

CS445 / ECE451 / CS645 / SE463  
Software Requirements Specification & Analysis

# Problem Interview



# Precondition: Falsifiable Hypotheses

- My target customer will be \_\_\_?
- The problem my customer wants to solve is \_\_\_?
- My customer's need can be solved with \_\_\_?
- Why can't my customer solve this today?
- The measurable outcome my customer wants to achieve is \_\_\_?
- My primary customer acquisition tactic will be \_\_\_?
- My earliest adopter will be \_\_\_?
- My primary competition will be \_\_\_?
- I will beat my competitors primarily because of \_\_\_?
- My biggest technical or engineering risk is \_\_\_?

What assumptions are you making that, if proven wrong, would cause your project to fail?

Giff Constable, "Talking to Humans", 2014

# Problem Interview



Figure 7-3. Problem interview script

Ash Maurya, *Running Lean*, O'Reilly Media, 2012

# Step #1 - Welcome

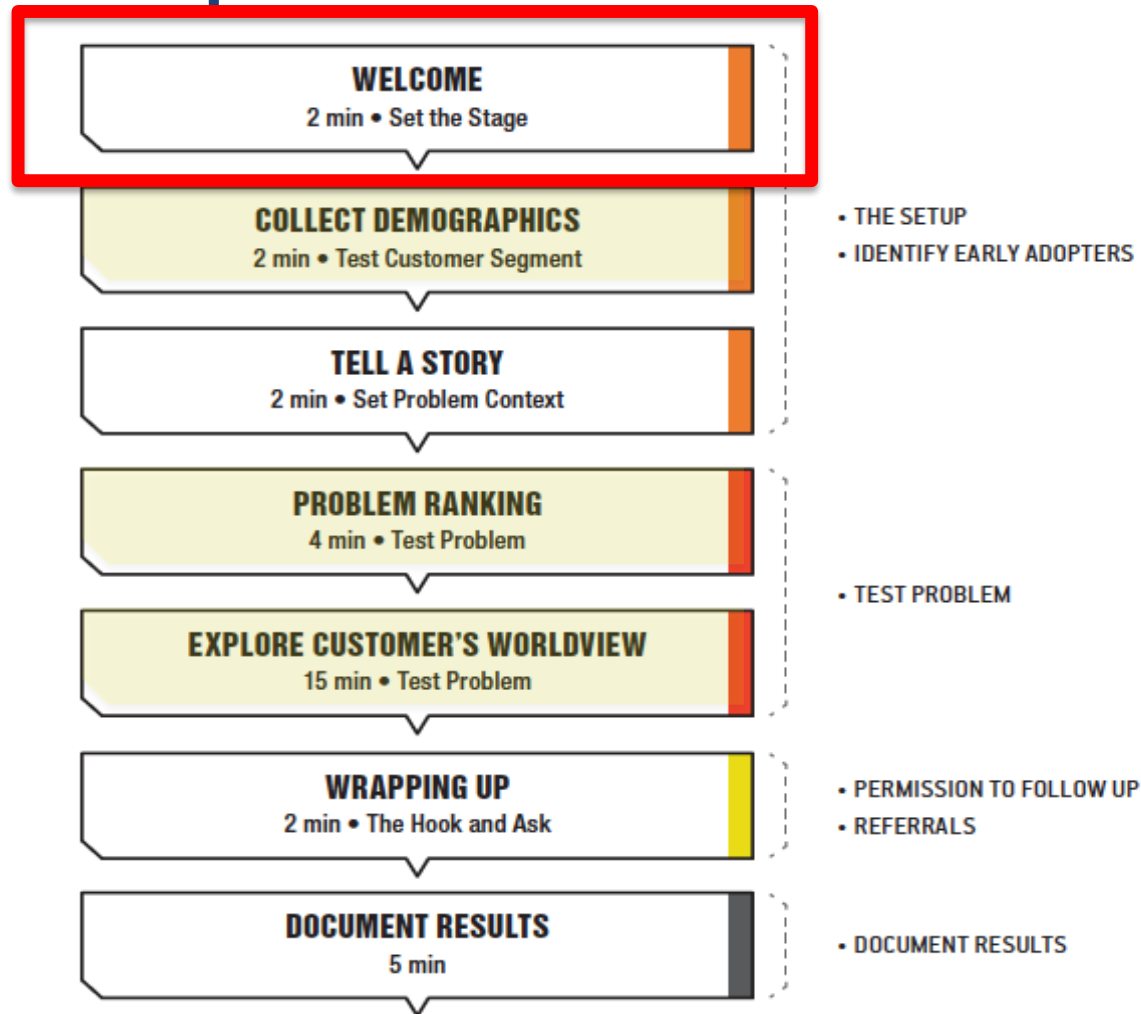


Figure 7-3. Problem interview script

# #2 – Collect Demographics

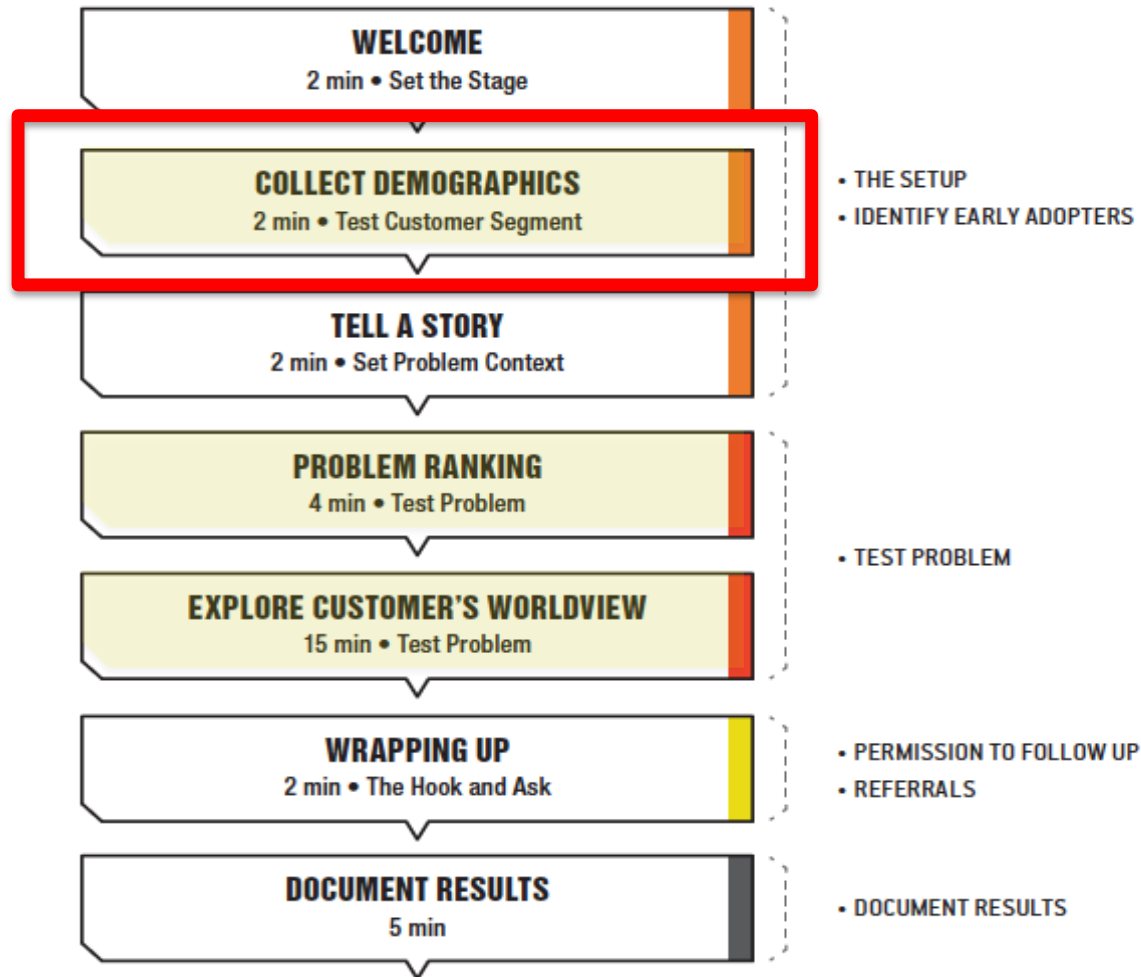


Figure 7-3. Problem interview script

# AirBnB

Ask simple questions that validate your hypotheses about the target customer segment, early adopters, and their characteristics

