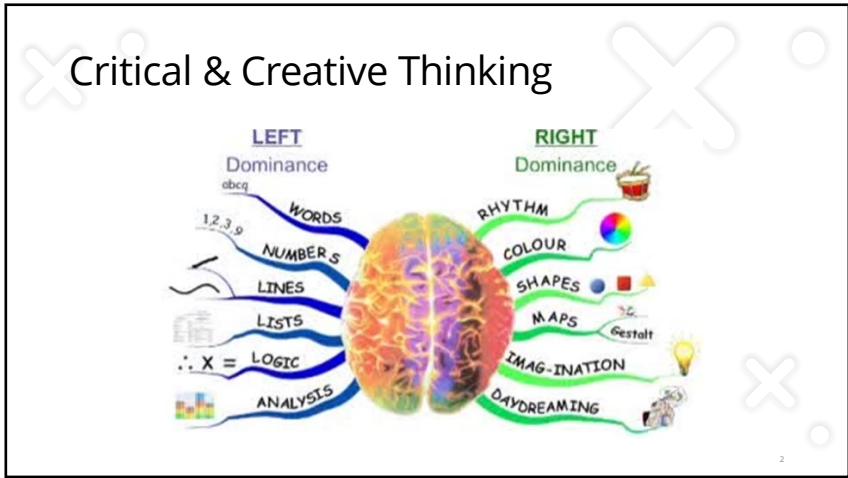
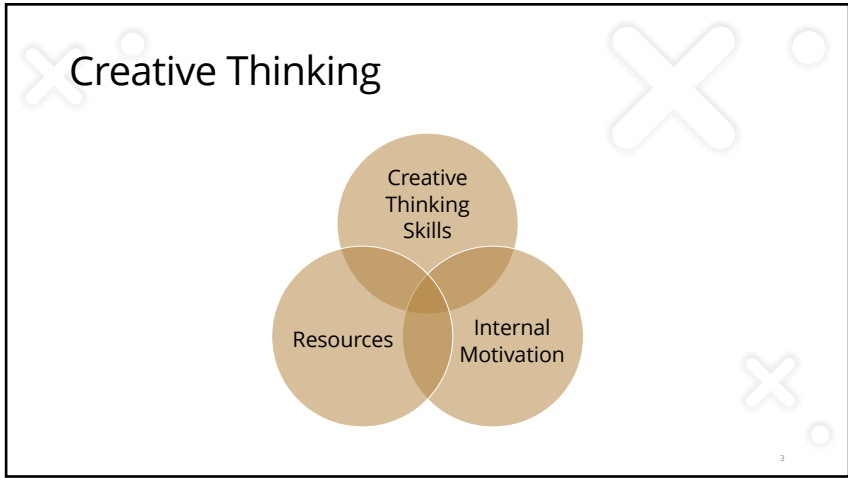




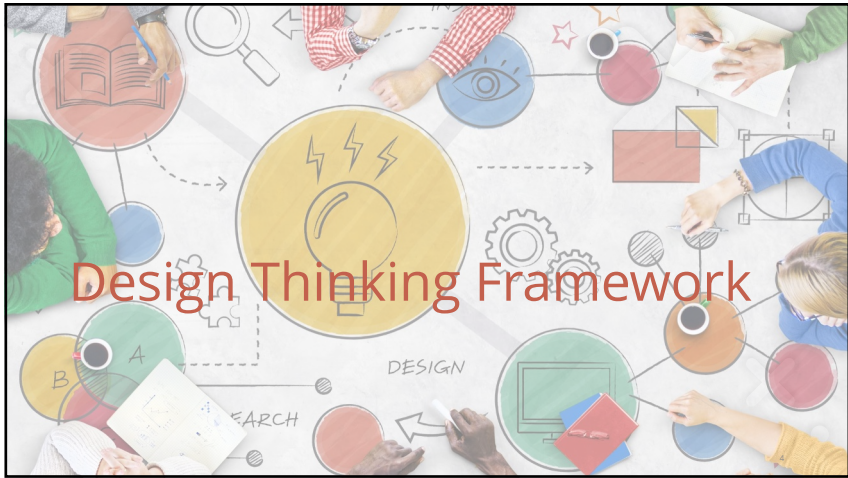
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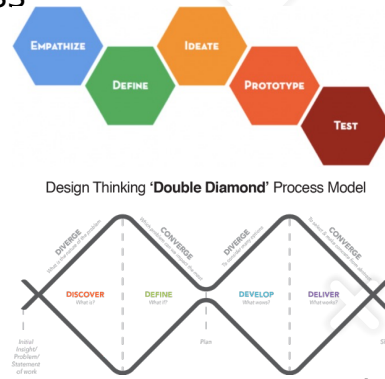
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The (Design) Process

