Design Thinking and Experimentation

August 13, 2025

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Presenter

Natalie Foley
UBC Senior Advisor
Costello Adjunct Lecturer
MBA
Former CEO of Peer Insight, an innovation and design thinking firm
Co-author of *The Experimentation Field Book: A Step-By-Step Project Guide*

What is UBC?

University Business Consulting (UBC) is an **internal George Mason management consulting** practice committed to identifying and capitalizing on **opportunities for innovation,** turning data into **insights**, and **increasing efficiency** across George Mason University.

Using our **experience in higher education**, **project management, facilitation, analytics, and strategic planning**, we work alongside our George Mason clients to devise solutions that **support them in reaching their goals** across the university.

UBC is located within the Office of the President.

https://consulting.gmu.edu/

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Learning Objectives

We'll answer these questions:

1. What is Design Thinking and Experimentation?
2. When and how might I use it?
3. How do others use it? What are some examples?

Highest Level Definition

Design Thinking

A problem-solving toolkit that is:

- Human-centered
  - Starts with and focuses on deeply understanding the unmet need to solve for
- Iterative
- Collaborative
- Optimized for the “new” or improving something
- *Origination: product design*

…and its "extended family"

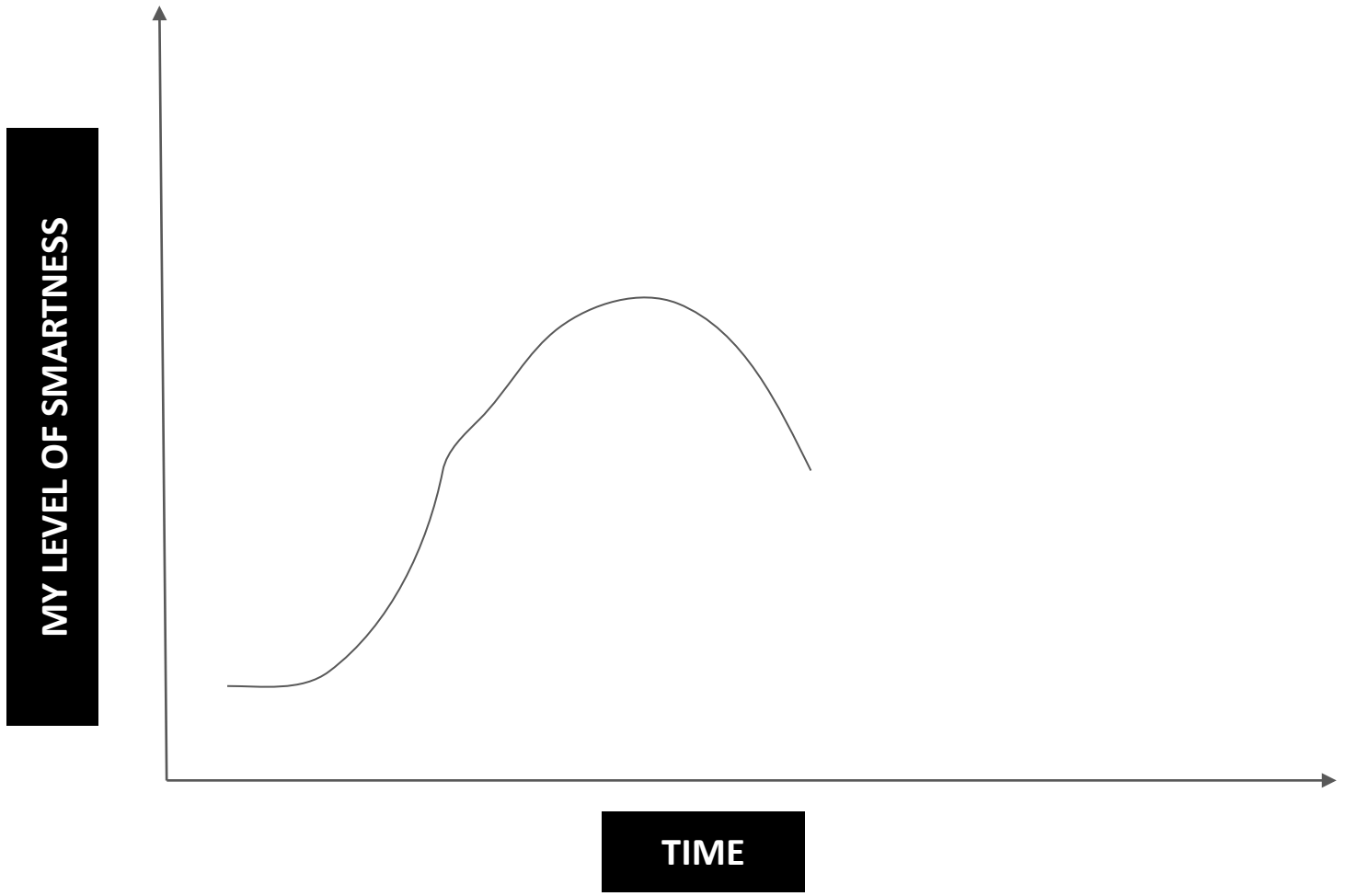
- Growth Mindset
- Lean Startup
- Scientific Method
- Entrepreneurship
- Engineering
- Innovation
- Agile
- Creative Problem Solving
- Customer Experience

Reflection Question

Are you creating a new program, service, class or way of working?

Are you working on a program, service, class, or process that you think might need a refresh or improvement?

Why I Got Interested In Design Thinking



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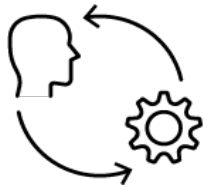
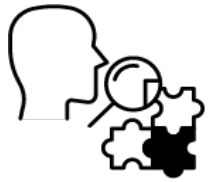
Problem Solving Spectrum



KNOWN KNOWNS

execution/implementation

Checklist Thinking



KNOWN UNKNOWNS

search, sort, and solve

Analytical Thinking

Planning
Logical/rational
Proving what's best
Pursuit of control and stability

UNKNOWN UNKNOWNS

innovation

Design Thinking

Experimenting
Human/emotional
Iterating towards better
Pursuit of exploration

Organizations That Use Design Thinking

Principles of Design Thinking

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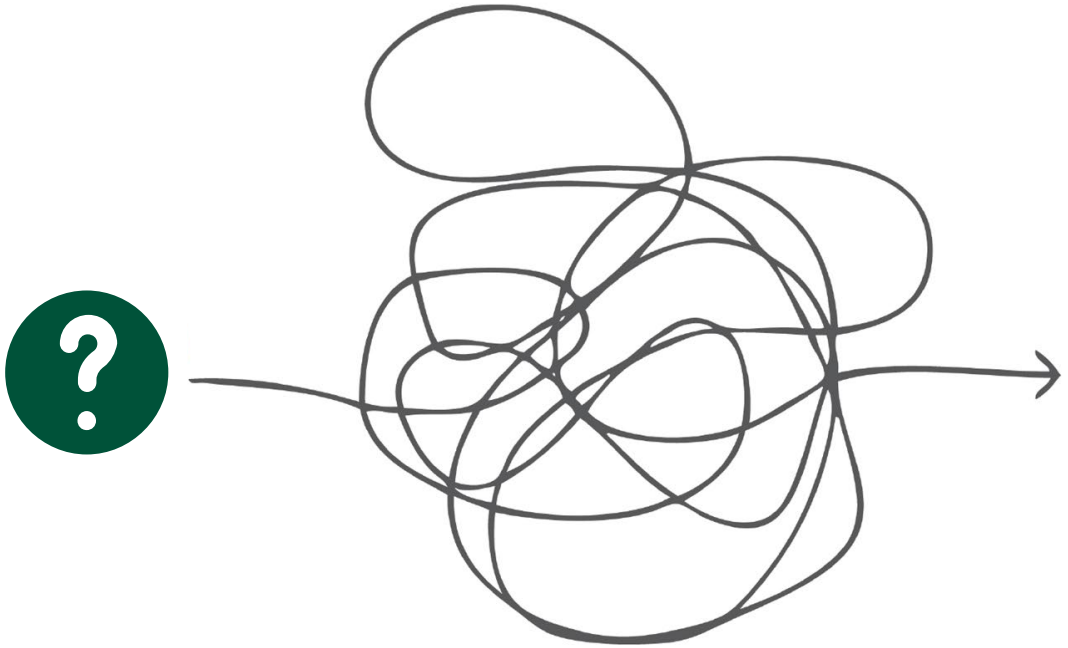
What Is Happening In This photo?

Design Thinking and Analytical Thinking

FRAMEWORK	ANALYTICAL	DESIGN
Underlying Assumptions	Rationality, objectivity; Reality as fixed and quantifiable	Subjective experience; Reality as socially constructed
Method	Analysis aimed at proving one "best" answer	Experimentation aimed at iterating toward a "better" answer
Process	Planning	Doing
Decision Drivers	Logic; Numeric models	Emotional insight; Experimental models
Values	Pursuit of control and stability; Discomfort with uncertainty	Pursuit of novelty; Dislike of status quo
Levels of Focus	Abstract or particular	Iterative movement between abstract and particular

