



Testing Business Ideas: The Ultimate Validation Experiments Library

Many popular resources about experiments in product management are incomplete or focus on just one type of experiment.

Others, while valuable, are a bit confusing.

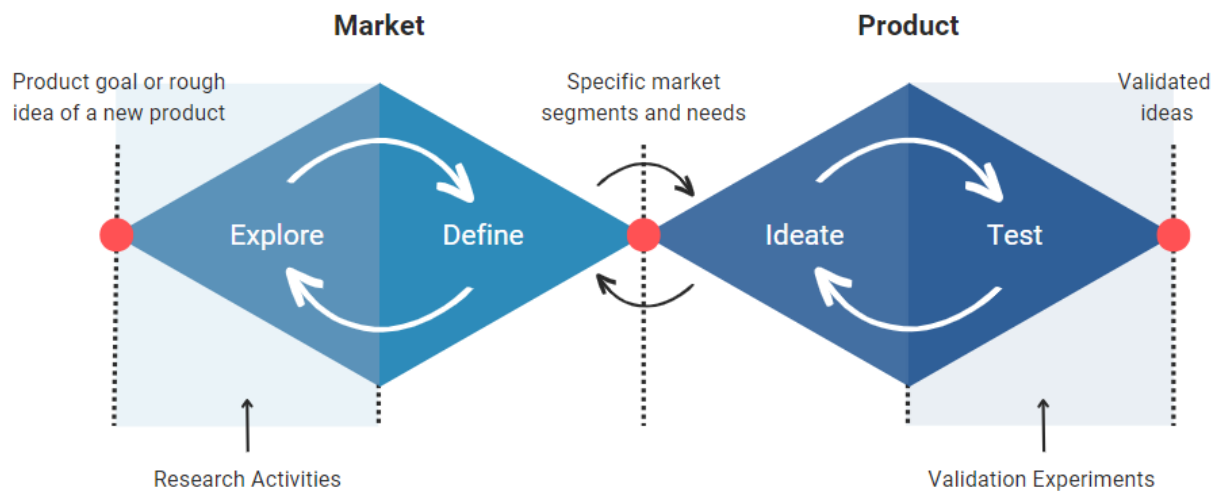
In this article:

1. Validation Experiments
2. Market Engagement
3. Minimal Products
4. Feasibility Prototypes
5. User Prototypes
6. Experiments in Production
7. Recommended Tools to Use When Experimenting

1. Validation Experiments

First, while the scientific definition of experimenting includes exploration, using this definition in the context of product management might be confusing.

Whenever I talk about experiments, I mean experiments used to validate hypotheses (about value, usability, feasibility, or viability):



According to the scientific definition, you could call an experiment:

- Every interview (customers, stakeholders, partners).
- Analyzing data from product analytics.
- Every market research activity.

For practical purposes, I call them “Research Activities.”

2. Market Engagement

Experiments in this group focus on validating how the market will engage with your product idea. My favorite approach is the [XYZ Hypothesis](#) (expressed as “at least X% of Y will do Z”).

That way, you can test:

- Value proposition
- Viability (including pricing)
- Messaging

All experiments in this group can be considered [MVP Prototypes](#) and [Pretotypes](#).

2.1 Email Campaign



Send a targeted email to potential customers. This allows you to test your value proposition and messaging.

Tips:

- Include a call-to-action, such as a survey or sign-up form.
- You can use tools like Mailchimp, MailerLite, GetResponse, or HubSpot.
- Email Campaign is typically combined with a Landing Page.

2.2 Paid Ads Campaign



Create a paid ads campaign targeted to a specific audience. This allows you to test not only your value proposition and messaging but also cost-per-click (CPC).

Tips:

- Include a call-to-action, such as a survey or sign-up form.
- You can utilize tools like Google Ads, LinkedIn Ads, or Meta Ads.
- Email Campaign is typically combined with a Landing Page.

2.3 Social Media Campaign



Publish a social media post. This allows you to test your value proposition and messaging.

Tips:

- Include a call-to-action, such as a survey or sign-up form.
- Consider working with influencers to reach a broader audience.
- Social Media Campaign is typically combined with a Landing Page.

2.4 Landing Page



Create a simple webpage that communicates the value proposition, capabilities, and benefits of your product idea.

By driving traffic to a landing page, you can gather leads, collect feedback, and test willingness to pay.

Tips:

- Include a call-to-action, such as a sign-up form, and limit other navigation options.
- The user should demonstrate interest in the product by paying for it in some form (see [Skin-in-the-Game](#) points)
- You need traffic, so a Landing Page is typically combined with Paid Ads, Email, or Social Media campaigns.
- While a landing page might be a Fake Door, it doesn't necessarily have to be. This depends on whether you suggest the product is currently available.

2.5 Fake Door



Test the interest in a non-existing product by suggesting it exists and is available. This allows you to test your value proposition, messaging, and pricing.

Tips:

- Apologize or offer something else for free if someone orders it.
- A Fake Door might be a Landing Page, but it doesn't have to be. For example, you might add a non-existing product to the cart in a restaurant.
- Also known as “Mock Sale.”
- More information: [pretotyping techniques](#).

2.6 Facade



Test the interest in an existing but not yet broadly available/scalable product or service by creating artifacts that suggest greater availability (or scale).

Tips:

- Applicable typically to physical products.
- More information: [pretotyping techniques](#).

Tags: Physical products

2.7 Pinocchio



Create a non-operational version of your product and use your imagination to pretend it works to see if and how you would use it.

