How You Learn > What You Learn

Selecting a Research Method

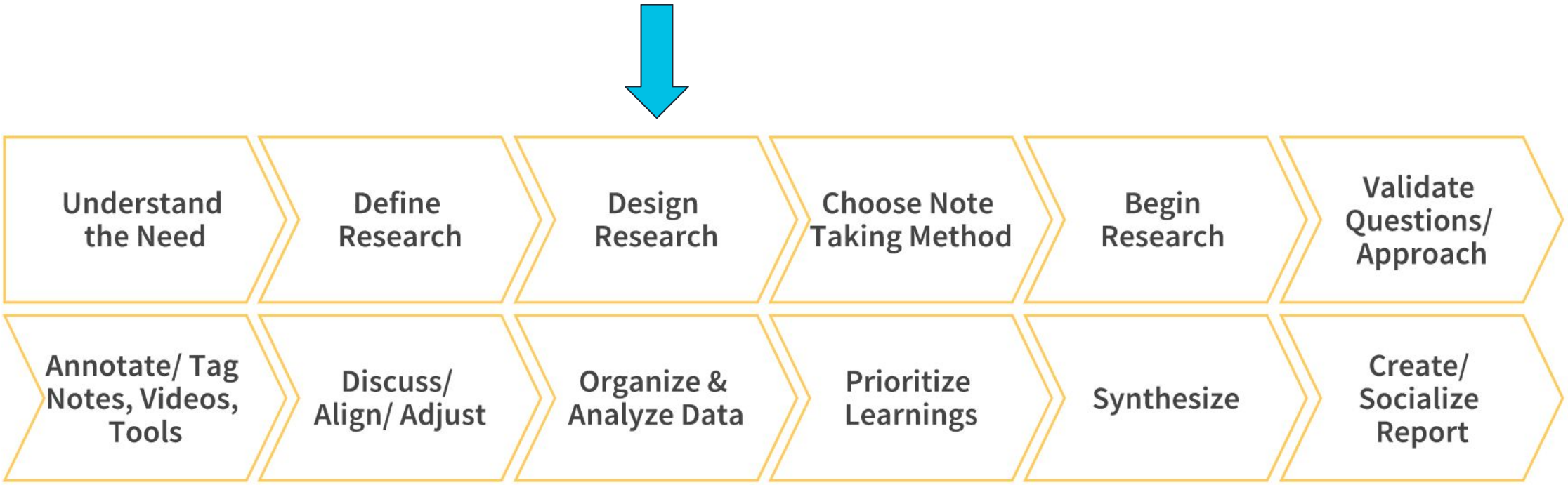
Meghan Rennie, Director of Experience Design Research
Capital One Financial Services
10/15/20

Introduction

Thank You! And a little about me....

- **Lead Experience Design Research for Capital One Financial Services**
- **30 years in Design**
  - Content > Instructional Design > IA / UX > Design Strategy > Research
- **A few things I'm proud of**
  - I'm an English major!
  - Thrive in technical environments
  - Huge proponent for people-focus and the process and design deliverables that support that focus
  - Received highest internal award for Capital One
  - My teams!
  - (Not my visual design skills)

Research Method Selection is Part of Research Design



Graphic credit: Adrienne Guillory and Ashley Connor

We will cover...

Context

- Audience
- Constraints
- Desired Actions / Outcomes

Frameworks

- Design Thinking Wayfinder
- Double Diamond

Methods

- Observation
- Competitive Analysis
- Secondary Research
- Interviews
- Surveys
- Co-creation / Ideation
- Usage Data Analysis
- Concept Validation
- Usability Testing
- Expert / Heuristic Evals
- A/B Testing

Scenarios

- Increase effectiveness of an existing experience
- Identify potential new offerings
- Understand where your online experience can support an offline experience

Thought starter and impetus to learn more

Research Context

Context + Constraints > Success > Research Approach and Goals

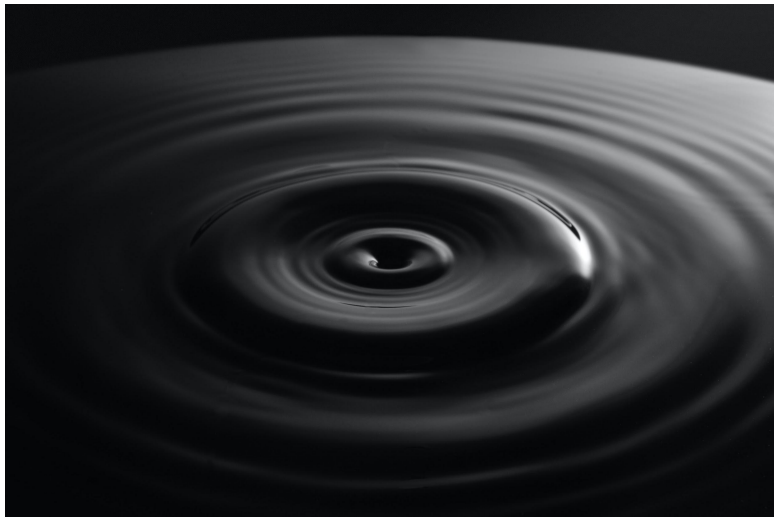
Your Audience

- You ≠ your audience
- Team who knows problem space?
- Those who don't?
- Mis- or pre-conceptions?

Constraints

- Time
- Money
- Preconceptions / assumptions
- Artifacts required / desired
- Tools
- Topic sensitivity / privacy concerns
- Ethics and The Law

Desired Action / Outcome



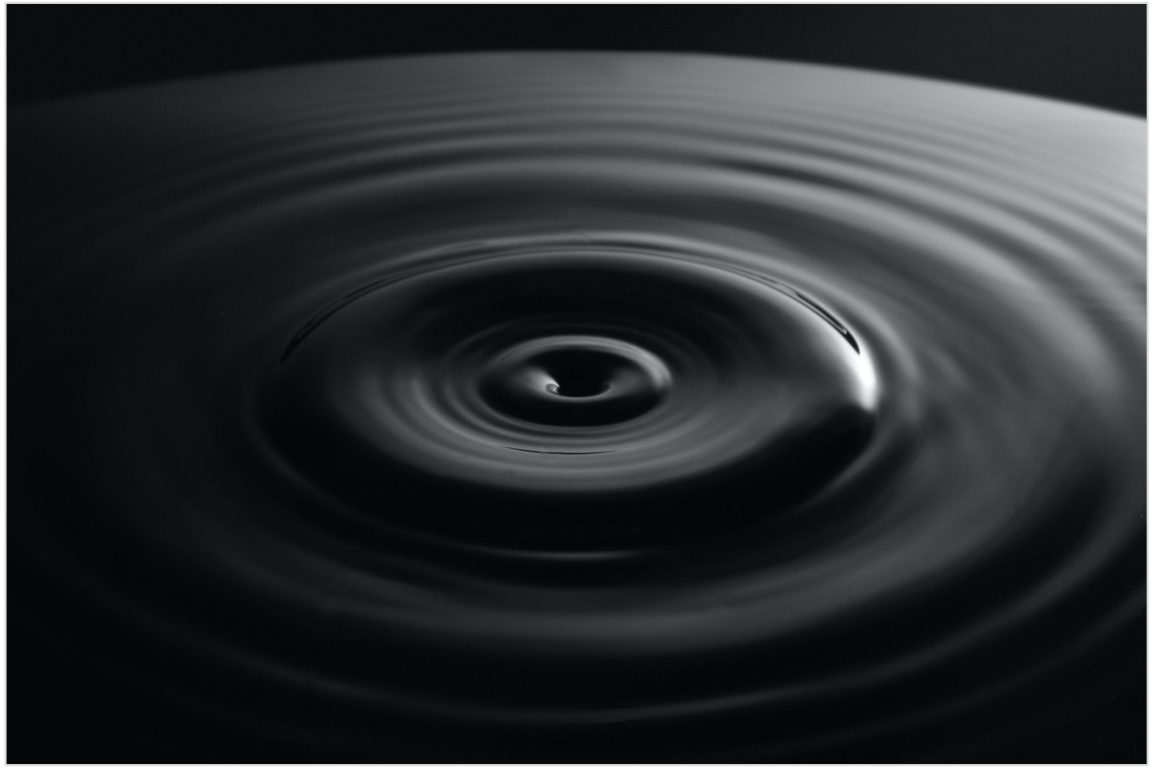
quick fix ----> ripple effect / longevity?