- What is your age, gender, income, education
- How often do you travel?
- What locations do you travel to?
- How long do you stay?
- Where do you stay?
- What do you look for in a place to stay?
- What kinds of things do you like to do when you travel?

# #3 – Tell a Story

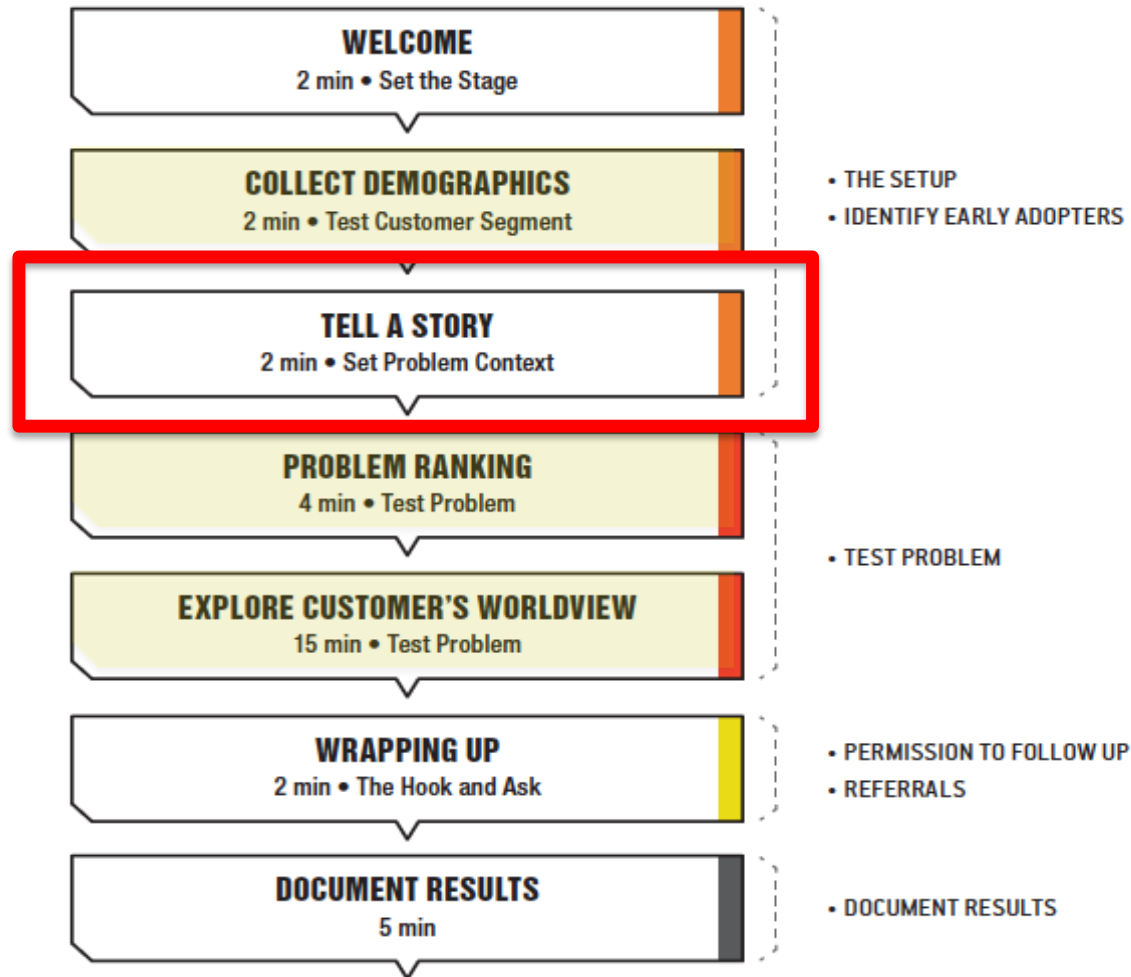