- Design thinking was popularized by Tim Brown and David Kelley of IDEO and Stanford's d School
 - Structured creative problem-solving process, but enables innovation and positive impact
- Human-centered design process – truly understand and empathize with user



5

1. Empathize

Let's Design a Customer Experience that is more inclusive and accessible

6

Capstone Problem Statement

+ How can we make the Customer Experience more inclusive and accessible?

There are no limits to what you can envision...

- | | |
|--|--|
| • An app to improve the customer experience? | • A protocol for improving safety? |
| • A mechanism to make navigation easier? | • A new feature to enhance customer comfort? |
| Be Creative | Be Innovative |

7

What are we looking for?

- + Ideation**
 - How innovative and creative is the solution?
- + Safety**
 - Has safe operation been considered in the design?
- + Feasibility**
 - How feasible is the solution for implementation?
- + Customer centric**
 - How well does the solution meet the needs of the end user?
- + Expandability**
 - What is the potential for the idea to become a business?

8

Design Thinking Empathy



- Designers approach empathy
 - Without judgement
 - With a beginner's eyes
 - With curiosity
 - Optimistically
 - Respectfully



9

Map the process (:10)

Journey Mapping: Map the journey of a customer from beginning to end identifying the emotional high and low points

Task: At an individual level capture the steps you undertake to avail the service/ product. Then at a group level collate them. It must include:

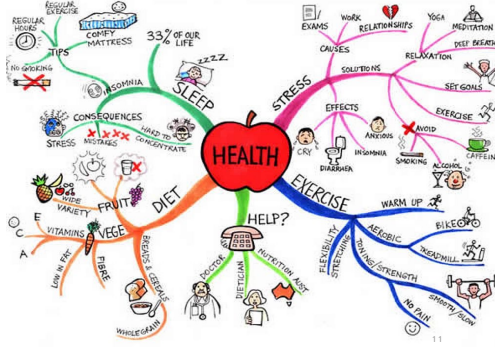
Pain points: A pain point is a problem, real or perceived. Entrepreneurs create opportunities for themselves by creating solutions to those pain points.

Use customer empathy!

10

Develop business opportunities (:15)

- + **Mind Mapping:** Start in the center of a paper and use keywords and branch out in curved lines
- + **Task:** Generate as many ideas as possible around the pain points (need) of the customer



11

Document Your Idea (:10)

Tangible, measurable solution to a specific customer problem or pain – be specific!

Task: Visualize and draw your future business idea. It must contain:

- Customer:** Who is experiencing the problem.
- Problem:** What is the customer's problem
- Solution:** Your proposed solution to the problem

Visualization: Making your Ideas Tangible

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2. Define

Let's gather insights from our consumers so that we may serve them better

13

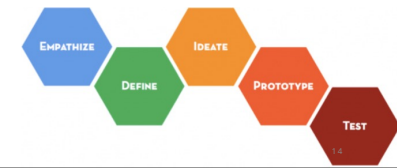
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Design Thinking



Define

- Think of **needs** as a verb rather than a noun



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Needs...

- +Are human physical and emotional necessities
- +Capture the goals and motivations of the person for whom you are designing
- +Are verbs, not nouns
- + (opportunities, not solutions: ladder, adult, broom)

15

15

Insights...

