# Risky Hypothesis Testing

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# Overview

In the early stages of starting up, reducing risk and validating a viable business is more important than pursuing arbitrary KPI milestones. When experienced founders raise seed rounds, they talk about their progress through the lens of the hypotheses they've validated and what hypotheses they aim to test in the next round. Therefore, from the earliest stages, it's important to frame a startup idea as a collection of hypotheses which require testing. The hypotheses at the early stages generally fall into five categories:

1. **Product-market fit**: do you know who your target customer is, the need you address, your core value proposition, and how your solution is significantly better than existing alternatives?
2. **Product viability**: can you deliver on your core value proposition at the scale required?
3. **Business model economics**: do your pricing and cost structure support your positioning while making your business viable?
4. **Customer Experience and success**: can you get your customer to interact with your product in the way you need them to for the business to be viable?
5. **Go-to-market:** Do you have a repeatable strategy for acquiring new customers?

**When applying this framework, you should follow a five-step process:**

1. Outline your problem statement and your positioning statement
2. Articulate your hypotheses across the five categories
3. Prioritize the hypotheses based on risk
4. Design and execute an experiment for testing your riskiest assumption
5. Document your learnings, revisit your hypotheses, and repeat

Tests can be run in a variety of ways, from surveys, to customer interviews, research, building prototypes, and more.

While breaking down this framework, we'll illustrate how it works in practice with three startup ideas:

- **Therapist Match**: A tool matching people seeking mental healthcare with therapists that work for them.

- **Jubilee:** A subscription box service that combines plants, creativity, and self care delivered directly to your door.

- **Herd:** A people intelligence tool that helps People Operations Directors request, store, and act, on employee preferences and information.

# 1.0: Outline your problem statement and your positioning statement

## 1. Problem statement

What problem does your business solve for? This should be as specific as possible – eventually this should be backed up by data.

## 2. Positioning statement

A positioning statement defines where your product fits in the market.

For (target market) who (customer need), (Product Name) is (Product category) that (value proposition). Unlike (competing alternatives), (Product name) (differentiation).

| Startup | |
|---|---|
| **Therapist Match** | **Positioning statement**: For Philadelphians who want to find a therapist, Therapist Match is a website that finds the best matches for you based on your criteria.<br>Unlike online searches or using Psychology Today, Therapist Match helps you surface the ideal therapists by using criteria that is most essential to a good patient-therapist match.<br><br>**Problem statement:** 70% of people report being frustrated by finding a therapist. 80% of therapists are not fully booked. |

# 2.0: Outline all hypotheses in your positioning statement

## 2.1. Product-market fit hypotheses (Positioning Statement)

Your positioning statement can be broken into two groups of hypotheses.

**a. Target market and value proposition hypothesis**: *who is your ideal customer? What is the need that they have? What is your core value to your customer and how is it delivered?*

**b. Differentiation hypothesis**: *what are the competing alternatives customers use to address this need currently? How is your product significantly better?*

Answering these questions succinctly should construct the following positioning statement.

**Target market and value proposition hypothesis**
For (target market) who (customer need), (Product Name) is (Product category) that (value proposition).

**Differentiation hypothesis**
Unlike (competing alternatives), (Product name) (differentiation).

| Startup | Positioning statement |
|---|---|
| **Therapist Match** | **Target market and value proposition hypothesis**<br>For Philadelphians who want to find a therapist, Therapist Match is a website that finds the best matches for you based on your criteria.<br><br>**Differentiation hypothesis**<br>Unlike online searches or using Psychology Today, Therapist Match helps you surface the ideal therapists by using criteria that is most essential to a good patient-therapist match |

| Startup | Positioning statement |
|---------|----------------------|
| **Jubilee** | **Target market and value proposition hypothesis**<br>For millennial women who are looking for ways to exercise self-care, Jubilee is a subscription box that delivers a plant, body care product, and creative exercise.<br><br>**Differentiation hypothesis**<br>Unlike direct-to-consumer plant delivery companies, Jubilee focuses on more holistic self-care than just taking care of plants. |
| **Herd** | **Target market and value proposition hypothesis**<br>For people ops managers who need quick access to employee preferences and information, Herd is a people intelligence tool that makes it easy for you to request, store, and access employee information.<br><br>**Differentiation hypothesis**<br>Unlike existing HR products, Herd is focused on the more nuanced data that's critical to being an effective people ops manager on a day-to-day basis. |

## 2.2. Product viability hypotheses

Product viability hypotheses dig into your product's ability to deliver on the value proposition and differentiation for your target customer. Inspiration for product viability hypotheses include (but are not limited to) the following subcategories:

