Using Participatory Design to Optimize Safety Reporting at Seattle Children's

WA State Government Lean Transformation Conference

Wednesday, October 26, 2022

How do you feel?

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How do you feel?

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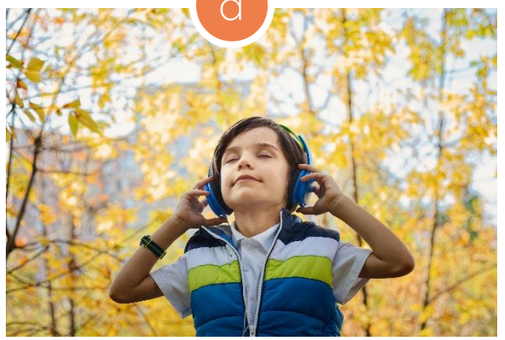

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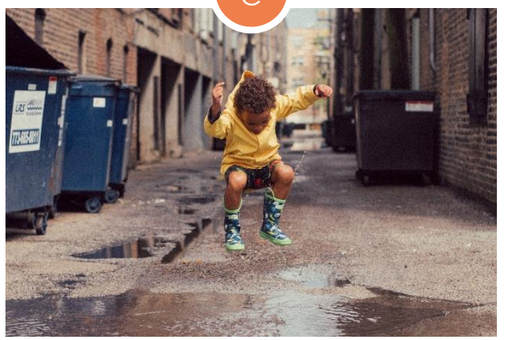

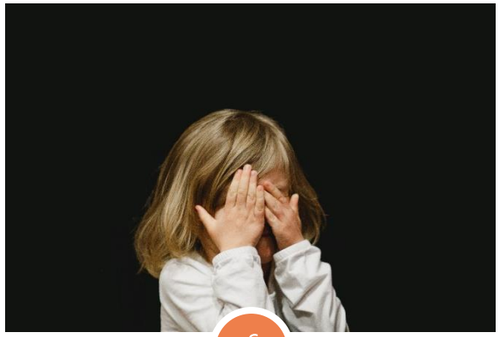

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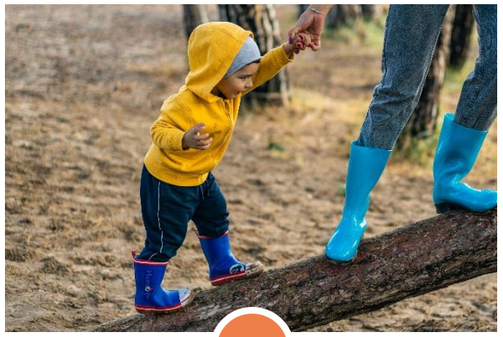

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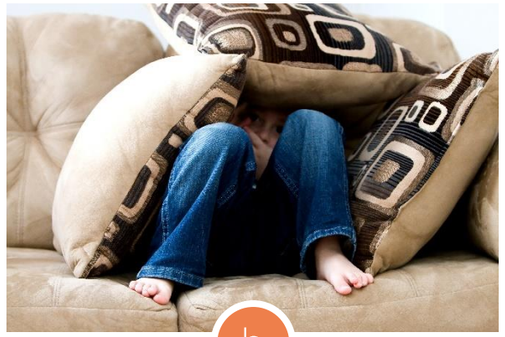

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Who we are?

Continuous Improvement and Innovation Team at Seattle Children's

- Challenge historical processes and help transform healthcare from its inside
- Empower and ease the day-to-day life of those who work at Seattle Children's
- Improve the Quality & Safety, and Experience of Care that our families and patients receive
- We offer end-to-end support to our colleagues at Seattle Children's
- Combine our expertise with those who live in the problem (staff, families, and patients)
- We are a system resource

Seattle Children's Strategic Plan

Quality & Safety Strategic Imperative

- Quality Strategic Plan
- **Culture of Safety Improvement Initiative (COSII)**
- Destination Program Outcomes

Background

Ideally

Preventable harm does not occur in the process of care

A patient has a 1 in 300 chance of being harmed in the process of care*

Theory

85% of (quality) problems detected are process or system-related,
whereas 15% are traceable to individuals

Reality

Humans make errors.

How do we learn from mistakes and make systemic changes to prevent / mitigate future harm.

*World Health Organization, 10 Facts on Patient Safety, 2019. https://www.who.int/news-room/photo-story/photo-story-detail/10-facts-on-patient-safety

Project Goals

Increase the total number of patient safety events submitted by 25% from FY20 to FY23.

- Recognizing: Increased reporting tied to a stronger safety culture tied to a **decrease in preventable harm**.

Increase the scores by a statistically significant amount on the following Safety Culture Survey questions:

- “When a mistake is reported, it feels like the focus is on solving the problem, not writing up the person”.
- “I can report patient safety mistakes without fear of punishment.”

