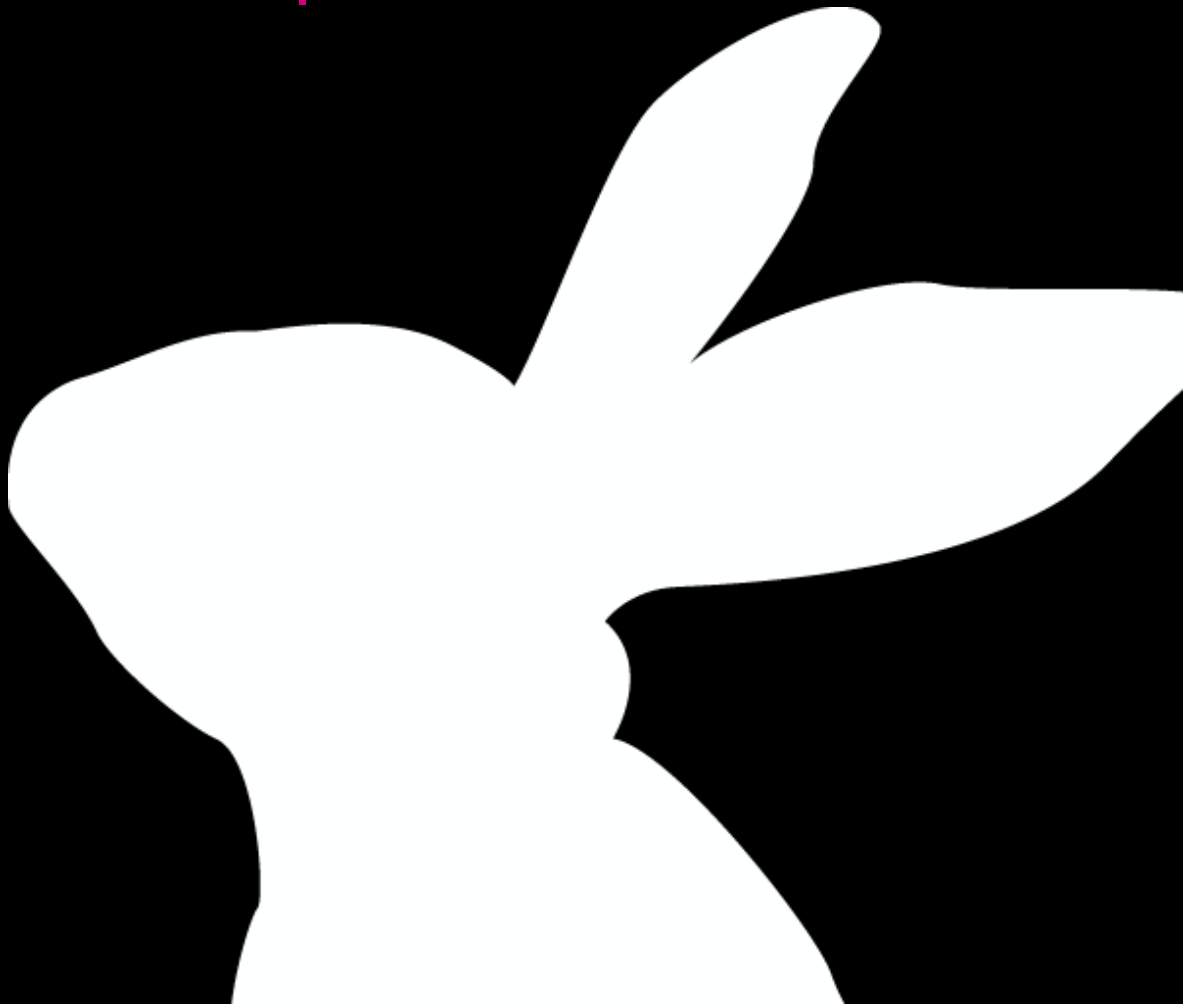
Follow the Rabbit:

A Field Guide to Systemic Design | by CoLab



CoLab.

Complexity navigation | Collaboration | Co–design | Co–creation

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Lead: Roya Damabi, Systemic Designer, CoLab

Welcome

Welcome to CoLab's Systemic Design Field Guide.

This Field Guide is designed to support budding systemic designers to facilitate and lead systemic design projects.

It's designed for systemic designers who have basic familiarity with SD concepts and are looking for some practical tips and tools to put theory into action.

While this Guide was designed with Government of Alberta staff in mind, the content applies across a range of issue areas, sectors, and intersections.

The Guide goes through a systemic design project from concept to implementation. It takes you through the workshop planning process, and discusses workshop roles and client relations. In the FAQs, you'll find explanations to some commonly asked questions about systemic design concepts to help you introduce others to SD and bring them along with you.

You'll get the most out of this field guide if you approach it with a systemic design mindset – open, willing to try things, a desire to learn, and a 'yes, and' orientation. Think of this field guide as an early stop in your systemic design journey: it's not the end of your learning – it's a jumping off point. In the Additional Resources section, you can connect to more in-depth explorations of concepts and practical applications.

How to Use this Field Guide

As a budding systemic designer, you know that systemic design (SD) looks less like this…

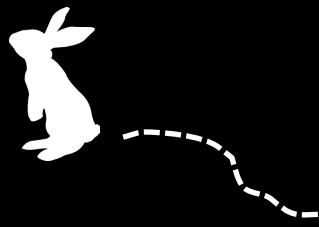
…and more like this:

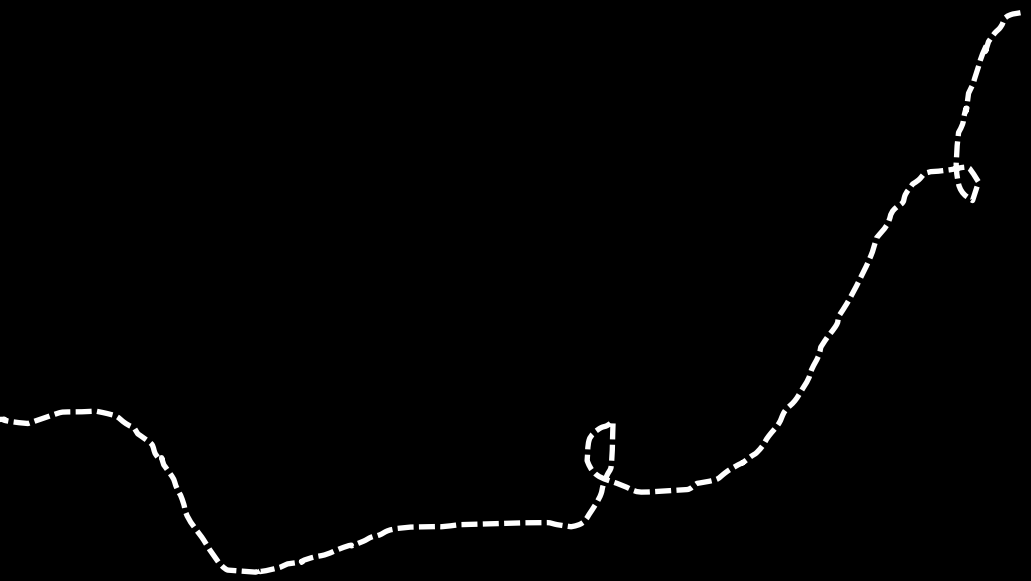
It's not a linear process. Neither is this field guide. Make it work for you. Start where you need to start. Go back and forth. Flip it. Draw in it. Make it your own.

Alice falls down the rabbit hole and her dress poofs up like a parachute…

Alice: “Well, after this I should think nothing of falling down stairs.”

- *Lewis Carroll, from ‘Alice in Wonderland’*





The rabbit is a trickster. Tricksters are archetypal characters who appear in the myths of all cultures. Tricksters are examples of how it is possible to affect change in a system. They transform boundaries. They take us to the imagination of what is possible. They change the variables, avoid system traps, and see through blind spots. Tricksters diverge.

Like complex problems, rabbits are hard to get hold of, and their effects multiply quickly. Rabbits adapt with the seasons and they are agile – they can move from a gentle hop to a fast running streak depending on the signals they receive from their environment.

Rabbits symbolize renewal, hope, and optimism – all things that complex problems need.

Systemic Designers are curious. They embrace emergence. They're ok with rabbit holes.

You'll see the rabbit throughout this field guide. Follow her. See where you end up.

Contents

Mindset

“A certain mindset is crucial: framed by inquiry not certitude, one that embraces paradoxes and tolerates multiple perspectives.”

- *Frances Westley, Brenda Zimmerman, & Michael Quinn Patton in ‘Getting to Maybe’*

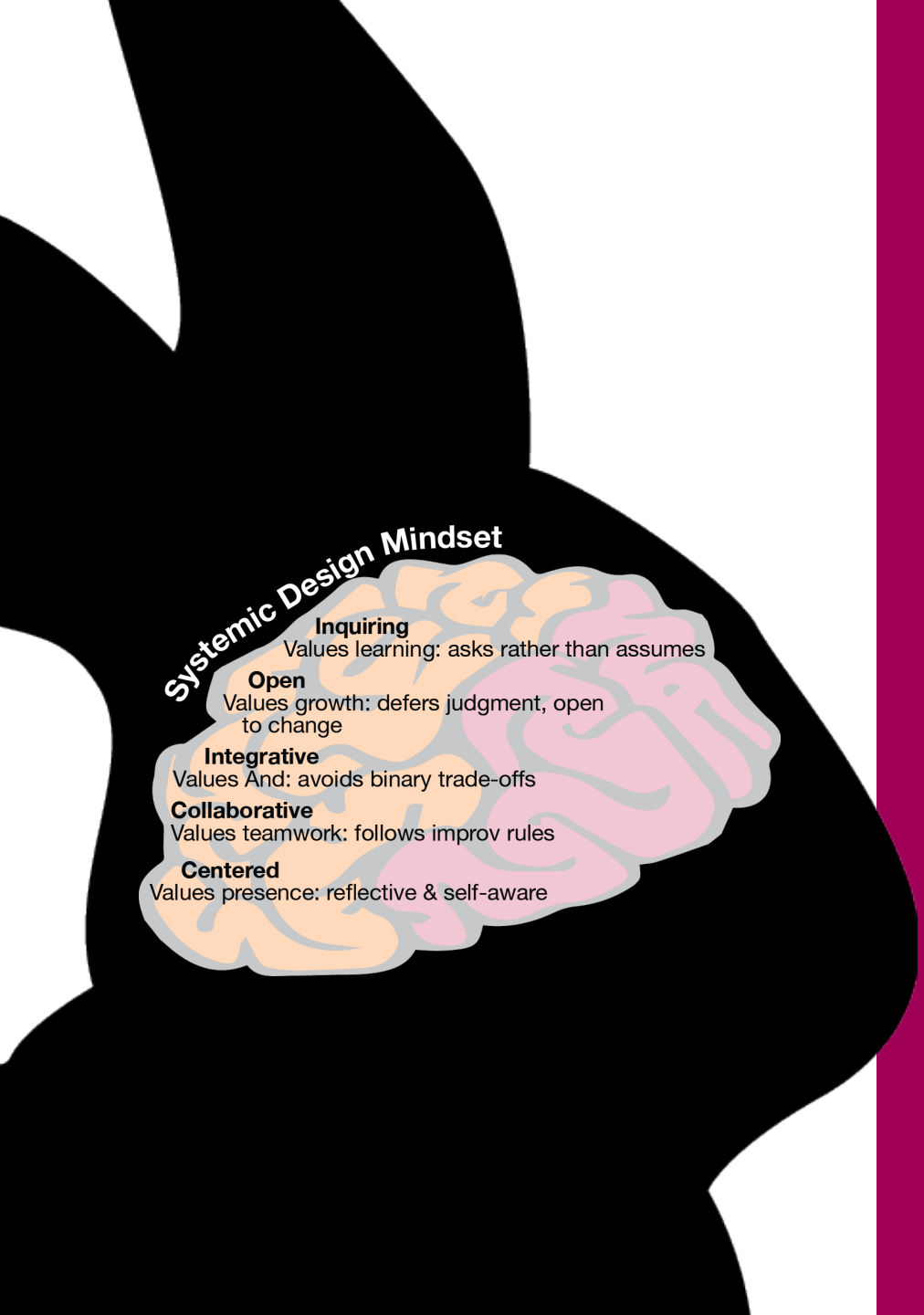
SD's Big Five

We believe that the best systemic designers have five key characteristics: they are inquiring, open, integrative, collaborative, and centred. These systemic designers approach complex challenges with both courage and humility – with realistic optimism.

Systems thinking requires us to recognize that the future is not predetermined. Indeed, the future may be influenced by known knowns, known unknowns, and unknown unknowns! It is critical for systemic designers to acknowledge and embrace this uncertainty. Systemic designers with the big five contribute to the capacity of a team to adapt to a changing environment.

Reflect on these five characteristics. If systemic design is best learned by doing, how might you challenge yourself to grow in these areas?

Characteristic	Value	Mindset
Inquiring	Learning	Curious; observant; asks rather than assumes
Open	Growth	Defers judgement; seeks different experiences and perspectives; willing to change one's mind
Integrative	Accommodation	Avoids binary trade-offs; seeks win-win games; utilises tension between worldviews creatively
Collaborative	Teamwork	Listens actively; builds on others' ideas; grows social cohesion; builds shared ownership and accountability
Centred	Mindedness	Reflective self-awareness; views challenges in a larger context; mediates tensions between extremes



Assume you are wrong.

People need space to try new things and the grace to accept failure. So do you.

Embrace divergence.

Spend more time thinking and exploring, and less time deciding. Stay divergent as long as possible.

Follow improve rules.

Show up fit and well.
Say ‘yes’ and contribute.
Make your partner look good.
Go from A to C.

AH HA = HA HA

Laughter is important. So is play. People who are having fun are more engaged, more open to learning, and more creative.

playfulness + discipline = creativity

There is a positive relationship among playfulness, creativity, and divergent thinking.