- +The "why" response to the need
- +Apply your expertise and make inferences (not "a faster horse")
- +Gives you an actionable direction to go in
- +Leads you towards Novel solutions

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Point of View

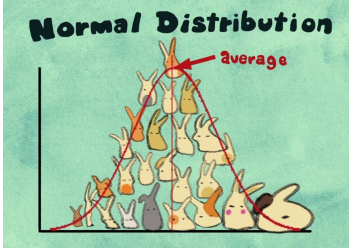
| | |
|--|--|
| <p>Inventory all possible NEEDS</p> <p>Things they are trying to do _____ <i>(needs as verbs)</i></p> <p>Ways they want to feel _____ <i>(insights)</i></p> | <p>DEFINE a problem statement</p> <p>_____ NEEDS a way to _____ in a way that makes them FEEL _____</p> <p>Therefore, my POV statement is _____</p> |
|--|--|

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3. Ideate

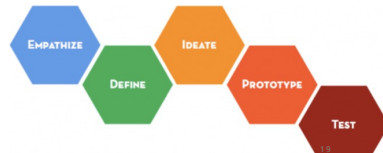
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Design Thinking



Normal Distribution
Average

Ideate



EMPATHIZE → DEFINE → IDEATE → PROTOTYPE → TEST

- Focus on the individual rather than the middle to get **insights**

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The best way to have a good idea is to have a lot of ideas.

— Linus Pauling —

AZ QUOTES

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Ideation

- + Sketch 5 RADICAL ways to meet your user's need

- SHARE your solutions and CAPTURE feedback

IDEO U

Rules of Brainstorming

- Defer Judgment
- Encourage Wild Ideas
- Build on the Ideas of Others
- Stay Focused on the Topic
- One Conversation at a Time
- Be Visual
- Go for Quantity

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What are Assumptions?

“Something taken for granted or accepted as true *without proof*”

Opinions vs. Facts

(Hint: What you think is fact, is likely an assumption)

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Brainstorm Assumptions (:10)

- + What customer behaviors must take place for your solution to be adopted?
- + What assumptions are you taking for granted as fact?
- + What keeps you up at night?

Task: Write down as many assumptions as possible as a team.

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Narrow Assumptions (:05)

- + What is the biggest assumption that if false, will cause your product to fail?
- + What is most unknown, where do gaps exist?
- + Focus on customer behavior related assumptions

(ex: Sports cars lovers will drive an electric car)

Task: Narrow your assumptions to the **three** most critical ones.

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Post Your Leap of Faith (:05)

This is the riskiest assumption for your business idea.

“If this is not true, we’re out of business”
 (ex: Sports cars lovers want an electric car)

Task: Write down the riskiest, LOF assumption as a group.

Brainstorming: Question Leap of Faith Assumptions

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4. Prototype

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Design Thinking

Prototype

Paper & sketch prototyping **Digital prototyping** **Native prototyping**

EMPATHIZE DEFINE IDEATE PROTOTYPE TEST

- Sketches and paper prototypes are an inexpensive and fast way of identifying fundamental issues

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7: Fail early, Fail often – But: Fail smart!

Costs of Errors

Learn here!

Dangers: Post-decision dissonance! >> Sunk cost fallacy <<

Cost per Failure

Too late!

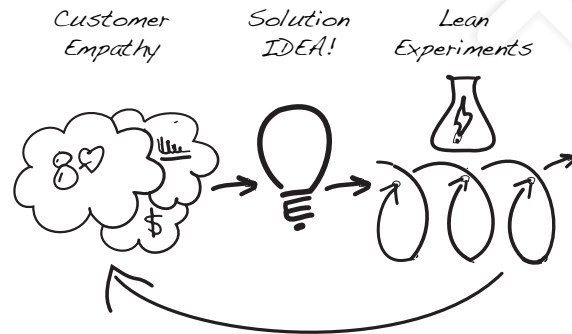
Test & Iterate: Number of Errors

Planning & Development Procurement & Production Test, Delivery & Launch

PROJECT PROGRESS

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How will we do it?



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What is "Lean"?

+Elimination of waste in the production and delivery of value to the customer...

Lean Thinking:

Borrowed from lean manufacturing principles, it emphasizes creating more value for customers with fewer resources. This involves eliminating waste, optimizing processes, and focusing on customer value.

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What is a Startup?