Measuring Success

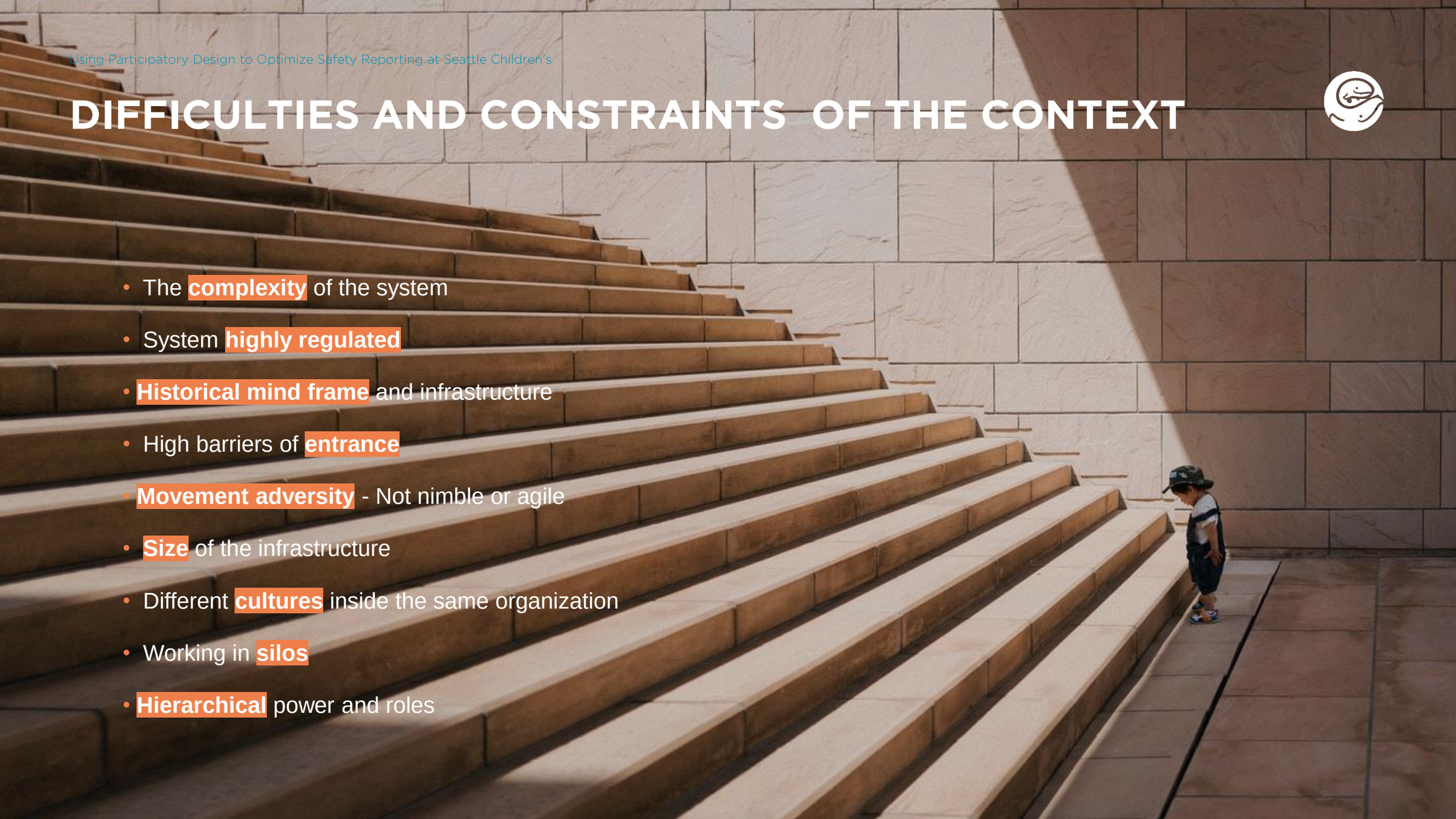
Inputter metrics

- Decrease time to report (reduce # of clicks, # of required fields, direct link from electronic health record to incident reporting form)

Follow-Upper metrics

- Increase # of submissions closed in our system
- Decrease time to closing (e.g., establish TAT expectations for closing out a file)

DIFFICULTIES AND CONSTRAINTS OF THE CONTEXT



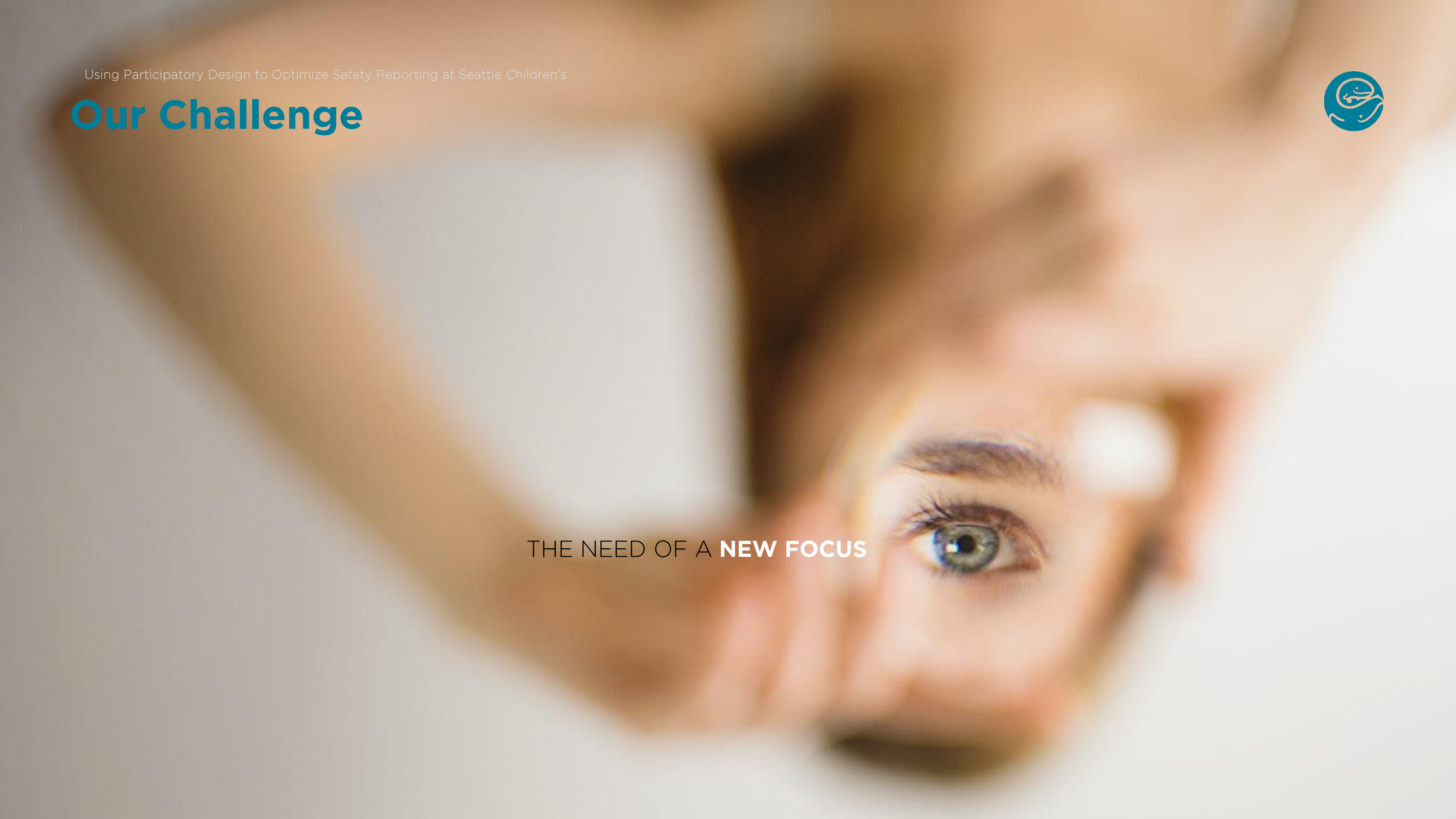
- The **complexity** of the system
- System **highly regulated**
- **Historical mind frame** and infrastructure
- High barriers of **entrance**
- **Movement adversity** - Not nimble or agile
- **Size** of the infrastructure
- Different **cultures** inside the same organization
- Working in **silos**
- **Hierarchical** power and roles

Our Challenge

How might we

optimize our incident reporting system, acknowledging human capabilities and limitations in the design of a product and processes **to encourage reporting to identify, learn from and prevent/mitigate our system-related safety vulnerabilities?**

Our Challenge



de·sign

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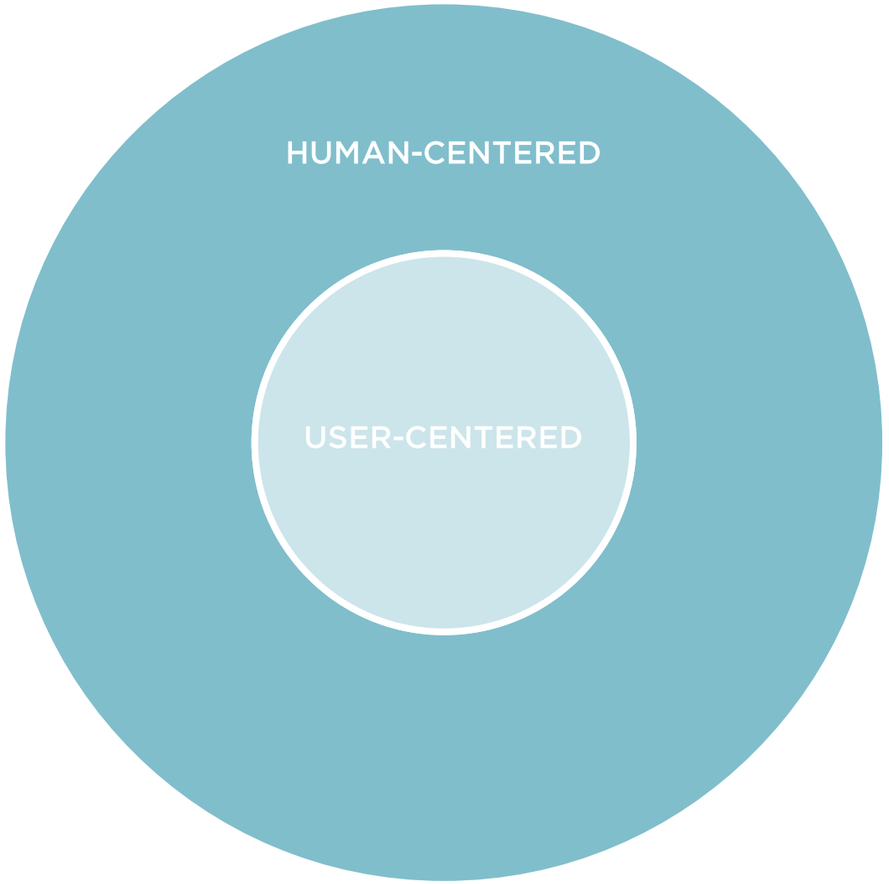
...Design?

