

Discovery Assumptions & Risks Workshop

Formats: Markdown (canonical) | Word (DOCX) | PDF **Updated:** 2026-03-22 **License:** CC BY 4.0 --
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A 4-step team activity for surfacing your riskiest assumptions, ranking them by impact, and choosing discovery activities to test them before you build the wrong thing.

When to use this

You're starting a new initiative, entering a discovery phase, or your team is about to invest significant effort in something nobody has validated yet. This workshop helps a cross-functional team generate assumptions, identify which ones carry the most risk, and pick concrete activities to reduce uncertainty. Run it in 60-90 minutes with 4-8 people.

Process

Step 1: Generate assumptions through three lenses

Split your assumptions into three categories. Each lens surfaces a different type of risk.

Set up three columns on your board:

Viability	Desirability	Feasibility
Will this work as a business?	Do people actually want this?	Can we build this?

Viability assumptions -- business model, revenue, cost, regulatory, market timing:

- "Clinics will pay \$15/month per provider seat"
- "Our licensing model works in the EU market"
- "We can launch before the regulatory deadline in Q3"

Desirability assumptions -- user need, willingness to adopt, behavior change:

- "Patients will log their vitals daily without reminders"
- "Pharmacists will use a digital checklist instead of their paper workflow"
- "Parents will trust an AI-generated care recommendation"

Feasibility assumptions -- technical capability, team capacity, integration, timeline:

- "Our API can handle 10x current load without re-architecture"

- "We can integrate with the EHR system in 4 weeks"
- "The ML model will reach 90% accuracy with our current training data"

How to run it:

- Silent brainstorm: 8-10 minutes, one assumption per sticky note
- Each person writes assumptions they believe the team is making -- stated or unstated
- Encourage "uncomfortable" assumptions. The ones nobody wants to say out loud are usually the riskiest.
- Aim for 15-25 total assumptions across the three columns

Facilitator prompt: "What are we assuming is true that, if wrong, would sink this initiative?"

Step 2: Stack-rank by impact

Now prioritize. Not all assumptions carry equal risk.

For each assumption, ask: "If this assumption is wrong, how bad is it?"

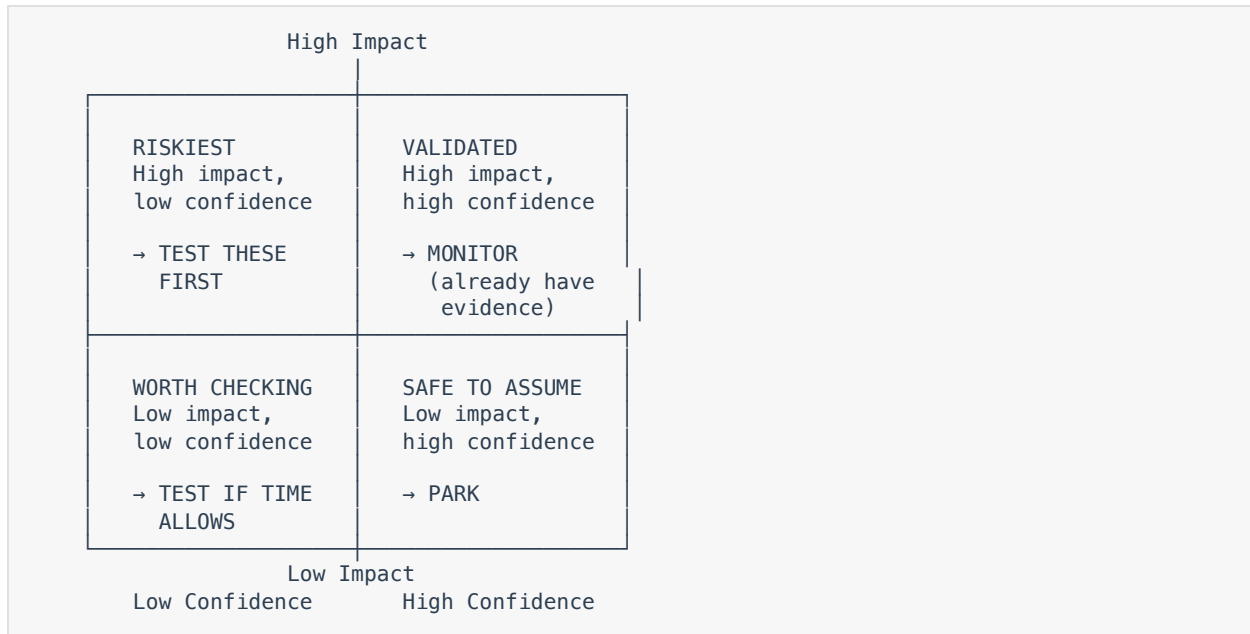
- **High impact:** The initiative fails or requires a major pivot
- **Medium impact:** Significant rework or delay, but recoverable
- **Low impact:** Minor adjustment needed

How to run it:

- Read each assumption aloud (group similar ones first)
 - Quick team vote: high, medium, or low impact (dot-vote or thumbs up/down/sideways)
 - Move high-impact assumptions to the top of each column
 - Don't debate for more than 1 minute per assumption. If the team can't agree quickly, mark it as "high" and move on -- disagreement about impact is itself a signal.
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Step 3: Plot on the impact-vs-confidence matrix

Take your high-impact assumptions and place them on a 2x2 matrix.



How to assess confidence:

- **High confidence:** You have data, research, or direct user feedback supporting this assumption
- **Low confidence:** This is a guess, an opinion, or based on what happened at a previous company

Focus on the top-left quadrant: high impact, low confidence. These are your riskiest assumptions -- the ones that could sink the initiative and that you have no evidence for. Pick the top 2-3 for discovery activities.