+“A startup is a temporary organization formed to search for a repeatable and scalable business model.” – Steve Blank



Steve Blank is a Silicon Valley serial-entrepreneur and academician who is based in Pescadero, California

+“A human institution designed to create new products and services under conditions of extreme uncertainty.” – Eric Ries



Eric Ries is an American entrepreneur, blogger and author of The Lean Startup, a book on the lean startup movement.

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What is "Lean Startup"?

+Elimination of waste in searching for a scalable business model, or significant business impact.

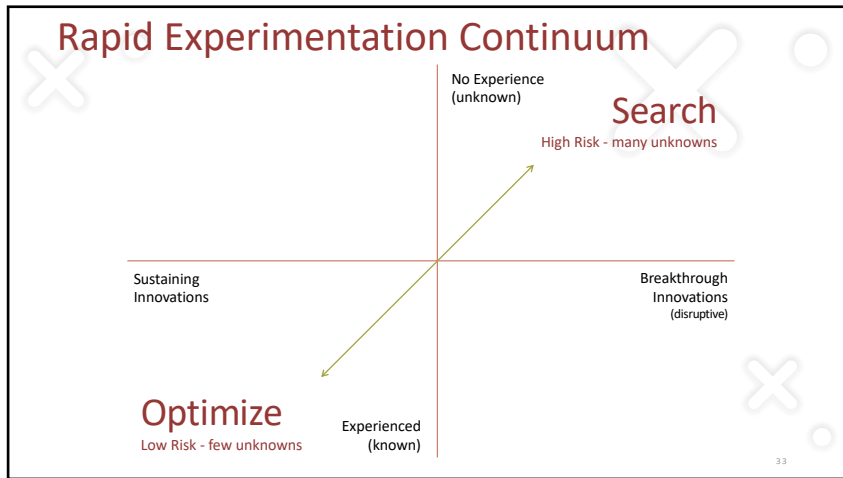
+Goal for lean startups: **Learning!**

+Lean Startup Myths

- Lean = cheap or poor quality
- Only for high tech (hint: it works in large orgs too)
- Replaces vision with customer demands

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Lean Experimentation

Pivot or Persevere:
After gathering feedback, a startup must decide whether to:

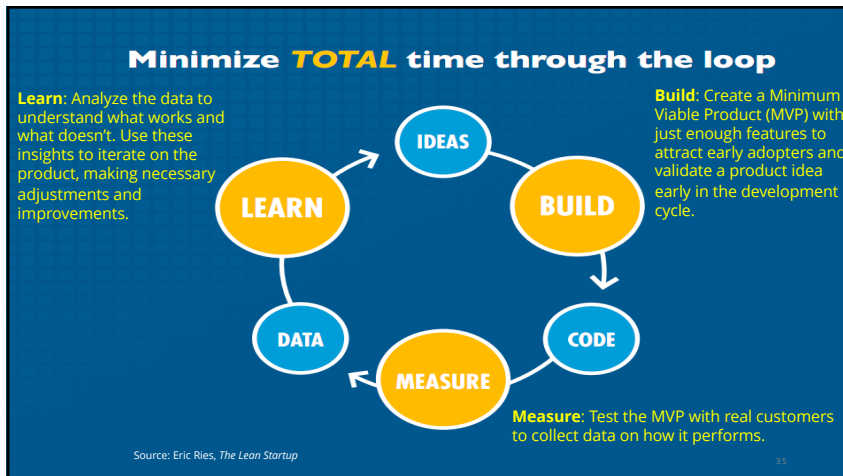
- **pivot** (make a fundamental change to the product based on feedback) or
- **persevere** (keep improving the product based on the current strategy).

Rigor Inspiration

Continuous Deployment:
The practice of releasing products quickly and frequently to reduce the time between feedback and adjustments, allowing for rapid iteration and improvement.

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How do we search?

Begin with an educated guess

- OK to begin without the answers, you're probably wrong anyway.

Change guesses into facts using experiments

- Measure behavior, test hypotheses, capture surprises
- Make decisions based on the results of your experiments

Move through the loop quickly

- Build the absolute minimum required to test your assumptions
- Build your case one experiment at a time
- Get moving – NOW! (rinse and repeat forever)

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Learn and Decide

The output from lean experimentation is *new knowledge and insights* about your customer or business model.