**a. Human behavior hypotheses**: *can you get the other humans involved in your value proposition to your target customer to interact with your product in the way you need?*

Note: this is particularly relevant when it comes to networks, marketplaces, or products where your customer has other end users (e.g. billing software, HR tools, etc.)

| Startup | Human behavior hypotheses |
|---|---|
| Therapist Match | Therapists who we surface as matches for our users will respond to their inquiries in a timely manner. |
| Jubilee | N/A |
| Herd | All employees will respond to the people ops managers' requests for information |

**b. Information acquisition hypotheses**: can you get the information or data required to deliver on your value proposition?

| Startup | Information acquisition hypotheses |
|---|---|
| Therapist Match | Users will be comfortable providing us with the sensitive data that will help us match them with a therapist.<br><br>We can get the data on local therapists that we need in order to make more effective matches. |
| Jubilee | N/A |
| Herd | Employees are willing and able to provide all information that people ops managers request within 5 minutes of starting to add information. |

**c. Technical hypotheses**: is it technically possible for your product to perform jobs required to deliver on your product's positioning?

| Startup | Technical hypotheses |
|---|---|
| Therapist Match | N/A |
| Jubilee | We can deliver desert plants anywhere in the country without damaging them. |
| Herd | N/A |

## 2.3. Business model hypothesis

Business model hypotheses involve the economics of delivering your product to your target customer. Inspiration for business model economics hypotheses include (but are not limited to) the following subcategories:

**a. Revenue and pricing hypotheses:** *who will pay you, how much will they pay you, and what will the pricing model be?*

| Startup | Revenue and pricing hypotheses |
|---|---|
| Therapist Match | Therapists who get clients through Therapist Match will pay for each client we bring them. |
| Jubilee | Our target customer is willing to pay $70 for a box |
| Herd | People Ops Managers will pay at least $50/month for our product. |

**b. Cost to serve hypotheses**: *how much does it cost you to deliver your product to your customers?*

| Startup | Cost to serve hypotheses |
|---|---|
| Therapist Match | TBD |
| Jubilee | We can source the products and deliver a quality box for less than $25. |
| Herd | TBD |

## 2.4. Customer experience and success hypotheses

Customer experience and success hypotheses involve ensuring that you're delivering on your differentiator and that customers can get the experience they need out of your product to be valuable customers in the short and long term. Inspiration for customer experience and success hypotheses include (but are not limited to) the following subcategories.

**a. Onboarding hypotheses:** *how easily can you get your customers to experience first success with your product?*

| Startup | Onboarding hypotheses |
|---|---|
| Therapist Match | A user can be matched with quality therapists in less than a minute. |
| Jubilee | In their first box, customers will complete the creative exercise. |
| Herd | People Ops Managers will pay at least $50/month for our product. |

**b. Life integration hypotheses**: *can your product integrate into your customer's life in the way that you want?*

| Startup | Life integration hypotheses |
|---|---|
| Therapist Match | The matches made by our product will result in long-term patient-therapist relationships. |
| Jubilee | Our customers will water their plants every other day. |
| Herd | People ops managers can use our product alongside the HR products they currently use without any redundancy. |

**c. Engagement and retention hypotheses:** *will your customer engage with your product/business in the volume or frequency in which you desire?*

| Startup | Engagement hypotheses |
|---|---|
| Therapist Match | If a user doesn't want to continue seeing their therapist that they found on Therapist Match, they'll use it again to find a new one. |
| Jubilee | Customers will want to receive a new box every month. |
| Herd | People ops managers will use our product on a daily basis |

## 2.5. Go-to-market hypothesis

Go-to-market hypotheses involve your ability to distribute your product and grow, assuming you've validated enough hypotheses in the 4 preceding categories. Going to market with a product that loses money or has poor engagement is a waste of time. While it's important to think about these hypotheses early, they're rarely the riskiest until you've validated hypotheses in the preceding categories.