The **focus is on the main user/customer**. It views design solutions from the perspective of a user's needs and interests.

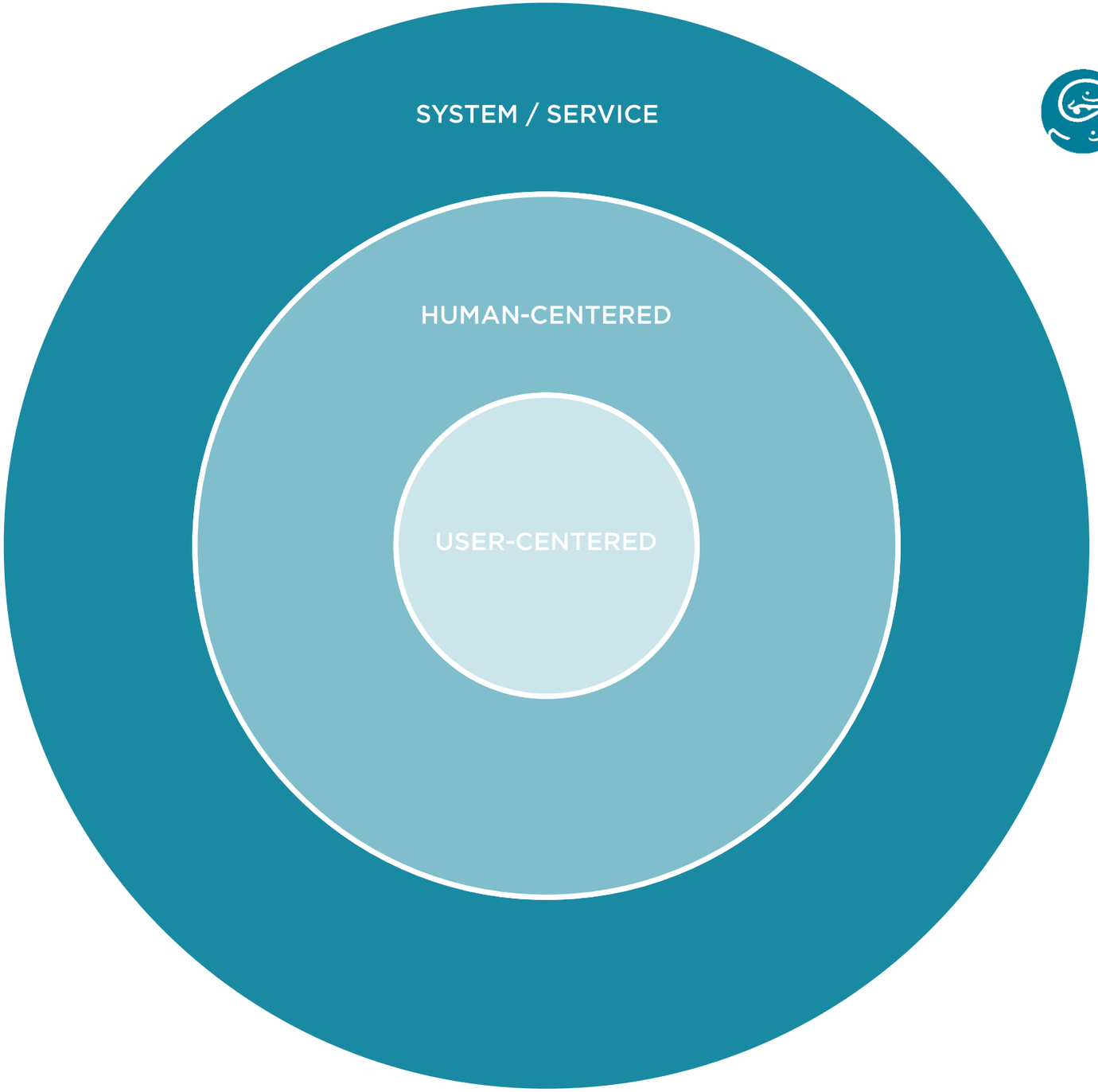
...Design?

The **focus is on the different users involved**. Addresses impacts on several stakeholders, not just those typically considered as users.



...Design?

The **focus is on the different relationships and interactions**. It considers the multiple stakeholders of the service/system, their roles, their needs, and barriers, and addresses how they are impacted by other's actions



Service...?

Good services are verbs

Bad services are nouns

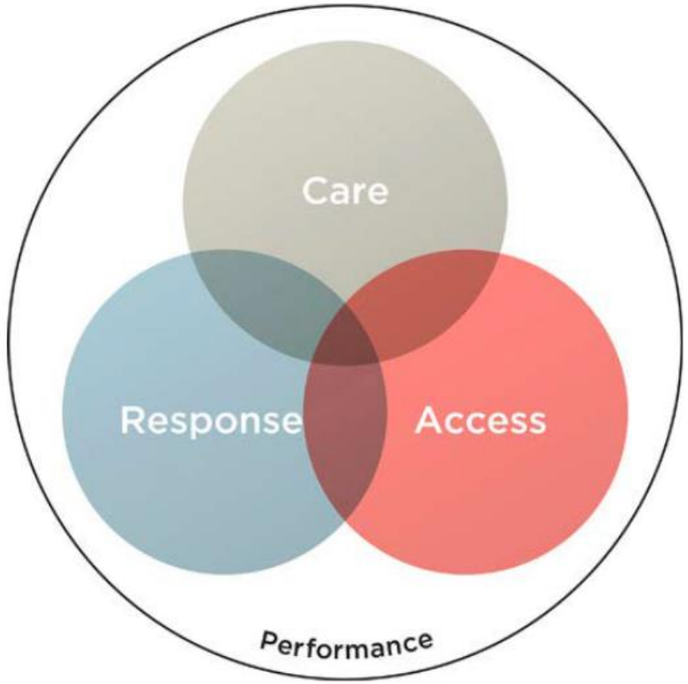
GOV.UK

GOODS-DOMINANT LOGIC

Value creation comes from identifying features that consumers want.