Remote Associates!
Think of a fourth word that connects these three words:

- Shopping
- Washer
- Picture

Remote Associates!
Think of a fourth word that connects these three words:

- Desert
- Spell
- Ice

Planning

“In preparing for battle, I have always found that plans are useless, but planning is indispensable.”

- *Dwight D. Eisenhower*

Qualifying Meeting

It is important to meet with the client to get to know them and to assess the suitability of their challenge with a systemic design approach.

Ask questions like:

- ❑ Can you **describe the challenge**?
- ❑ What makes it **complex**? What makes progress **difficult**?
- ❑ Who are the **stakeholders** (those with impact and influence)?
- ❑ What is your **familiarity with SD** and why do you think it could help?
- ❑ What **changes** do you think need to be made to the system?
- ❑ If we discover that the issue is a symptom of **deeper issues**, how would you react?
- ❑ Are you **open to re-framing** your position if the process highlights an issue or problem you didn't think you had?

What other questions would you ask when meeting a potential client for the first time?

Clearance to Go…

If you can answer “yes” to the questions below after meeting with your potential client, you have clearance to go: you’ve got yourself an SD project!

- ❑ Is it a **complex problem**?
- ❑ Is your client **open to reframing**?
- ❑ Does your client have **top cover**: a senior-level champion that will help to ensure project success?
- ❑ Do you have **commitment** from your client?
  - ❑ **Resources**: can they supply the resources (time, people, etc.) required for a systemic design approach?
  - ❑ **Implementation**: are they invested and willing to see the project through after your involvement is over?

What are your criteria for saying yes? For saying no? Be clear.

…or Not.

You can say no. It’s ok.

- ❑ **Maybe it’s not a complex problem.**
  - ❑ An SD approach would be overkill.
  - ❑ The client might benefit from an outside facilitator.
- ❑ **Perhaps your client has no top cover.**
  - ❑ It will be challenging to build and maintain momentum for the project.
  - ❑ The client might benefit from advice on how to create top cover and buy-in.
- ❑ Your client may have **insufficient resources or commitment** to make the project work.

  Ask them:
  - ❑ How might you best direct the energy you have right now?
  - ❑ Is it possible to start with a smaller scope and build as resources increase?

Client A

was familiar with systemic design through active involvement in the Systemic Design Community of Practice. They recognized they had a messy problem that did not fall neatly into their department's mandate. They wanted CoLab's help to convene citizens, stakeholders, and multiple ministries to frame the problem and identify tangible actions to improve it. They wanted regular, bi-monthly systemic design workshops to involve stakeholders and had formed a core team to execute on recommendations emerging from the workshops.

Clearance to Go!

Client B

was working on a top priority initiative. They had a tight deadline and were bringing important decision makers together to set targets. They asked CoLab to facilitate a session in the next week.

No Go!

Client B had already diagnosed the problem and were looking for convergence and consensus in a two-hour session. They had already made all the decisions about who would attend and what would be covered in the agenda. They needed good facilitation – not SD.

Workshops

“The effectiveness of a systemic design facilitator is then measured not against how smoothly they can take groups from A to B, but on their ability to use divergent thinking and shift the technique, process, agenda, and outcomes in way that can compel a group to break from mental traps and conventional thinking.”

- *Keren Perla, in ‘The Pledge, The Turn, and the Prestige: Re-imagining facilitation through trials of systemic design for public policy’*

Sequencing

When designing an SD **workshop**, consider who should be in the room and the pace, intensity, and physicality of the different activities. Balance individual and group activities for the introverts and the extroverts in the room.

When designing an SD process involving multiple workshops (a **series**), think through the story, or arc, of the series. What are the overarching objectives? You can then set mini-objectives for each workshop, each one building on the former.

Plan to:

- ❑ Bring in **external perspectives**, potentially through ethnography
- ❑ **Ideate**, through systemic design sessions
- ❑ **Test** thinking and prototypes with external audiences early and often
- ❑ **Integrate** findings
- ❑ **Evaluate** progress
- ❑ Implement and **share** learnings and results
- ❑ Maintain **momentum** post-workshop

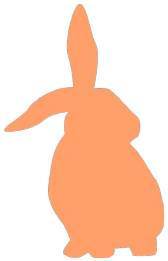
*This space is intentionally left blank for emergence.

Workshop Roles

Ensure that roles are organized before the workshop takes place. If you don't have access to a co-facilitator, work with your client to help fill some of these roles. The roles of note taker and narrator can easily be filled by members of your client's team. In a pinch, so can the role of recorder, with a little prior coaching. Ask your workshop team to arrive a bit early to touch base on flow and expectations.

Workshop Participants

- ❑ Diversity rocks! Age, gender, geography, expertise.
- ❑ Six to 25 people is ideal. Any smaller, you sacrifice diversity; any larger, co-creation is challenging.
- ❑ Inviting an outsider can help provide a different perspective. He or she may ask questions or see things that others closer to the system cannot.



Facilitator

- ❑ Guides the design process
- ❑ Ensures balanced participation
- ❑ Does not engage in the discussion themselves

Recorder

- ❑ Visually captures the conversation during discussions
- ❑ Ensures graphics are labeled
- ❑ Takes photos of the work and group in action

Note Taker

- ❑ Traditional note-taking role
- ❑ Records workshop proceedings
- ❑ Provides vital input to the session narrative

Narrator

- ❑ Creatively synthesizes workshop outputs into a story
- ❑ Writes with the audience in mind
- ❑ Confirms draft narrative with participants

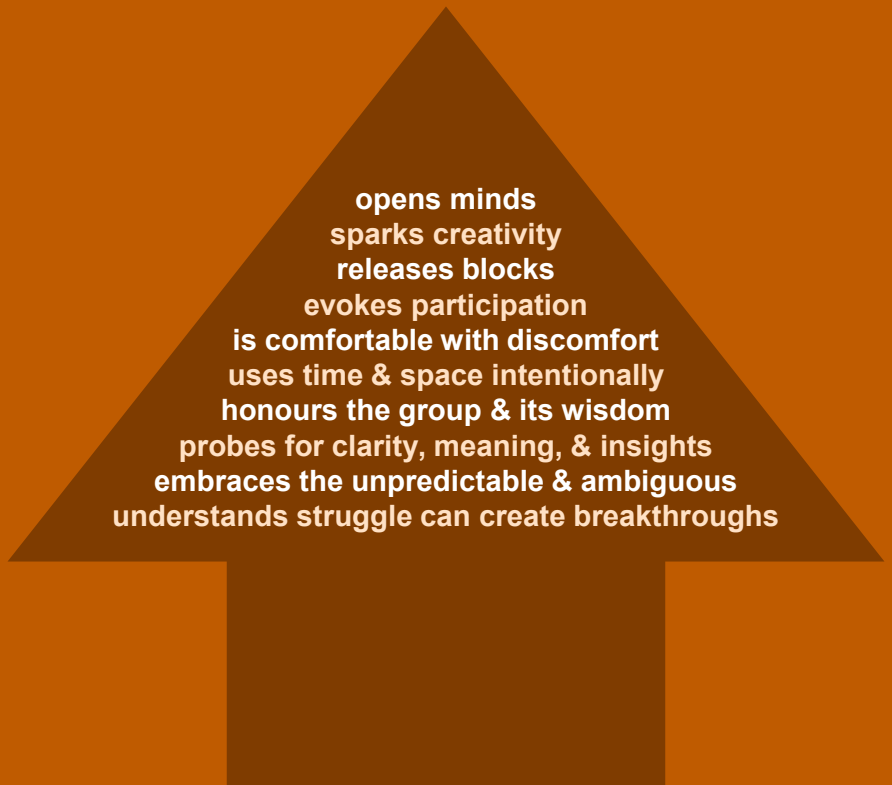
Systemic Design Facilitation

Unlike regular facilitation, a systemic design facilitator will let the group **follow the rabbit** – letting the group explore where the conversation takes them and encouraging the group to think divergently for as long as possible.

It can help to bring in an outsider to lead systemic design sessions, if possible.

Having a member of the client team act as the facilitator requires advanced capabilities. The facilitator must be honest about his or her personal biases.

Traditional Facilitation	Systemic Design Facilitation
One Answer	Multiple Related Answers
Finding Problems/ Solutions	Finding Meaning, Root Causes, and Insights
Analysis	Analysis + Synthesis
Simplifying for Understanding	Embracing Complexity for Shared Understanding

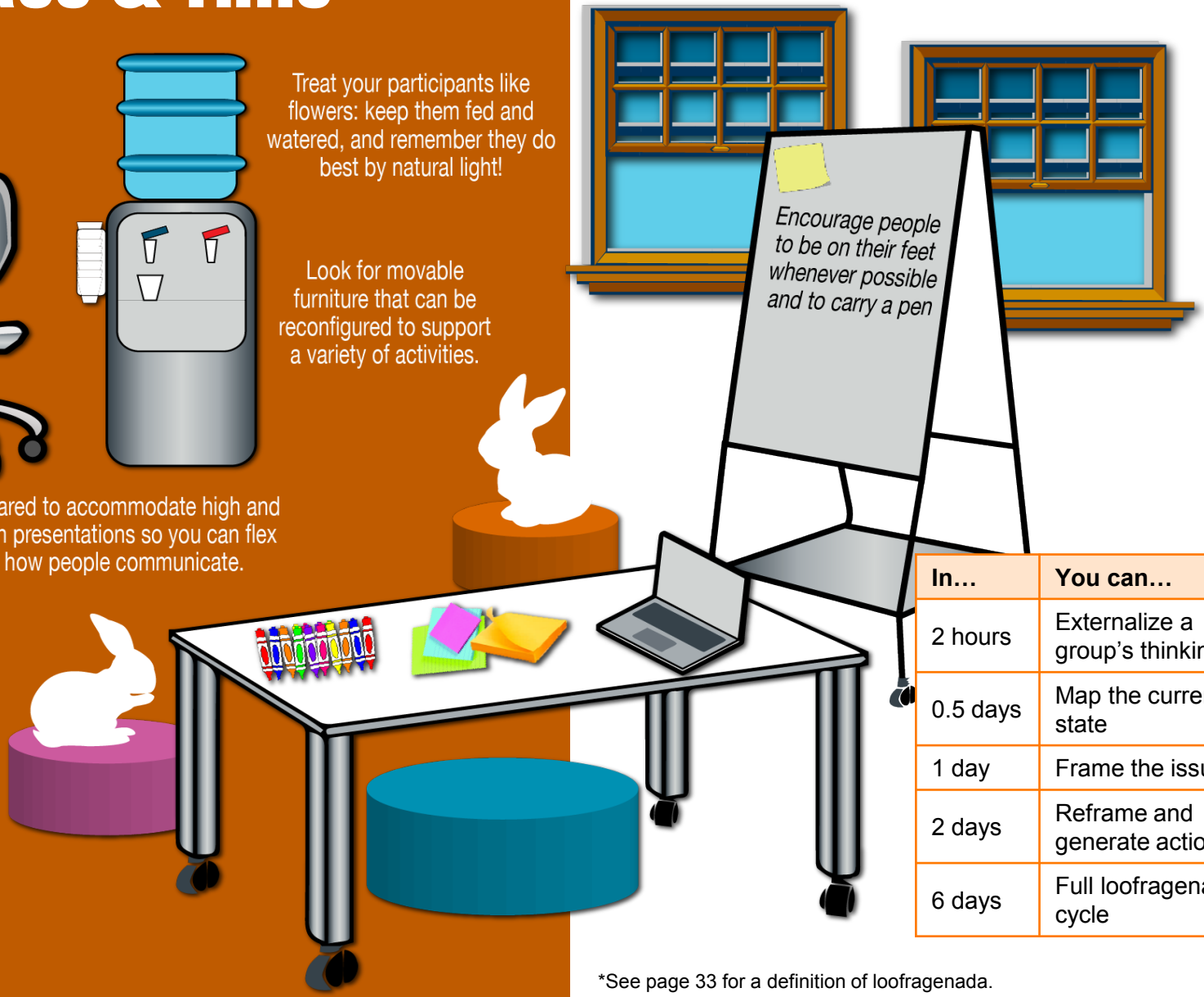


Space & Time

Treat your participants like flowers: keep them fed and watered, and remember they do best by natural light!

Look for movable furniture that can be reconfigured to support a variety of activities.

Be prepared to accommodate high and low-tech presentations so you can flex with how people communicate.



In…	You can…
2 hours	Externalize a group's thinking
0.5 days	Map the current state
1 day	Frame the issue
2 days	Reframe and generate actions
6 days	Full loofragenada* cycle

*See page 33 for a definition of loofragenada.

Rules of Engagement

It is important to set expectations for how people should behave during a workshop. These are the guidelines we at CoLab have found useful.

Artifacts

ar·ti·fact

ˈärdəfakt/

noun

1. An object made by a human, typically an item of cultural or historical interest.
2. Something observed in a scientific investigation or experiment that is not naturally present but occurs as a result of the preparative or investigative procedure.

Sticky artifacts help to create momentum and memory – they give you something tangible to take forward and reflect on after the session.

A **narrative** is a sticky artifact that tells the story of the learnings that took place during a workshop and illustrates key insights.

Narratives capture:

- ❑ What stood out from the meeting?
- ❑ Logic of what was discussed
- ❑ Reflections
- ❑ Heated discussions
- ❑ Boundaries challenged or changed
- ❑ Learnings and insights
- ❑ Visuals (photos, graphics, images)

Evaluation

e·val·u·a·tion

ə¦valyəˈwāSH(ə)n/

noun

1. To ascertain the degree of achievement or value of the aim, objectives, and results of any action.
2. Methods used to gain insight into past or ongoing actions, enable reflection, and identify future change.

Following the session, have the workshop team and the project sponsor debrief the session (**hot wash**). Ask:

- ❑ What stood out from the meeting?
- ❑ What went well?
- ❑ What could be improved?
- ❑ What was interesting?
- ❑ What do we need to change?