Photo credit: Julian Böck at unsplash.net

Design research informs and sparks the practical imagination

In service to that, you want to deliver data that you and the team can do something with:

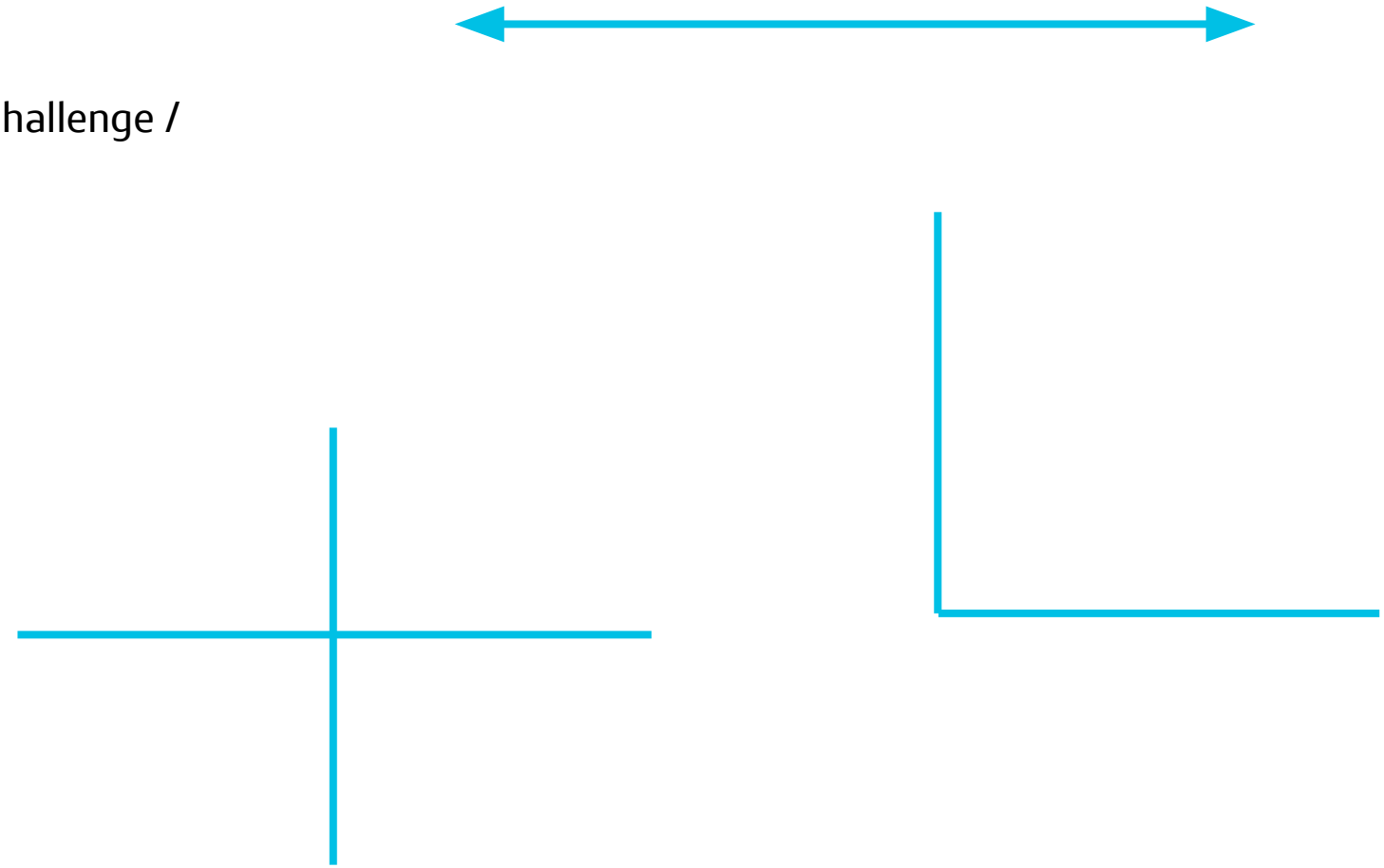
- Valid
- Believable
- Implies an action
- Durable
- *Memorable*



Guiding Frameworks

Frameworks help you focus and align

- A structure, ideally visual
- Helps you organize information or ideas
- Goal: Clearer thinking about a problem / challenge / thing you want to learn so that you can
  - Tackle it more easily
  - Get buy-in!
  - Keep yourself honest



Design Thinking Wayfinder: effective when not everyone is a designer

Oriented around broad research goals

Do you want to

- Gain broad and deep understanding?
- Generate, see, or gain quick feedback on multiple ideas or possible directions?
- Evaluate a few possible solutions "in situ?"
- Determine whether an envisioned solution has value or assess your "right to play" or "right to win?"

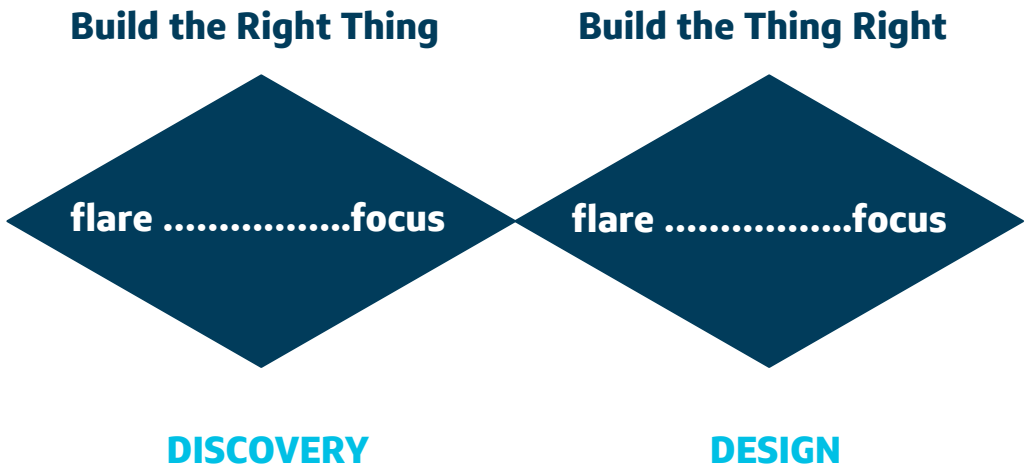
The Double Diamond: effective when team is grounded in Design

Oriented around “flaring” and “focusing”

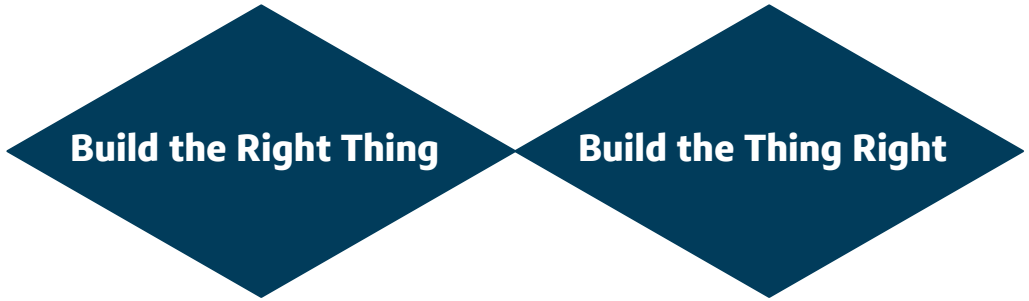
- Going wide to identify / “formative”
- Narrowing through evaluation / “summative”

Aligns methods to major Design phases

- Discovery
- Design



Either will work: which makes more sense to your team?