MAYO CLINIC

Creating Something "New" Can Feel Daunting



New

...program

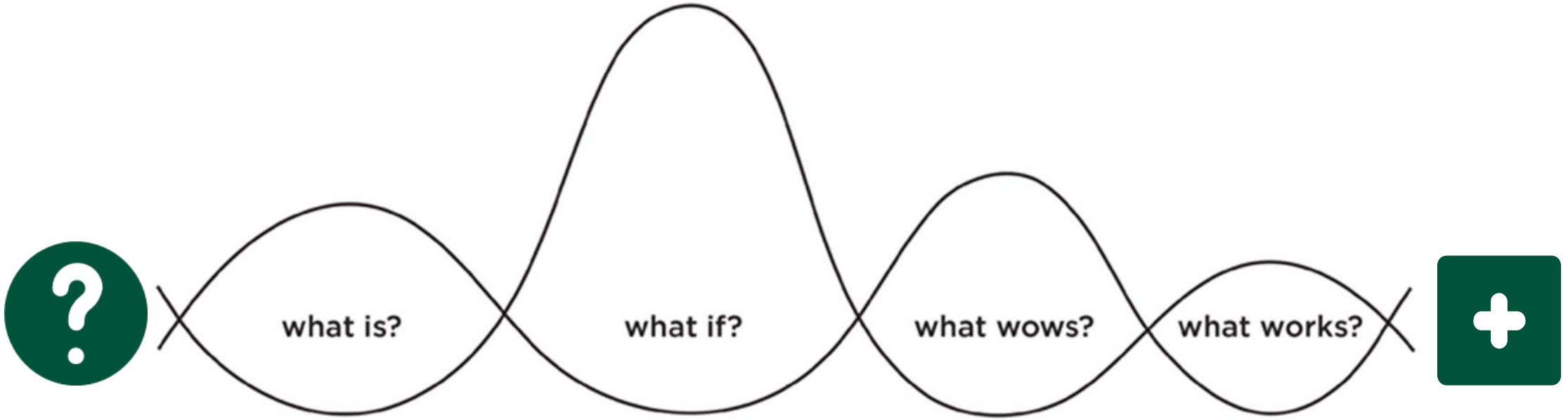
...process

...customer

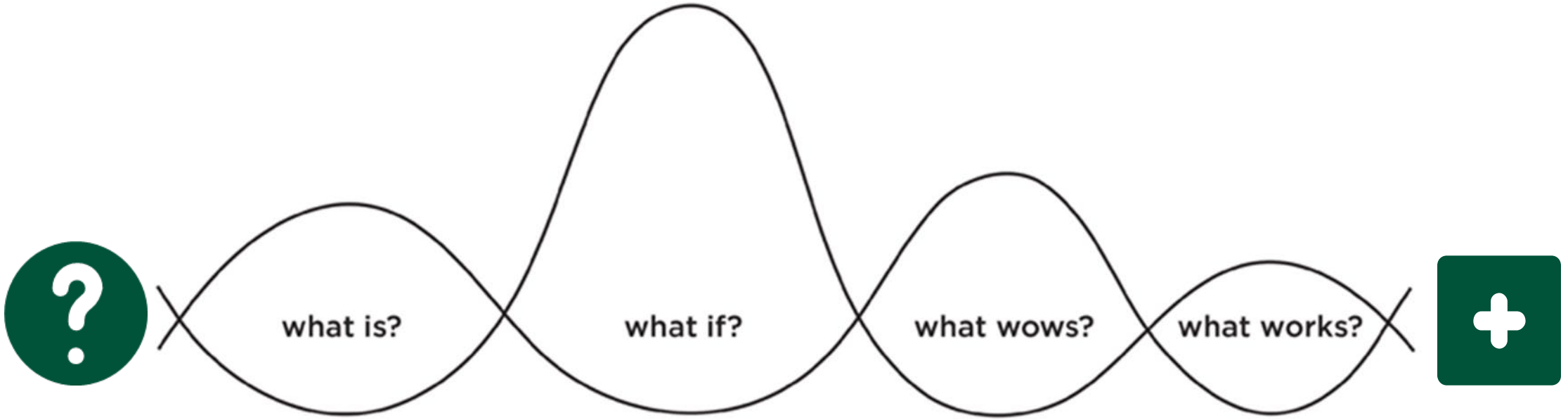
...experience

...team

Design Thinking Process: 4 Questions



Design Thinking Tools



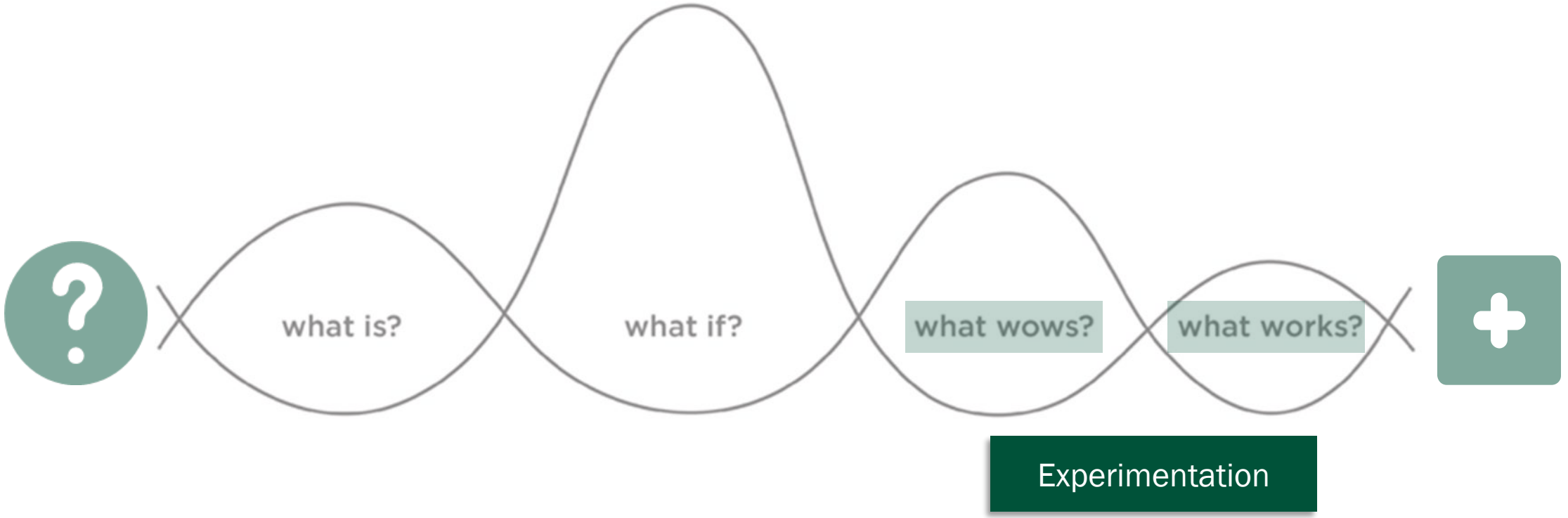
Framing
User interviews
Observing
Analyzing
Visualizing (Journey mapping, Jobs-To-Be-Done, etc..)

Exploring
Brainstorming
Creating

Prototyping
Refining
Experimenting

Testing
Experimenting
Implementing

Experimentation Is Key To The Design Thinking Process



Why Experimentation Is Important

Experimentation protects you from overspending on a solution that won't work for the people you designed it for.

It encourages you to test a portfolio of ideas rather than converging prematurely on a single idea.

Through experiments, **you learn how to scale** your idea effectively and successfully.

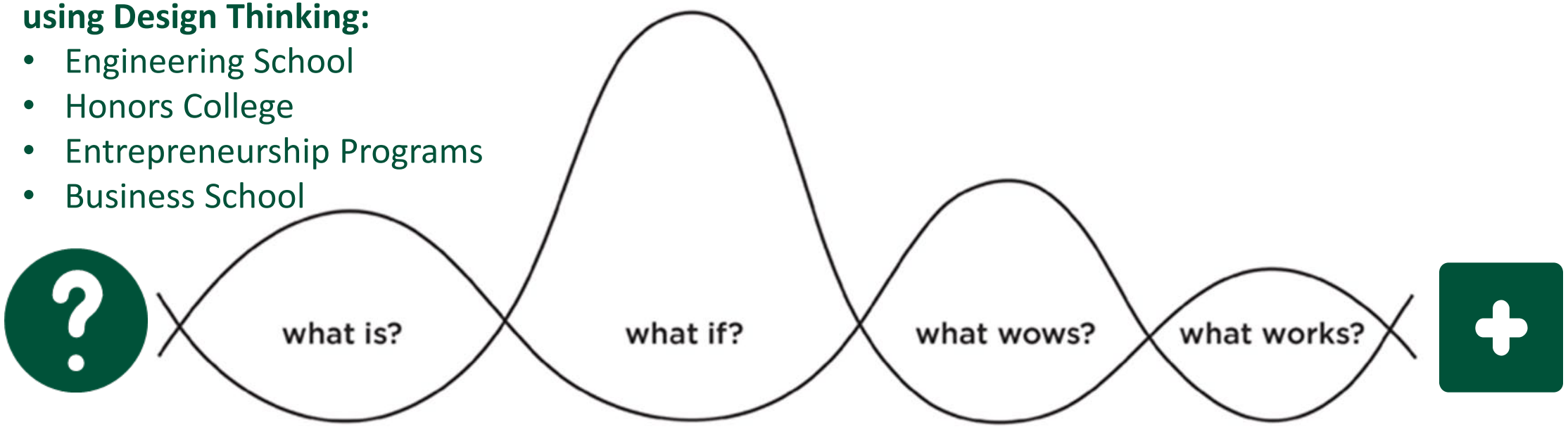
You'll get to know your early adopters and incorporate their feedback.

Experimentation is engaging! It gets you out of the conference room and into the real world.

Design Thinking At Mason

Examples of George Mason curriculum using Design Thinking:

- Engineering School
- Honors College
- Entrepreneurship Programs
- Business School



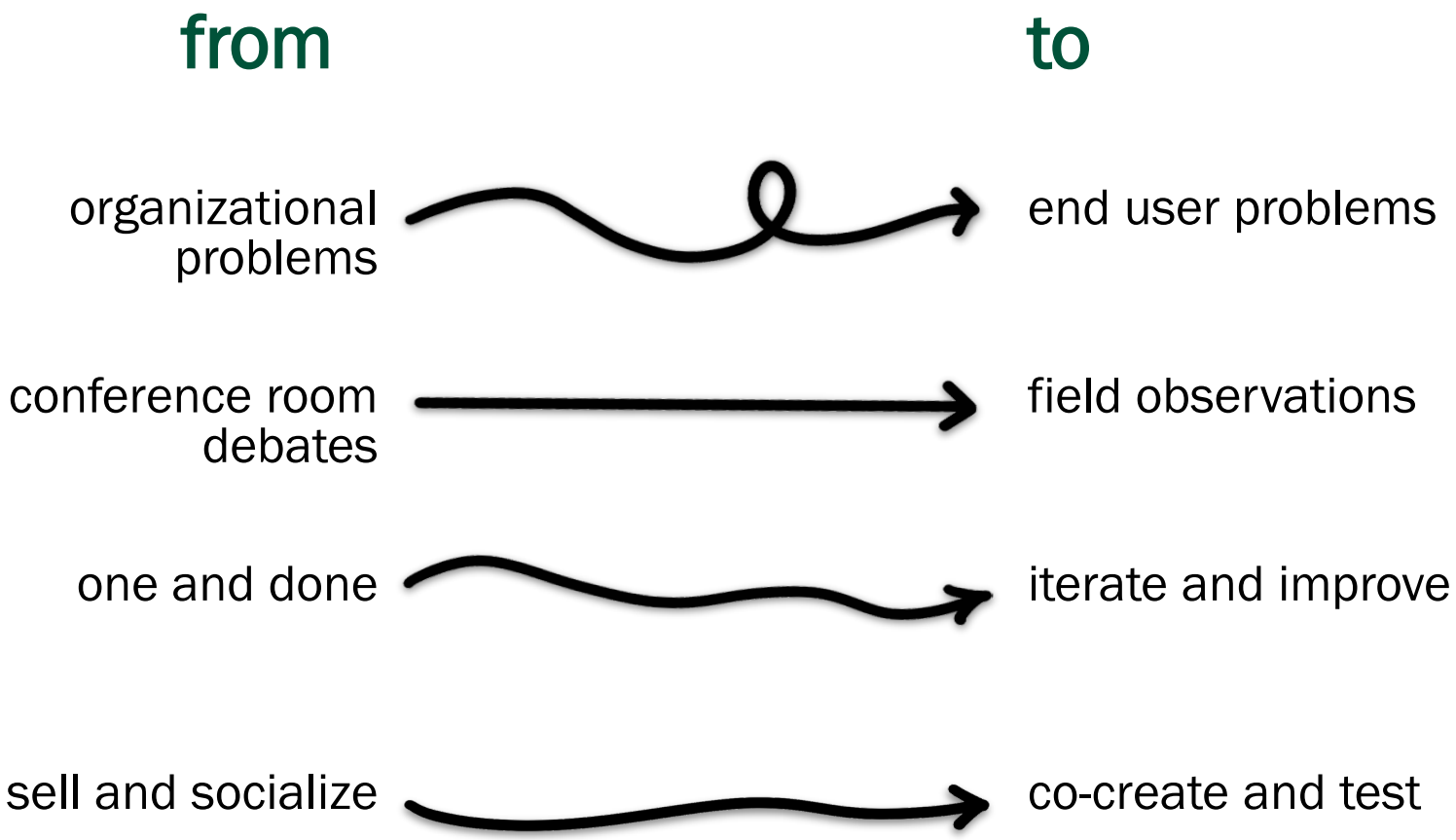
Examples of UBC projects using Design Thinking:

- University Life Student Journey Teams
- College of Public Health Strategic Plan
- Grand Challenge Initiative
- Freedom Aquatic Fitness Center

Mindset Shifts With Design Thinking For Individuals

from		to
I have the answer	→	we **co-create** the answer
idea	→	**impact**
being right	→	**iterating** to better
solution	→	**problem**

Mindset Shifts With Design Thinking For Organizations



A Scenario

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Bringing a new program into reality means **confronting uncertainty**.