Consider the impact of your session in the long term. **After a few months**, check back. Ask:

- ❑ What has happened since the SD workshop?
- ❑ What do you attribute to the SD workshop?
- ❑ What would you do differently?

Workshop Surveys

Handing out a paper survey at the end of a workshop enables people to reflect while their experience is front of mind, and gives you immediate feedback.

Here are some topics that are well-suited to a multiple choice or Likert scale responses:

- ❑ **Facilitation** – organization, knowledge, and process design
- ❑ **Physical Environment** – suitability and comfort
- ❑ **Outcomes** – did participants gain understanding? Was the workshop worthwhile?

Some examples of short answer questions include:

- ❑ What was the **value** of the workshop?
- ❑ What will you **tell others** about the workshop?
- ❑ What **surprised** you the most?
- ❑ What did you **change your mind** about as a result of the workshop?

Asking people to **draw a picture** of their workshop experience is a fun, novel way to gain insights.

Complete the picture.

FAQs

I. What is a system?

II. What is systems thinking?

III. What is emergence?

IV. What is design thinking?

V. What are the origins of systemic design?

VI. When do I use systemic design?

VII. What are complex problems?

VIII. What is ethnography?

IX. What is prototyping?

I. What is a System?

How would you visually represent a system if you had to describe it to a non-English speaking, deaf alien from outer space? Draw!

A **system** is a set of interacting or connected parts that form a whole. It is both its individual parts and the product of how those parts interact.

A car is a system. It is both its parts (engine, transmission, brakes, etc.) and the product of how those parts interact to create locomotion.

Every system has the following components that cause it to behave in a certain way:

boundaries

hierarchies

interconnectivity

You are part of the system. We can change systems by changing our perspective (viewpoint) and our boundaries. Boundaries can be spatial, temporal, or conceptual.

spatial

temporal

conceptual

II. What is Systems Thinking?

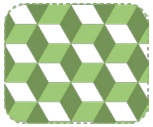
Systems thinking is a way to approach, or think about, complex problems.

It helps people see how different parts interact to form a whole, and how the whole interacts with its wider context.

Systems thinking helps us think about **emergence**.

Systems thinking involves:

ZOOMING IN see the moving parts



Looking for **PATTERNS**

ZOOMING OUT see connections and flows

Looking at the **IN-BETWEEN SPACES**

- ❑ What is your perspective of your system's function and boundaries?
- ❑ How does that influence how you see the system?

III. What is Emergence?

e·mer·gence

əˈmərjəns/

noun

1. A process whereby larger entities, patterns, and regularities arise through interactions among smaller or simpler ones that themselves do not exhibit such properties.
2. A term used to describe events that are unpredictable, that seem to result from the interactions between elements, which no one organization or individual can control.

Emergence is not mysterious; it is the result of the interactions in a system. Emergence is why we take a systems approach to messes. Almost all of the properties we care about in a system are emergent.

IV. What is Design Thinking?

Design thinking is a way to generate possible interventions to address complex problems.

It is about creating delightful and quality products, services, experiences, or systems that work for those who use them.

Design thinking helps people explore the possibilities of what could be by bringing new things to life.

Design thinking involves:

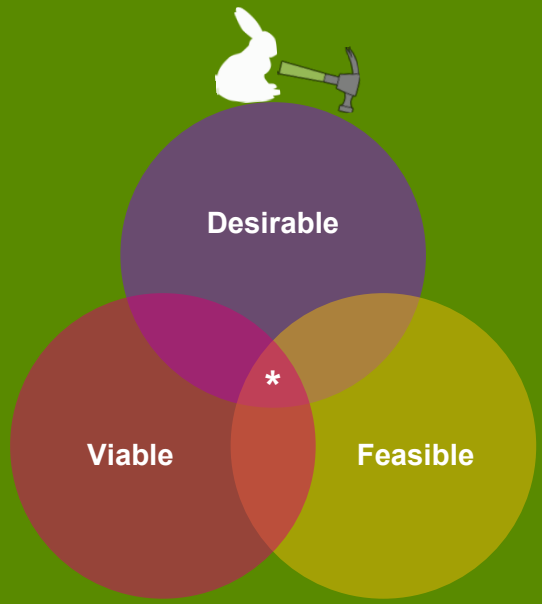
EMPATHY with those the design is for

GENERATING lots of ideas

TESTING ideas early and often

PROGRESS over perfection

Designers begin with what is **desirable**: with the needs and desires of the end users. To gain insight, they track the **bugs** & **fixes** people develop.



Government often starts with what is **viable** or **feasible**, rather than what is desirable. This may result in a viable, feasible product that nobody wants to use. It may also limit or narrow the ideas you can generate.

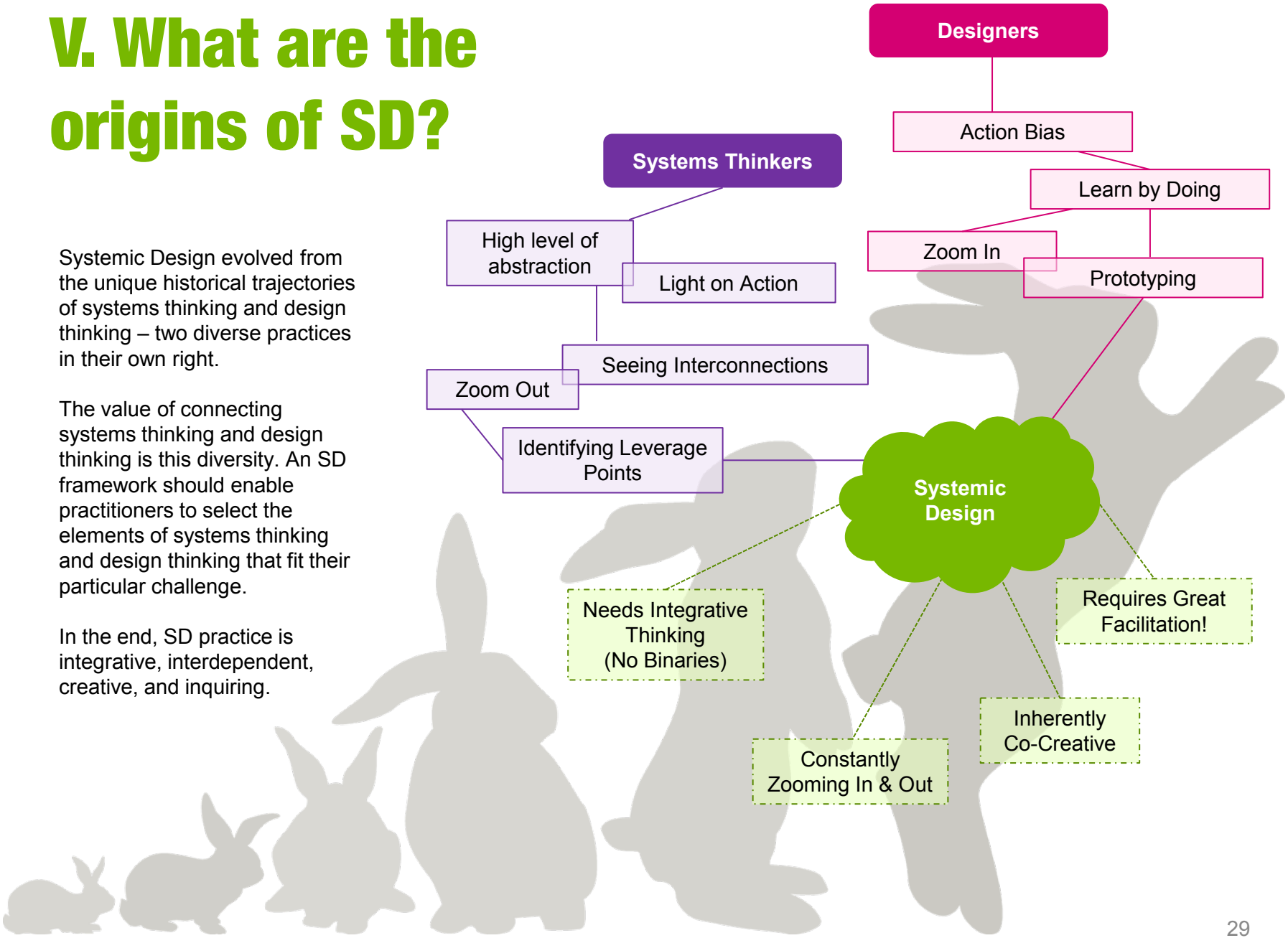
* sweet spot

V. What are the origins of SD?

Systemic Design evolved from the unique historical trajectories of systems thinking and design thinking – two diverse practices in their own right.

The value of connecting systems thinking and design thinking is this diversity. An SD framework should enable practitioners to select the elements of systems thinking and design thinking that fit their particular challenge.

In the end, SD practice is integrative, interdependent, creative, and inquiring.



VI. When do I use Systemic Design?

Systemic design is most useful when you are dealing with a **complex problem** – also known as a mess! Not all problems are complex.

Many important problems organizations face are **routine** or **technical challenges**, where stakeholders share common values, there is shared understanding of the issue, and where deep subject matter expertise is required.

Systemic design is most useful when dealing with **adaptive** challenges. These are situations characterised by complexity, uniqueness, value conflict, and ambiguity over objectives – where you aren't sure where to start or where you need to go.

For example, compare the issue of climate change (complex) with putting together Ikea furniture with your in-laws (complicated!) or following a recipe (simple).

Systemic design can engage with value conflicts between stakeholders to develop broader, shared frames of reference and new ways of seeing existing challenges.

SD is an approach to work through complex problems. If any of the following questions arise, you likely have a complex problem and an SD approach may be helpful:

- ❑ How do I know I'm working on **the right problem**?
- ❑ How might I deal with issues that live across **silos**?
- ❑ How might we **bridge** policy and operations?
- ❑ How might we avoid **analysis paralysis**?

Simple Puzzle

A Rubik's Cube is tough, but there is a single, agreed-upon solution

Complicated Problem

It's tricky to send a rabbit to the moon, but there is shared wisdom and rules to follow

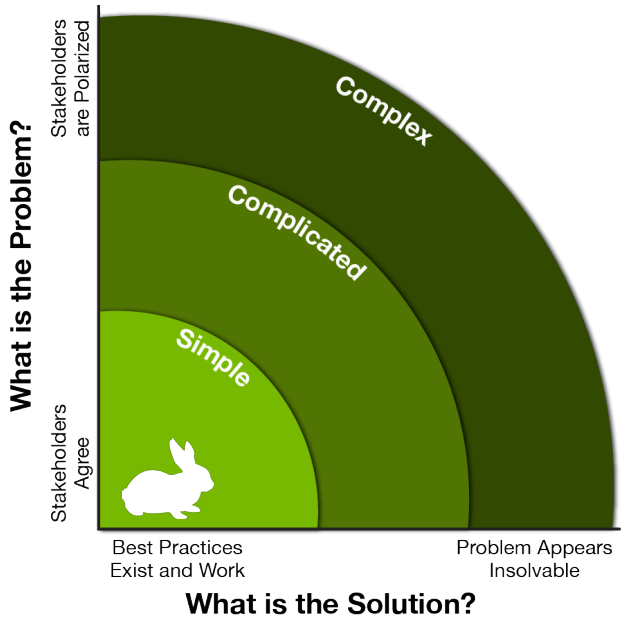
Complex Mess

Raising a litter of bunnies is hard! Each bunny is different and they don't come with instructions

VII. What is a complex problem?

Complex problems have the following traits:

- ❑ **LOW** level of **agreement** on problem definition
- ❑ **LOW** level of **certainty** on what to do about it
- ❑ **HIGH** degree of **unpredictability**
- ❑ **HIGH** number and **diversity** of stakeholders



VIII. What is ethnography?

eTHˈnägrəfē/

noun

1. The exploration of cultural phenomena where the researcher observes society from the point of view of the subject of the study.
2. Ethnography is a means for gathering external user perspectives, most commonly through interviews and observation.

Insights from ethnographic research can point towards a systems, service, or product improvement.

Ethnography involves:

- ❑ Spending time with people in their context
- ❑ Enabling people to tell their own stories
- ❑ Exploring people's behaviours, focusing on the meanings behind those behaviours
- ❑ Making sense of data using inference, interpretation, analysis, and synthesis

IX. What is prototyping?

pro·to·type

ˈprōdəˌtīp/

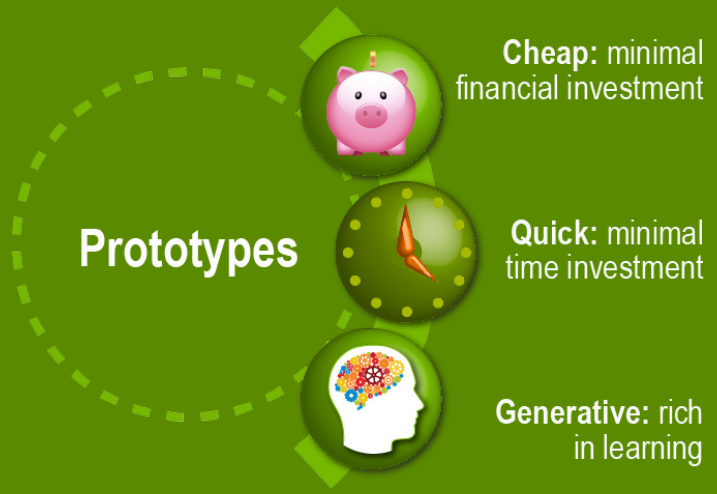
noun

1. A preliminary model of something, from which other forms are developed.
2. A representation of a design idea used to generate learnings.

Prototyping is action-oriented. It enables you to make your ideas tangible. This gets people beyond talking towards purposeful **creating** and **doing**.

Participatory prototyping allows you to put your ideas in front of users early and often, which provides rapid **feedback** and **iteration** to improve your innovations.

Prototypes are designed with **learning** in mind, each iteration building on the learnings and knowledge gained from its predecessor. Always ask: what new insight might we learn from this?



What might be some of the challenges associated with prototyping?