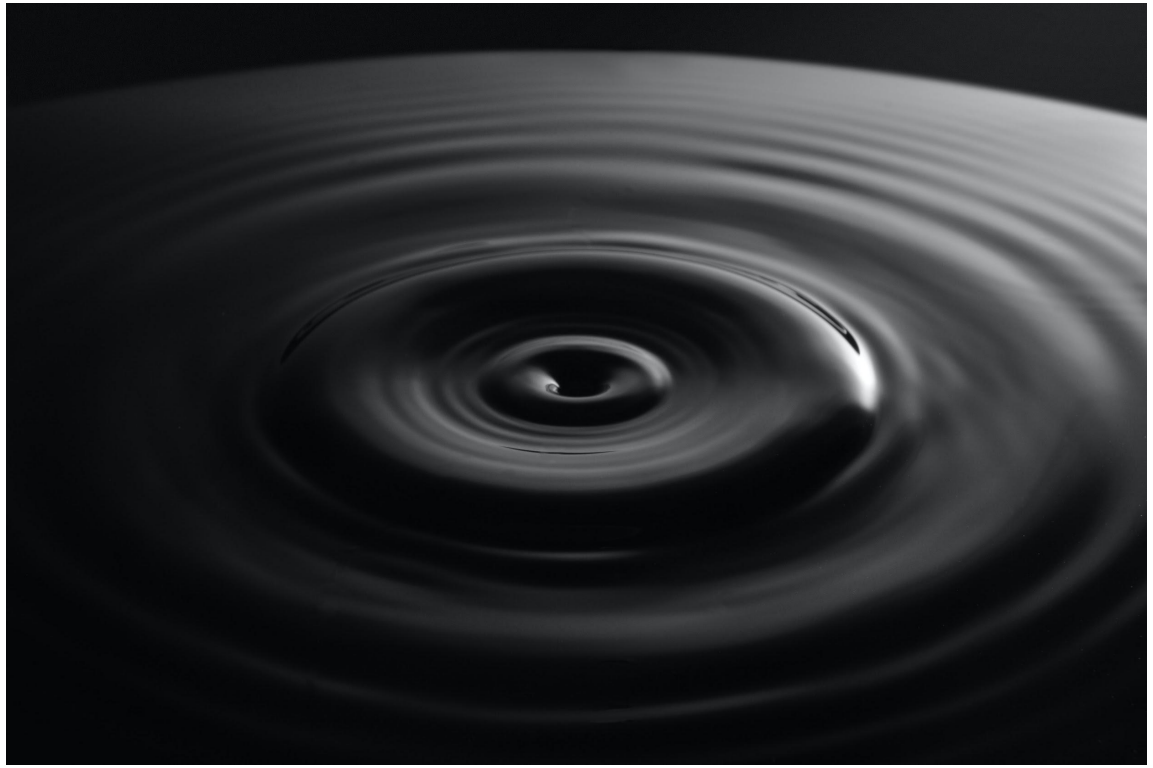


Versatile Methods

Using More than One Method Increases Value

Multi-method research

- Employs 2 (or ideally 3) methods
- Increases confidence in accuracy because it enables "triangulation"
- Helps you build well-rounded picture (3D!)
- Gives you more for storytelling > memory > spark / action



ripple effect....

A word about types of data gleaned via research

Attitudinal

- How a person *feels*
- What a person *thinks*
- Reasons to gather
  - Patterns / trends
  - Inform additional inquiry into behaviors

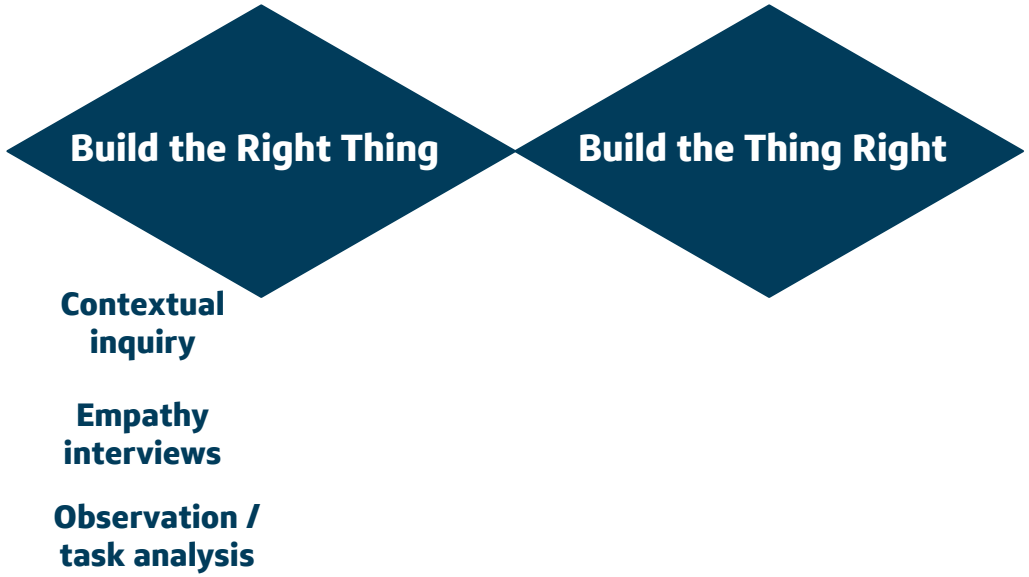
Behavioral

- What a person *does*
- *A better indicator of emotional drivers than attitudinal data*
- Able to be misinterpreted; used alone can lead to wasted time

Build the Right Thing: more unknowns *about your users* than knowns

Effective methods during flaring

- Observation, field studies, contextual inquiry
- Interviews
- Competitive Analysis



Observation, Field Study, or Contextual Inquiry

Definition

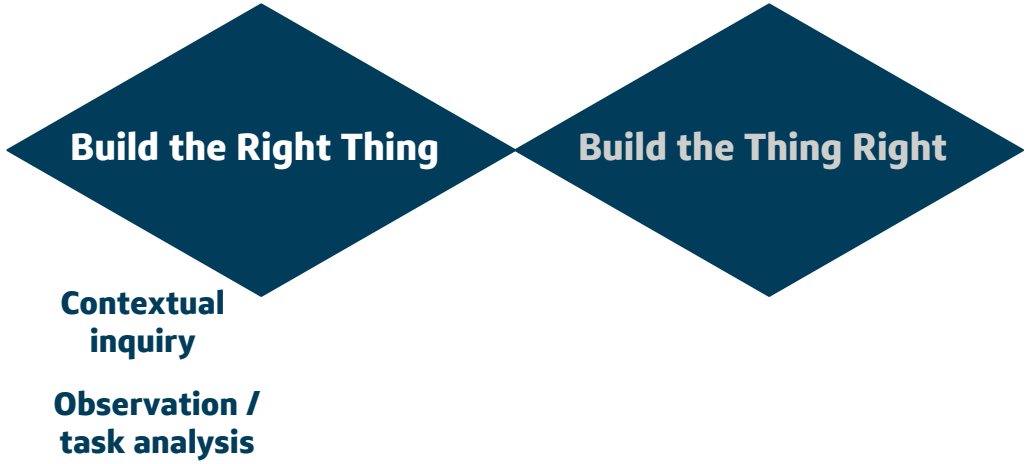
A method of immersing yourself in an environment in order to understand what's going on

