

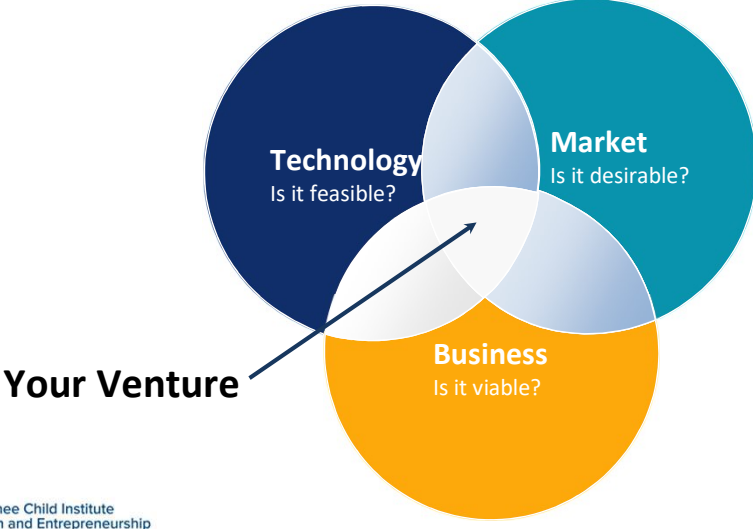
Defining the Problem

Big Bang Workshop
November 2020



UC DAVIS
Mike and Renee Child Institute
for Innovation and Entrepreneurship

The Framework




Technology
Is it feasible?

Market
Is it desirable?

Business
Is it viable?

Your Venture



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The Mindset

REMEMBER:

***Better to be specifically wrong
than vaguely right.***



Learning Objectives

- Recognize the importance of understanding of the problem you're solving
- State your idea in terms of a specific problem, solution, and value proposition
- Move between defining and validating your hypotheses about these three central criteria



The Problem with Defining the Problem

2,600

- The average number of quizzes, tests, and exams you took over the course of your education.
- Which makes you highly-trained, problem-solving machines.



The Problem with Defining the Problem

The Problem Solving Process

Define the problem → Brainstorm abstract solutions → Decide on a solution → Execute the solution → Refine and course correct



“A problem well-stated is half-solved.”

*— Charles Kettering,
Head of Research, GM*



What's Your Problem?

- What problem are you solving?
- Who has it (and how badly)?
- How would you measure it?



Exercise

- Working alone for 5 minutes, create a first draft definition of the real world problem you could solve

Challenge: condense the problem down to 1-3 words.

- *Tip: in order to ensure you are defining the PROBLEM that you solve:*
 - *Think of a few of the benefits of your business (for example: if you own a security company, the benefit of your company/product is "safety").*
 - *Look up the antonyms for those benefits. (for example: safety \neq danger).*
 - *Those antonyms are the problems you solve.*

Refer to *Define the Problem* worksheet.



***“To a child with a hammer,
everything looks like a nail.”***

— *Abraham Maslow*



Methods for Deep Need-finding

- Interviews and observations
- Process mapping
- “5 Whys” analysis



Whose Needs?

- Before we can discover the needs of our audience, we must be specific about who that audience is.
- *Write a customer avatar. This should be ONE PERSON that embodies your ideal customer that would utilize your solution. Write down details like:*
 - Their name
 - Their profession
 - Their interests/hobbies
 - Their reason for engaging in *your solution/product*



Deep Needs

Needs that are...

- Not obvious without a deep understanding of the people engaged in the activities (to you or to the user)
- Relatively timeless and significant



Why is it important that we engage in needfinding?



Process Mapping

- Process mapping is a tool to understand the complete experience surrounding a problem/process/activity
- Start with the problem/activity you are considering (e.g., digital photography)
 - Take the user's point of view, and mentally pull back to the earliest stage of the process (e.g. planning a trip, packing a camera, anticipating a shot, sharing a photo, etc.)
 - Step through every element of the activity, recording it
 - Analyze your map: What happens at each of these stages? Why? How do the stages relate? What opportunities do you see?