How might you facilitate prototyping in a way that helps the group overcome those challenges?

Look around you. Pick up an item – a paper clip, cup – anything! Brainstorm as many alternative uses for that object as you can in 60 seconds. Go!

Methods

“An over-reliance on methods can undermine the whole point of doing systemic design. […] If we apply the same procedures in the same order to each new challenge we face, we should not expect to deliver either new seeing or disruptive innovation. This is why the mindset is such a critical complement to methods and methodology. Any systemic design inquiry must maintain enough unstructured space for exploration, iteration, and divergence for surprises to emerge.”

- *Alex Ryan, in ‘A Framework for Systemic Design’*

Systemic Design Methodology

CoLab's SD methodology is composed of four main activities: Look, Frame, Generate, and Adapt…or, as we like to call it: loofragenada!

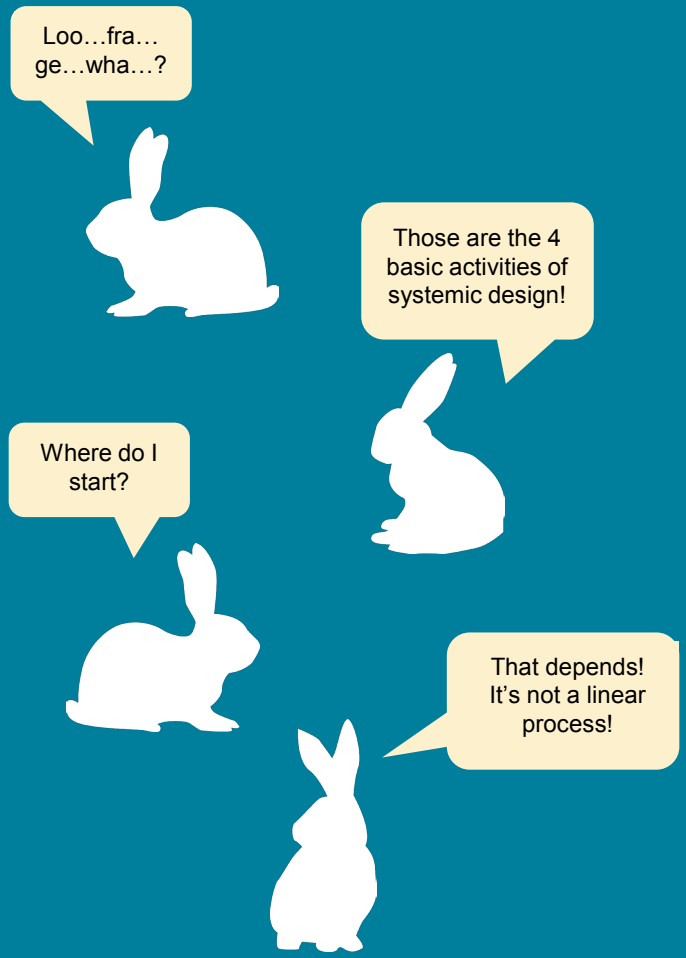
LOOK:
"We need more information!"
FRAME:
"We have different understandings of the problem."
GENERATE:
"We're ready to test ideas!"
ADAPT:
"We have learnings to integrate into our approach."

When choosing which SD method to use, start by asking yourself: At what stage of the challenge are you?

Loofragenada is not a cycle you have to follow, or a process you begin at a particular place. Start where it makes sense to start, based on where you are in the work.

Different groups will come to SD at different points in their process. It is the facilitator's task to work with the client to understand their needs: where they've been, where they are now, and where they need to go.

Find additional information, downloadable method cards, and useful links on each method on the CoLab website.



Method Hexes

LOOK

I. Interview for Empathy
II. Empathy Map
III. Keep Asking Why
IV. Ethnographic Research

FRAME

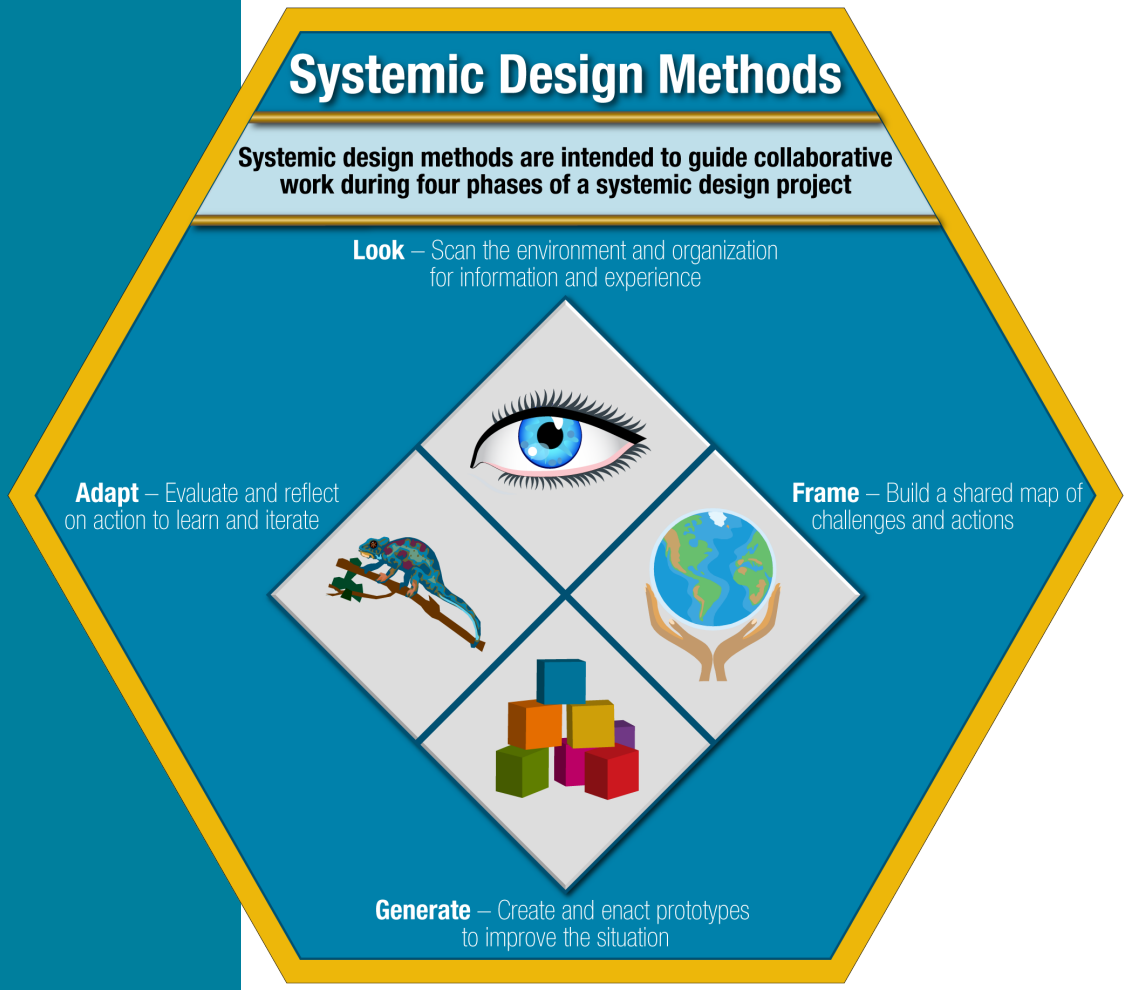
I. Rich Pictures
II. Systems Map
III. Iceberg Diagram
IV. Causal Loop Diagram
V. Concept Map
VI. Six Thinking Hats
VII. Speed Dating
VIII. Affinity Diagram
IX. Card Sort
X. World Café

GENERATE

I. Participatory Prototyping
II. Dotmocracy

ADAPT

I. Reflection on Action Space



Interview for Empathy

Purpose

- A quick guide to performing an interview to inform design research. Rather than assume what someone wants, why not ask them?
- Builds rapport. Enables a person to tell stories that illuminate hopes and fears.

Pros

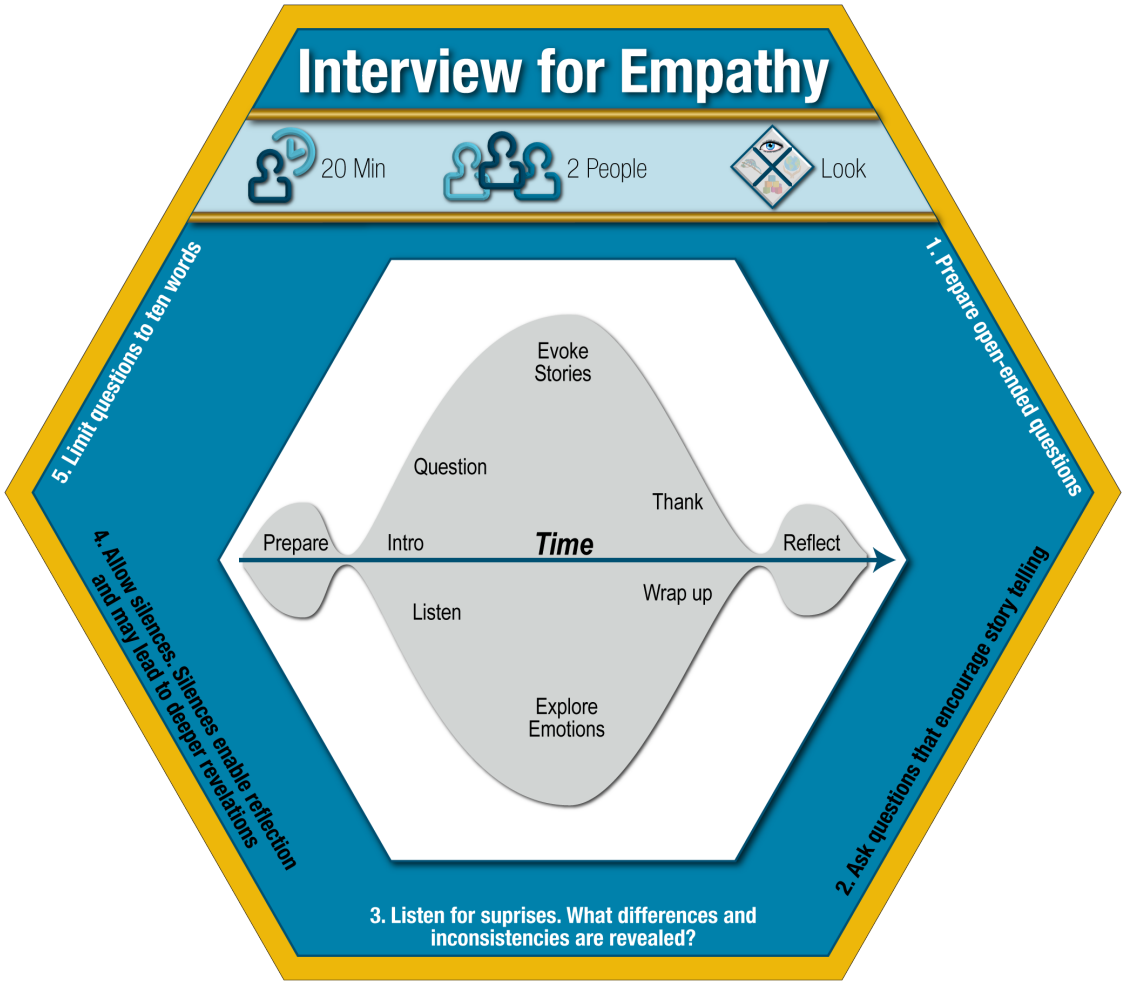
- Low overhead way to appreciate diverse perspectives on an issue.
- Elicits stories, which are rich in insight.

Cons

- Will not produce statistically significant results. Sample sizes are low and questions access qualitative data.

Considerations

- People will not always be able to articulate what they do. Be wary of drawing strong conclusions unless you have also observed their behaviour.
- Interview in a time and place convenient to the interviewee.
- You already know your own opinion. If the interviewee asks you questions, try to redirect the question back to them.
- Thank the participant for their time.
- Get together as soon as possible following the interview to reflect.



Empathy Map

Purpose

- Provides a way to visualize a person's perspective in order to better empathize with them by capturing what they think and feel, say and do, hear and see, as well as their hopes and fears…in their own words.