Step 4: Select discovery activities for your riskiest assumptions

For each of your top 2-3 riskiest assumptions, choose a discovery activity that will give you evidence.

Common discovery activities by assumption type:

Assumption Type	Discovery Activities
Desirability (do people want this?)	User interviews, surveys, prototype testing, landing page test, concierge MVP, Wizard of Oz test
Viability (does the business model work?)	Pricing experiments, competitor analysis, financial modeling, pilot program, letter of intent from customers

Assumption Type	Discovery Activities
Feasibility (can we build it?)	Technical spike, proof of concept, architecture review, vendor evaluation, load testing

For each selected activity, capture:

Assumption: (The specific assumption to test)
 Activity: (What you'll do to test it)
 Evidence needed: (What result would confirm or invalidate the assumption?)
 Owner: (Who runs this activity?)
 Timeline: (When will we have results?)

Rules for good discovery activities:

- The activity should produce evidence, not opinions. "Ask 5 users" beats "discuss in the team meeting."
- Set a decision threshold before you start. "If fewer than 3 out of 8 users complete the task, we pivot." Deciding the bar after you see results is confirmation bias.
- Timebound everything. Discovery that runs indefinitely is procrastination.
- Cheap and fast beats thorough and slow. You're reducing uncertainty, not writing a research paper.

Worked example

Context: A health-tech startup is building a medication adherence app for elderly patients.

Assumptions generated (18 total, showing the 6 highest-impact):

Assumption	Lens	Impact	Confidence
Elderly patients will use a smartphone app daily	Desirability	High	Low
Caregivers will set up the app on behalf of patients	Desirability	High	Low
We can integrate with 3 major pharmacy chains' APIs	Feasibility	High	Low
Insurance will reimburse for digital adherence tools	Viability	High	Medium
Push notifications improve adherence by 20%+	Desirability	Medium	Medium
Our team can ship an MVP in 8 weeks	Feasibility	Medium	High

Top 3 riskiest (high impact, low confidence):

1. Elderly patients will use a smartphone app daily

- Activity: 5 in-home observation sessions with patients 65+ managing 3+ medications
- Evidence needed: 4/5 participants can complete the core "mark medication taken" flow without assistance
- Owner: UX researcher (Maria)
- Timeline: 2 weeks

2. Caregivers will set up the app on behalf of patients

- Activity: Prototype test with 6 caregiver-patient pairs using a clickable Figma prototype
- Evidence needed: Caregivers complete setup in under 10 minutes; patients can use the app after caregiver leaves
- Owner: Product designer (James)
- Timeline: 2 weeks (run concurrently with activity 1)

3. We can integrate with 3 major pharmacy chains' APIs

- Activity: Technical spike -- review API documentation, contact developer relations at CVS, Walgreens, Rite Aid
- Evidence needed: At least 2 of 3 have public or partner APIs that support medication list access
- Owner: Tech lead (Priya)
- Timeline: 1 week

Facilitator tips

- **Separate assumption generation from evaluation.** Don't let the team debate whether an assumption is risky while they're still brainstorming. Generate first, evaluate second. Mixing the two kills creativity and surfaces fewer assumptions.
- **Unstated assumptions are the dangerous ones.** Push the team to name what everyone "just knows." "Our users have reliable internet access" might be an assumption nobody questions -- until it breaks your product.
- **The three lenses prevent tunnel vision.** Engineering teams over-index on feasibility. Product teams over-index on desirability. Business teams over-index on viability. The three-lens structure forces all three perspectives into the room.
- **2-3 discovery activities is the right number.** More than that means you're not prioritizing -- you're doing all the research. Pick the assumptions that, if wrong, would change what you build.
- **Revisit the matrix as you learn.** After each discovery activity, update the assumption's confidence level. Some will move from "riskiest" to "validated." Others will reveal new

assumptions you didn't see before.

- **"We already know" is the most dangerous phrase in this workshop.** If someone says it, ask: "What evidence do we have?" If the answer is anecdote or intuition, it stays in the low-confidence zone.

Appendix: Common assumptions by phase

Early discovery (problem space):

- The problem we're solving exists and is painful enough for people to seek a solution
- The target users are reachable through our planned channels
- The market is large enough to sustain the business

Solution design:

- Users will understand how to use this without training
- This solution is meaningfully better than what users do today
- Users will switch from their current solution

Pre-launch:

- Our pricing is within the target customer's budget and perceived value
- We can acquire users at a cost that sustains the business model
- Our infrastructure can handle the expected load at launch

How did it go?

After the workshop, check:

- ☐ The team generated assumptions across all three lenses (viability, desirability, feasibility) -- not just one
- ☐ At least 15 assumptions were surfaced (fewer usually means the team self-censored)
- ☐ High-impact assumptions were identified through team voting, not one person's opinion
- ☐ The top 2-3 riskiest assumptions have specific discovery activities with owners and timelines
- ☐ Each discovery activity has a clear "what evidence would change our mind" threshold
- ☐ The team left with a concrete plan, not just a decorated whiteboard

Miro/FigJam board setup

To run this workshop digitally, set up your board with these zones:

1. **Brainstorm zone:** Three columns (Viability / Desirability / Feasibility) with space for 25+ sticky notes
2. **Ranking zone:** A single column where high-impact assumptions are stacked top-to-bottom
3. **Matrix zone:** 2x2 grid labeled Impact (vertical) and Confidence (horizontal) with quadrant labels
4. **Action plan zone:** Table with columns for Assumption, Activity, Evidence Needed, Owner, Timeline
5. **Parking lot:** Space for assumptions that need more discussion outside the workshop

Pre-populate each zone with the column headers and labels before the session starts.

Part of the [k8 Agent Toolkit](#). Download other formats at k8mak.com/resources.