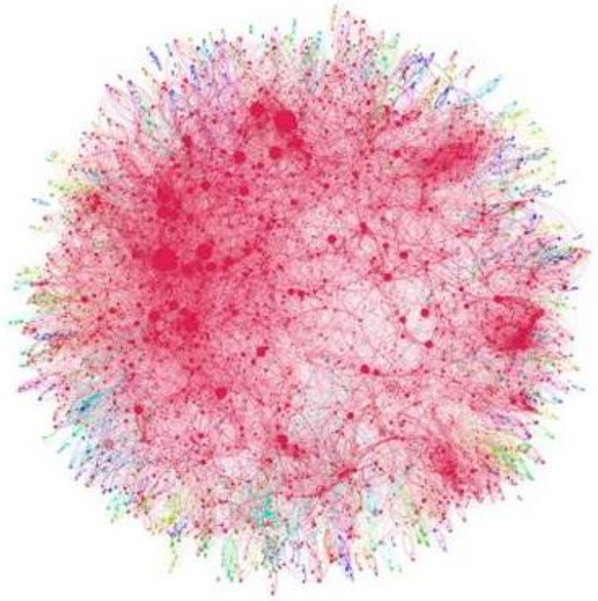
SERVICE-DOMINANT LOGIC

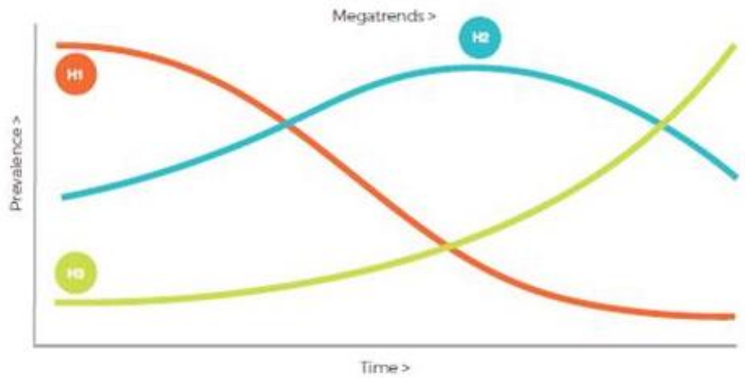
Value creation comes from delivering people access, care and/or response.

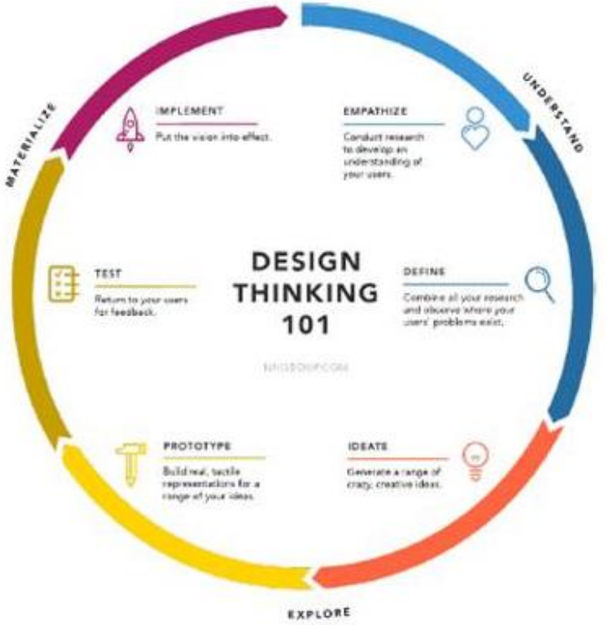


Reference from "SERVICE DES IGN From Insight to Implementation" by ANDY POLAINE, LAVRANS LØVLIE, and BEN REASON

[Service] **Design Mindset**







SYSTEMS THINKING helps shift our mode of thinking or perspective – to see the bigger picture, the complex environments that our businesses operate in, and how everything is connected.

FUTURES THINKING helps businesses to probe a range of plausible futures, link to the present and apply strategic interventions.

DESIGN THINKING is the creative process that designers use to solve complex problems. It is human-centric and relies on prototyping + testing to explore design challenges of all sizes.

Image from **Systems, Futures & Design Thinking** *by Rachel Jetel*
https://www.racheljetel.com/recent-projects/2017/7/26/systems-futures-design-thinking-sustainability-workshops-in-hong-kong

[Service] **Design Approach**

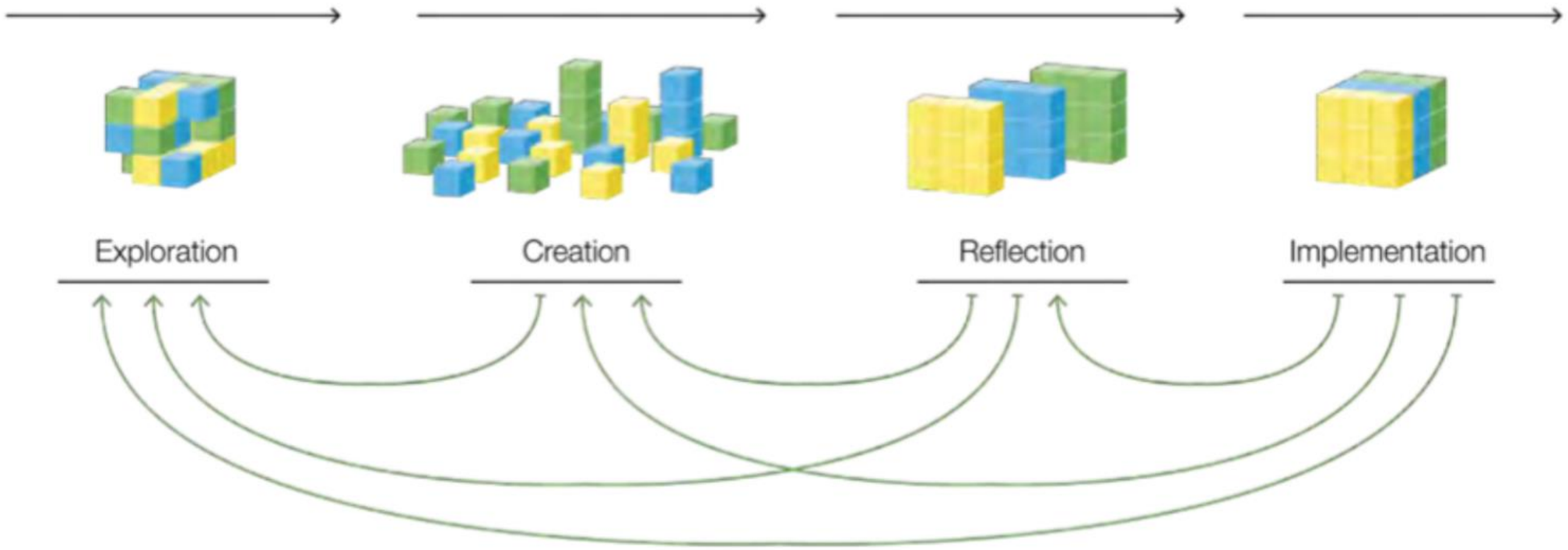


Image from **"THIS IS SERVICE DESIGN THINKING"**
By M. Stickdorn and J.Schneider

[Service] **Design Approach**

HUMAN-CENTERED

People are at the center of the service design

CO-CREATIVE

Involve people who are part of the system or service

SEQUENCING

Visualized by sequences, or key moments

EVIDENCING

Customers need to be aware of the elements of a service

HOLISTIC

Consider the entire experience

Reference from **"THIS IS SERVICE DESIGN THINKING"**
By M. Stickdorn and J.Schneider

Why Participatory Design?

WITH
DESIGNING ~~FOR~~ THE USER

Actively **involve and engage representations of all the stakeholders in the design process** to ensure that services and products **meet the needs and expectations of the people** that they serve.

Why Participatory Design?