Pros

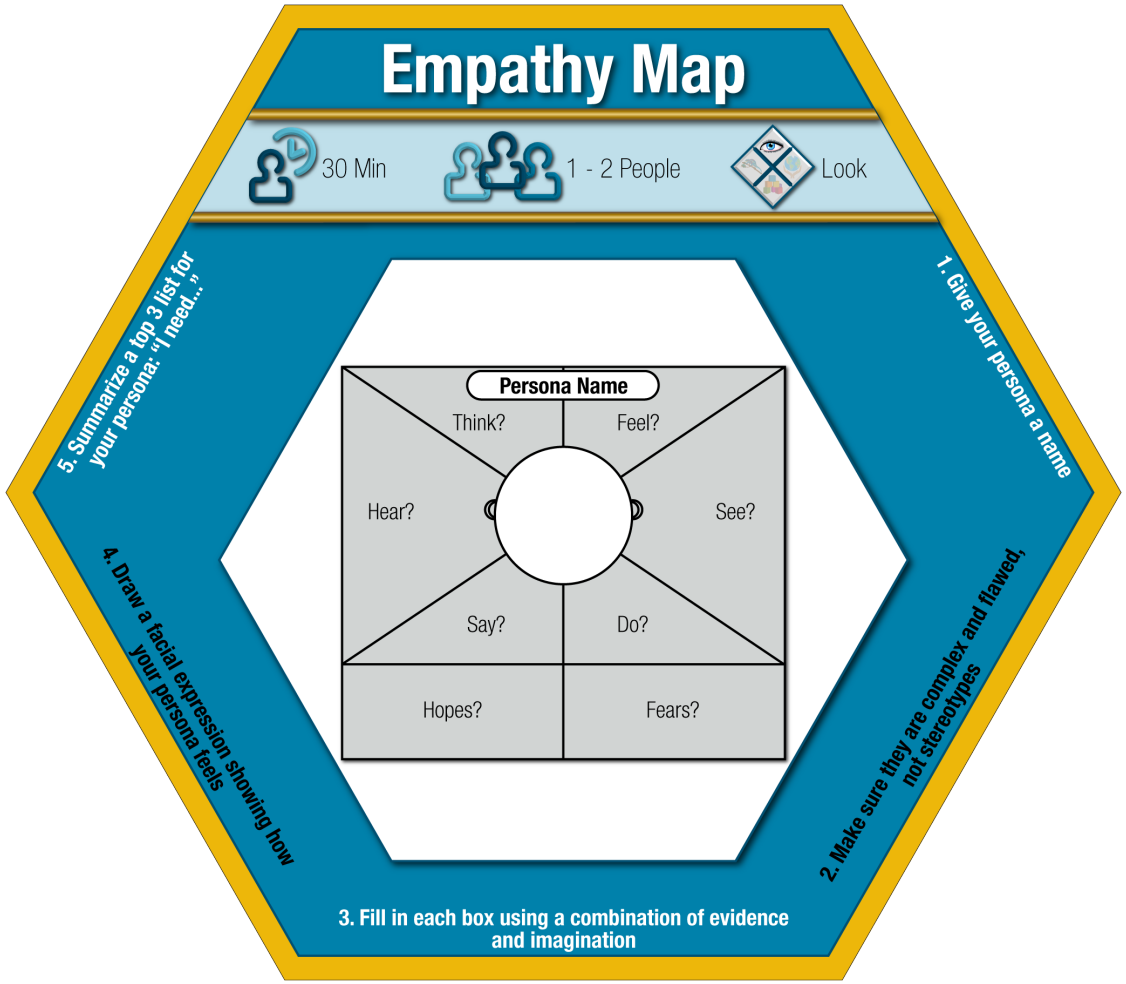
- Provides a holistic picture of a particular perspective.
- Gives voice to perspectives that may not be able to participate in ideation workshops.

Cons

- Without prior ethnographic research, the personas may simply reinforce assumptions and stereotypes.
- Some groups struggle with the imagination gap between what people say in interviews and their actual actions, aspirations and fears.

Considerations

- Once you have created the empathy maps, make sure you use them. One way to do this is to create a gallery.
- Consider having participants perform Dotmocracy to vote on statements in the empathy map gallery that are authentic and revealing.



Keep Asking Why

Purpose

- Also known as the 'ladder of inference', helps construct a dialogue that interrogates the logic of a position, providing you the means to deconstruct group perceptions and surface underlying assumptions and issues.

Pros

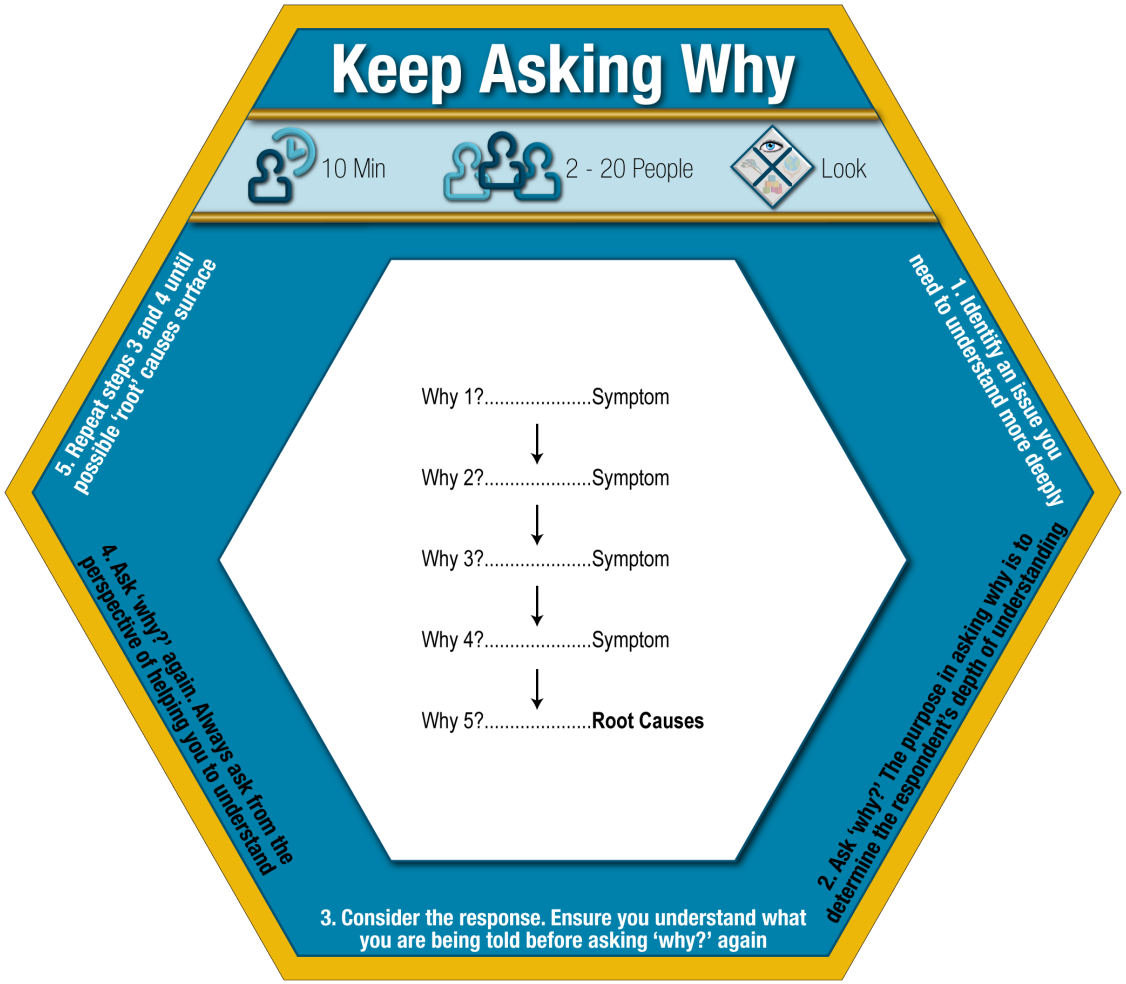
- Helps surface assumptions.
- Useful at any stage of a process.
- Helps avoid group think.

Cons

- Less useful when participants lack a detailed knowledge of the particular issue or problem.

Considerations

- Look out for rungs on the ladder that people tend to skip. Is there an assumption being made? Is only part of the evidence selected?



Ethnographic Research

Purpose
- A way to gather external user perspectives.

Pros
- Can expedite process by offering more efficient means of engaging with end users.

Cons
- Feedback gathered can mislead the design process if information is not collected accurately or objectively.
- Depending on the issue explored, it may be difficult to identify whom the appropriate end users are, or whom the priority end users are.

Considerations
- Check your own worldview at the door.
- Build rapport and make the person feel comfortable.
- Talk as little as possible. Use active listening to generate follow-on questions that explore the interviewee's experiences and needs.
- It's ok to ask questions you think you know the answer to. Make the interviewee feel like the expert – you be the curious novice.
- Maintain eye contact and convey your interest in the interviewee's responses.

Rich Picture

Purpose

- An unstructured way of mapping a system. Groups use visual thinking to show important actors, elements, and relationships.

Pros

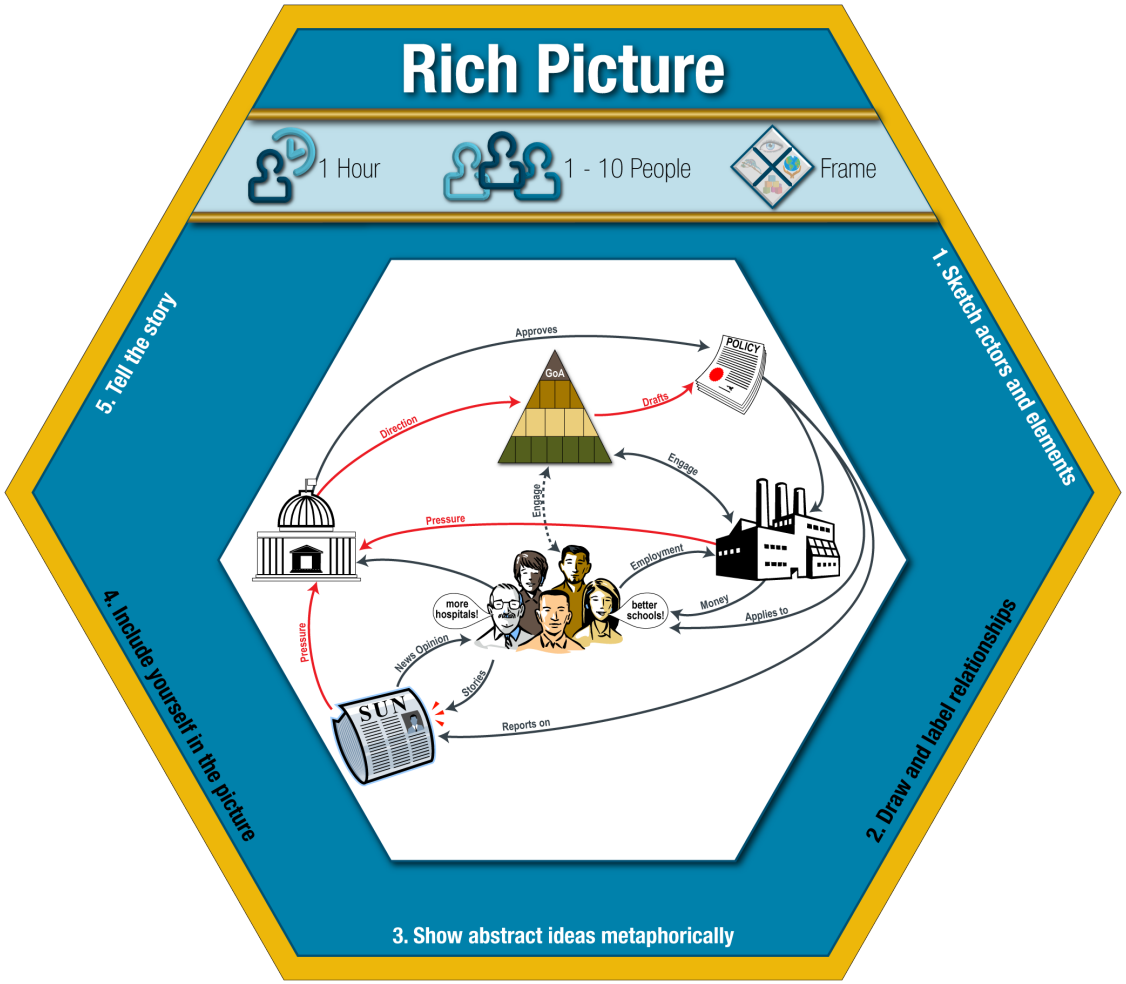
- Very intuitive – you do not need a technical background to participate.
- Highly robust – there are not many ways this activity can go wrong.

Cons

- Some people refuse to draw pictures.
- The end product will be meaningful to participants but may seem messy, complex, and amateur to outsiders.

Considerations

- Visualize multiple perspectives and include intangibles, like emotion and culture, not just formal structures.
- Words and thought bubbles are ok, but avoid whole sentences.
- Participants tend to focus on the components – remind them to label relationships and think of the structure of interdependencies.
- When finished, title and date the rich picture for record keeping.



Systems Map

Purpose

- Communicates nesting relationships between systems and subsystems, as well as affinities between closely related components.

Pros

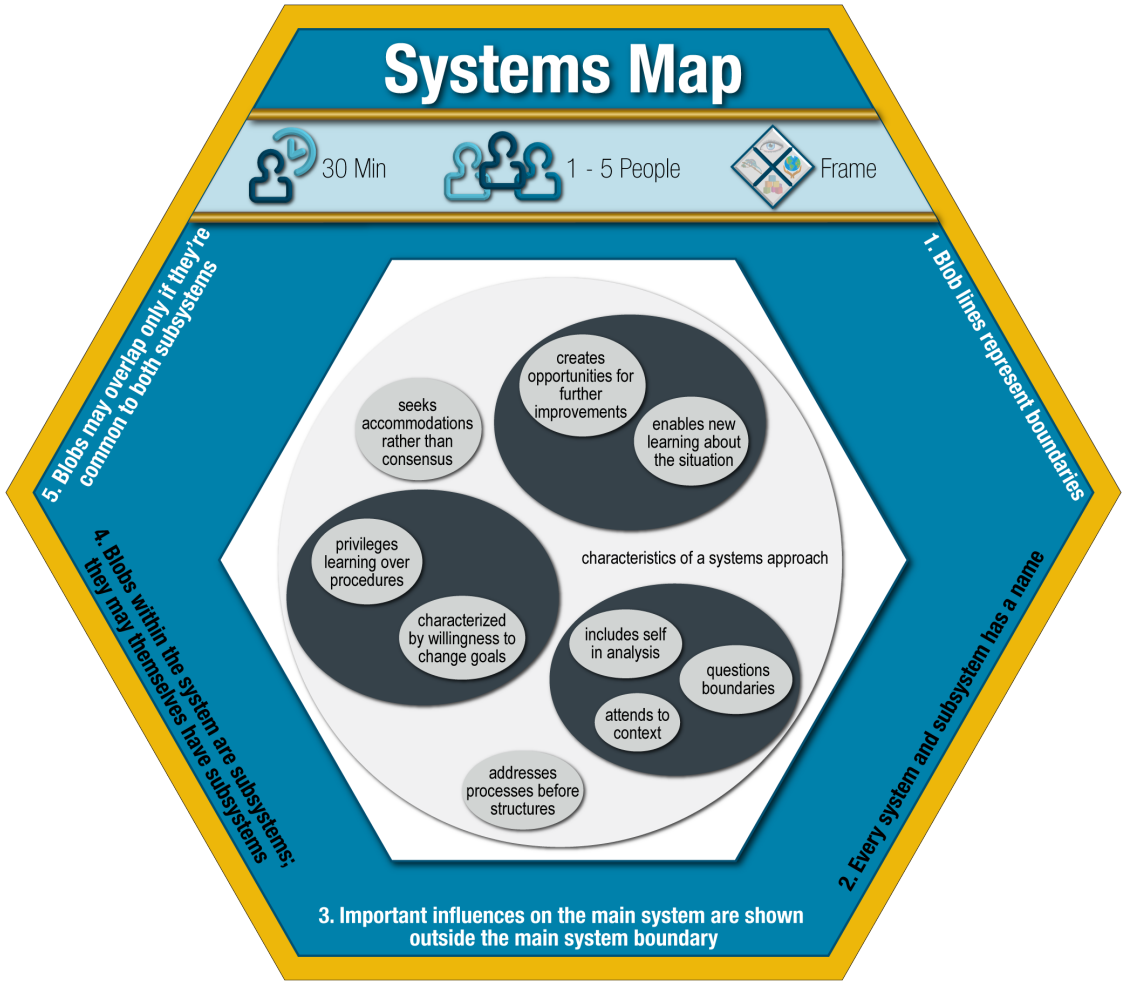
- A simple way to show relationships between elements at different levels.
- Easy to interpret.
- Good for showing nesting relationships between multiple levels of a system and its environment.