Figure 7-3. Problem interview script

# #4: Problem Ranking

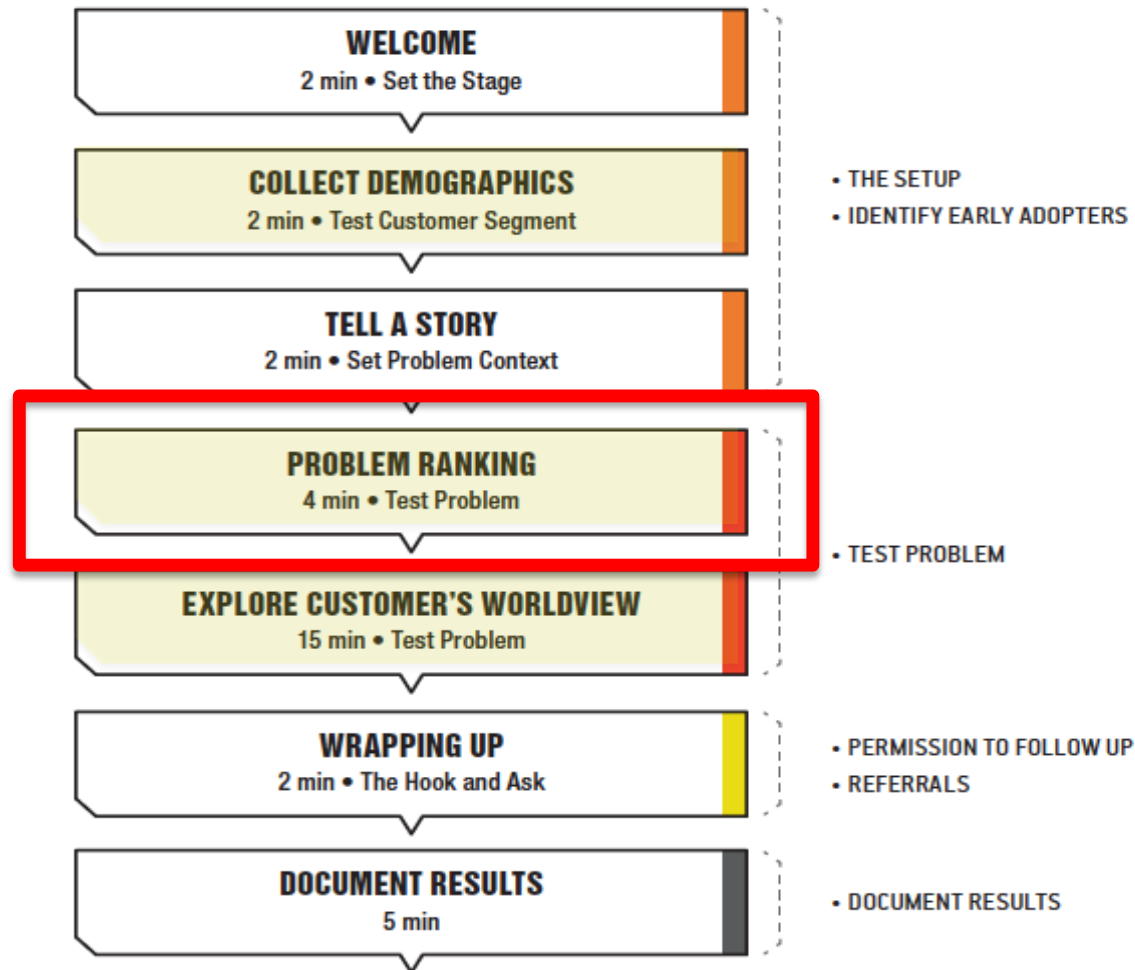


Figure 7-3. Problem interview script

Ash Maurya, *Running Lean*, O'Reilly Media, 2012

# #4 Problem Ranking

State the top one to three problems and ask the interviewee to rank them:

1. Are you looking to save money on accommodations?
2. Do you want to experience what it's like to live like a local when travelling?
3. Would you make use of more rooms than a bed and bathroom when travelling (e.g., kitchen, living room)

*Do you have any other travel-accommodation pet peeves that I didn't talk about?*

# Pass/Fail Questions

## Set goals for key questions and track results

- Who doesn't want to save money? We want at least 60% of interviewees to say that price is a major factor to them.
- Because the concept of experiential travel may be new, this might not be the interviewee's top problem. But we hope to see that 33% of interviewees to express interest in this aspect.
- Because we believe that variety in accommodation spaces is a major differentiator for our product, we want over 40% of interviewees to indicate that this is a major factor in their decision-making process.

# #5 Explore Customer's World View

This is the heart of the interview. Go through each problem in turn. Ask the interviewees how they address the problem today.

- 1. So, how do you look for accommodations when travel?*
- 2. What products do you currently use and how did you first hear about them?*
- 3. Could you walk us through your process for finding accommodation?*

Ask any follow-up questions to understand their current workflow.

# #6: Wrapping Up

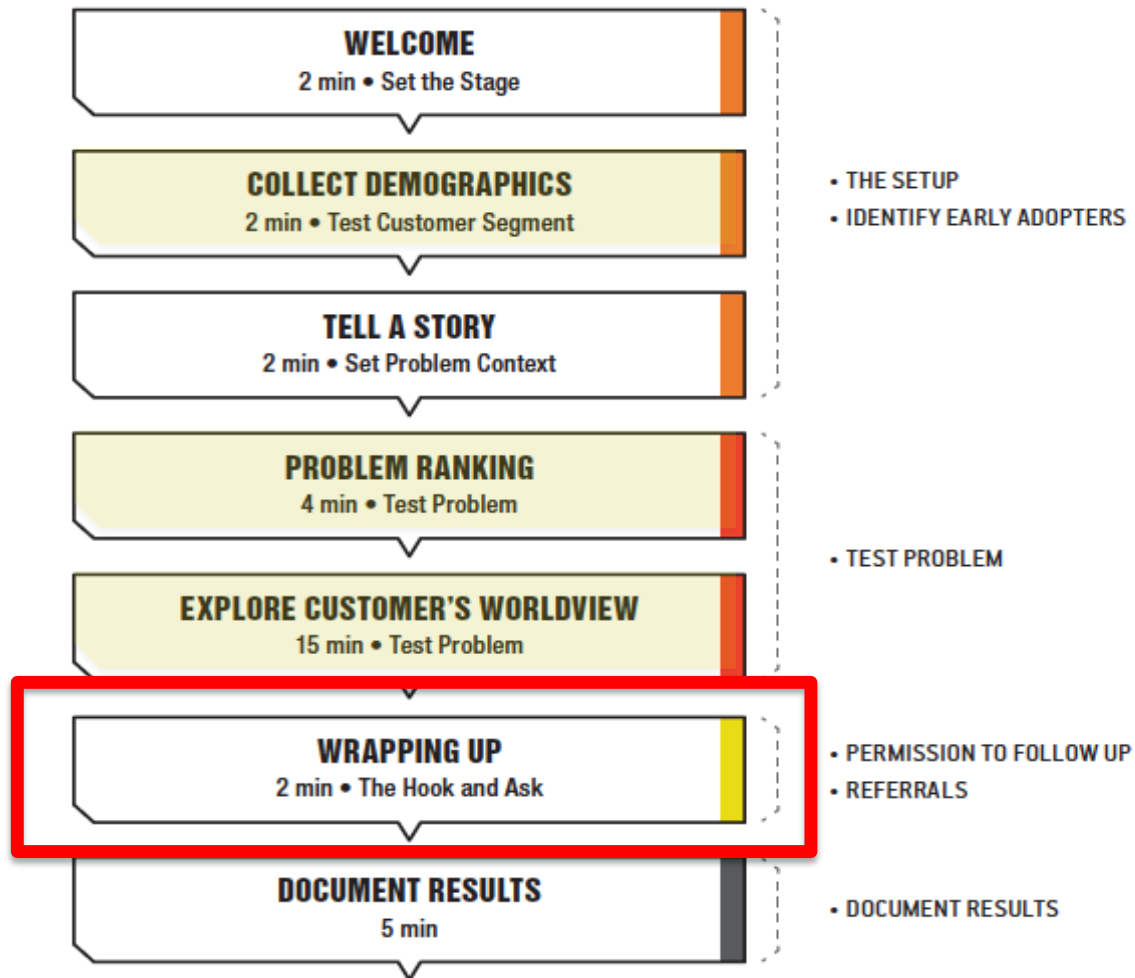


Figure 7-3. Problem interview script

# #7 Document Results

## PROBLEM INTERVIEW

Date: \_\_\_\_\_

### Contact Information

Name: \_\_\_\_\_

Email: \_\_\_\_\_

### Demographics

Number of kids: \_\_\_\_\_ Ages: \_\_\_\_\_

Shares photos online: \_\_\_\_\_ Shares videos online:| \_\_\_\_\_