- + Build a case over time, using multiple experiments
- + Experiments to learn, not just validate.
- + Savor the surprises!
- + Is your confidence increasing or decreasing?
- + Why, why, why?

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Why Lean Experiments?

Reduce the risk associated with resource investment, move faster with more certainty.

- Change opinions into facts
- Inform our decisions with data and customer insights
- Separate customer words from behavior – say vs. do!

Output = Insights + Data

(what did I learn from the customer + what behavior did I measure)

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If we do **X**, **Y%** of people will **Z**

X = Your solution (the carrot)

Y% = Your target metric (the number)

Z = The customers' behavior (the hoop)

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Create Hypothesis (:05)

If we do **X**, **Y%** of people will **Z**

Task: Write down your hypothesis on a sticky note, and place on your poster.

Rapid Concept Development:
Generate Hypothesis

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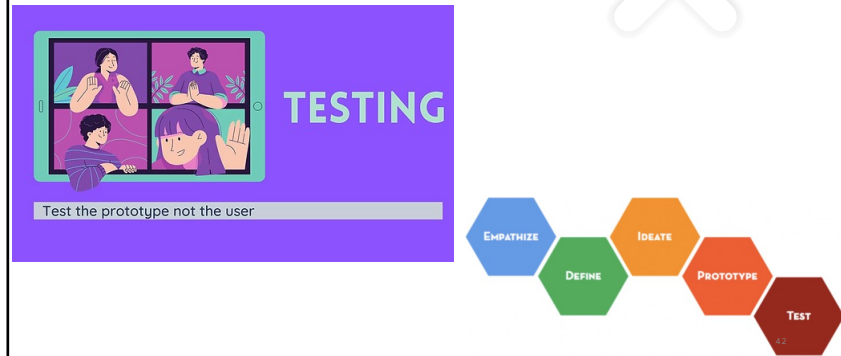
5. Testing

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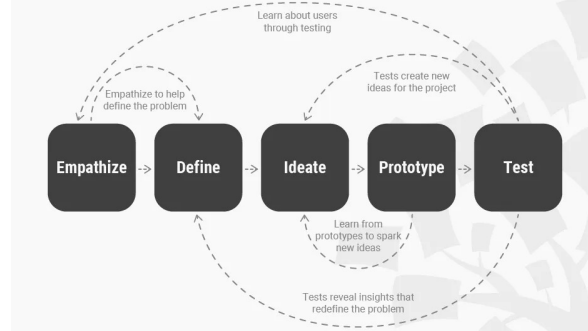
Design Thinking

Testing



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DESIGN THINKING: A NON-LINEAR PROCESS



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Types of Lean Experiments?

- + **A/B Test:** A comparison of two versions of a product or feature to see which one performs best
- + **Concierge Test:** A technique to replace a complex automated technical solution with humans who directly interact with the customer
- + **Wizard of Oz Test:** A technique to replace the product backend with humans. The customer believes they are interacting with an automated solution. Helps us validate whether anyone wants our product.
- + **Smoke Test:** Commonly a website that describes the product's value proposition and asks customers to sign up for the product before it's available. Helps us validate whether anyone wants our product.

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Brainstorm Experiments (:15)

- + Will this experiment test your hypotheses?
- + Measure real behavior (or as close to it as possible)
- + Can you get an answer quickly!
- + Capture surprises as well as data

Important: Use behavior + "currency exchange" to eliminate say vs. do - NO SURVEYS - KEEP IT HUMAN
(currency = time, money, attention, personal info, usage)

Task: Brainstorm at least one experiment method listed earlier.

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Choose 1 Experiment (:10)

- + Can you get your answers quickly?
- + How will you measure behavior?
- + How will you interact in person with your target customer?

Did we mention:
NO SURVEYS + KEEP IT HUMAN

Task: Select the best experiment to run first

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Document Experiment (:05)

Task: On your poster, complete a sticky note for each of the following:

- Describe the experiment
- What specific behavior will you measure?
- What currency will you collect?
- Minimum success criteria (ex: 50% sign-up)

NO SURVEYS!
KEEP IT HUMAN!

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Go!