Cons

- Relationships are only implied by proximity, rather than drawn directly.
- The map is static – it does not show how the system behaves over time.

Considerations

- Works best when the groups brainstorm and structure the list of components before drawing.
- The diagram can comfortably represent systems with 10-20 components. If you have more, you can create multiple system maps for major subsystems.
- Write the label first, then draw the oval, to ensure the words fit.
- Write on magnetic shapes or post-its so you can move around the shapes.



Iceberg Diagram

Purpose

- Enables a group to drill beneath the surface to appreciate underlying structures and mental models that perpetuate the system. Enables groups to see leverage points for transforming system dynamics.

Pros

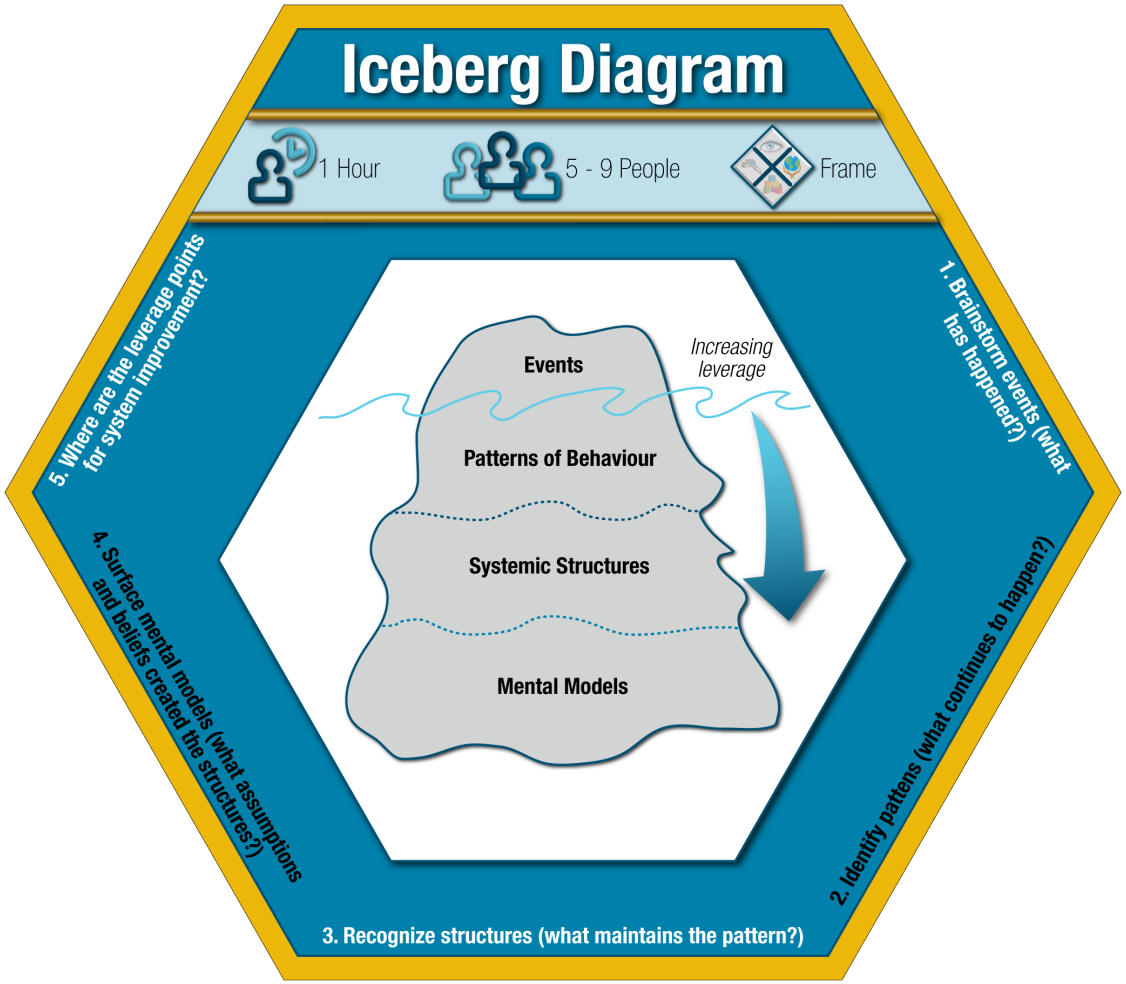
- Adds depth to the discussion.
- Empowers groups to consider choosing alternative mindsets and structures.

Cons

- Groups tend to become negative during brainstorming – if this is the last activity the session may end on a low note.
- Diagrams may need to be simplified for presentation purposes.

Considerations

- Groups will not always stick to the brainstorming category: if a suggestion fits better under a different category, move it there.
- To also show influences, consider drawing arrows that connect the layers.
- If the group is being overly negative, ask them: what are some good features of the current system? Who benefits?
- Keep asking why to drill deeper.



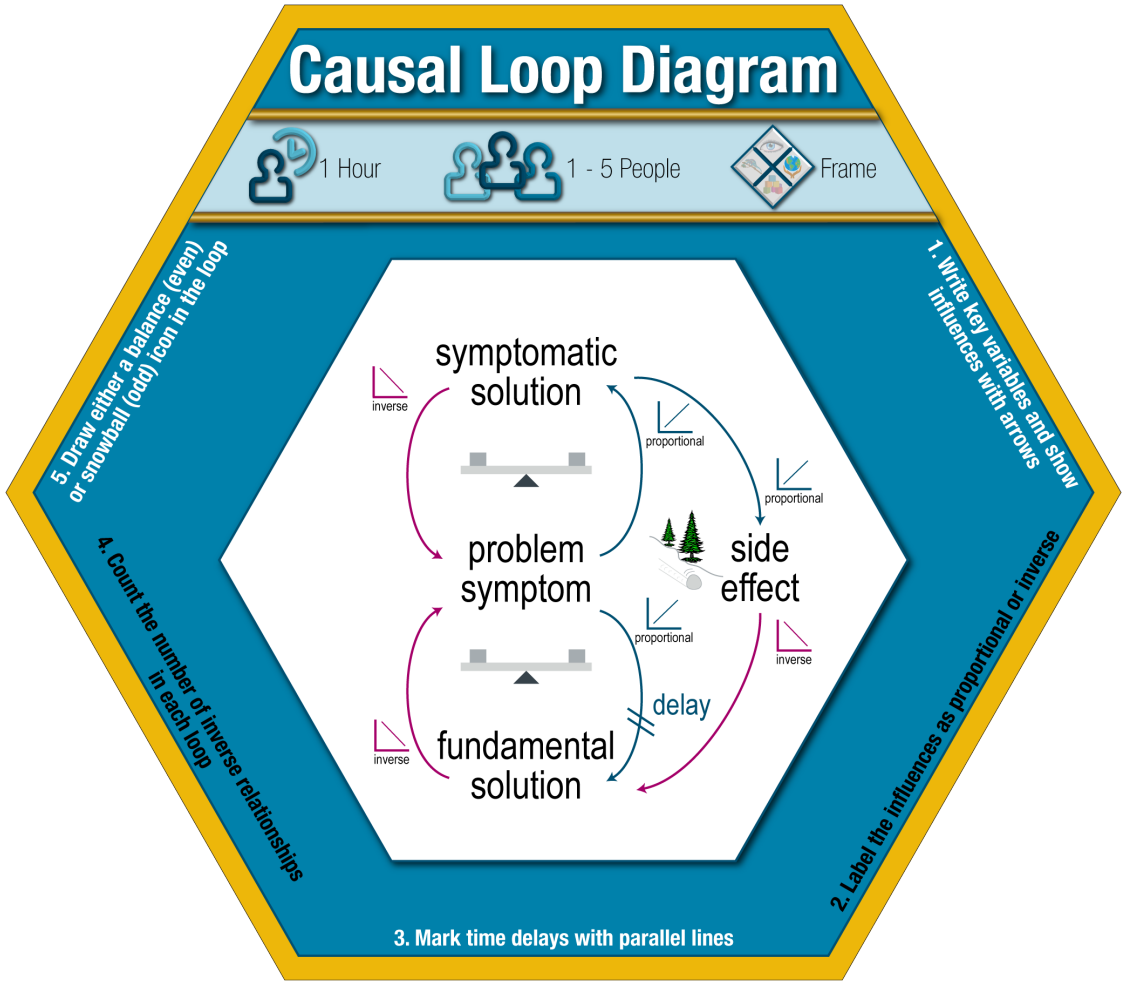
Causal Loop Diagram

Purpose
- Enables groups visualize the systemic structures underpinning the patterns of actions and events we observe.
- Helps identify leverage points where interventions in a complex system will be more effective and efficient.

Pros
- Gives insight into systemic structures perpetuating current patterns.
- Shows not just how the system works, but where to intervene to transform the system's dynamics.

Cons
- Not intuitive. Works best with those with a working knowledge of systems thinking or requires pre-education.
- Dynamic, but not adaptive: does not show how systems adapt and evolve.

Considerations
- Due to its technical nature, facilitators should only use this method if they have personal experience creating these diagrams.
- Encourage groups to not just map the system, but to explore the implications. Where are the leverage points? How would you change the feedback loops to create a more desirable pattern?



Concept Map

Purpose

- An intuitive way to represent a system. Use it to show complex relationships between parts of a system in an easily readable way.

Pros

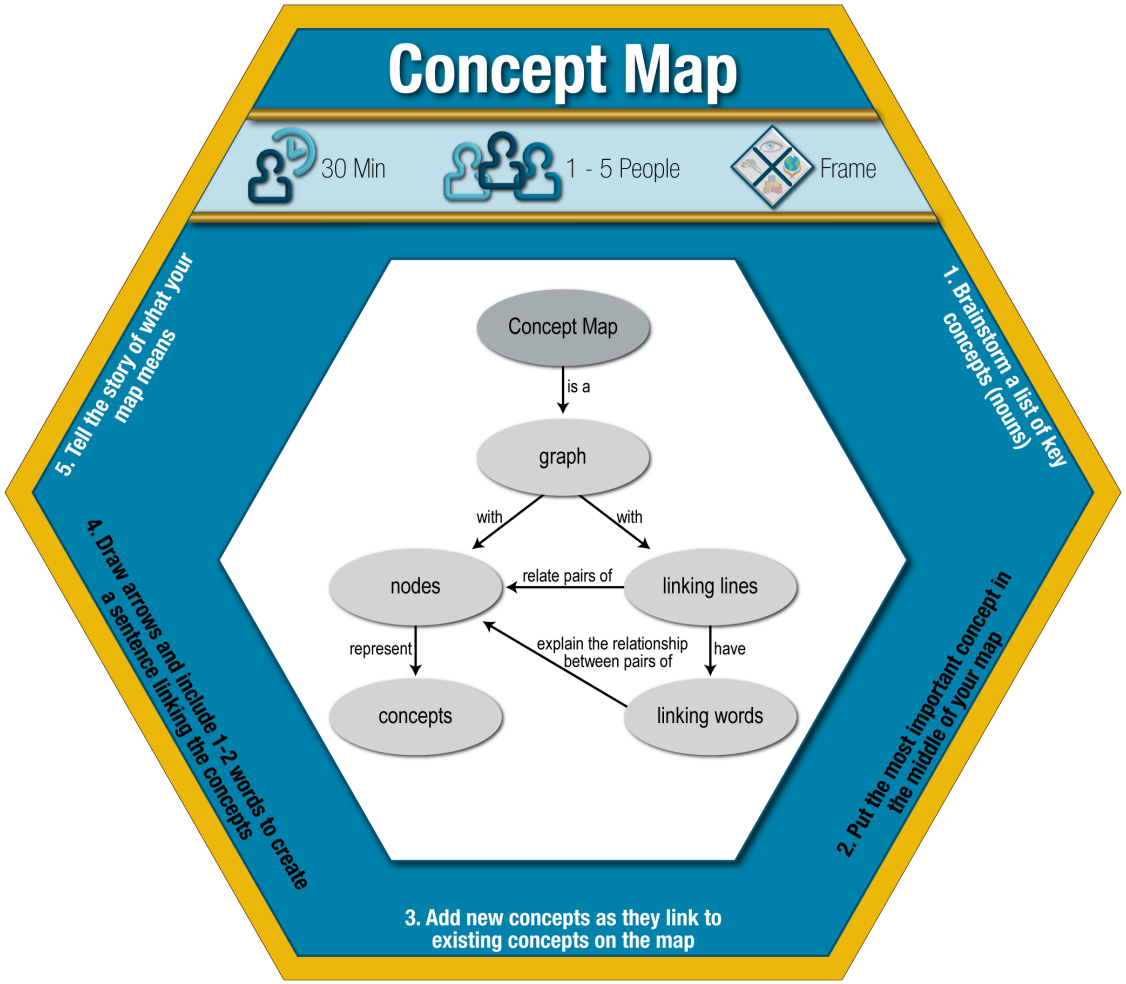
- Shows complexity in an intuitive way.
- Because each node-link-node connection forms a sentence, even people who did not create the map can make sense of it.