Bringing
DIFFERENT VOICES
from the system

Triggering
COLLECTIVE CREATIVITY
from users

Enhancing
CHANGE OWNERSHIP
and adoption

Our framework

18
CLINICAL UNITS

46
VOICES

explore, understand, and frame problems

alignment and ideate solutions

Frontline Interviews

March–May 2022

A one-hour-long (remote) 1-on-1 conversation with the user(s) to better understand their needs, pains, and hopes for building a better *Safety Reporting Platform* system.

Shadow & Observations

May 2022

A two to four-hour-long session to observe the actual context and the impact of the environment on the product/ experience.

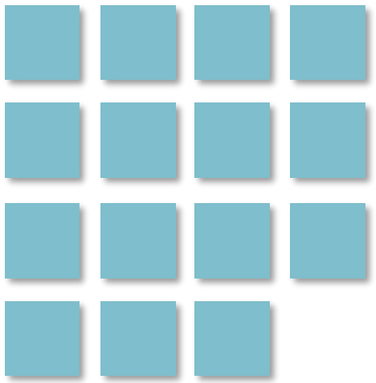
Co-Creation Sessions

July 2022

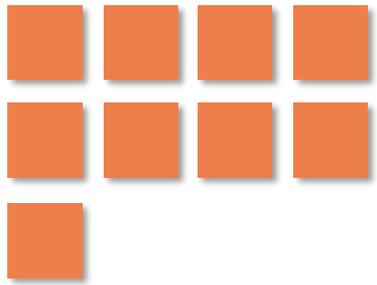
A series of three half-day workshops over the course of two weeks to collectively rethink how we may improve and optimize Safety Reporting at Seattle Children's

Design Research Results: **Synthesis and Analysis**

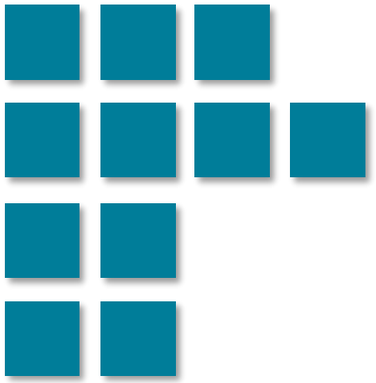
USER **1**



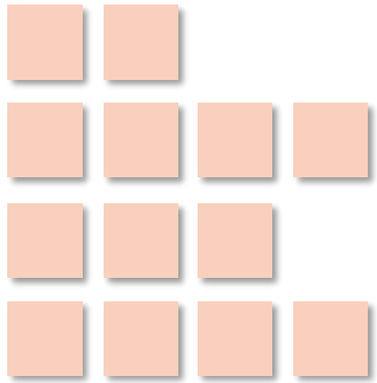
USER **2**



USER **3**



USER **X**

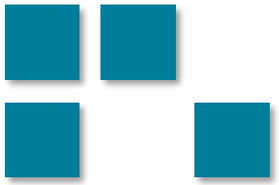


Design Research Results: **Synthesis and Analysis**

USER **1**

USER **2**

USER **3**



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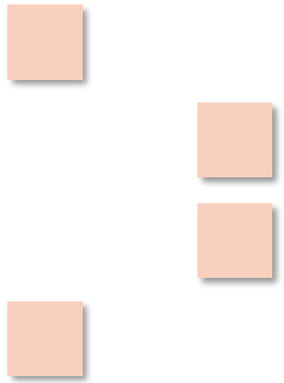

AFFINITY DIAGRAMING

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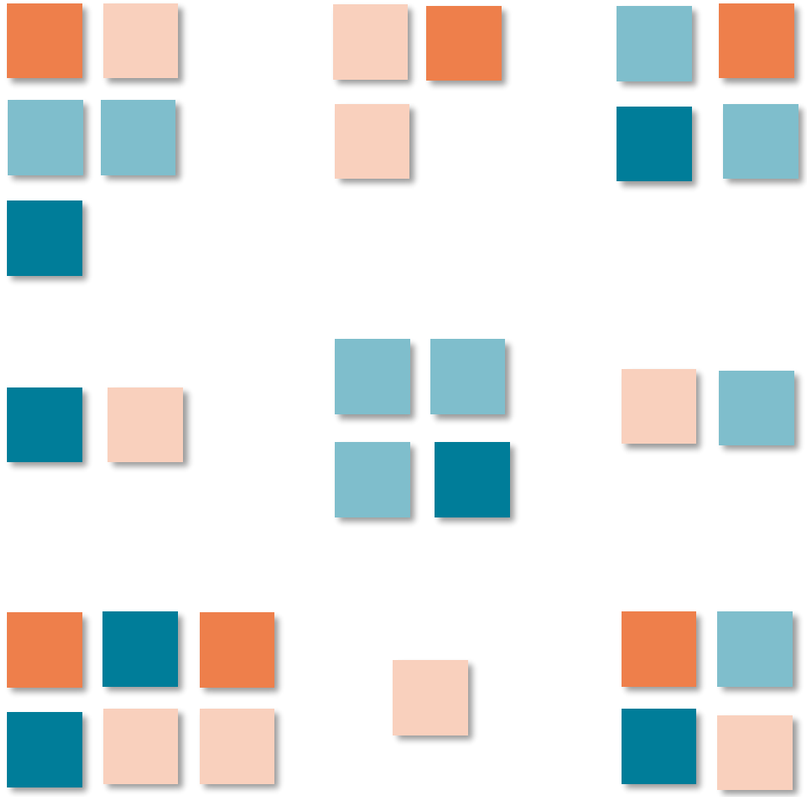
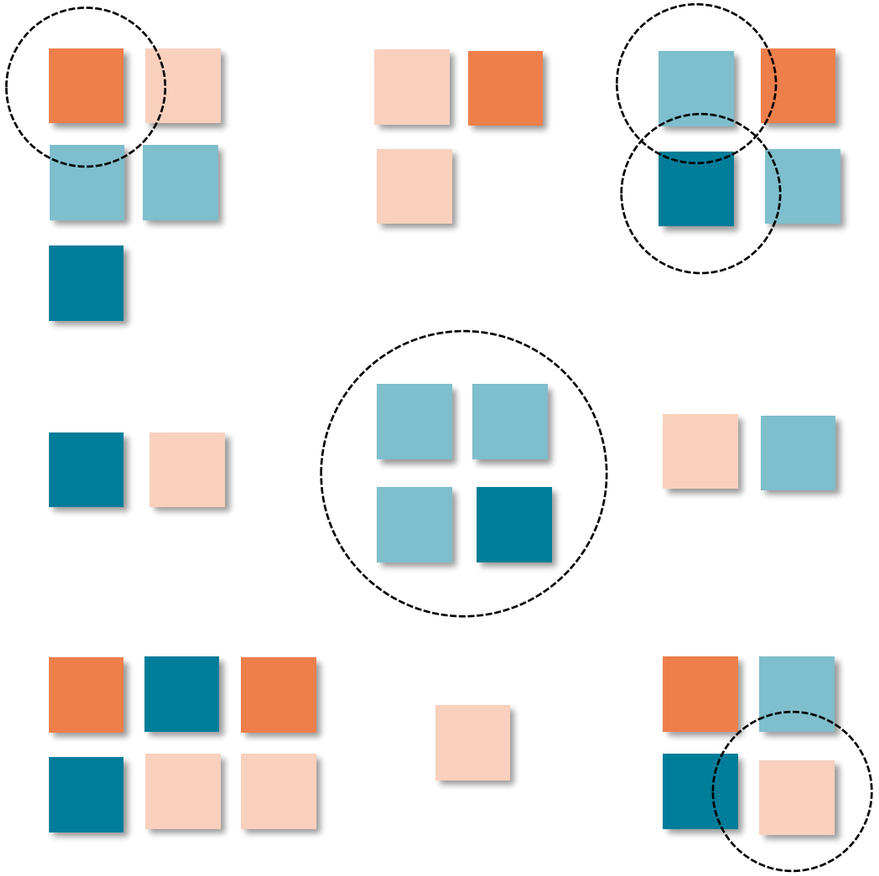
THEMES/FINDINGS