What do students even want? What would truly **solve a pain point they have?**

I have a rough idea or two of a concept, but **how do I decide what to build?**

Bringing a new concept into reality means **confronting uncertainty**.

Students say they like it, but **will they actually engage with it?**

Can we deliver this concept **at scale?** What **resources** do we need?

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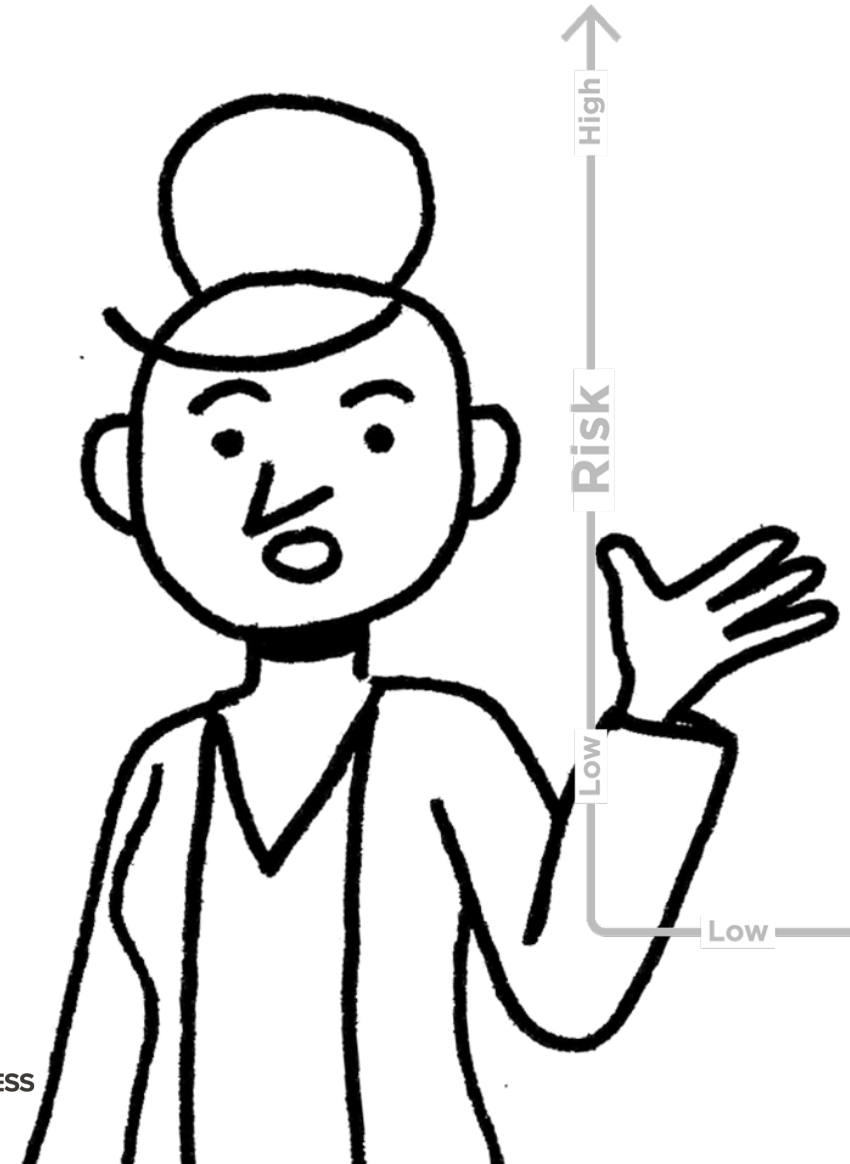
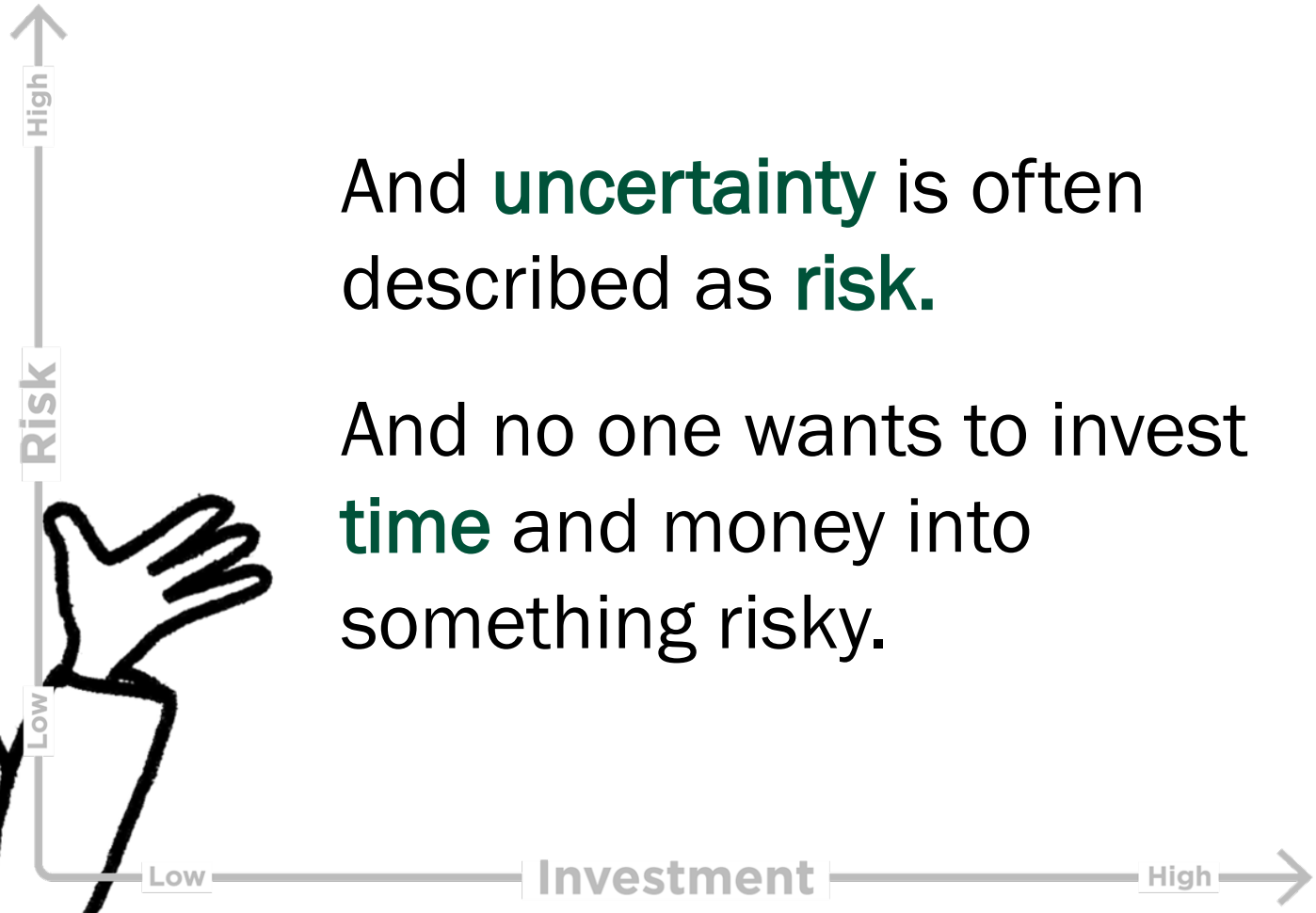