Cons

- Shows relationships, but not dynamics.
- Becomes less readable with size – they work best with about 10 to 15 nodes unless significant effort is put into information design.

Considerations

- If you brainstorm the concepts onto post-it notes, you can move the nodes around while creating the map.



Six Thinking Hats

Purpose

- Pioneered by Edward de Bono, a facilitative technique that allows individuals to “step-outside” themselves and think using a a different mind-frame.

Pros

- Allows facilitators to avoid or overcome group think.
- Allows people to share with less risk.
- Generates understanding that there are multiple perspectives on an issue.
- Can improve communication and decision-making.

Cons

- Depending on the thinking generated, further work may be needed to synthesize the diverse perspectives and/or address particular tensions between world-views.

Considerations

- Use when a change in thinking is needed to move a group forward. This requires a facilitator to exercise his/her judgment about when the group has reached this point.

Speed Dating

Purpose

- To rapidly “speed date” design opportunities with potential users. Its power lies in exposing people to future design ideas, allowing for structured engagements across scenarios.

Pros

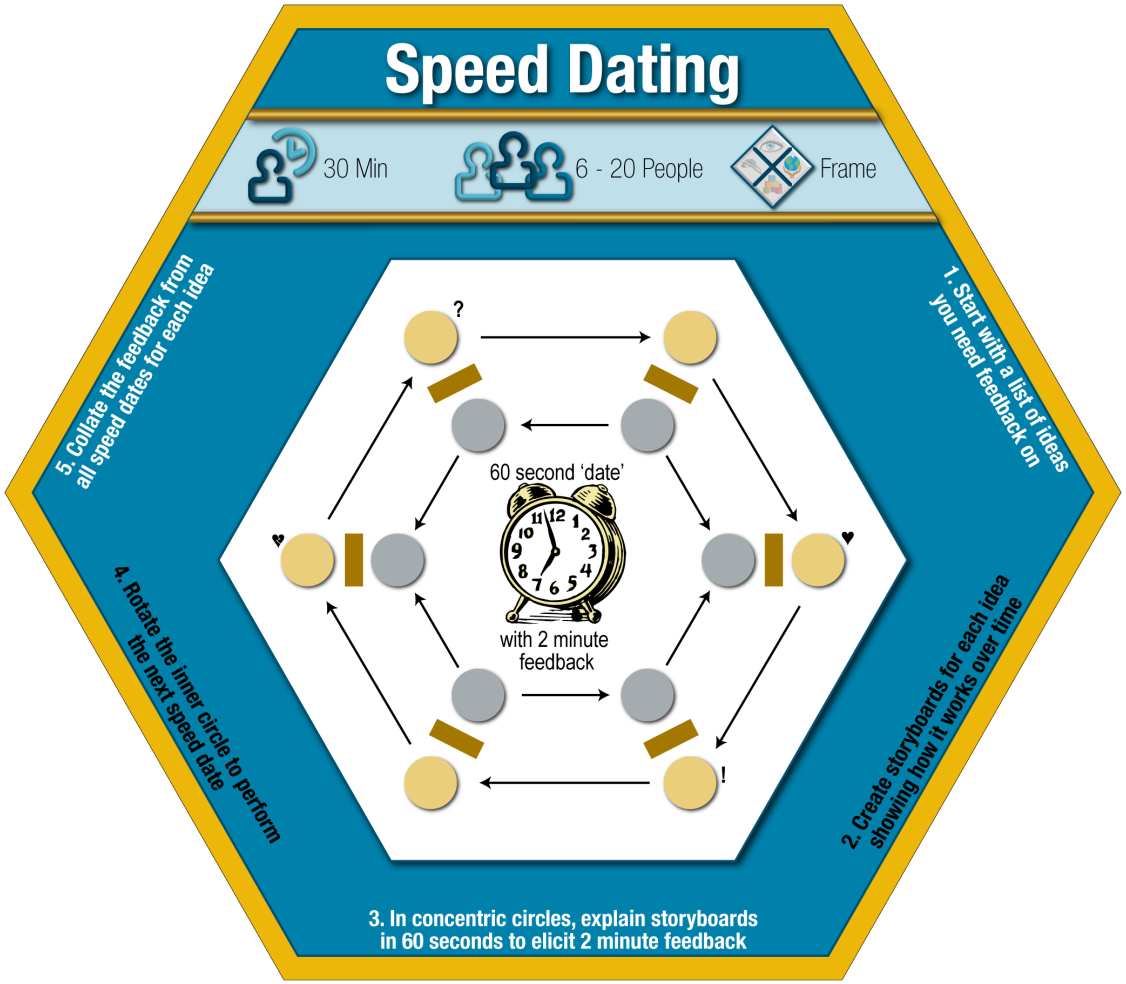
- Uncovers risk factors across a series of related enactments.
- Focuses efforts on understanding user needs before spending time and effort on costly prototyping and design.
- Allows for broader perspectives to emerge by allowing to test experiences.

Cons

- Focusing on need validation and user enactment may push work in unexpected directions.
- Quick and effective at exploring concepts, but does not allow for deep analysis – may require more work to establish root causes.
- May be too simplistic based on group dynamics.

Considerations

- Regardless of group size, speed dating should take no more than 30 minutes to acquire a number of diverse insights.



Affinity Diagram

Purpose

- Supports participants to organize ideas into coherent groups in order to better understand their relationships.
- Useful for organizing potentially large numbers of ideas into natural themes.

Pros

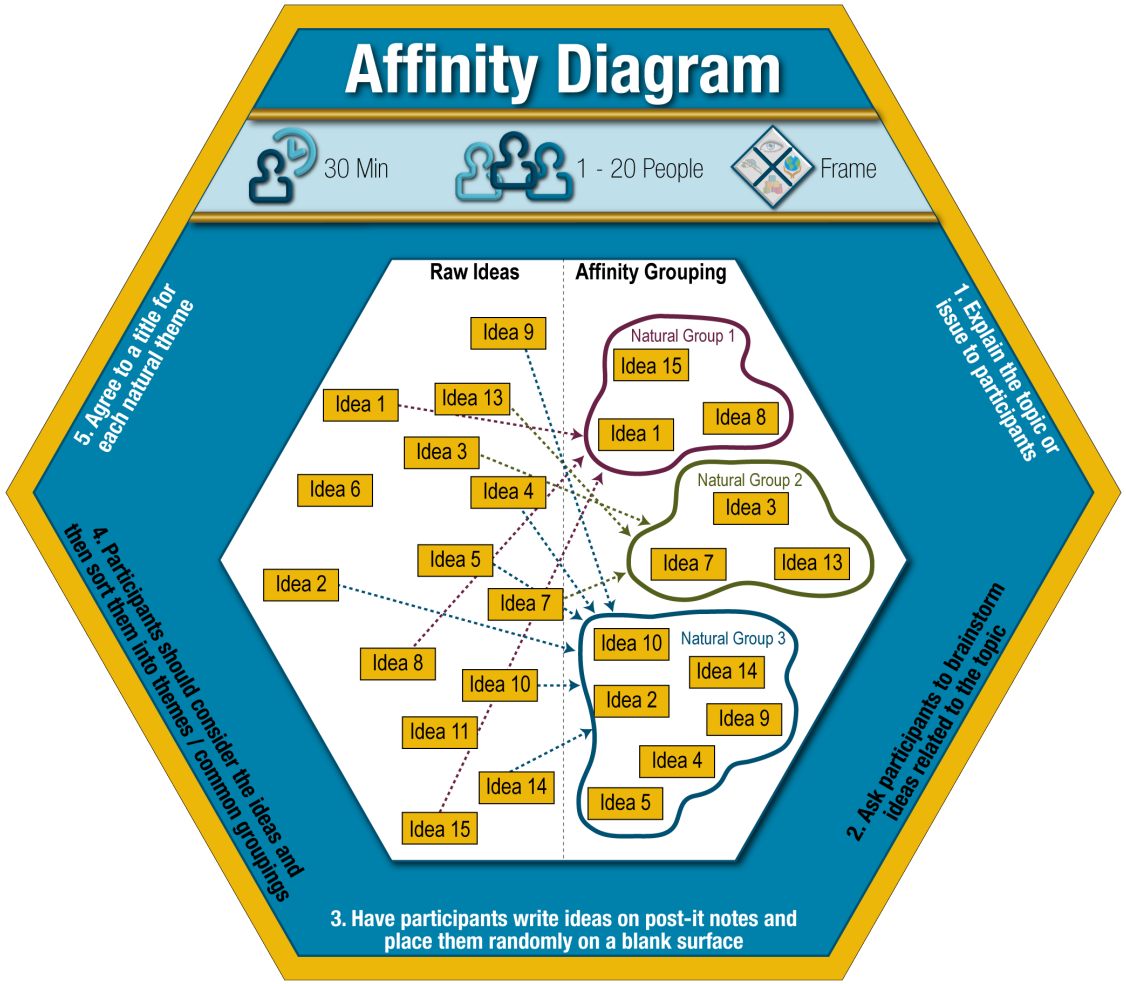
- Simple and cost effective tool for soliciting ideas from a group and obtaining consensus of how to structure information.
- Results can sharpen the focus of an issue exploration.

Cons

- Depending on the subject matter, finding agreed-upon affinities between topic areas may be difficult.

Considerations

- People typically create groupings that are too large for useful analysis. Facilitators can help by working with one or two volunteers during a break to group the brainstormed ideas.
- Give each grouping a name to support discussion.
- Consider using Dotmocracy to vote on groupings or ideas within them to gauge priority.



Card Sort

Purpose

- To explore how participants group items into categories and relate concepts to one another.
- Can reveal important information about user preferences, biases, etc.
- Provides facilitators with a tool that invites participatory action.

Pros

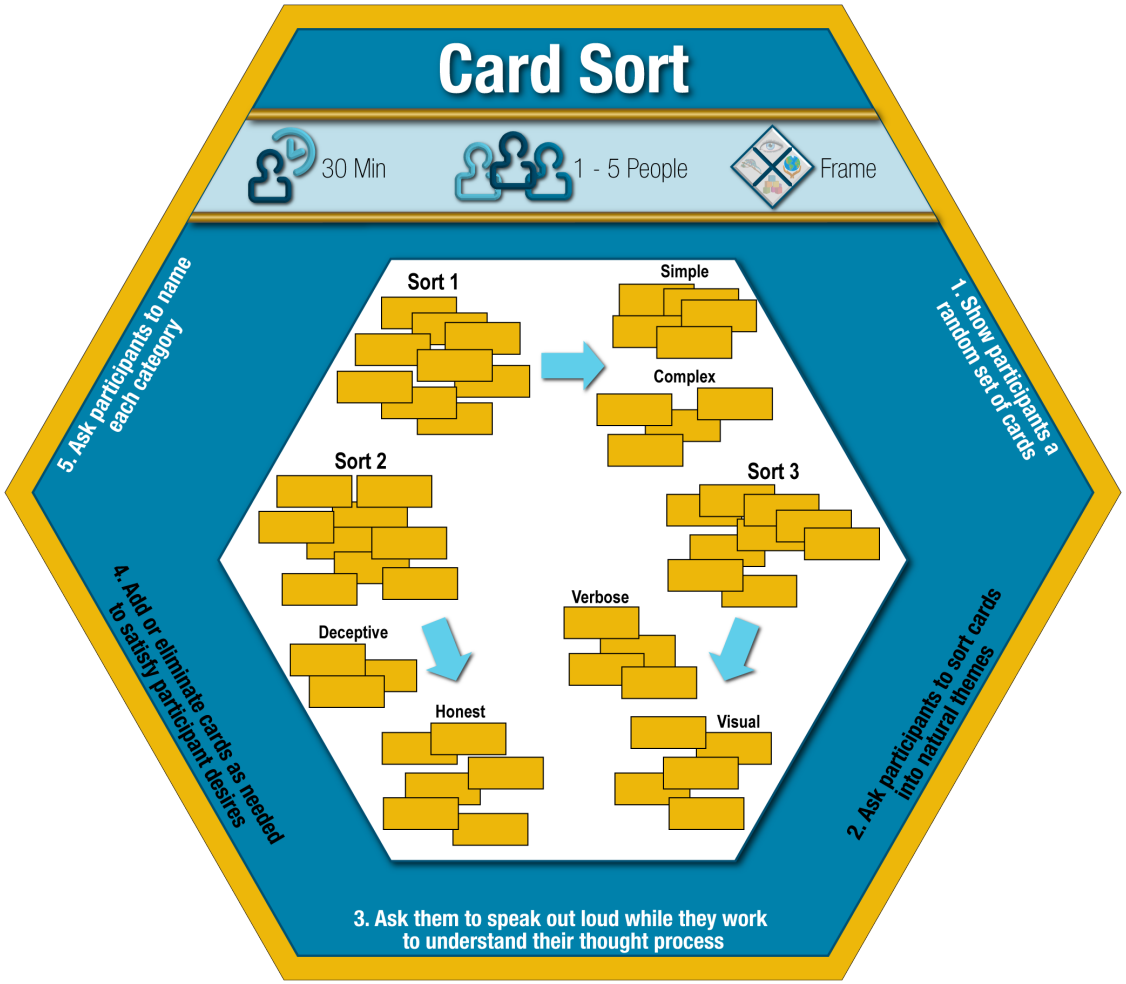
- Helps understand users' expectations and understanding.
- Effective way to deal with a large number of concepts.
- A natural and unintimidating process.
- Observing users can result in research insights and provide a fertile source of questions and conversations about the problem domain being studied and, of course, users themselves.

Cons

- Depending on the subject, finding agreed upon affinities between topic areas may be difficult.