Type of Data

Behavioral, qualitative

Use When

You need to understand the bigger picture



Good for	NOT good for	Drawbacks	Goes well with…
Understand full(er) context of behavior, especially how "job" gets done	Time-constrained, observe in multiple	Can be hard to conduct without affecting results, hard to get consent	To go wider (without specific questions), do ethnography To go deeper, pair with interviews

Interview

Definition

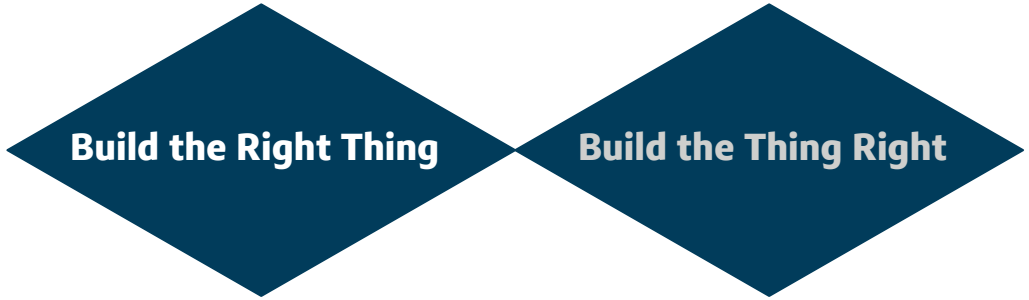
A method of collecting firsthand, personal accounts of an individual's experience, opinions, attitudes, and perceptions

Type of Data

Attitudinal, qualitative

Use When

You want depth of understanding, nuance



Empathy interview

Good for	NOT good for	Drawbacks	Goes well with…
Understanding why; getting deep / personal stories, audio / video	Statistical significance	Can be hard to conduct without bias; privacy concerns	Directed storytelling ("Tell me about a time when…"), surveys, co-creation

Competitive Analysis

Definition

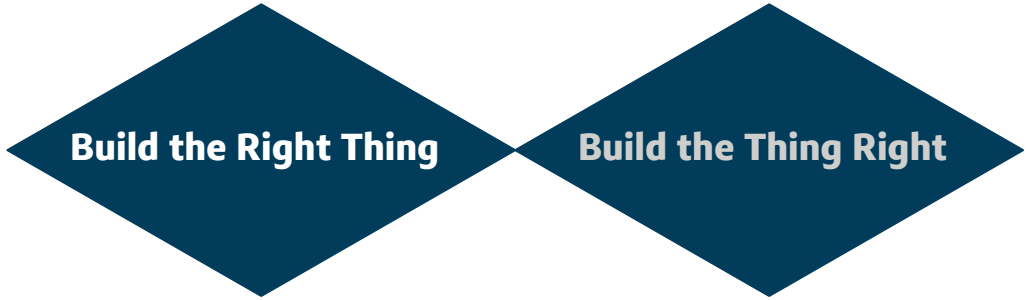
Evaluating competitor experiences against (relevant) criteria

Type of Data

Qualitative

Use When

You want to better understand the landscape / environment you are planning to design for



Good for	NOT good for	Drawbacks	Goes well with...
Understanding areas of opportunity	Directly informing design	Need well thought-out eval criteria	Heuristic or expert eval

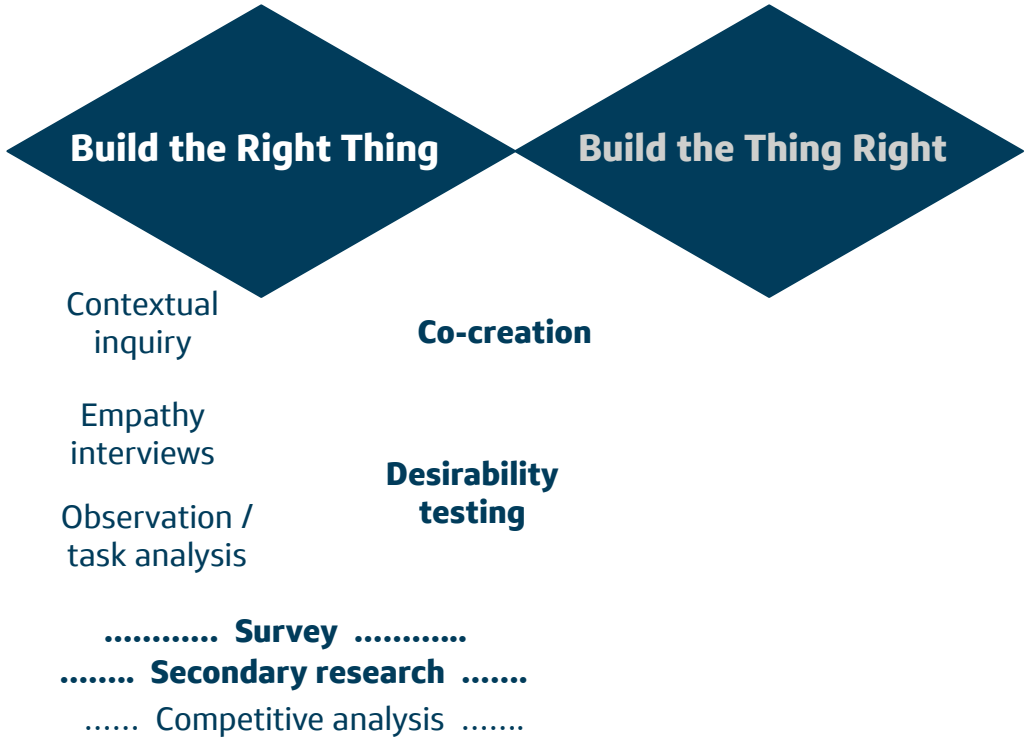
Build the Right Thing: more unknowns *about your users* than knowns

Effective methods during flaring

- Observation, field studies, contextual inquiry
- Interviews
- Competitive Analysis

During focusing

- Co-creation / ideation
- Desirablity testing
- Survey
- Secondary research



Co-Creation / Ideation

Definition

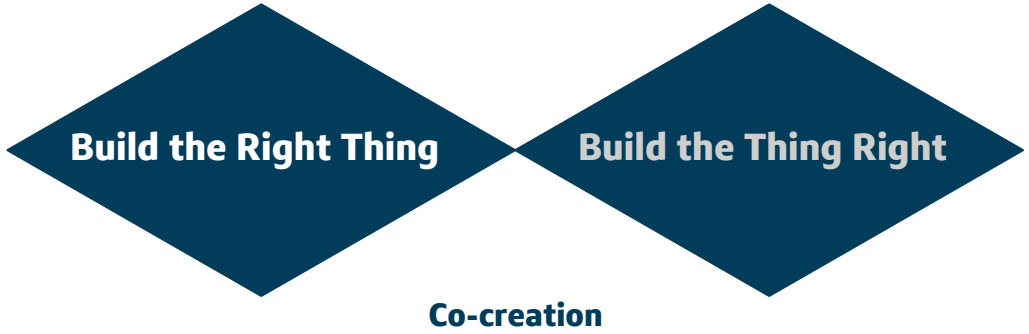
Engaging your users in the design process to envision solutions. Sometimes called “participatory design.”