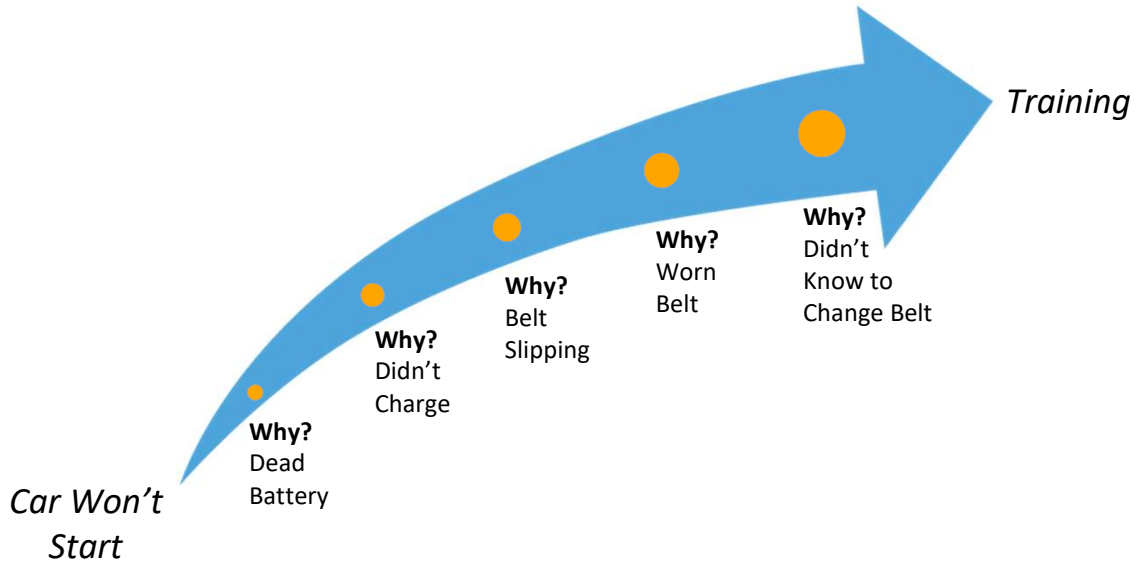


The 5 Whys

- A technique for quickly finding the root cause of a problem
- Developed in the Toyota Production System, the “5 Whys” involves looking at any problem and asking:
 - “Why?”
 - “What caused this problem?”
- Use it to explore the cause/effect relationships underlying a particular problem



The 5 Whys: Example



Now... What's Your Solution?

- Define your work in terms of a **solution** to the problem you've identified
- Describe the primary benefits

Refer to "Define the Solution" on worksheet.

What's the Value Proposition?

- For the user, what's the most important benefit of your proposed solution?
- How would *the customer* measure its value?
- → *In other words, what are the payoffs?*

Refer to "Define the Value Proposition" on worksheet.



Applying What You've Learned

- Take the next 10 minutes to summarize/refine:
 - The problem;
 - The solution; and
 - Your value proposition
- "My business/service/product solves problem (your problem) _____ by doing (brief explanation of what you offer) _____. My consumer base is (brief explanation of your consumer avatar) _____. We will solve this problem for our consumer by (specific description of your product or service) _____. Our consumer will know our product works when (value proposition/payoffs) _____.
- EXAMPLE: Pain-Free Fitness solves the problems of time and pain by offering 10-minute fitness and stretching routines that can be customized around areas of injury or weakness. My consumer base consists largely of corporate individuals, ages 30+ who deal with bodily pain and/or stiffness on a regular basis but don't have the time or resources to spend on a physical therapist or a trainer. I will solve this problem for my consumers by developing easy and quick routines via video and eBook that can be purchased online for easy access. My consumer knows my product is working when they experience less pain and see measurable improvements in their physical fitness.



Apply your work to the *Venture Canvas*.