**a. Distribution channel hypotheses:** *how can you get your product in front of your target market?*

| Startup | Distribution channel hypotheses |
|---|---|
| Therapist Match | We can use local content marketing and local PR to quickly acquire users in mid-market cities like Philadelphia |
| Jubilee | Instagram is an effective customer acquisition channel for us. |
| Herd | People ops managers like the share tools with each other, and we can tap into existing networks where people ops managers share resources. |

**b. Cost of acquisition hypotheses**: *is your distribution channel cost effective enough to be scaled?*

| Startup | Cost of acquisition hypotheses |
|---|---|
| Therapist Match | TBD |
| Jubilee | TBD |
| Herd | TBD |

**c. Buyer decision-making process hypotheses:** *how can you make it easier for your customer to make the purchase decision?*

| Startup | Cost of acquisition hypotheses |
|---|---|
| Therapist Match | TBD |
| Jubilee | TBD |
| Herd | People ops managers have the autonomy to make the purchase decision for our product. |

Overall, we have the following hypotheses:

| Startup | All hypotheses |
|---|---|
| **Therapist Match** | **Product-market fit hypotheses**<br><br>• Philadelphians who want to find a therapist want a website that finds the best matches for you based on your criteria.<br>• Therapist Match can surface relevant matches much better Psychology Today.<br><br>**Product viability hypotheses**<br><br>• Therapists who we surface as matches for our users will respond to their inquiries in a timely manner.<br>• Users will be comfortable providing us with the sensitive data that will help us match them with a therapist.<br>• We can get the data on local therapists that we need in order to make more effective matches.<br><br>**Business model economics hypotheses**<br><br>• Therapists who get clients through Therapist Match will pay for each client we bring them.<br><br>**Customer experience and success hypotheses**<br><br>• A user can be matched with quality therapists in less than a minute.<br>• The matches made by our product will result in long-term patient-therapist relationships.<br>• If a user doesn't want to continue seeing their therapist that they found on Therapist Match, they'll use it again to find a new one.<br><br>**Go-to-market hypotheses**<br><br>• We can use local content marketing and local PR to quickly acquire users in mid-market cities like Philadelphia |

| Startup | All hypotheses |
|---------|----------------|
| **Jubilee** | **Product-market fit hypotheses (in the form of a positioning statement)**<br>• Millennial women who are looking for ways to exercise self-care will pay for a subscription box that delivers a plant, body care product, and creative exercise<br>• The combination of products in a Jubilee box provides more holistic self-care than just plants.<br><br>**Product viability hypotheses**<br>• We can deliver desert plants anywhere in the country without damaging them.<br><br>**Business model economics hypotheses**<br>• Our target customer is willing to pay $70 for a box.<br>• We can source the products and deliver a quality box for less than $25.<br><br>**Customer experience and success hypotheses**<br>• In their first box, customers will complete the creative exercise.<br>• Our customers will water their plants every other day.<br>• Customers will want to receive a new box every month.<br><br>**Go-to-market hypotheses**<br>• Instagram is an effective customer acquisition channel for us. |
| **Herd** | **Product-market fit hypotheses (in the form of a positioning statement)**<br>• People ops managers who manage a sprawling workforce want a people intelligence tool that makes it easy for you to request, store, and access employee information.<br>• Herd provides value that typical HR products do not by focusing on more nuanced data that's critical to being an effective people ops manager on a day-to-day basis.<br><br>**Product viability hypotheses**<br>• All employees will respond to the people ops managers' requests for information.<br>• Employees are willing and able to provide all information that people ops managers request within 5 minutes of starting to add information |

| Startup | All hypotheses |
|---|---|
| **Herd continued)** | **Business model economics hypotheses**<br><br>● People Ops Managers will pay at least $50/month for our product.<br>● A people ops manager will send out a request for information to his or her employees within one business day of using our product.<br><br>**Customer experience and success hypotheses**<br><br>● People ops managers can use our product alongside the HR products they currently use without any redundancy.<br>● People ops managers will use our product on a daily basis.<br><br>**Go-to-market hypotheses**<br><br>● People ops managers like the share tools with each other, and we can tap into existing networks where people ops managers share resources.<br>● People ops managers have the autonomy to make the purchase decision for our product. |

# 3.0: Prioritize the hypotheses based on risk

Once you've outlined the hypotheses you have surrounding your idea, it's time to prioritize them based on risk. There's no exact science for this, but the following questions can help:

**Red:** we have little validation, and if we're wrong about it then it would bring everything else into question

**Yellow:** we have little validation, but it's not the most immediate concern

**Green:** we have enough validation that this is unlikely to be the thing that undermines the idea

**You should focus on testing the hypotheses in red.**

| Startup | All Hypotheses |
|---|---|
| **Therapist Match** | <ul><li>Philadelphians who want to find a therapist want a website that finds the best matches for you based on your criteria.</li><li>Therapist Match can surface relevant matches much better Psychology Today.</li><li>Therapists who we surface as matches for our users will respond to their inquiries in a timely manner.</li><li>Users will be comfortable providing us with the sensitive data that will help us match them with a therapist.</li><li>We can get the data on local therapists that we need in order to make more effective matches.</li><li>Therapists who get clients through Therapist Match will pay for each client we bring them.</li><li>A user can be matched with quality therapists in less than a minute.</li><li>The matches made by our product will result in long-term patient-therapist relationships.</li><li>If a user doesn't want to continue seeing their therapist that they found on Therapist Match, they'll use it again to find a new one.</li><li>We can use local content marketing and local PR to quickly acquire users in mid-market cities like Philadelphia</li></ul> |