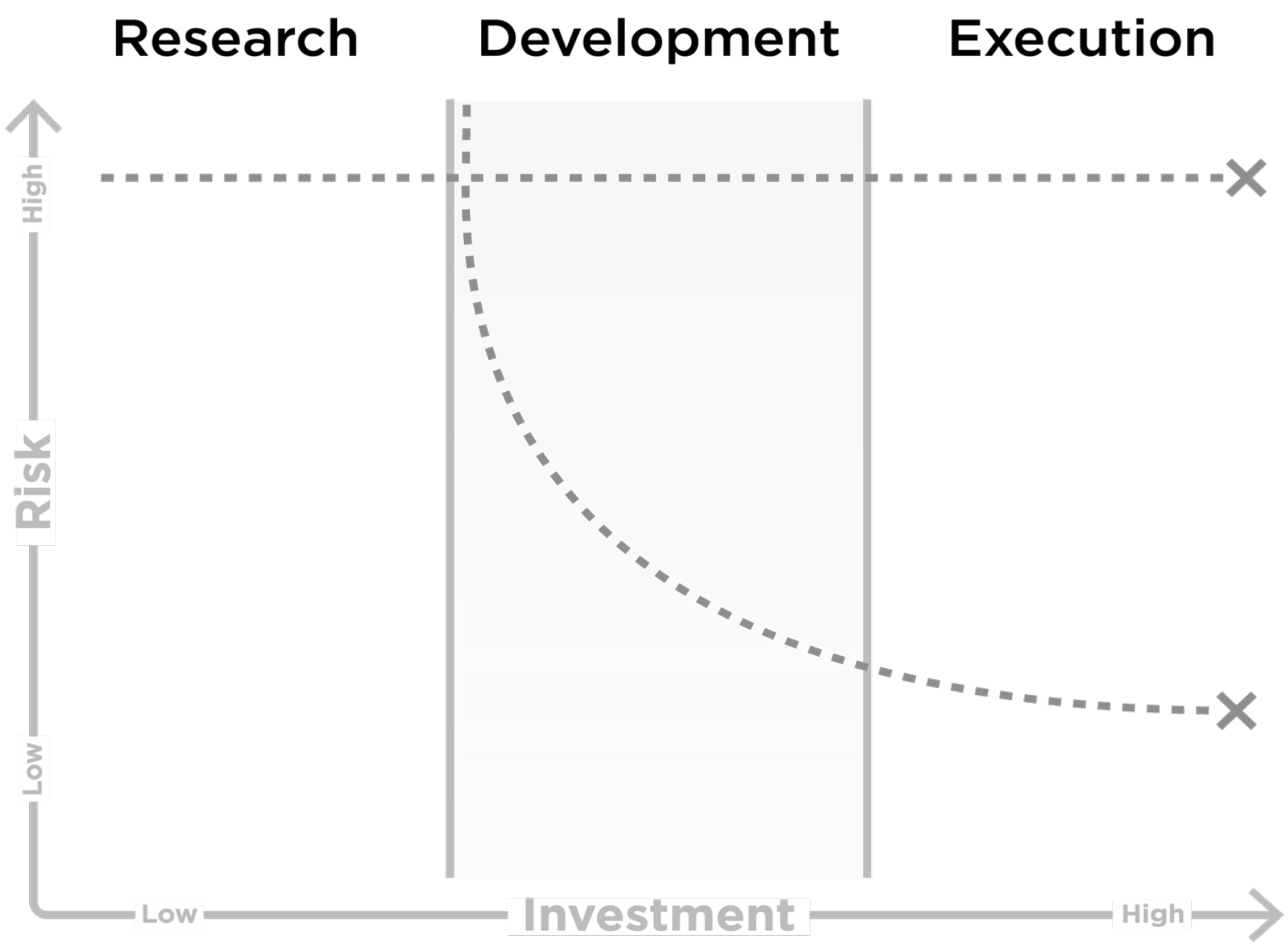


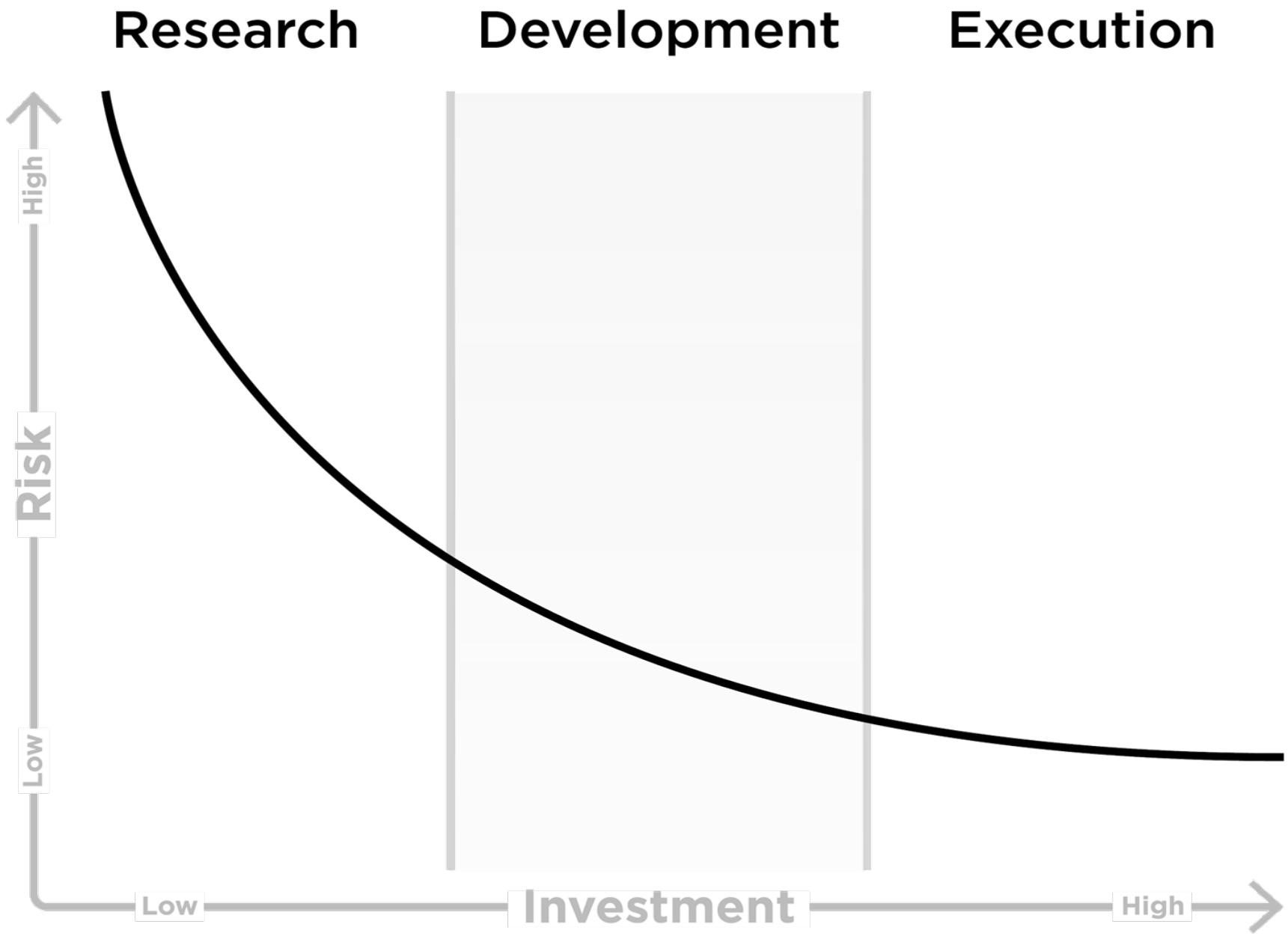
And **uncertainty** is often described as **risk.**

And no one wants to invest **time** and money into something risky.

We don’t want to build-out a new program without investing in **de-risking** it first.

Invest in de-risking > Invest in an Idea


Research
Development
Execution
High
Risk
Low
Low
Investment
High



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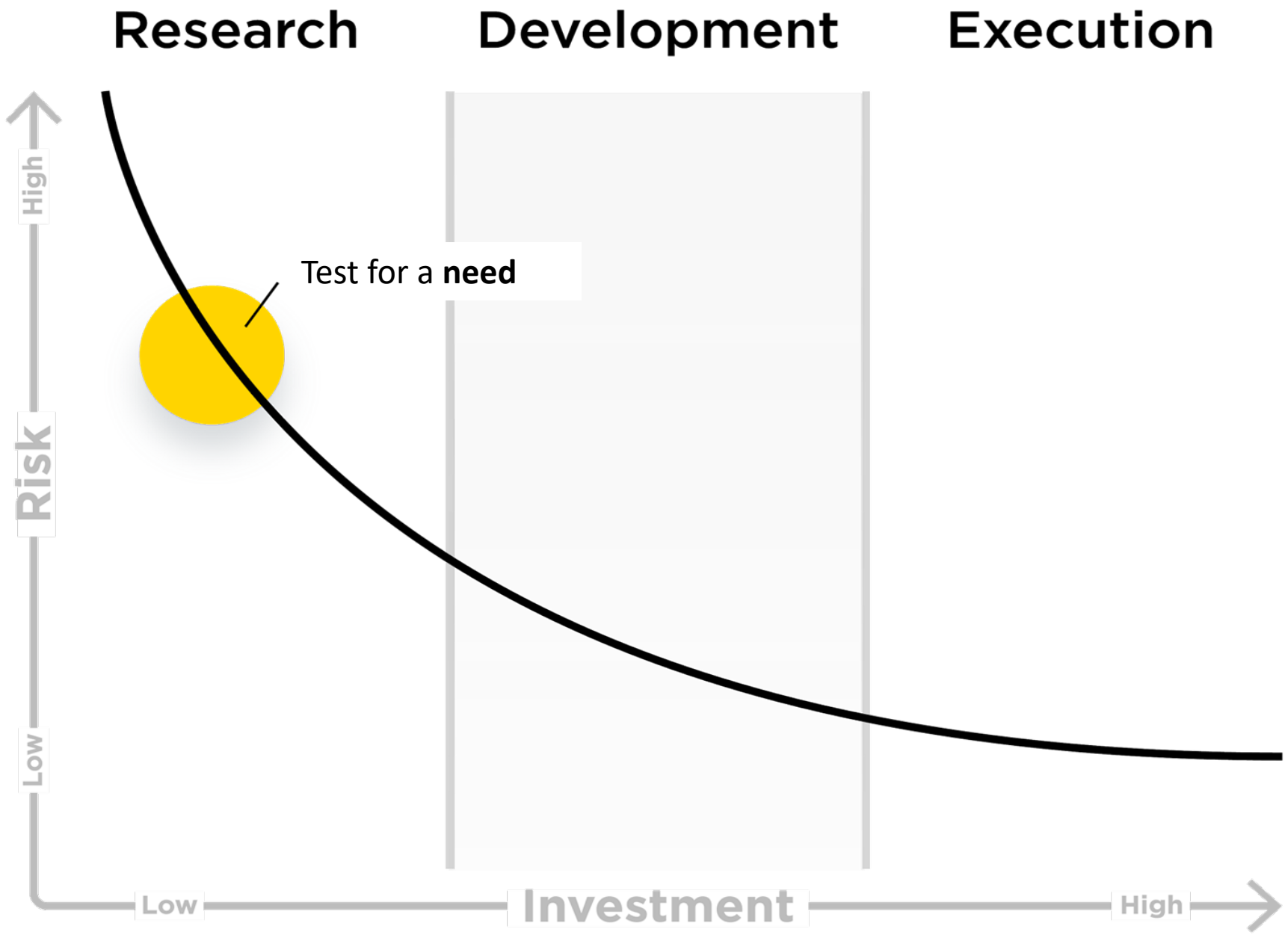