Type of Data

Attitudinal, Qualitative

Use When

You want to generate ideas or potential solutions beyond those of the team



Good for	NOT good for	Drawbacks	Goes well with…
Getting user input (and therefore stakeholder buy-in) early	Validating a solution	Can be challenging to avoid bias	Interviews

Desirability Study

Definition

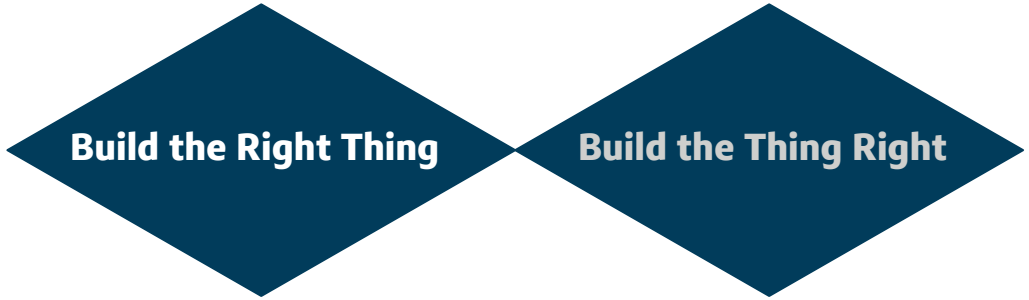
Asking participants to describe, using a range of positive, negative, and neutral adjectives, how a solution makes them feel

Type of Data

Attitudinal, Qualitative

Use When

The team needs to choose a design direction that most closely aligns with a brand or a set of desired emotions



Desirability testing

Good for	NOT good for	Drawbacks	Goes well with...
Understanding first impressions	"Proof" about the *effectiveness* of a solution	"Self-reported" data can be affected by outside forces	User interviews, Think aloud technique

Survey

Definition

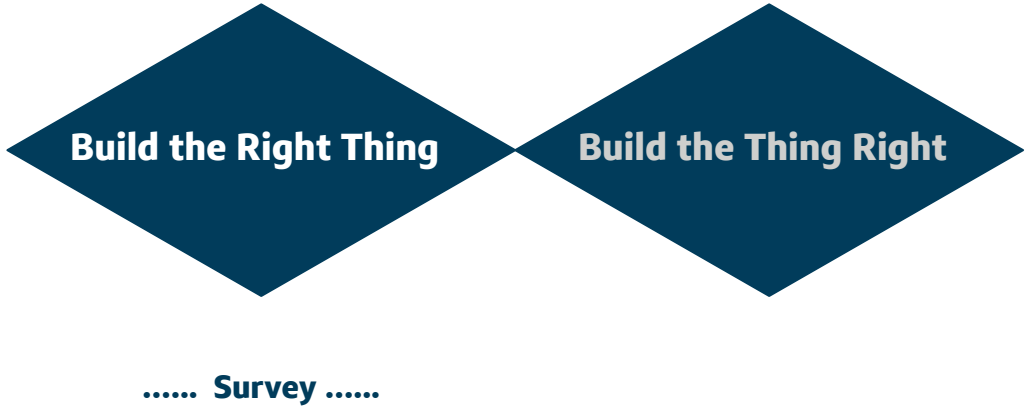
A method of collecting self-reported data about people's thoughts, feelings, perceptions, behaviors, or attitudes.

Types of Data

Attitudinal primarily, quantitative

Use When

You need a lot of easily quantifiable data relatively quickly



Good for	NOT good for	Drawbacks	Goes well with...
Going broad, getting quantity, gaining direction	Understanding why	Can be hard to analyze	Think-aloud + recording (structured interview)

Secondary Research

Definition

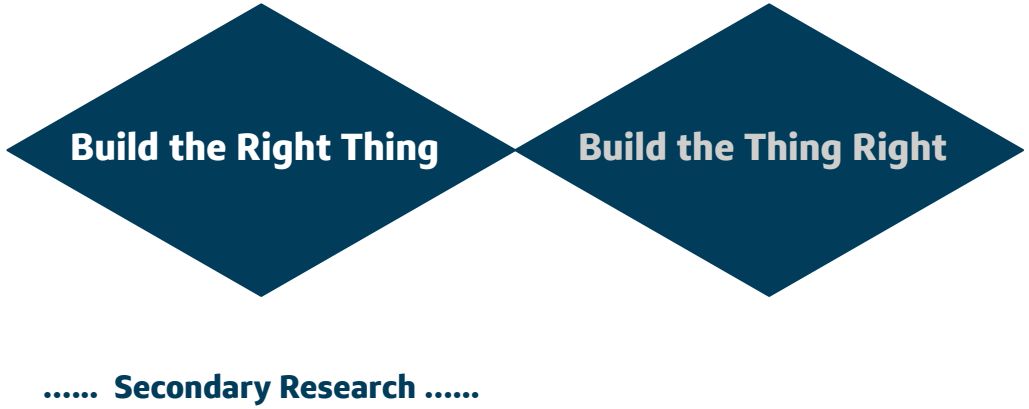
Collecting and synthesizing existing data (rather than data you have gathered yourself)

Type of Data

Attitudinal, Behavioral, Qualitative, Quantitative

Use When

You want to understand what has already been learned



Good for	NOT good for	Drawbacks	Goes well with...
Focusing your own research, gathering comparison data	Research with your actual users	Easy to "cherry pick" insights Sources should be authoritative	Stakeholder interviews

Build the Right Thing: more unknowns *about your users* than knowns

Effective methods during flaring

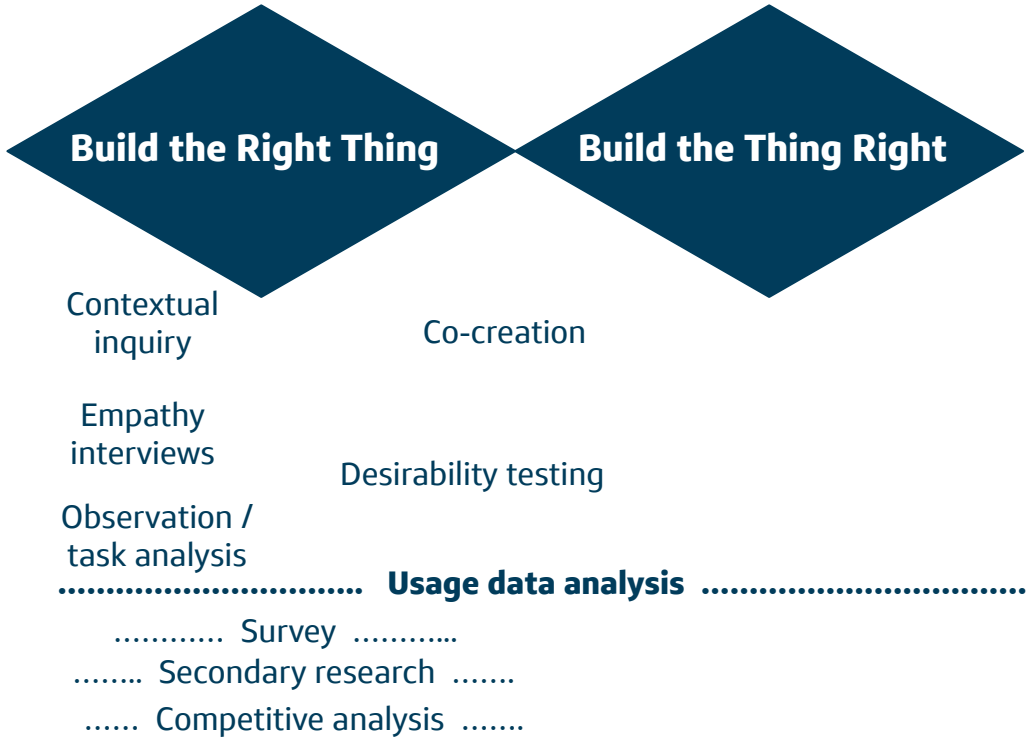
- Observation, field studies, contextual inquiry
- Interviews
- Competitive Analysis