How often? \_\_\_\_\_ With whom? \_\_\_\_\_

**Problem 1:** Sharing lots of photos and videos is time-consuming.

Priority ranking: \_\_\_\_\_ Pain level: \_\_\_\_\_

How problem is addressed today? \_\_\_\_\_

**Problem 2:** There is a lot of external demand for this content.

Priority ranking: \_\_\_\_\_ Pain level: \_\_\_\_\_

How problem is addressed today? \_\_\_\_\_

**Problem 3:** I don't have enough free time for photo/video sharing.

Priority ranking: \_\_\_\_\_ Pain level: \_\_\_\_\_

Take the five minutes immediately following an interview to document your results while they're still fresh in your mind.

# How Many Interviews are Enough?

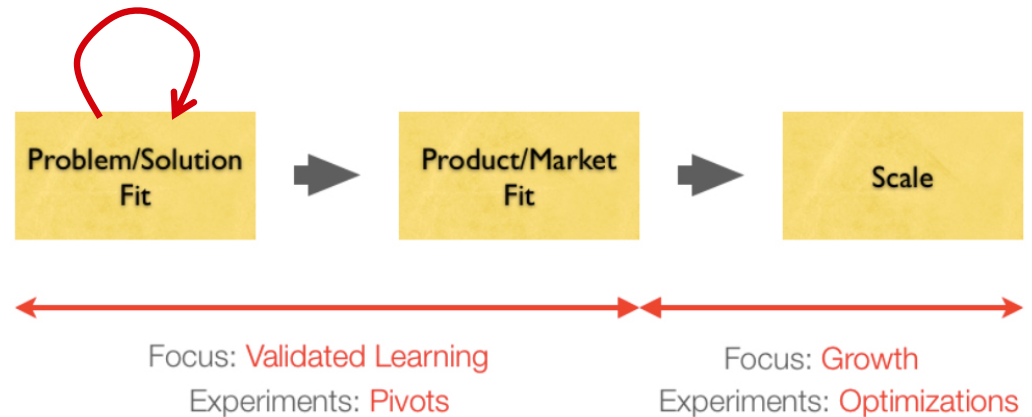
If you have a lot of uncertainty now, you don't need much data to reduce uncertainty significantly.

When you have a lot of certainty already, then you need a lot of data to reduce uncertainty significantly.

—Douglas Hubbard

# Processing the Results

- Start to home in on early adopters.
- Refine the problems.
- Really understand their existing alternatives.
- Pay attention to words customers use.
- If hypotheses are false, then need to pivot
  - Learn from disproven hypotheses and improve hypotheses
  - Continuous discovery and iterative improvement



Ash Maurya, *Running Lean*, O'Reilly Media, 2012

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Not all those who wander are lost

Bilbo Baggins

# References

Ash Maurya, *Running Lean, 2ed*, O'Reilly, 2012.

- Chapter 7: "The Problem Interview"

Blaz Kos, "The lean startup ultimate guide – Everything you need to know about the lean startup", AgileLeanLife.com, 2017

<https://agileleanlife.com/the-lean-startup/>



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