Design Research Results: **Synthesis and Analysis**

AFFINITY DIAGRAMING
THEMES/FINDINGS



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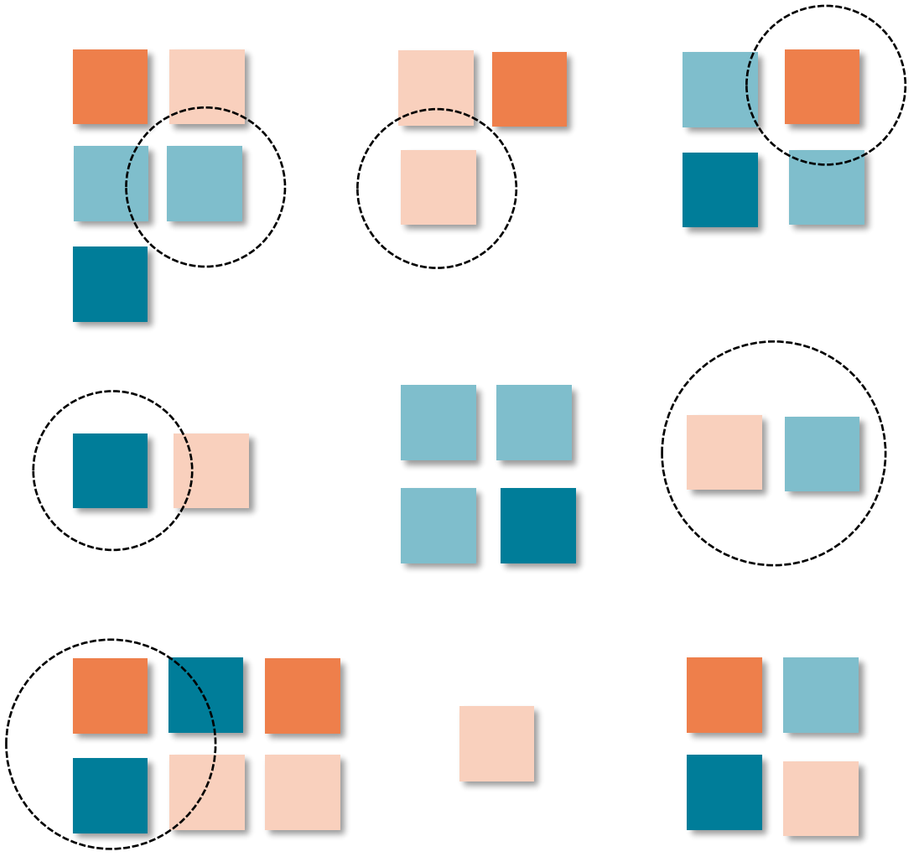
Barriers identified

Design Research Results: **Synthesis and Analysis**

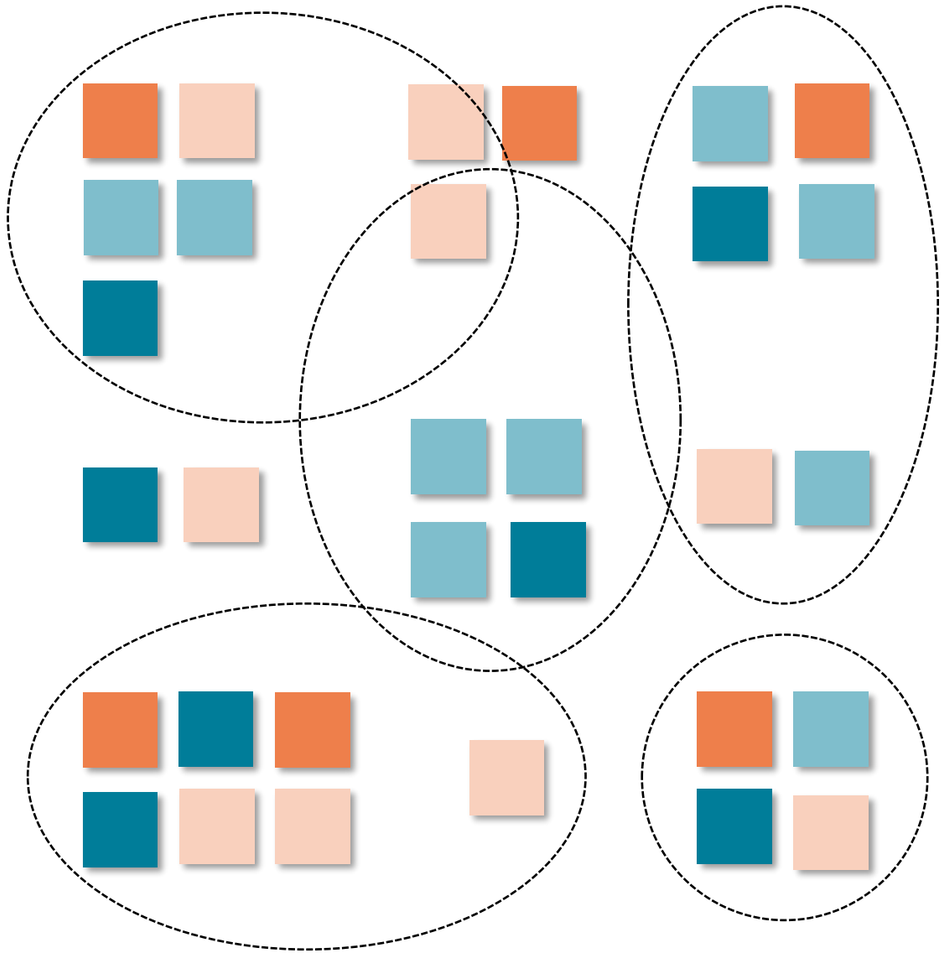
AFFINITY DIAGRAMING
THEMES/FINDINGS



43 needs identified

Design Research Results: **Synthesis and Analysis**

AFFINITY DIAGRAMING
THEMES/FINDINGS



8 insights formulated

Design Research Results: **Insights**

The level of training depends on who it comes from.

Our *Safety Reporting Platform* by itself is not enough.

Reporting feels like a monologue, when it should be a dialogue.

Our *Safety Reporting Platform* doesn't address urgency.

insights formulated

Design Research Results: **Insights**

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Reporting feels like a monologue, when it should be a dialogue.

Our *Safety Reporting Platform* doesn't address urgency.

- Introduction to the tool occurs at different moments and mediums. How the tool gets introduced, by whom it is handled and when our staff uses it (and why) for the first time will influence the future user-tool relationship.
- There are different avenues to learning the tool.
- Training and usage of the tool is not uniform across the organization.

It was briefly mentioned in my orientation, but nobody gave us a walk through or told us how it works...I had asked about it and I taught myself.

[To escalate safety concerns] it's just whatever your preceptor shows you. There is not a formal class offered on the unit-level list.

I did get some training [...] after a few weeks of being here [...] which was helpful, but honestly looking back I should have scheduled a follow-up training because it was still so new to me that some of the stuff the trainer went over. Didn't I didn't have a lot of context for it.