During focusing

- Co-creation / ideation
- Desirablity testing
- Survey
- Secondary research

Everywhere

- Usage data analysis



Site Usage Data Analysis

Definition

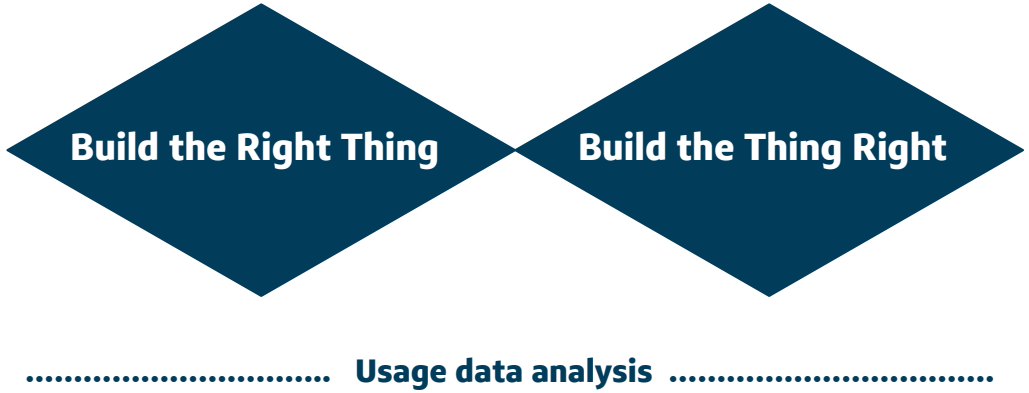
Looking at the data the system gathers on itself about how people are interacting with it. (AKA, automated remote research)

Type of Data

Behavioral, quantitative

Use When

You need to (begin to) understand where users are or are not meeting with success in your solution

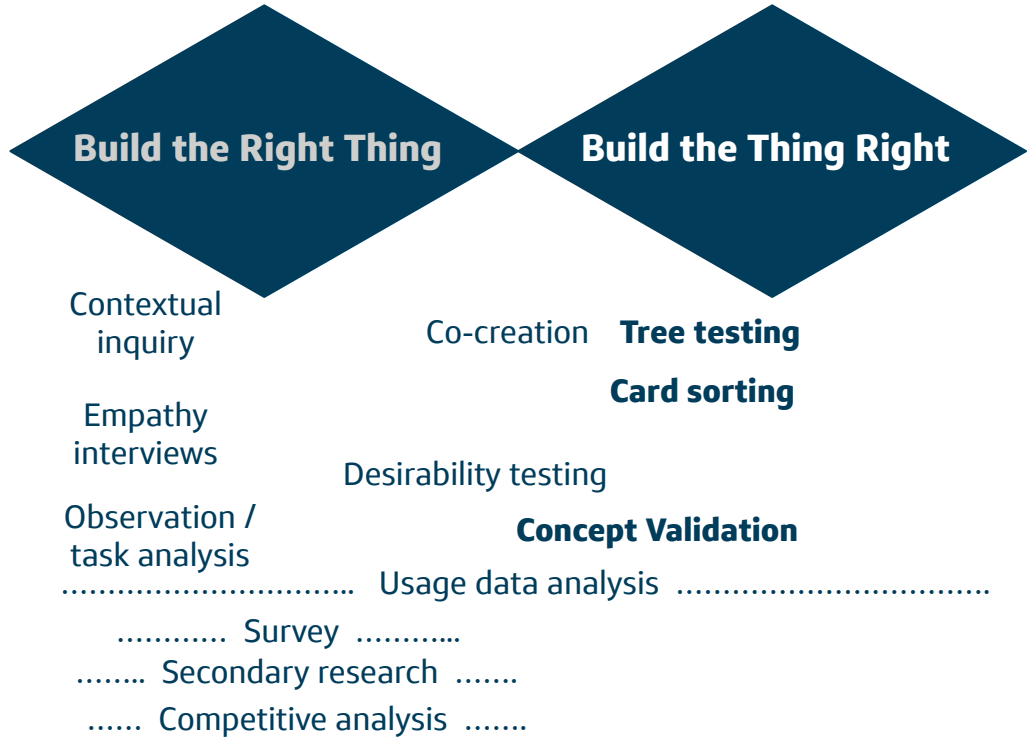


Good for	NOT good for	Drawbacks	Goes well with…
Seeing what's actually going on live, getting statistical significance	Understanding why	Tech limitations can lead to sparse or even bad data	Usability testing, expert / heuristic review

Build the Thing Right: more unknowns *about your solution* than knowns

Effective methods during flaring

- Concept Validation
- Think aloud (technique)
- Tree testing
- Card sorting



Concept Validation

Definition

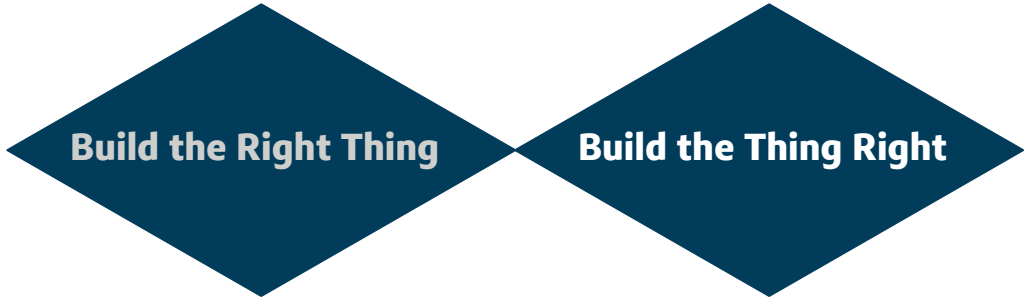
Placing multiple low fidelity stimuli (e.g., wireframes or design comps) in front of users in order to solicit feedback on the strengths and weaknesses of a potential solution

Type of Data

Attitudinal, behavioral, qualitative

Use When

You are considering multiple possible solutions



Concept Validation

Good for	NOT good for	Drawbacks	Goes well with…
Getting gut reactions to differing solutions, soliciting ideas	Getting definitive answers	Can be hard to conduct without bias, affecting results	Think aloud, desirability testing

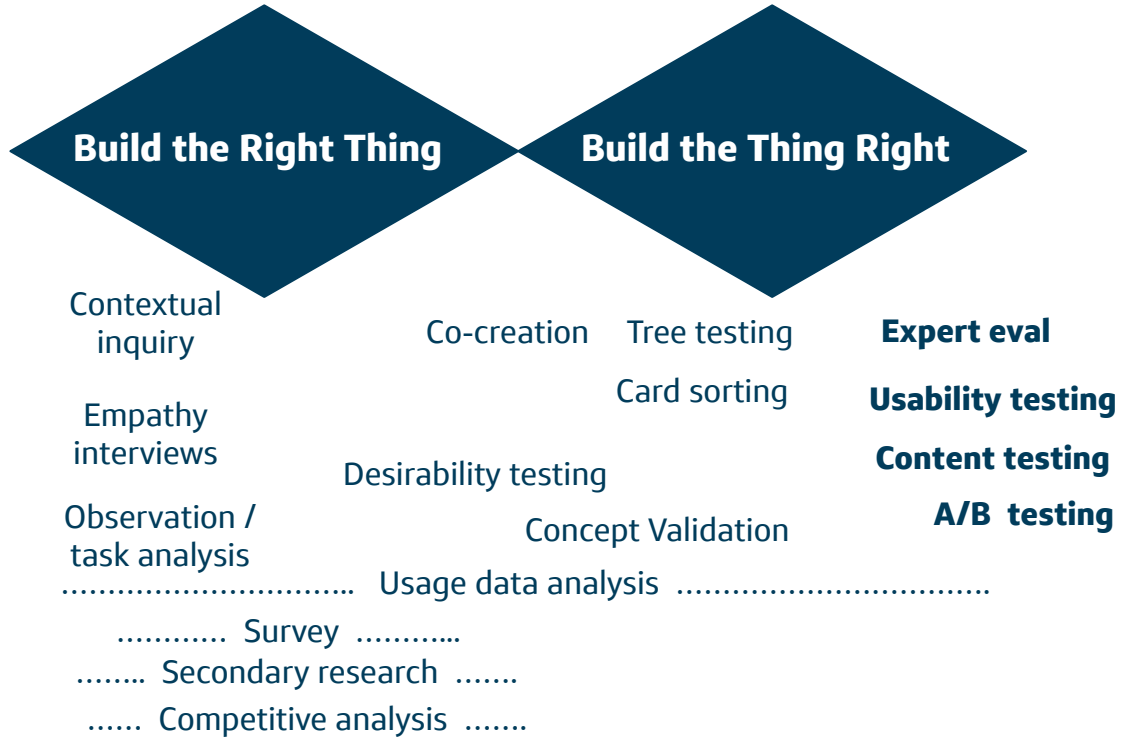
Build the Thing Right: more unknowns *about your solution* than knowns