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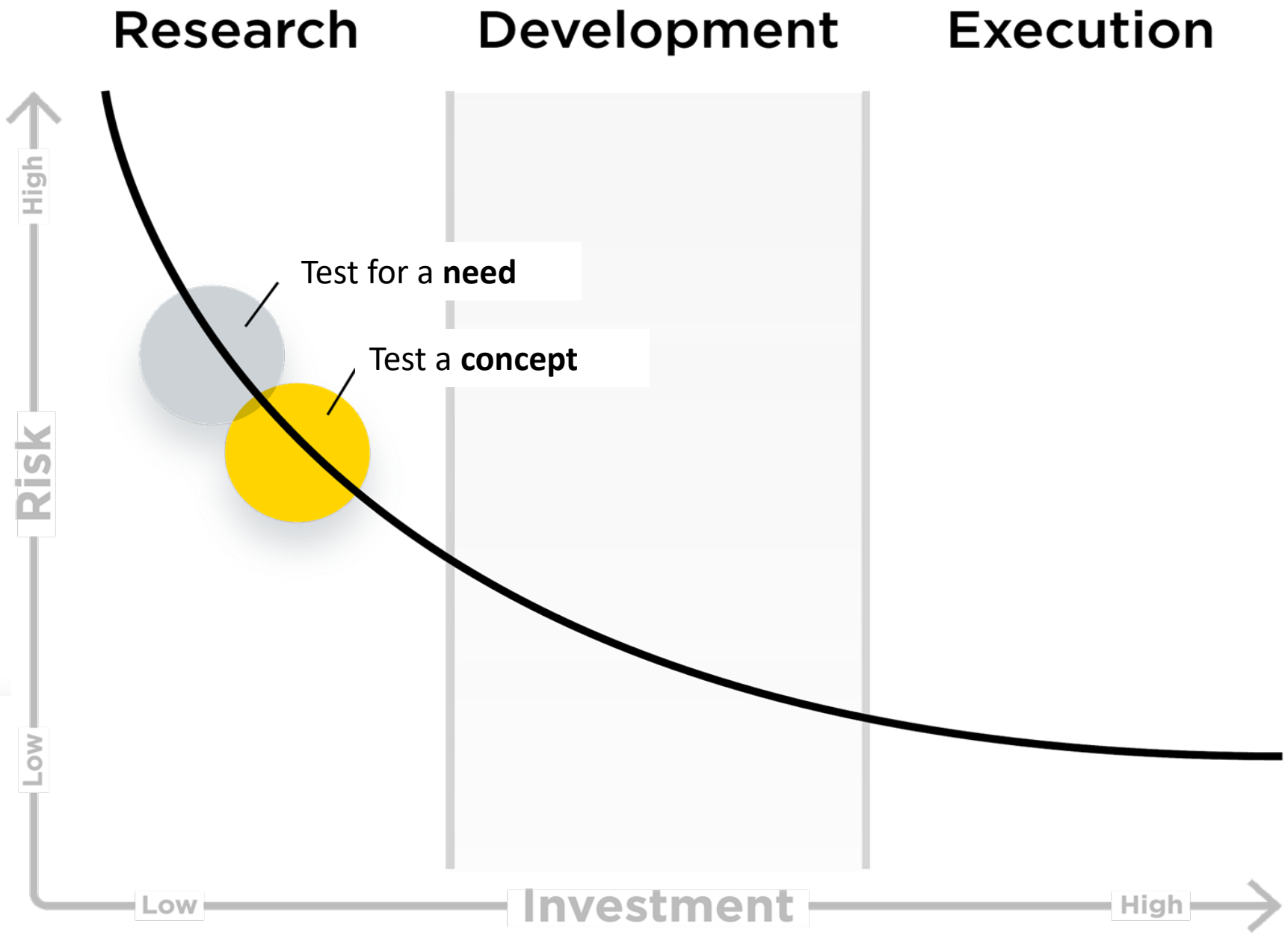
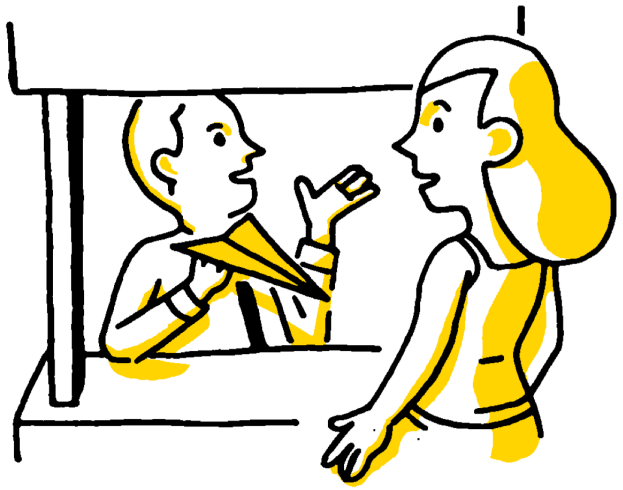
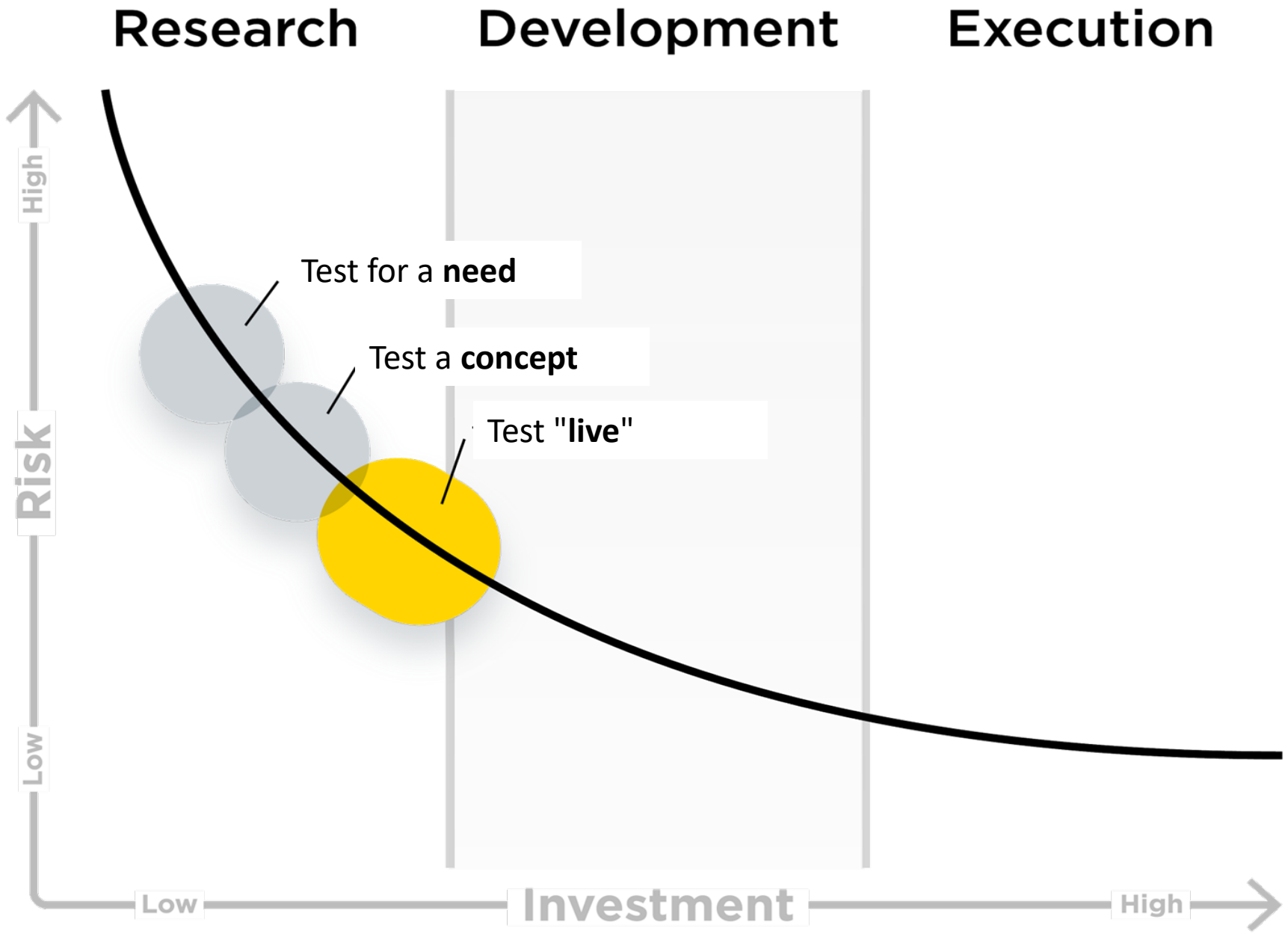

Research
Development
Execution
High
Risk
Low
Test for a need
Test a concept
Low
Investment
High





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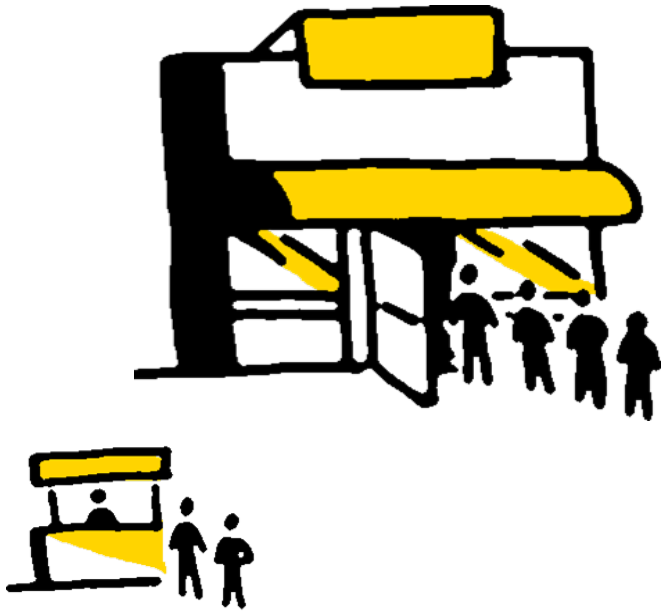
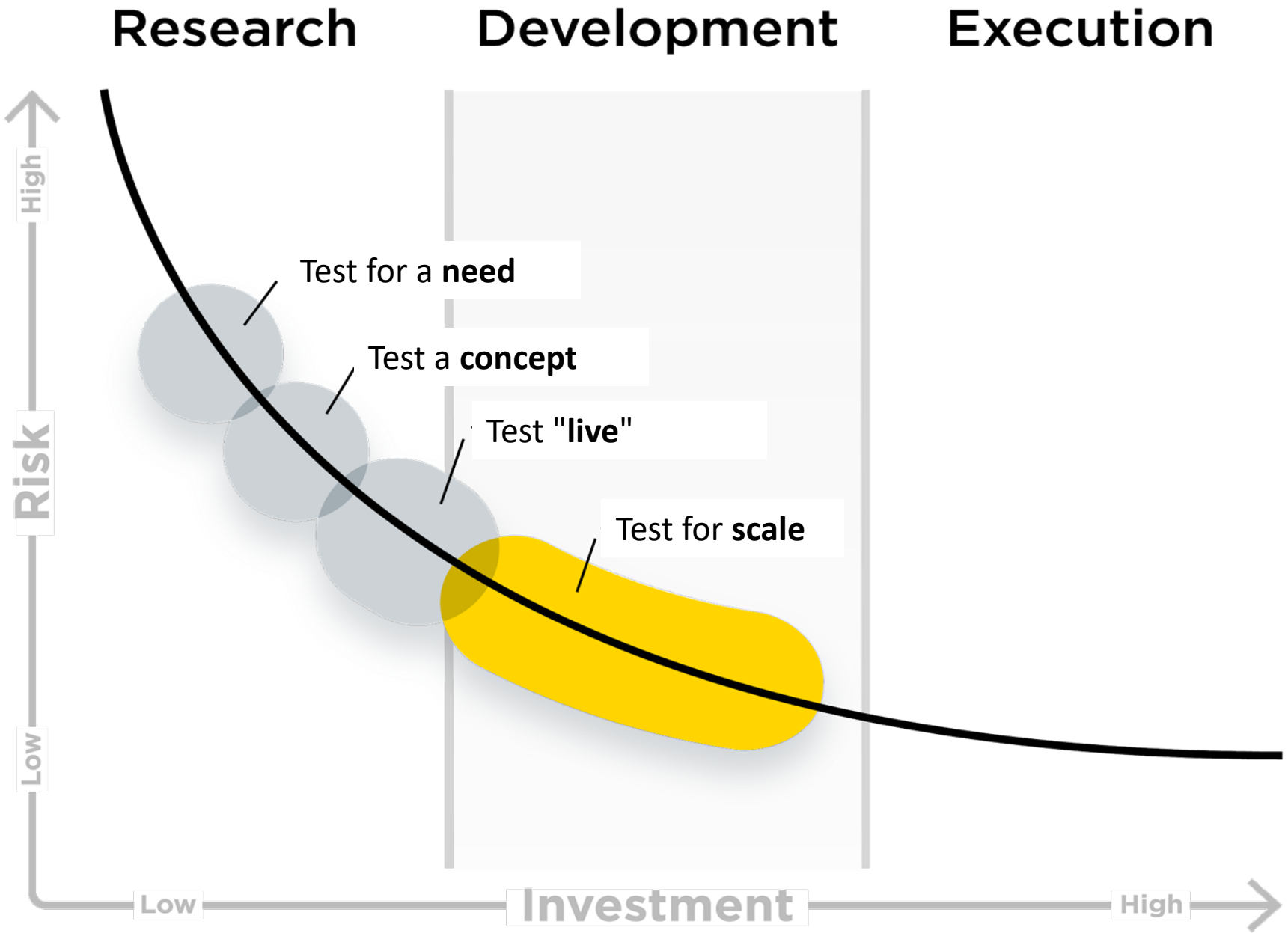
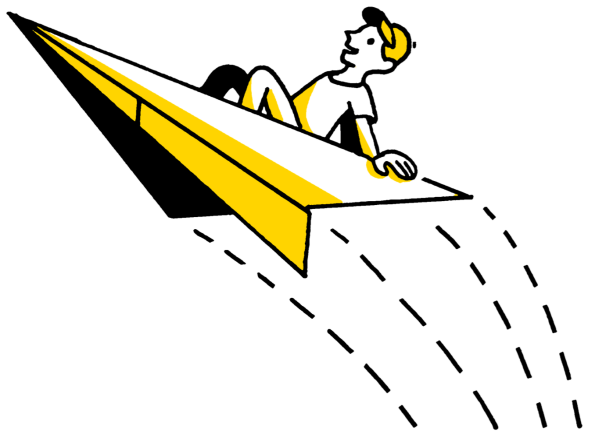
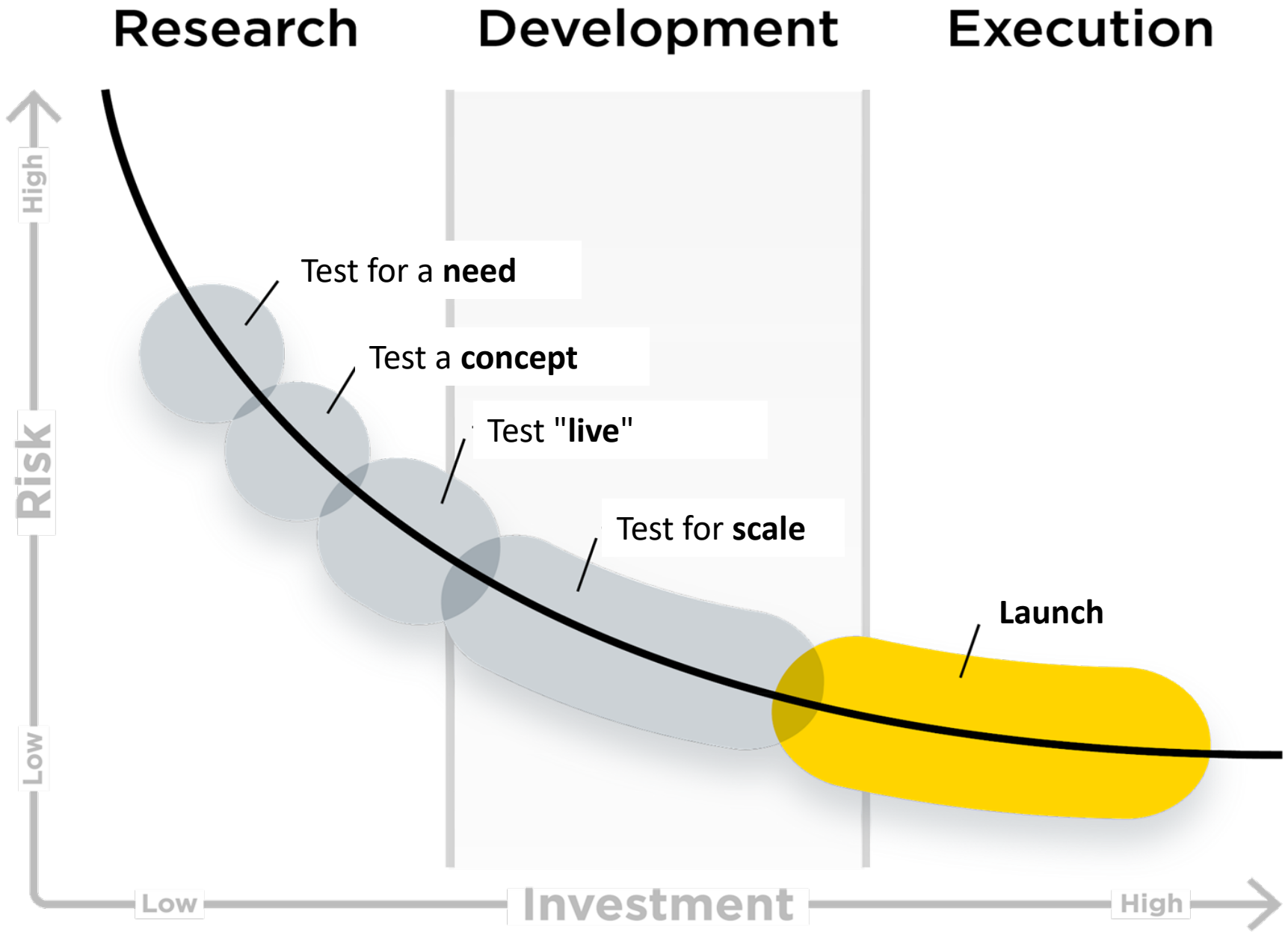