Design Research Results: **Insights**

The level of training depends on who it comes from.

Our Safety Reporting Platform by itself is not enough.

Reporting feels like a monologue, when it should be a dialogue.

Our *Safety Reporting Platform* doesn't address urgency.

- Our *Safety Reporting Platform* almost always requires a complementary tool, such as Epic, Excel, ServiceNow, RedCap, and Tableau.
- Other resources, relationships, conversations, initiatives, and actions are necessary for staff to process safety event submissions.

Our Safety Reporting Platform to us is a secondary system.

We'll escalate things to the appropriate folks via email [...] I can't remember the last time I submitted an event using our Safety Reporting Platform

I can say it's not a great process [track events] because mostly relies on my brain to just remember these themes.

[Most of time, I don't have the patient's information so] I need to look into this patient's chart to figure out things like "When did this patient come down from PICU, and who are all the people who cared for them in that time" so that I can provide coaching to all of those staff members.

Design Research Results: **Insights**

The level of training depends on who it comes from.

Our *Safety Reporting Platform* by itself is not enough.

Reporting feels like a monologue, when it should be a dialogue.

Our *Safety Reporting Platform* doesn't address urgency.

- Staff invest time to submit a file with no acknowledgement or communicated resolution in return, leading to feeling unheard and unvalued.
- Cross-communication between units/departments in and outside of the tool are necessary for a thorough investigation and resolution.
- There's a need for honest, human dialogue.

*I think [our Safety Reporting Platform is,] because we get no response back, it's a waste of time. […] But it's a pain in the **** because you got to take time in the busy day to go through somehow make this work.*

I personally have never gotten a message back from any eFeedback I put in telling me what happened from that eFeedback.

As far as full follow up, depending on the issue it could take a lot of time. But I will, at least thank them for putting it in our Safety Reporting Platform, which might be part of the reason why [my nurses] are really good reporters.

Design Research Results: **Insights**

The level of training depends on who it comes from.

Our *Safety Reporting Platform* by itself is not enough.

Reporting feels like a monologue, when it should be a dialogue.

Our Safety Reporting Platform doesn't address urgency.

- Perceived as a reporting mechanism, not a solution mechanism.
- Inputters don't receive "rapid" results after submitting a file.
- Sometimes, staff prefer to go to someone they trust and know can solve the problem.

A lot of times we just sort of want to reach out and have a conversation about it.

I should be able to say this is important like this is an urgent request.

I think that you're always going to experience some resistance to using one tool, right? I think that the nature of clinical care is verbal when they have an issue, it's usually an issue that needs to be resolved right now. And so, it has to be done quickly. Our Safety Reporting Platform is not quick.

Guiding Principles

- **Improve the user experience** on submitting and managing safety events/concerns within our incident reporting system
    - **Ease of entry** and decrease time to complete
    - Make the **platform intuitive**, and easy to navigate with minimal explanation required
    - **Alleviate current pain points** and barriers
    - Embed **closed-loop** communication
    - Provide **effective training**
    - Define **clear roles** and standard work for file managers
    - **Embed systems/allocate resources** to hold file managers accountable to expectations
- **Leverage data** to identify trends, learn from safety events/near misses & inform improvement work
- Optimize the platform (tool) to **redesign the system**

How might we

promote a safety event/near miss **reporting using a market solution** and within an environment that is **reinforcing our safety culture at Seattle Children's**?

What is Co-Creation?

Co-creation is the **facilitation of spaces**, where different representations of the service/system gather, to **provoke their creativity** by using design thinking tools.

The different **objectives of co-creation** are to:

- Provide common language
- Understand the relevant needs of the different stakeholders
- Align the design opportunities with organization's strategy objectives
- Find new product(s), service(s), and process/business opportunities
- Translate those needs into actionable solutions
- Optimize resources
- Lead to innovation in design

Reference from "Co-creation and the New Landscapes of Design." CoDesign, 4(1)
By Sanders, E.B.-N. and Stappers, P.J. (2008)

Co-creation Sessions Framework

Session 1

CONTEXTUAL IMMERSION

2.5h

In-Person

Session 2

PLATFORM IDEATION

4h

In-Person

Session 3

ORGANIZATIONAL SYSTEM IDEATION

3h

In-Person

Session 4

COLLABORATIVE ANALYSIS

2h

Remote

Co-Creation Sessions

01

CONTEXTUAL IMMERSION

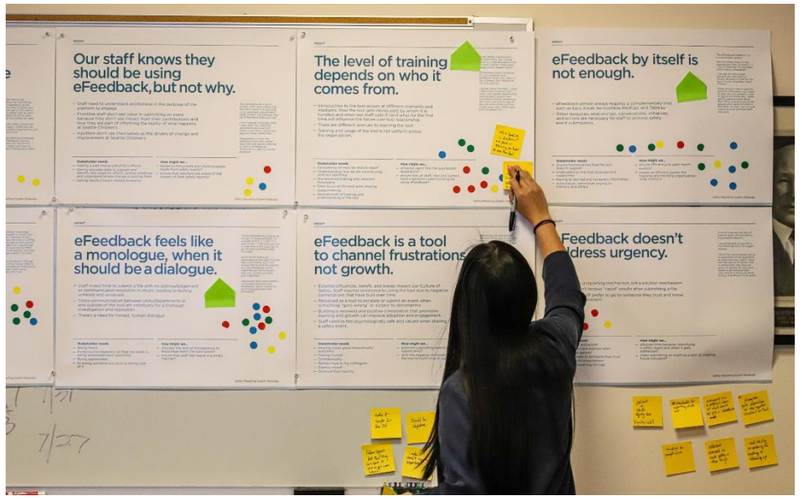
Wednesday, July 13th
1 – 3.30 PM (2.5h)

Goal

- Set the tone for co-creation and build trust between participants
- Share Design Research Results
- Understand and empathize with different user experiences
- Align on current needs and future state expectations

Accomplishments

- Learned more about the co-creation process (session goals and dynamics)
- Shared past/present experiences about how we submit and manage Safety Events at Seattle Children's, and shared expectations about what the new system should become
- Discussed, dissected, reviewed, and validated Design Research Results (Insights and User Journey Map)
- Defined the most critical moments in our user journeys



Co-Creation Sessions

02

PLATFORM IDEATION

Monday, July 18th
12.30 – 4.30 PM (4h)

Goal

- Envision the ideal (digital) platform experience
- Comprehend platform capabilities and limitations
- Generate artifacts that illustrate new solutions for our *Safety Reporting Platform*
- Identify remaining platform's pain points and barriers

Accomplishments

- Explored ideal future platform experience
- Understood possible ways to modify the current safety event submission platform, which is a market solution
- Explored ways to optimize our *Safety Reporting Platform*
- Designed preferred workflow (journey) for each role and platform (artifacts) to better support the specific user needs

Co-Creation Sessions

03

SYSTEM ORGANIZATION IDEATION

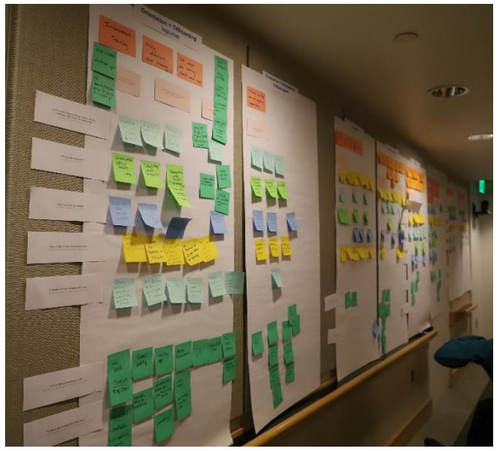
Friday, July 22nd
1.00 – 4.00 PM (3h)