Considerations

- Provide participants with an estimate of how long the sort will take to help them gauge the required time and effort.



World Café

Purpose

- To facilitate open and intimate discussions and link ideas with a larger group to create collective intelligence.
- Participants are encouraged to doodle, draw, and write so that when people change tables, they can see what previous participants have expressed.
- To share experiences, stories, results.
- Can be useful for problem solving and planning activities.

Pros

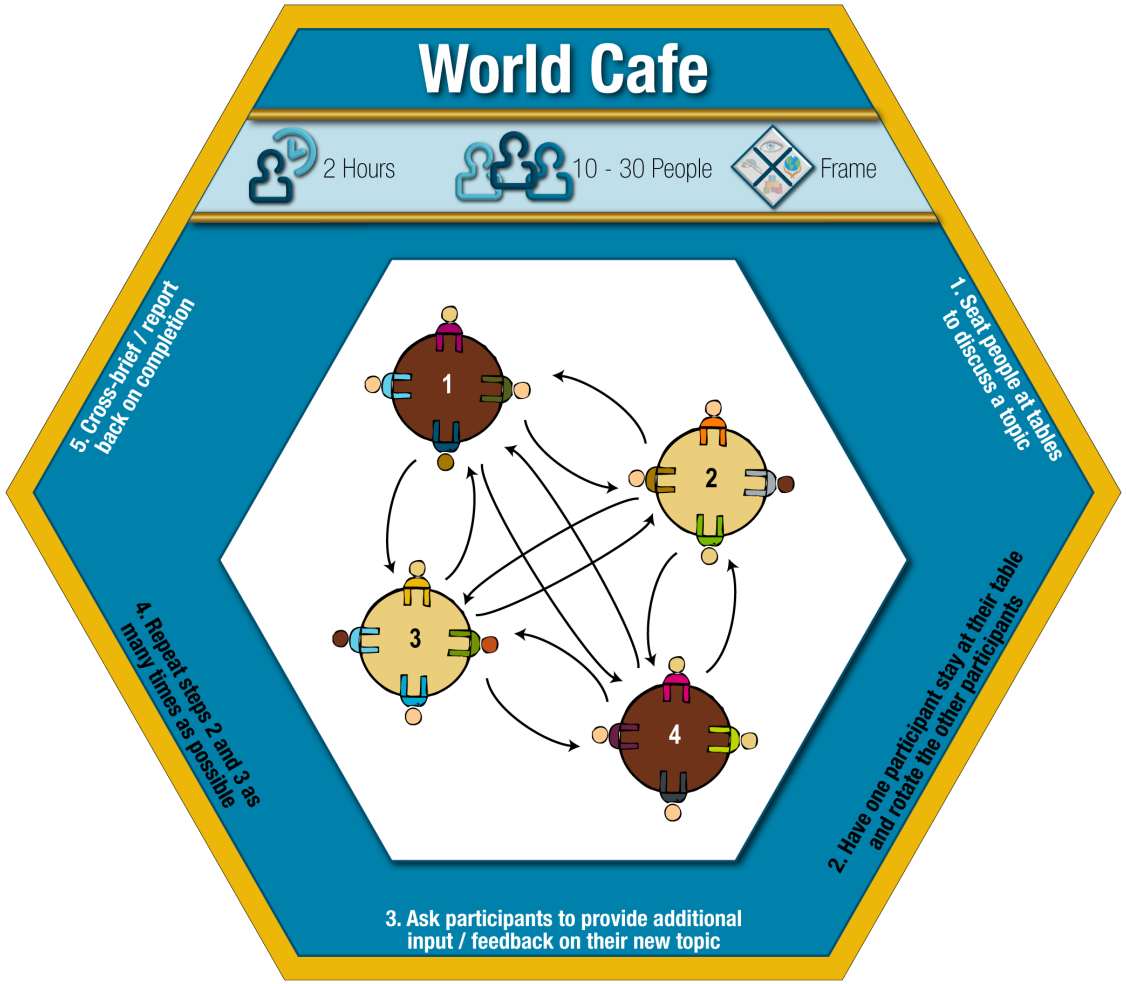
- Engaging conversational process that supports using different mediums.
- Can collect many ideas in a relatively short amount of time.

Cons

- Success can be dependent on who is present and their level of participation.
- Table conversations can be dominated by strong personalities.

Considerations

- Ensure each table has a table cloth or large sheets of paper for everyone to write on and use at the same time.
- Deciphering thoughts written or drawn at each table may be difficult. Table hosts may need facilitation support.



Participatory Prototyping

Purpose

- Enables you to make your ideas tangible. Gets people beyond talking towards creating and doing.
- Allows you to put your ideas in front of users early and often, providing rapid feedback and iteration to innovate.

Pros

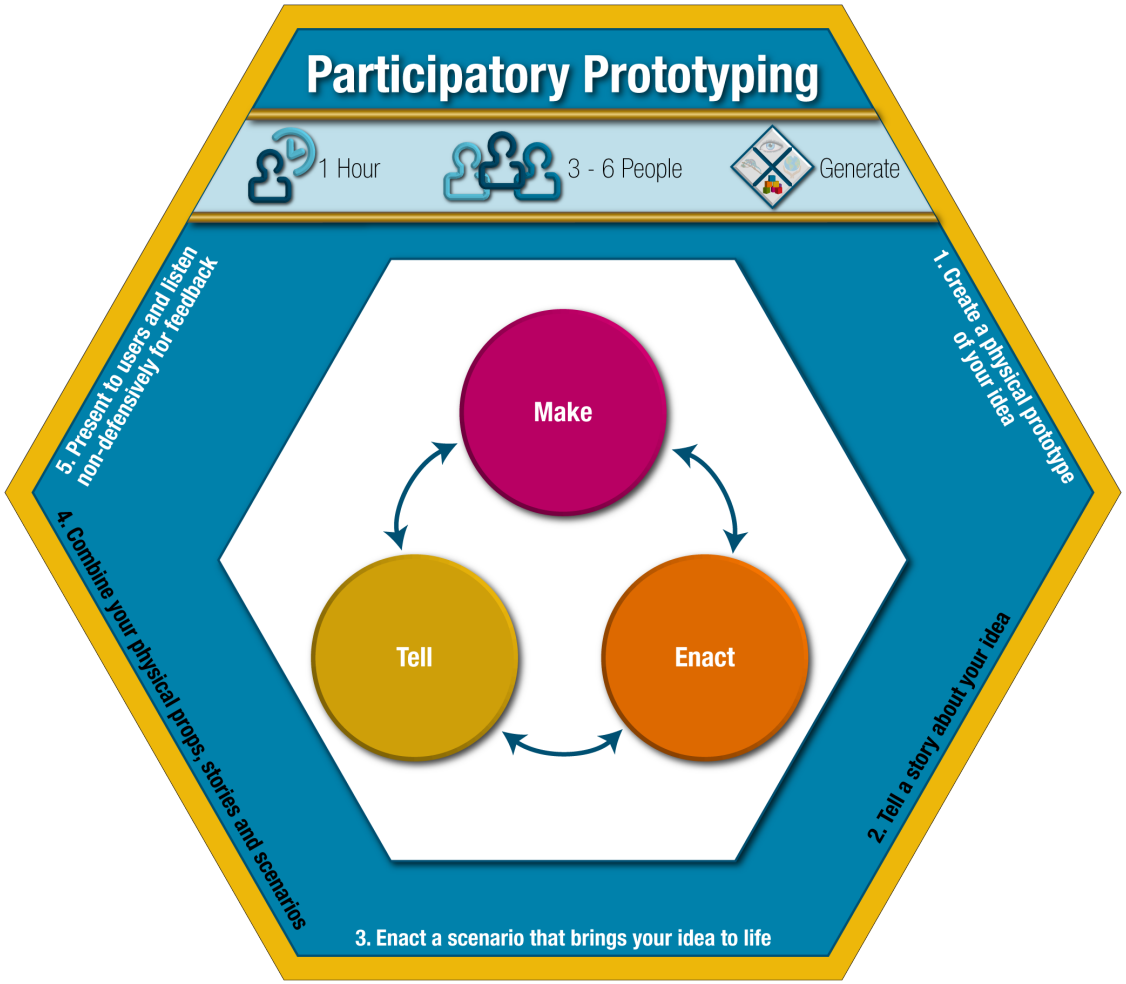
- Combines the power of making, enacting, and telling to make the abstract real.
- Enables testing early and failing often to succeed quicker.

Cons

- A prototype is not based on statistically significant sampling.

Considerations

- Participants may be unfamiliar with physical making and uncomfortable with role playing in a work environment. Facilitators must create a safe environment for this activity to work.
- Ensure people do not get trapped into justifying their design decisions. Instead, ask users questions like: What would you do instead? Is that important to you? Why?



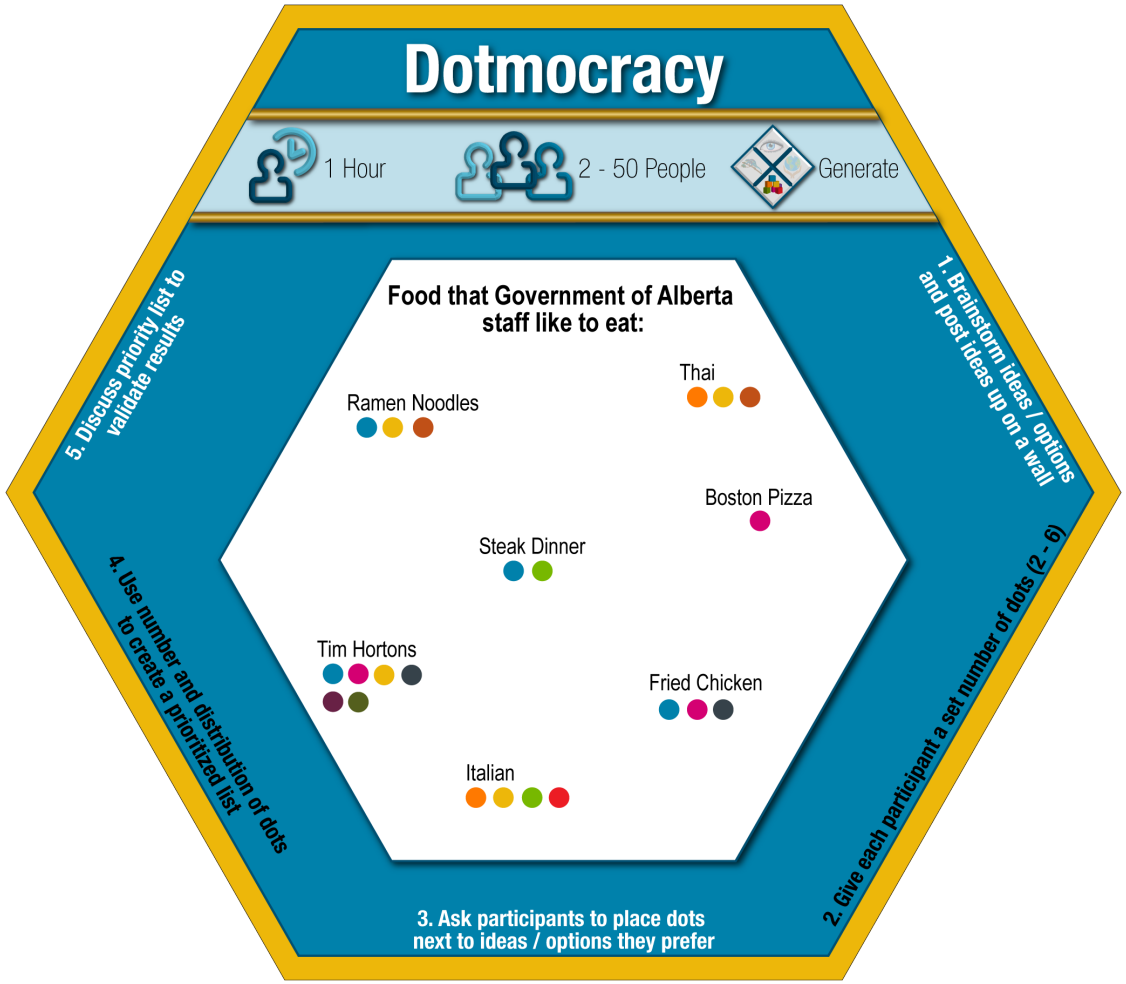
Dotmocracy

Purpose
- A simple and quick method for groups to set priorities among many options.

Pros
- A quick tool to take the temperature of a room or determine if everyone is on the same page.
- Fun activity, good visuals, and limits discussion while collecting input from the whole group.

Cons
- Can limit creativity and idea diversity.
- May give confusing or false results (particularly if individuals use all their dots for one option rather than considering multiple options).
- May create bias if individuals go along with where others placed dots before them.

Considerations
- Be clear about what participants are voting on and the objective of the voting.
- If using different coloured dots, clarify whether the different colours signify anything.



Reflection on Action Space

Purpose

- To gather real time feedback during a workshop. Allows facilitators to engage issues that might otherwise be ignored and adapt as required.

Pros

- Builds group cohesion.
- Creates a habit of regular reflection and continuous improvement.

Cons

- Can be counterproductive if frustrations are expressed, but not addressed.
- Can be time consuming if the group dives into a contentious issue.

Considerations

- Ask participants to reflect at the end of the day, but leave discussion for the following morning. This allows people to add thoughts they have overnight. Also, participants may be tired at the end of the day and discussing the next morning provides a useful re-cap.
- Once participants are used to the method, encourage them to help organize feedback and lead discussion.
- Feedback can usually be grouped in relation to process and content. Both are useful to capture and discuss.

Notes

Doodles

Musings

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Additional Resources

CoLab is a team, a way of working, and a space within the Government of Alberta. One of CoLab's aims is to help nurture and support communities of practice around systemic design, strategic foresight, and strategy.

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To explore any of the concepts presented in this field guide in more depth, visit the CoLab's website for a range of theoretical resources, practical tools, upcoming events, and learning opportunities. Check it out!

colab.alberta.ca

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