Effective methods during flaring

- Concept Validation
- Think aloud (technique)
- Tree testing
- Card sorting

During focusing

- Expert or heuristic eval
- Usability testing
- Content testing
- A/B testing



Usability Testing

Definition

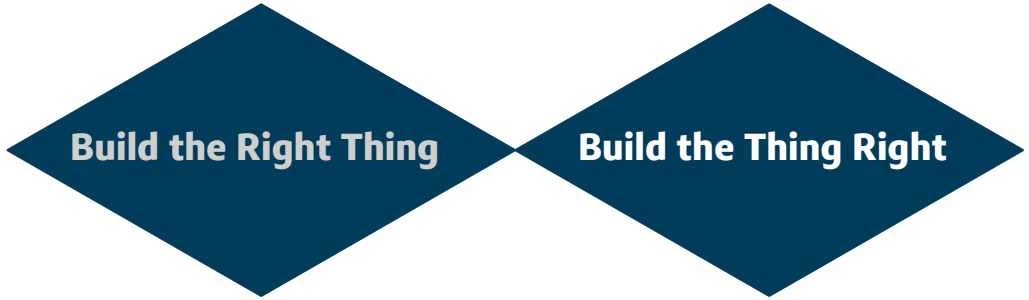
A method where you observe users attempting to complete a defined task using your solution

Type of Data

Behavioral, qualitative

Use When

Your solution is “built” and you want to make sure there are no design or technical hindrances to user success



Usability Testing

Good for	NOT good for	Drawbacks	Goes well with…
Identifying things that need to be fixed	Understanding the value of a solution	Can be technically difficult to execute realistically	Think-aloud + recording

Expert / Heuristic Evaluation

Definition

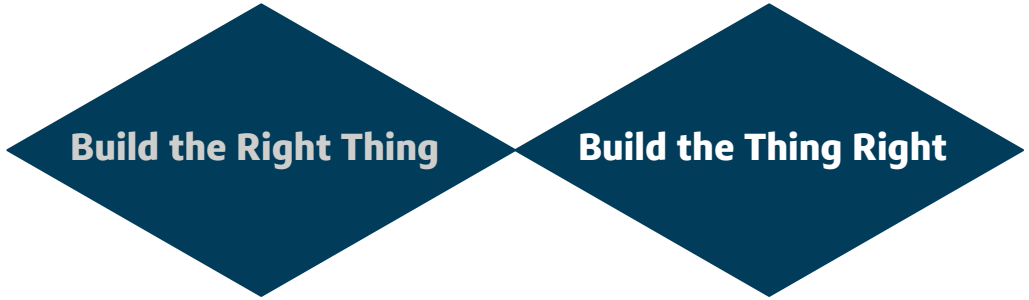
Using an agreed-upon set of criteria to evaluate an existing or proposed solution

Type of Data

Attitudinal, Behavioral, Qualitative, Quantitative

Use When

You want to quickly identify things to change that improve a solution's effectiveness



Expert / Heuristic Eval

Good for	NOT good for	Drawbacks	Goes well with...
Identifying low-hanging fruit	Exploring the unknown	Can be prone to bias, requires clear criteria	Usage data analysis

A/B Testing

Definition

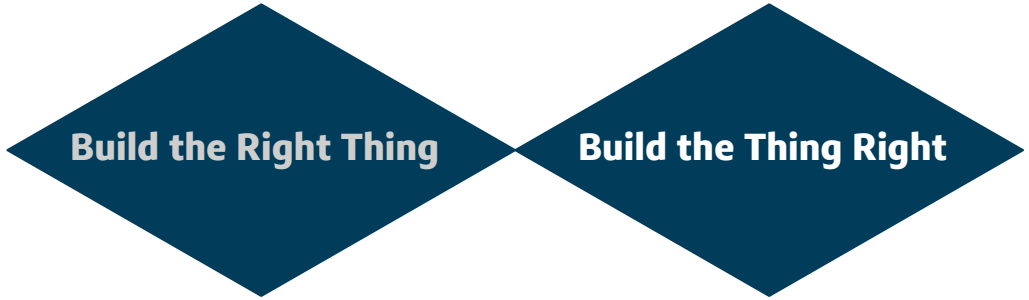
Launching two potential solutions simultaneously

Type of Data

Behavioral, Quantitative

Use When

You want real usage data on which solution performs better against a stated goal



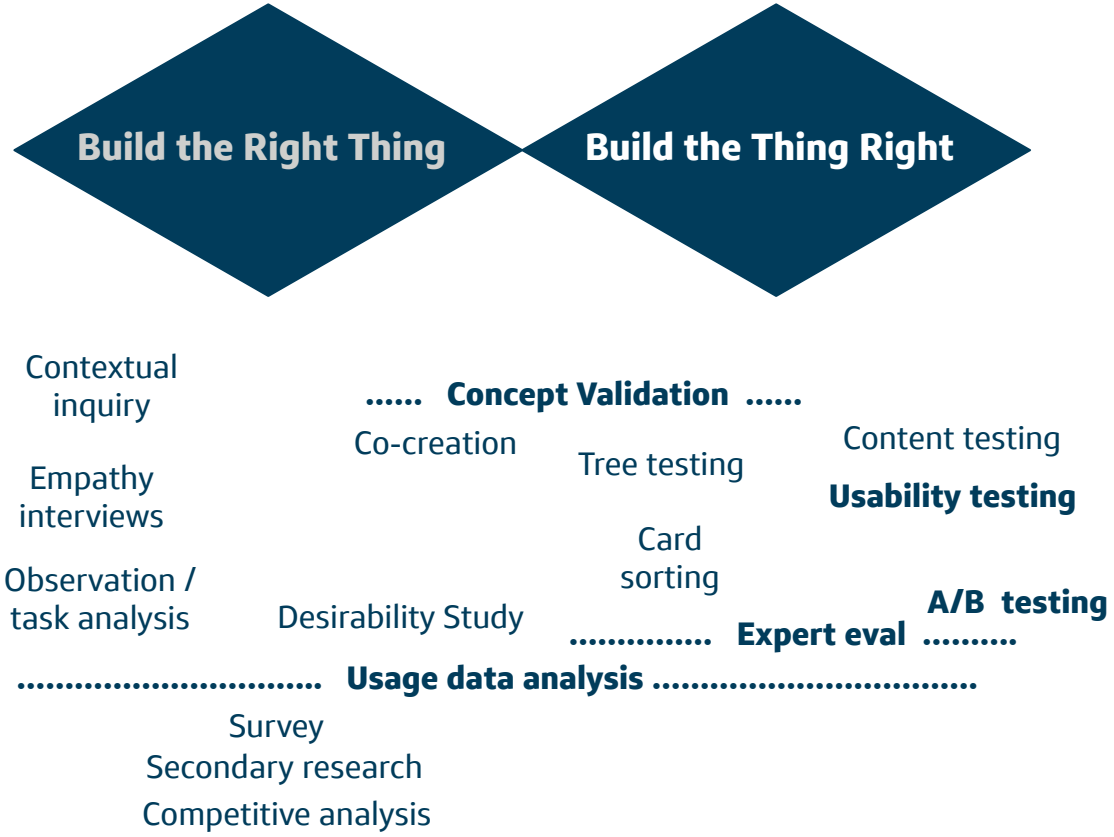
A/B Testing

Good for	NOT good for	Drawbacks	Goes well with…
“Proof” of performance	Understanding why	Tech limitations can impede	Expert / heuristic eval