Research
Development
Execution
High
Risk
Low
Test for a **need**
Test a **concept**
Test "**live**"
Test for **scale**
Low
Investment
High





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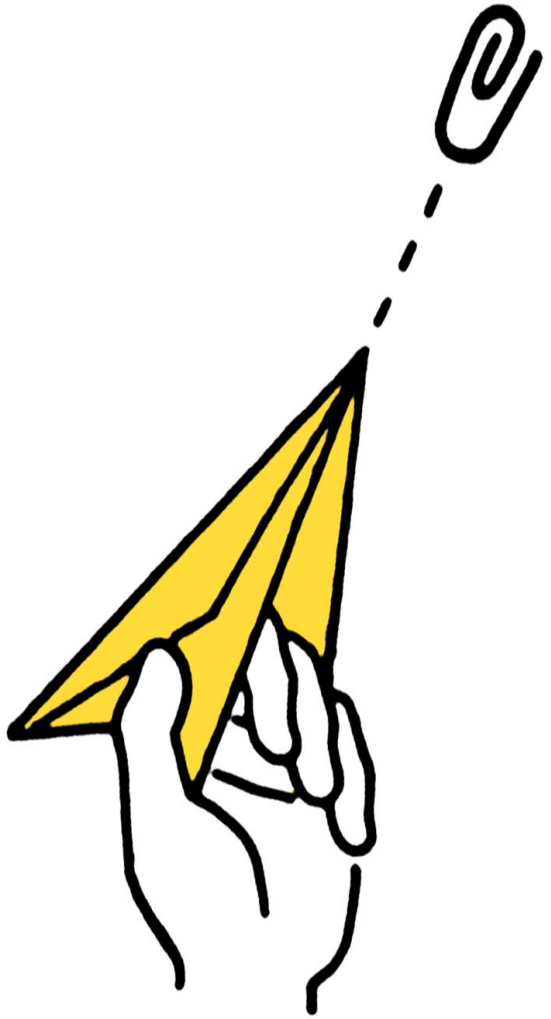
At each step, we still ask ourselves, “What’s the least expensive, most effective way **to see if you are really driving value for students, faculty and/or staff?”**



An Example

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How might we create a digital service that enables a **better shoe purchasing experience** for both 8-12 year-olds and their parents?

We **conducted 1:1 interviews** to build empathy and identify pain-points and emerging needs

We **brainstormed** a new set of possibilities for our customer based off those needs

The high-level concept we landed on.

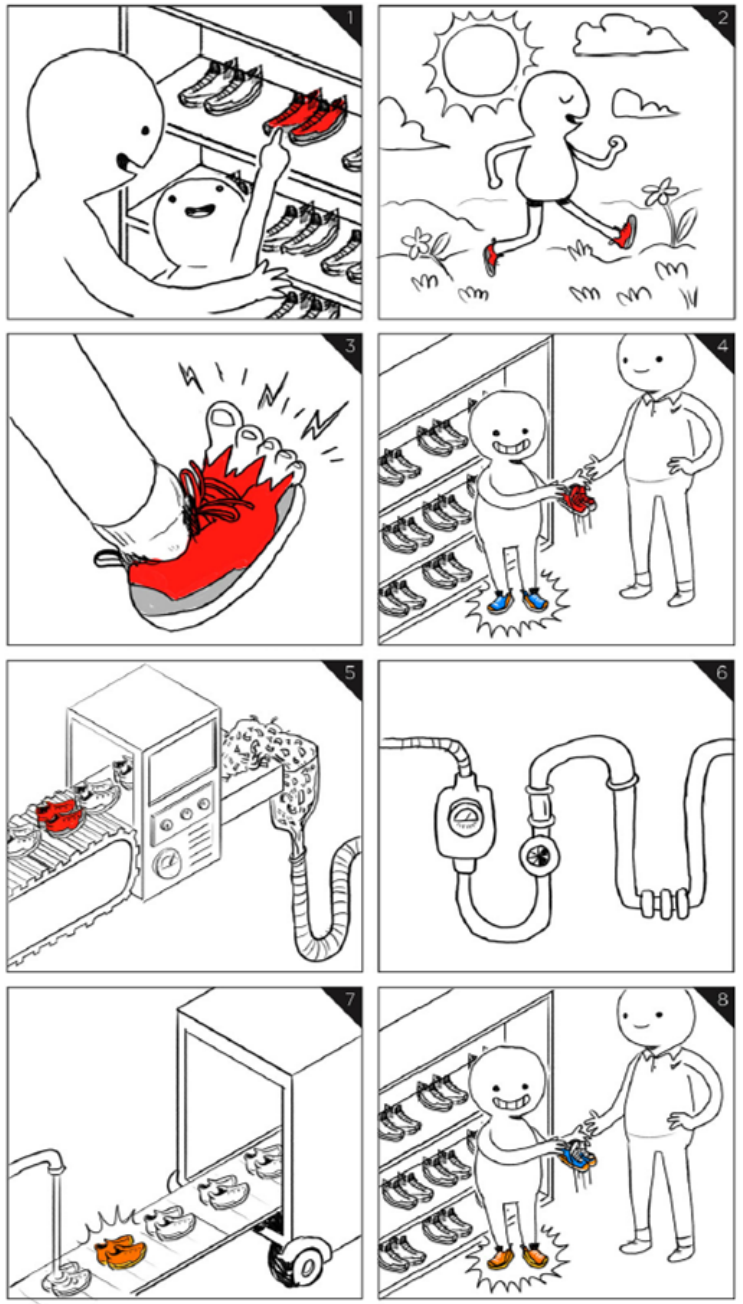
PI

Value Proposition

The 30 second pitch: who are we serving and what are we offering

	User 1	User 2
For (target)	*Young Athletes* *8-12 years old*	*Their Parents*
Who want (unmet need)	• *More control, autonomy and agency in their shoe shopping* • *The best shoes (best = providing the right fit, comfort and performance) for my various activities*	• *Convenient, quick and smooth shoppingexperience (smoothing of the shopping-pain curve; remove the spikes)* • *Confidence that their kids have the right shoes for their activities*
We will offer (offering)	*A better, more positive shoe buying experience with:* • *An accurate fit assessment (digital or in-person)* • *A sustainable, cyclical buy-return process* • *A more attractive purchasing mechanism and cycle (subscription based)*	
That provides (benefits)	• *A creative outlet for self-expression* • *Confidence in their personal style* • *To feel special/unique as they perform*	• *The shoes their Young Athletes need, when they need them* • *Less time spent shopping* • *A reduction in the pain from shopping (i.e. fewer conflicts, less stress)*
Uniquely (differentiation)	• *A personal (1:1), ongoing relationship between the firm and Young Athletes (build stronger relationship than create with just products and have that young athlete fall in love with the brand earlier)* • *A service experience wrapped around shoes* • *Cyclical shoe experience (shoes are returned and recycled)* • *A novel business model*	

We validated concepts via low-fidelity prototypes and experiences.