| Startup | All Hypotheses |
|---------|----------------|
| **Jubilee** | • Millennial women who are looking for ways to exercise self-care will pay for a subscription box that delivers a plant, body care product, and creative exercise<br><br>• The combination of products in a Jubilee box provides more holistic self-care than just plants.<br><br>• We can deliver desert plants anywhere in the country without damaging them.<br><br>• Our target customer is willing to pay $70 for a box.<br><br>• We can source the products and deliver a quality box for less than $25.<br><br>• In their first box, customers will complete the creative exercise.<br><br>• Our customers will water their plants every other day.<br><br>• Customers will want to receive a new box every month.<br><br>• Instagram is an effective customer acquisition channel for us. |
| **Herd** | • People ops managers who manage a sprawling workforce want a people intelligence tool that makes it easy for you to request, store, and access employee information.<br><br>• Herd provides value that typical HR products do not by focusing on more nuanced data that's critical to being an effective people ops manager on a day-to-day basis.<br><br>• All employees will respond to the people ops managers' requests for information.<br><br>• Employees are willing and able to provide all information that people ops managers request within 5 minutes of starting to add information.<br><br>• People Ops Managers will pay at least $50/month for our product.<br><br>• A people ops manager will send out a request for information to his or her employees within one business day of using our product.<br><br>• People ops managers can use our product alongside the HR products they currently use without any redundancy.<br><br>• People ops managers will use our product on a daily basis.<br><br>• People ops managers like the share tools with each other, and we can tap into existing networks where people ops managers share resources.<br><br>• People ops managers have the autonomy to make the purchase decision for our product. |

# 4.0: Design and execute experiment for testing your riskiest assumptions (hypothesis)

**Ways to design experiments include but aren't limited to:**

- Surveys
- Customer interviews
- MVPs or prototypes
- Conversion tests (driving traffic to a landing page for promise of something in the future and asking for email address, payment, etc.)
- Research/Analysis
- User walkthrough

**When designing your experiment, keep the following rules in mind:**

- Keep the scope as minimal as possible. Speed matters.
- Make sure that you'll be able to sufficiently prove or disprove your hypothesis.
- If you design a test for your riskiest assumption, and it makes sense to test other assumptions without any additional work, do it.

| Startup | Hypotheses to test | Experiment design |
|---|---|---|
| Therapist Match | <ul><li>Philadelphians who want to find a therapist want a website that finds the best matches for you based on your criteria.</li><li>Users will be comfortable providing us with the sensitive data that will help us match them with a therapist.</li><li>We can get the data on local therapists that we need in order to make more effective matches.</li></ul> | We'll post about Therapist Search through our networks, requesting 20 alpha users who will need to fill out a survey requesting sensitive data. We'll manually make matches using the data available online for these first 20 users. |

| Startup | Hypotheses to test | Experiment design |
|---|---|---|
| **Jubilee** | • Millennial women who are looking for ways to exercise self-care will pay for a subscription box that delivers a plant, body care product, and creative exercise<br>• We can deliver desert plants anywhere in the country without damaging them.<br>• In their first box, customers will complete the creative exercise.<br>• Our customers will water their plants every other day. | Post on our instagram, requesting 10 alpha customers to pay $30 to get our box. We'll assemble our first boxes and ship them to them. We'll ask that they record their unboxing, and fill out a survey after a week, where we'll ask if they've been watering their plant and if they've completed the creative exercise. |
| **Herd** | • Herd provides value that typical HR products do not by focusing on more nuanced data that's critical to being an effective people<br>• People ops managers can use our product alongside the HR products they currently use without any redundancy. | We'll create a mockup of our product with all of the data that it surfaces, and do in-depth user interviews with people ops managers where we ask if there is any other data that they need and how specifically they would use it alongside existing HR tools. |

# 5.0: Document your learnings, revisit your hypotheses, and repeat

If you've run a good Risky Hypothesis Test, not only will you have proven or disproven your hypothesis, but you may learn other critical insights about your idea that may result in additional hypotheses. Revisit Step Two to make sure you have up-to-date hypotheses consistent with your learnings about your idea. Prioritize and test again.