Run your experiment in the wild

- Don't tell people this is an experiment
- Collect contact info so you can follow-up later
- Ask why or why not – look for surprises!
- Stay out of jail...

Return by ??

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What are you looking for?

A strong behavioral response from your target customer, confirming or denying your hypothesis.

- Did your numeric hypothesis pass or fail?
- Do you know why or why not?
- What surprised you?

Ex: 50% of small business signed up for our online beta program, providing their email and contact info.

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Output = Learning

What insights did you encounter which *change the way you think about your customer..?*

How painful is the problem? Does it exist at all?

- Vitamin > Medicine > Addictive Drug

Are they trying to solve it today?

- What process, if any, are they taking to solve their problem

What were your biggest surprises?

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The Art of the Pivot

A *significant* change in direction based on new customer insights, where the vision remains the same.

Idea: App to help diabetics maintain healthy eating habits.

Insight: "Diabetic caregivers often care more than patients about maintaining healthy habits"

Pivot to: App for diabetic caregivers instead of diabetics

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Close the Loop (:15)

Based on what you learned, Is your Leap of Faith true or false..? Why or why not?

If true – Persevere!

- Move on to next leap of faith, repeat loop process
- Push to be more aggressive for next experiment

If false – Pivot!

- Change one or more components of your Idea, Repeat loop process
- Important: leverage insights gathered during your experiment!

Document updates on your poster and canvas

- Create new sticky notes and place them on top of existing notes

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Pitch (:03)

Customer + Problem + Solution + LOF +
Experiment + ~~Decision~~

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Judge the Search...

Teams are just as important as ideas

- Teams must demonstrate the ability to “search”, in addition to their idea’s viability. No team gets it right the first time.

Real customer behavior trumps opinion

- Teams must demonstrate the ability to generate data from customers using behavioral experiments.

Evidence builds in small increments over time

- Teams must move through multiple experiments loops in small increments, in order to increase confidence over time.

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Judge the Business Model

Identify a specific customer

- Teams must demonstrate understanding of their specific customer segment, and insights related to the customer’s desired outcomes.

Deliver value to the customer

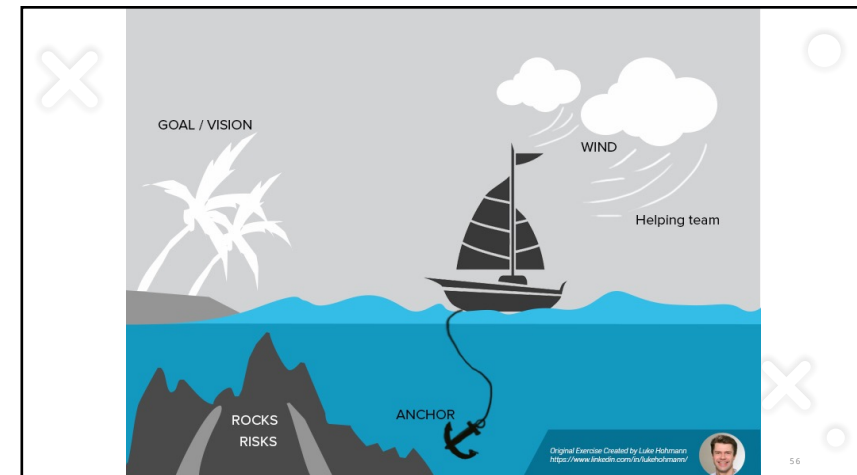
- Teams must demonstrate their proposed solution is delivering value to their target customer, via currency exchange (time, attention, dollars)

Generate positive business impact

- Teams must demonstrate Intuit can extract value for shareholders (and employees as well)

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Next Steps

- + Try it – Don't wait for permission to run experiments
- + Start small, think big
- + Set aside specific time for experiments
- + Help each other – you're in the club
- + Include leaders in the process

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Take Aways

- Challenge assumptions and the status quo
 - Be curious and question everything
- Divergent thinking: Quantity over quality
 - Never criticize ideas or evaluate them a while generating!
- Defer judgment and instead build on ideas of others
 - Wild ideas are encouraged
- Look for analogies or inspiration from nature
 - Be visual – draw/sketch to communicate
- EMPATHY – how would our customers use / feel / interact with / experience our product?

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