We ran micro in-market experiments.

We wanted to test the following assumptions:

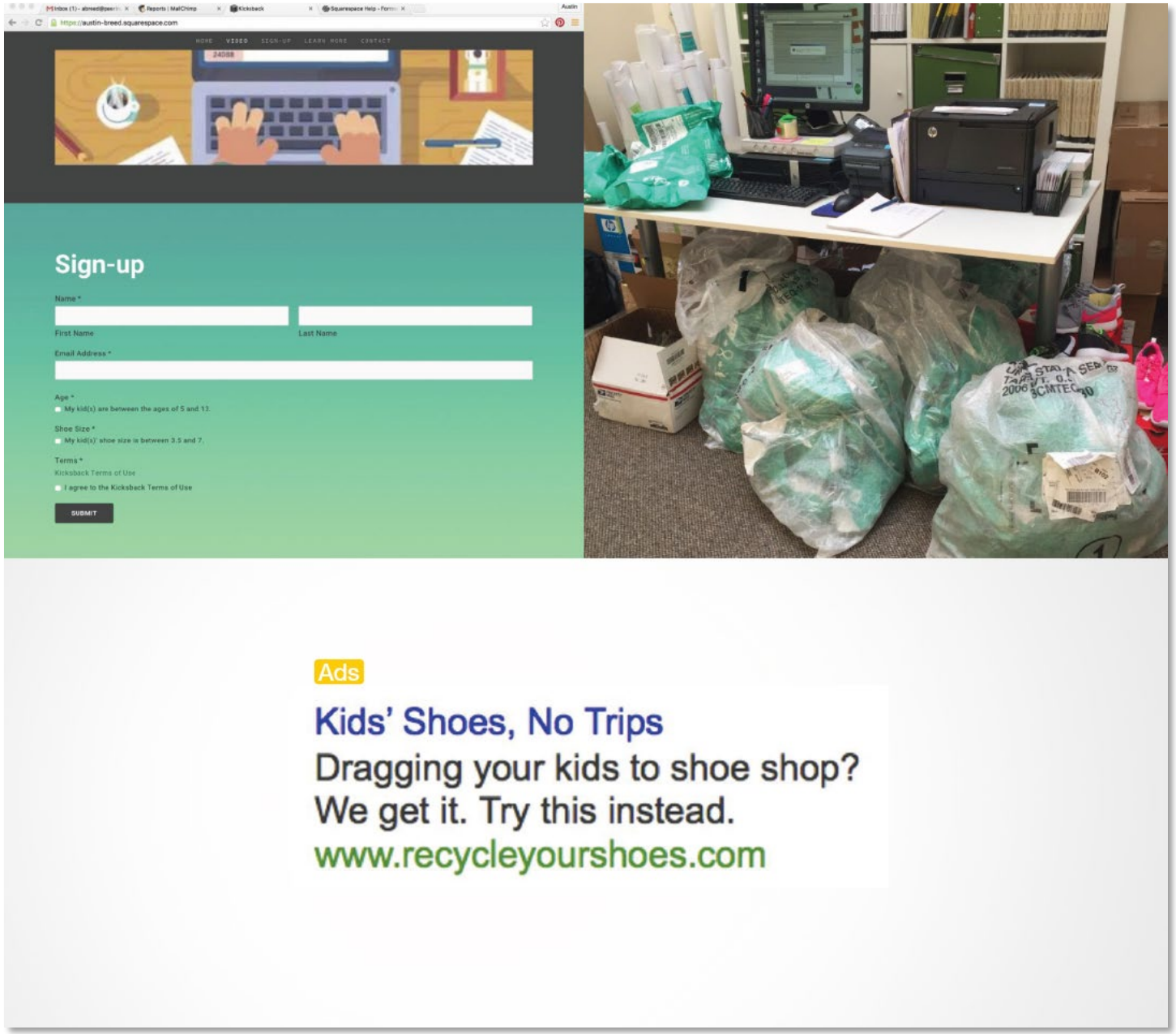
1. People are willing to return old shoes
2. People value returning old shoe
   A. Declutter my home
   B. Recycle my stuff/do something good for the environment

What we learned

- People returned their shoes over 200 days after they received the boxes
- Sent back multiple shoes in many sizes
- Story/incentivization didn't impact rate of return

...Return is a latent need

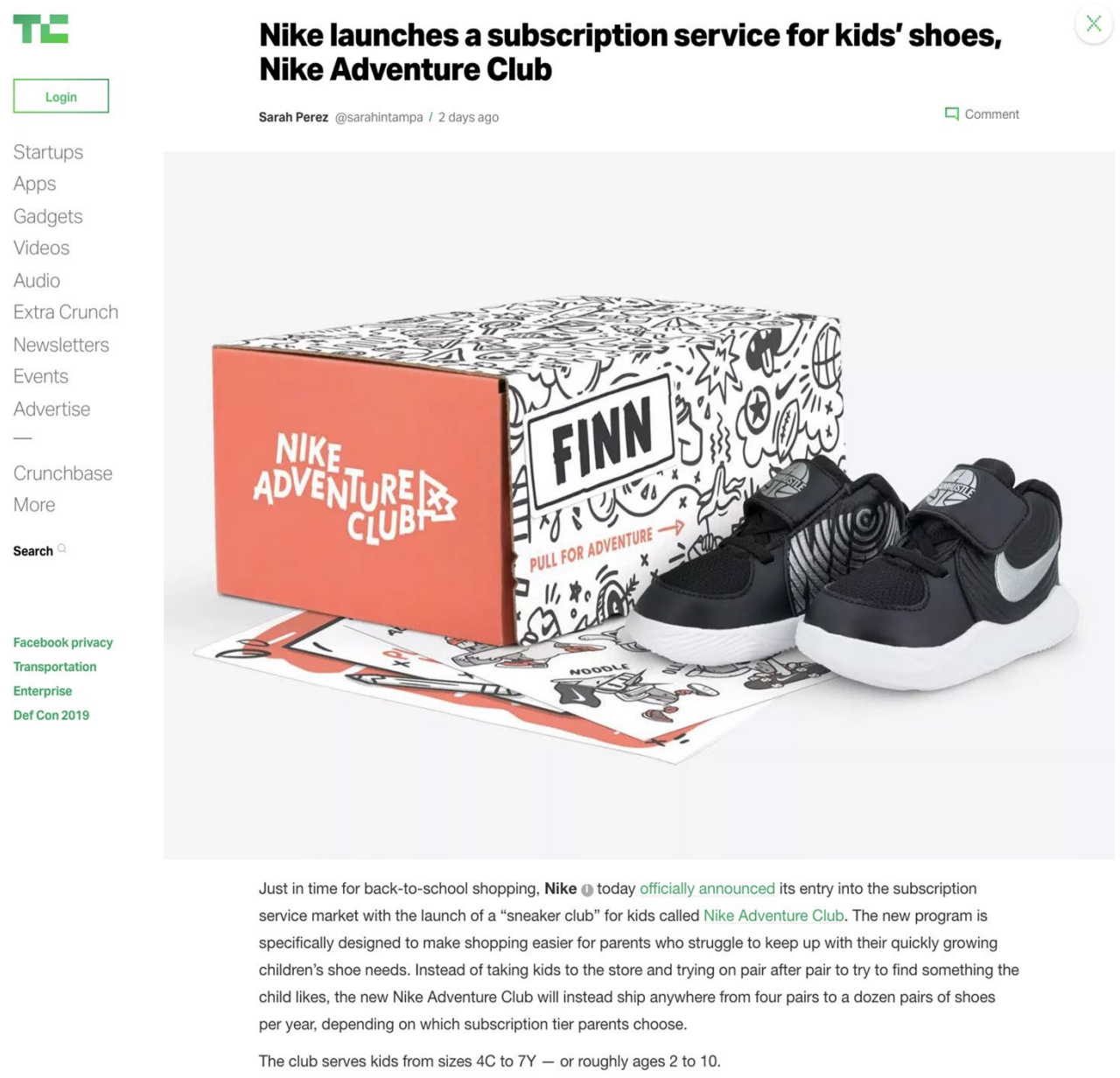
We built a **minimum viable experience** (MVX) to test critical business model assumptions in the market.



We built a higher fidelity, **initial commercial version** (ICV) experience to test for scale.

These series of experiments gave us the evidence to iterate along the way.

After continued market evidence of platform potential, Nike spun-in the venture as a new business - Nike Adventure Club



TC

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Nike launches a subscription service for kids' shoes, Nike Adventure Club

Sarah Perez @sarahintampa / 2 days ago

Comment

Just in time for back-to-school shopping, **Nike** today officially announced its entry into the subscription service market with the launch of a "sneaker club" for kids called Nike Adventure Club. The new program is specifically designed to make shopping easier for parents who struggle to keep up with their quickly growing children's shoe needs. Instead of taking kids to the store and trying on pair after pair to try to find something the child likes, the new Nike Adventure Club will instead ship anywhere from four pairs to a dozen pairs of shoes per year, depending on which subscription tier parents choose.

The club serves kids from sizes 4C to 7Y — or roughly ages 2 to 10.

Case Study: Georgetown MBA

Georgetown's McDonough School of Business Innovates Its Approach to Admissions

Jan 22, 2015 | 0 comments

Georgetown University's McDonough School of Business wants applicants to the school to walk away feeling good about their experience, regardless of whether they gain acceptance or ultimately enroll. To this end, the school's admissions team, led by Associate Dean of MBA Admissions Shari Hubert, launched an innovative initiative last spring to understand the applicant's entire journey through the admissions process—from the moment they begin to research schools right up to their arrival on campus (for those who are admitted and enroll). Their findings have already begun to reshape the Georgetown McDonough admissions process—for the better, Hubert hopes.

Hubert joined Georgetown McDonough in December 2012, coming from a career in campus recruiting for the Peace Corps, Citigroup and General Electric. "I saw a need for us as an admissions office to be more connected to our customers—prospective applicants—to understand what they were going through and how they experience us as they apply to business school," Hubert says. An MBA applicant herself once (she holds a degree from Harvard Business School), she remembers how daunting the experience can be. "I wanted to engender goodwill no matter what the outcome," she says. "I wanted them to walk away saying Georgetown is a wonderful institution that lives its [Jesuit] values." Of course, she also hoped that by creating a more positive experience for applicants, the school would increase its yield.