Goal

- Recap past sessions, share updates (from vendor) and revisit project goals
- Report-Out Platform optimization for Follow-Uppers
- Ideate organizational initiatives to support dynamics of culture and relationships
- Identify and define people involved in each stage of the process

Accomplishments

- Ensured focus, understanding, and alignment on the purpose of the co-creation sessions, the project, and expectations
- Ideated potential future states for Seattle Children's Safety Event Submission and Management System
- Define value-added changes



Co-Creation Sessions

04

COLLABORATIVE ANALYSIS

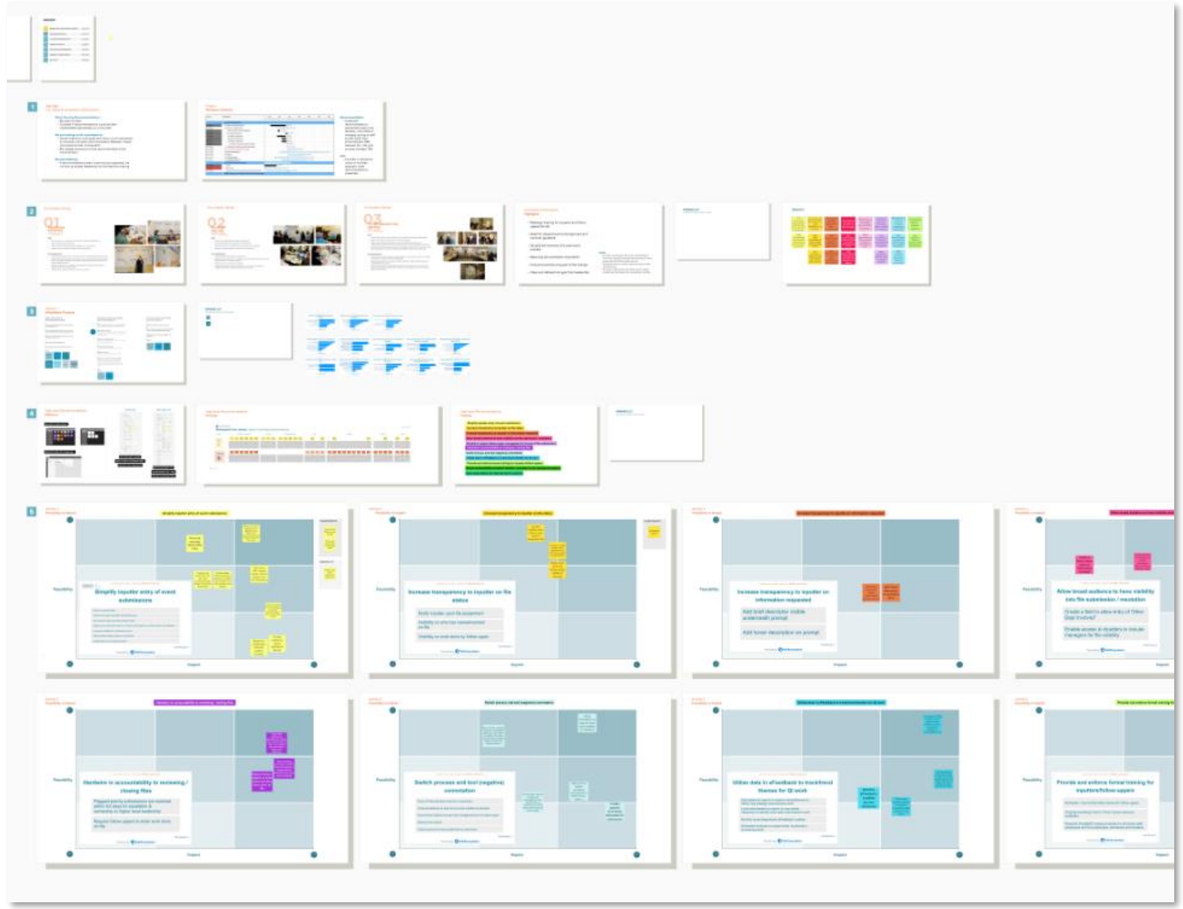
Monday, Aug 8th
1 – 3 PM (2h)

Goal

- Share and refine co-creation results with Leadership and Core Team Members
- Provide awareness of participants' desires and ensure the success of the final solution
- Align on feasibility and action items

Accomplishments

- New system goals and expectations
- Priority Plan definition
- Guidance to Refined Platform Low-Fi Prototype
- Approve key concepts/implementations to build User(s) Journey and New Service Blueprint



Co-Creation Sessions Recap

https://www.youtube.com/watch?v=CoBm9HzRIcw

Co-creation session results

- **Linking our electronic health record** to our incident reporting system to support one-piece flow when a safety event/concern is identified
- **Restructuring our submission form** into an SBAR format to reinforce high-reliability tools (report is informative and objective)
- **Redefining** the required/optional **fields**
- Identifying initiatives to **recognize/appreciate** staff for reporting
- **Defining** (time and accountability) **standards** for reporting across the organization
- **Switching connotations** of what reporting means
- **Positive learning** system from reporting

+60 ideas generated

Gaps and Barriers

- Recruiting in Healthcare and including diverse representatives
- Tech/product limitations
- Design is (still) not at the core of the organization
- Change Readiness

Project Learnings To Date

- Establishing clear expectations around the project schedule when Participatory Design/Exploratory Phase is included in a project
- Create more options to engage participants
- Make sure we set clear expectations and understanding (project & approach)
- Cross-communication among dependent/similar projects
- Set the stage for other related projects in the organization

What is NEXT

Phased implementation of recommendations

For technical changes:

- Build in **Test**
- **Validate** new concept(s) with end users
- **Training**
- **Rollout** changes

For process changes:

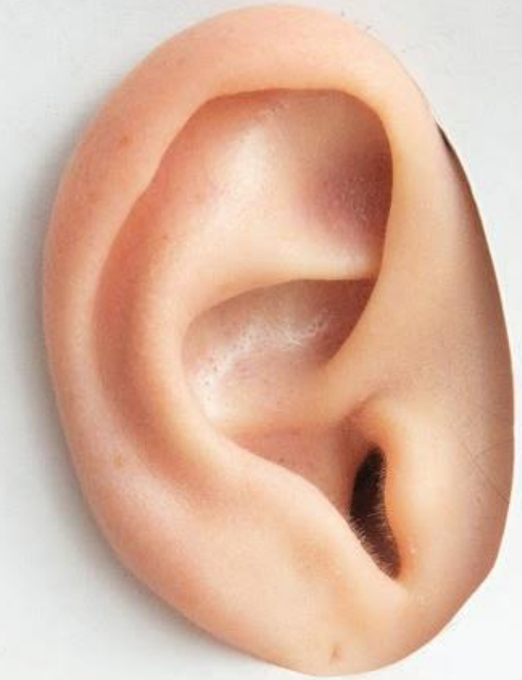
- **Assessing** value with project leadership
- **Validate** new concept(s) with end users
- **Change Management**, Communication, Education, and Training
- **Implement & Launch** new system
- Iterative **Refinement**

The **beginning** phase of HC/Service Design

Opportunity to apply the approach in our safety and clinical work

Expand the use of it in other System/Service Design projects

Q&A



Thank you so much!

- for your attention and feedback -

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