Scenarios

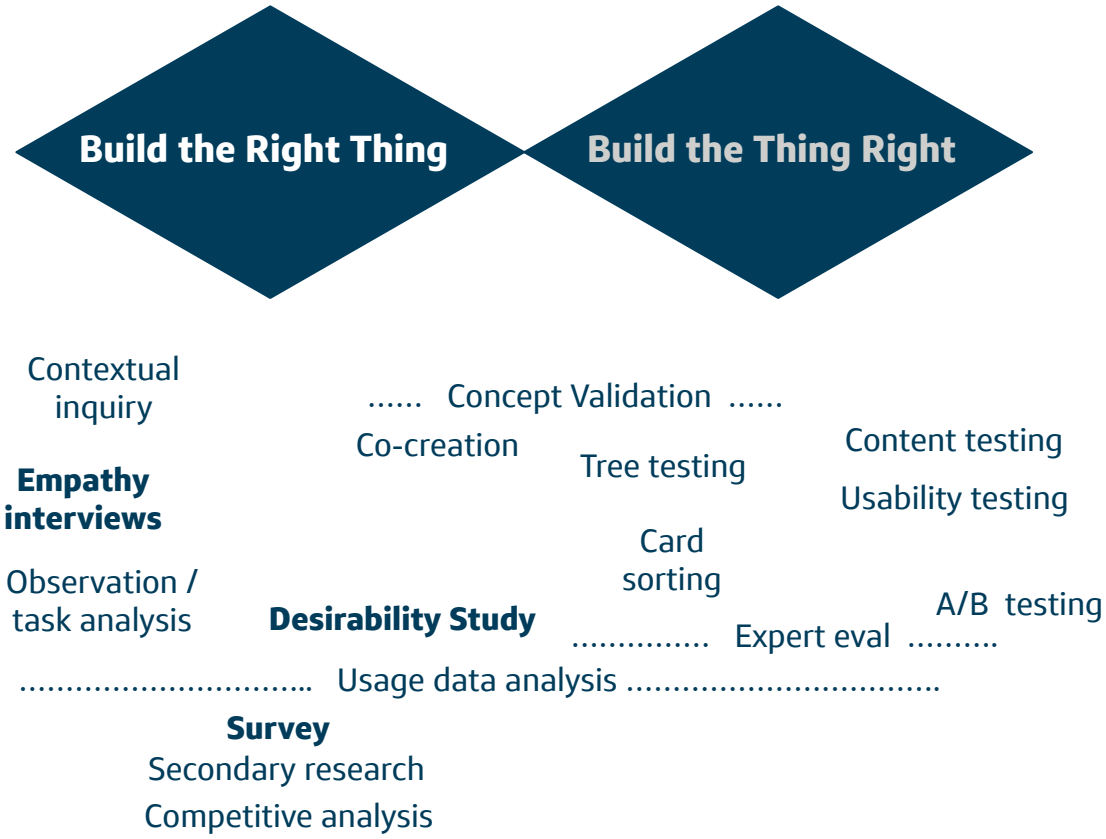
Example: Increase effectiveness of an existing experience

- Research goal: Understand obstacles to purchase on our website so that we might convert 20% of browsers into buyers
- Audience: Design, Product, Tech
- Success: Clear identification of what needs to change
- Approach / Methods:
  - Phase 1:
    - Site analytics > dropoff?
    - Expert eval
  - Phase 2:
    - Concept Validation or usability testing: think aloud, even unmoderated and recorded via platform like usertesting.com
  - Phase 3:
    - A/B testing



Example: Identify potential new offerings

- Research goal: Understand how current events are affecting target audience's emotions so that we can conceive of additional valuable offerings
- Audience: Leadership, teams
- Success: spark the imagination and support proposals with robust storytelling
- Approach / Methods:
  - Phase 1: Blind survey to identify attitudinal trends
  - Phase 2: Blind empathy interviews, recorded
    - Directed storytelling technique: "Tell me about a time when…" > avoids prediction
  - Phase 3: Desirability study > optimal emotional response



Example: Understand where your online experience can support an offline experience

- Research goal: Understand unmet needs in an existing experience
- Audience: Design and Product
- Success: Accurate identification of friction or failure points
- Constraints:
  - Preconceived notions about opportunity
  - Limited access to offline environment
  - Presence can't interfere with results
- Approach / Methods:
  - Phase 1: Secondary research > assumptions accurate?
  - Phase 2: Observation with selected partners > areas of opportunity
  - Phase 3: Survey > phase 2 findings widespread?

In Closing

Design research is about the results: are you fueling the practical imagination?

Did you select methods that gave you and your team data that is

- Valid
- Believable
- Actionable
- Durable
- *Memorable*

If so, you have used the right methods in the right ways!

Thank You!

For Additional Information or Questions:
Meghan.Rennie@capitalone.com

Appendix

Please learn more about…

Mitigating Bias	Writing a Problem Statement	Writing a Research Goal	Specifics on Using Individual Methods
Don’t taint your results!	Example: How might we improve our website so that we increase sales?	Example: Understand obstacles to purchase on our website so that we increase the number of browsers who buy by 20%.	*See the UXR&S website for some resources*

Versatile, Tried-and-True Methods

Method	Good for	NOT good for	Drawbacks	Goes well with…
Surveys	Going broad, getting quantity, gaining direction	Understanding why	Can be hard to analyze	Think-aloud + recording
User Interviews	Understanding why; getting deep / personal stories, audio / video	Statistical significance	Can be hard to conduct without bias; privacy concerns	Directed storytelling
Observation / Field Studies / Contextual inquiry	Understand full(er) context of behavior, especially how "job" gets done	Time-constrained, observe in multiple	Can be hard to conduct without affecting results, hard to get consent	To go wider (without specific questions), do ethnography To go deeper, pair with interviews
Usage Data Analysis	Seeing what's actually going on live	Understanding why	Tech limitations can lead to sparse or even bad data	Usability testing, heuristic review
Concept Validation	Getting gut reactions to differing solutions, soliciting ideas	Getting definitive answers	Can be hard to conduct without bias, affecting results	Co-creation, co-ideation
Competitive Analysis	Understanding areas of opportunity	Directly informing design	Need well thought-out eval criteria	Heuristic or expert eval
Secondary Research	Focusing your own research	Research with your actual users	Easy to "cherry pick" insights	Stakeholder interviews
A / B Testing	Real-usage data in quantity	Understanding why	Tech limitations can impede	Think-aloud + recording
Expert / Heuristic Evaluation	Identifying low-hanging fruit	Exploring the unknown	Can be prone to bias, requires clear criteria	Usage data analysis
Desirability Study	Understanding first impressions	"Proof" about the effectiveness of a solution	"Self-reported" data can be affected by outside forces	User interviews
Usability Testing	Identifying things that need to be fixed	Understanding the value of a solution	Can be technically difficult to execute realistically	Think-aloud + recording


Capital One
Experience
Design