Hubert shared her goals with Graham Richmond of Southwark Consulting, a higher education consultancy that helps admissions offices identify and attract high-quality talent. (Richmond co-founded Clear Admit before leaving two years ago to start his own firm.) Richmond was reminded of a presentation he'd seen by innovation consultancy Peer Insight, which uses design thinking to help companies map their customers' experiences. In 2012, Peer Insight helped the University of Virginia's

Georgetown University

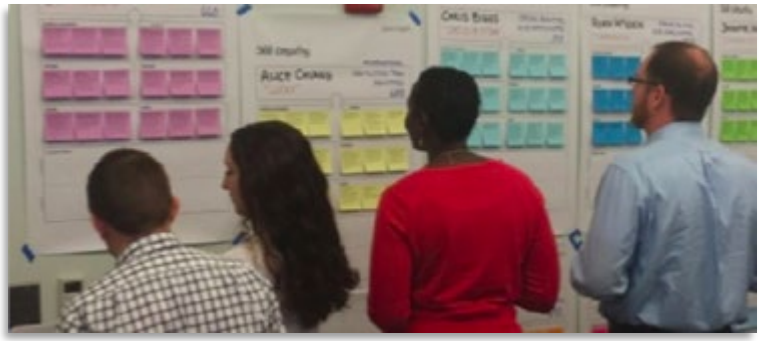
McDonough School of Business

MBA Admissions Team Puts Itself in the Shoes of the Applicant

Case Study: Georgetown MBA

Opportunity
In 2014, the Associate Dean of Admissions at Georgetown's McDonough School of Business decided to lead her team in creating a more differentiated, enhanced, customer-centered experience for candidates coming through their admissions process. She had read about design thinking and wanted to employ this toolkit for this project.

Approach
Over 30 days, Peer Insight partnered with the McDonough team through the design thinking process. We started by framing the challenge (selecting target users and designing the field research) then quickly began ethnographic-based interviews with target candidates. We collectively processed the findings with the entire Admissions team and used our synthesis to develop a journey map, personas and design criteria. The project culminated with an Ideation session, which included senior leadership and the Directors of Student Programs and Career Services. The Associate Dean charged her sub-teams to select a pain point identified in the process that fell within their realm and imagine new programs and solutions to mitigate it.

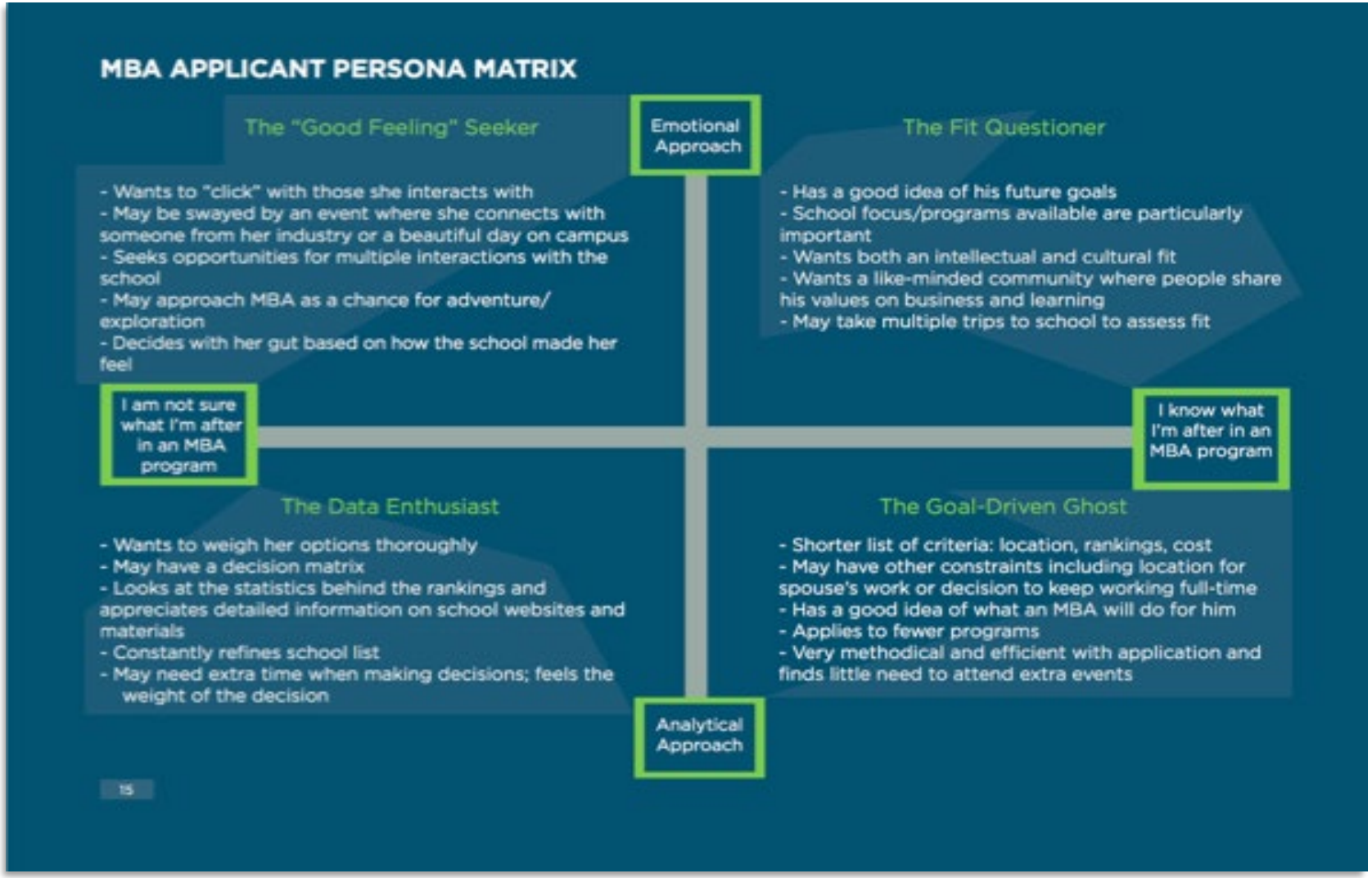


Through the sense-making session the team collectively found themes and patterns within the raw data from the in-field interviews. These were the launching points for new ideas.

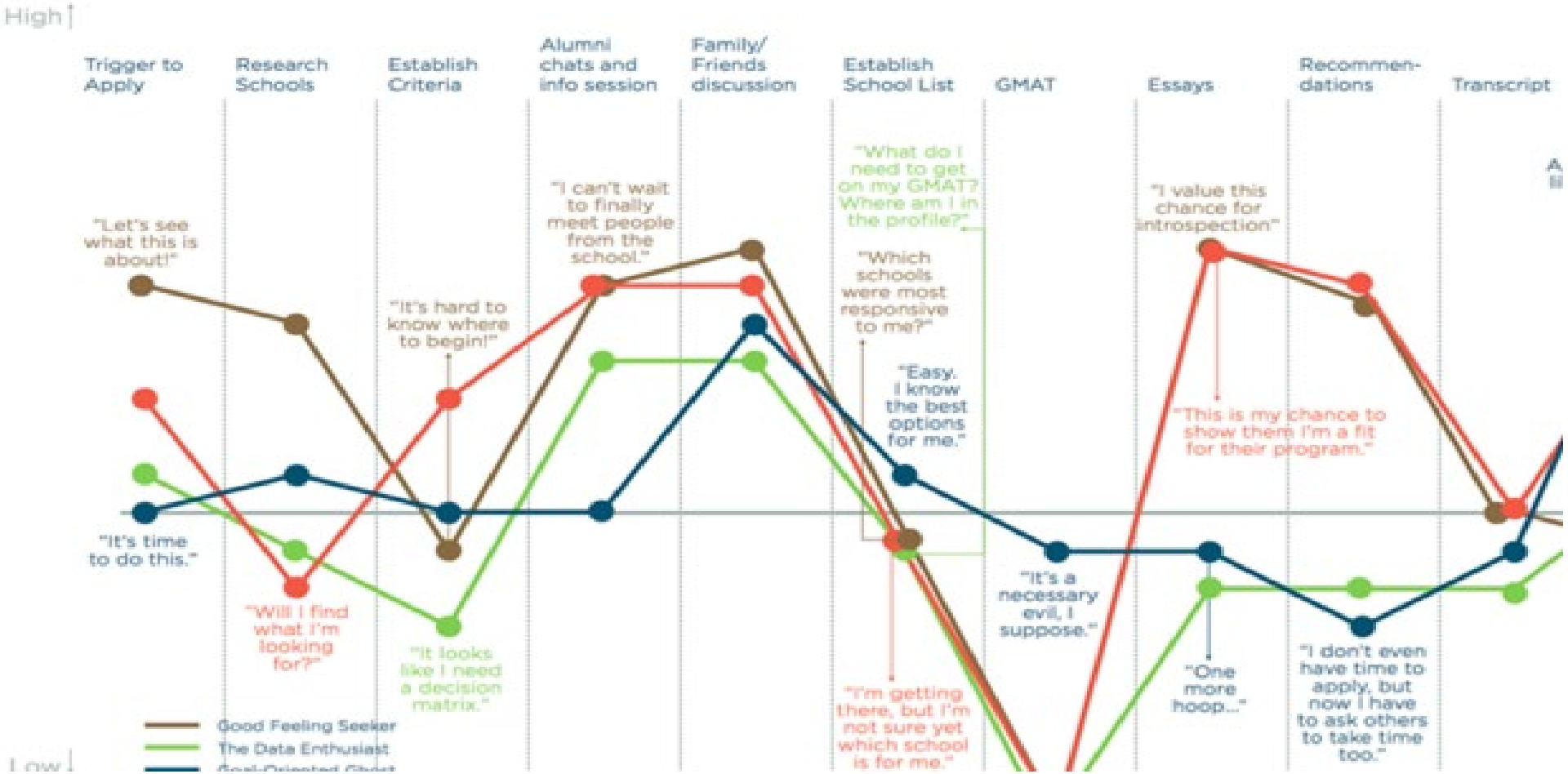
Acceleration
The sub-teams empowered and armed with deep customers insights, launched into a series of tests throughout the 2014- 2015 academic year to further iterate on their initial ideas and really drive a new customer experience for this particular experience within the overall McDonough experience. The McDonough team has been so inspired by this project and its findings that they have spoken about the project twice at two GMAC events. The Associate Dean of Admissions wrote an article for GMAC a year after the project, noting how the project has enhanced the admissions process. She found the work to be particularly helpful in moving forward anchored on applicant/user needs, not university needs, noting it was:

> *"valuable in facilitating brainstorming with a purpose. Instead of simply creating innovative ideas and implementing them, we strategically organized and prioritized our ideas with a specific goal in mind—to provide a student-centered, high-touch experience."*
>
> —Shari Hubert Associate Dean, MBA Admissions

Georgetown MBA Admissions Personas



Georgetown MBA Admissions Journey Map



Learning Resources

Books:

- Designing for Growth: A Design Thinking Toolkit for Managers
- The Experimentation Field Book: A Step by Step Project Guide (also at the library)
- 101 Design Methods
- Design Thinking for the Greater Good: Innovation in the Social Sector
- Another great book on testing ideas
- Great video: Build the Right It by Alberto Savio of google

Websites/Groups:

- Design Thinking DC MeetUp – 5k+ members!
- Stanford's d.school
- Future of Design in Higher Education
- IDEO U - free/affordable classes
- Free tools:
  - ideo.org
  - luma institute
- Education Design Lab
- Academy for Innovative Higher Education Leadership (AIHEL)

Please reach out with questions, specific resource requests, or to connect!
nfoley3@gmu.edu

Reflections & Questions?

Thank You!

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CONTACT UBC

Email: UBC@GMU.edu

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UBC Summer Knowledge Series

We'll see you next summer!

Prior session materials are available on our website:
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APPENDIX

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4 Principles of Design Thinking