wireframe a software dashboard and card-board cutouts to mimic a smartphone, and these worked really well. Tape, playdough, pipe cleaners – anything works!

Test the prototype: If you have time, test the prototype. Ask different group members for feedback and challenge each other to make it better.

Outline assumptions: Groups should state any assumptions they made when developing their prototype and then be clear about how they would test those assumptions. For example, an app would rely on the assumption that your user has a smartphone.

SHOW AND TELL

After teams brainstorm and design their innovative prototypes, it's time to share the outcomes with the entire group.

Depending on how much time you have, group report outs should last 3 to 5 minutes with 1 to 2 minutes for questions from the big group. This is an important component of the session in order to identify the themes that arise across all innovation prototypes. There is also great value in getting additional feedback on the design from all the minds in the room.

When teams present their innovations, each group should be clear about the perspective they took in their design. For example, if there are multiple end users, for whom did the team design their innovation? The presenter should also state the goal of the innovation. For example: "We designed X for Y to achieve Z." One example from our work would be, "We designed an efficient dirty isolette room for the ward aids to achieve the goal of cleaning isolettes as effectively as possible."

Tip: It is helpful to film the group report-outs. This will help the design team coalesce all of the session outcomes for presentation to the operational owners after the session ends.

▲ Example of a design prototype of a dashboard for predictive analytics

AFTER THE SESSION

Finish strong!

There are a few key steps to follow to close out a successful session. You want to ensure the hard work and excitement from the session is carried forward after people leave the building.

WHEN THE SESSION ENDS

Teams need a strong close – this is just as important as the kick-off. Share next steps with all participants and thank them for their time, creativity, ideas and effort throughout the session! The design team should then have a brief 5- to10- minute huddle with the operational owners.

Briefly discuss with them their thoughts on the session – what went well, what could have gone better? After this discussion, it's time to celebrate! This is a great time to high-five and thank all members of the design team. You've just successfully executed a design session – this is no small feat and definitely a team effort! After cleaning up the room and ensuring photos of all white boards and prototypes have been taken, plan to do something relaxing. You will need it!

WITHIN ONE BUSINESS DAY

Send out an email to all participants with a brief feedback survey and any follow-up materials promised to the group during the session, and a recap of next steps.

WITHIN TWO WEEKS

Handoff the design thinking session outcomes for the operational owners into one or two files. Schedule a time to review the materials with the operational owners. This meeting generally takes 60 to 90 minutes for review of the outcomes document and determination of next steps.

CROSS THE "O-GAP"

Depending on the nature of the project, a design session may be the beginning of a longer consulting engagement with your operational partners. If it is, you won't cross the "o-gap"– or operational gap – until later. If the consulting engagement was focused on the preparation and execution of the design session, you'll want to ensure that your operational partner is pleased with the outcomes of the session and believes the deliverables agreed to in the scope document are complete. Once you are in agreement, the operational owner takes the baton from this point. Human-centered design thinking methods should be used in prototyping and testing the outcomes to ensure they meet the user's needs.

MOVING FORWARD

You and your design team have helped the operational owners and their stakeholders up the mountain. Your role as the Sherpas for this team is now complete. But there is always another team looking for your help to climb the mountain. On your trek back down to meet the next team, think about how you can improve your next session, read the surveys from this session's participants, and keep an eye open for ways to improve. No two treks are exactly the same, and there is always room to make the next climb a little bit better than the last.

APPENDIX

Session Purpose Template
Experience Design Toolkit
Strategy Design Toolkit
Solution Design Toolkit
Agenda Template
Discovery Plan
Gallery Crawl Template
Email Template
Who's Who Template
Palette Template
Logistics Checklist
Feedback Survey
Brainstorming Exercises
Facilitation Tips
Additional Jobs Statement Examples
FAQ
and more at www.CarolinasHealthCare.org/DesignGuide

THIS BOOK IS A WORKING PROTOTYPE. ANSWERS TO FREQUENTLY ASKED QUESTIONS (FAQ) WILL BE POSTED ON THE INNOVATION ENGINE WEBSITE AT: **WWW.CAROLINASHEALTHCARE.ORG/DESIGNGUIDE**

IF YOU HAVE ADDITIONAL QUESTIONS,
EMAIL **INNOVATIONENGINE@CAROLINASHEALTHCARE.ORG**

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