Tips:

- It tests only your own experience. It might be helpful at a very early stage.
- Applicable typically to physical products.
- Also known as “Pretend to Own.”
- More information: [pretotyping techniques](#).

Tags: Physical products

2.8 Explainer Video



Create a video to demonstrate how your product will work. Explainer videos are typically short online videos. The goal is to create something that conveys the core value proposition and can be shared to gather feedback.

Tips:

- Video Explainer is typically placed on a landing page but might also be shared on social media.
- Also known as “YouTube” ([pretotyping techniques](#)).

Tags: Physical products

2.9 Pre-Order



Offer your product for pre-order before it's ready. Communicate your value proposition, problems you are solving, and differentiators, and target an offer to your potential customers.

Tips:

- In this type of experiment, you collect money. This not only validates the demand but also might provide funds to support development.

2.10 Letter of Intent



Ask the customer to sign a formal note indicating their interest in purchasing a product in the future.

Tips:

- The Letter of Intent is not legally binding but, arguably, involves a lot of “[Skin-in-the-Game](#) points.” You don't sign a letter of intent with just anyone.
- It's a great way to validate the willingness to buy for B2B products. This often engages all decision-makers, helping you understand their needs and objections.
- The Letter of Intent is often preceded by other Market Engagement experiments to generate leads.

Tags: B2B

2.11 Provincial



Before launching a new product to the broader market, test it with a small group of users to gauge its viability.

Tips:

- This approach is typically applicable to services and physical products. For example, you might open a pop-up shop in a tent before committing to a full network of stores.
- For digital products, you'd need to develop the product first. In such cases, consider this approach part of a Go-To-Market (GTM) strategy.
- More information: [pretotyping techniques](#).

Tags: Physical products

2.12 One-Night Stand



Offer a basic version of your product for a limited time to gauge interest before fully committing to its development or launch.

Tips:

- This approach is typically suitable for services and physical products. For digital products, the product would need to be developed first.
- This method is also referred to as a "Pop-Up Store."
- More information: [pretotyping techniques](#).

Tags: Physical products

2.13 Infiltrator



Put a sample or even just a box of your product in another store (physical or online) to see if people are interested in buying it.

Tips:

- This strategy can be combined with the Fake Door technique, but it leverages explicitly an existing sales channel.
- I love the example of the founder of Upwell Labs. Using a shirt from eBay to pose as an IKEA employee, he secretly placed his product prototypes in an IKEA store. When people bought them, he confirmed the willingness to buy without having his own store.
- More information: [pretotyping techniques](#).

2.14 Crowdfunding



Validate a demand for your product by launching it on a crowdfunding platform, such as Kickstarter or Indiegogo. This approach might

provide evidence of market demand and help you secure delivery funding.

Tips:

- Be careful, as the people investing in your product might not necessarily be your target customers. In such cases, crowdfunding simply becomes a financing mechanism.

3. Minimal Products

The experiments in this group deliver real customer value. They are cheaper to perform than full-feature products but involve higher costs than experiments from the previous category.

Through these, you can evaluate:

- Value proposition
- Viability (including pricing)
- Usability (including messaging; note that the scope of validation using Minimal Products is limited)

All experiments in this group can be considered [MVP Prototypes](#) or [Pretotypes](#).

3.1 Piecemeal



Leverage existing tools and platforms to simulate the user experience.

By combining off-the-shelf components and no-code / low-code solutions like [Bubble](#), you can quickly create a functional prototype.

Tips:

- Also known as “Impostor.”

- Another variant, “Mash-Up,” involves using many existing products to simulate a product experience.

3.2 Concierge



Create a high-touch, personalized service to your customers, simulating the experience of a fully automated product.

Let's say you're building a personalized learning app. You might start by manually creating learning plans based on a simple form people fill in. This will allow you to validate your idea and understand your customers better before investing in an automated solution.

Tips:

- Unlike in the Wizard of Oz, the user is fully aware of your manual work.

3.3 Wizard of Oz



Create an illusion of an automated product.

This will help you validate demand and gain insights into user behavior without investing in developing a full-scale product.

For example, suppose you're developing a chatbot. In the initial stage, you could use human operators to respond to inquiries, emulating an AI-powered chatbot's user interactions.

Tips:

- Unlike in Concierge, users are unaware of what happens behind the scenes.

3.4 Single Feature Product



Create a limited version of a product that satisfies only one customer need.

Tips:

- In most cases, this is more of a GTM strategy. You don't want to build a product to validate your idea.

4. Feasibility Prototypes

Experiments in this category emphasize feasibility, verifying what's possible with current technology.

4.1 Spike



This term is derived from Extreme Programming. It aims to address questions such as:

- Can we make an efficient algorithm?
- Can we integrate with that external system?
- Can we use that library?

Tips:

- The focus isn't on aesthetics but rather on addressing technical risks.
- Spikes are typically executed by engineers.

4.2 Digital Twins



A digital twin refers to a virtual space where industries can simulate, visualize, and manage their processes.

Physical products and systems, from individual items to entire production lines and factories, can undergo digital testing before they're implemented in the real world.

I loved this video: <https://youtu.be/7yjNW04gVMw>

More information: <https://www.nvidia.com/en-us/omniverse/solutions/digital-twins/>

Tags: Physical products

5. User Prototypes

Experiments in this group involve low-fidelity user prototypes (e.g., wireframes) and high-fidelity user prototypes (e.g., Figma).

They are often followed by surveys and allow you to test:

- Value
- Usability (incl. messaging)

Please note that a clickable user prototype is not an experiment. It's just a tool used when experimenting.

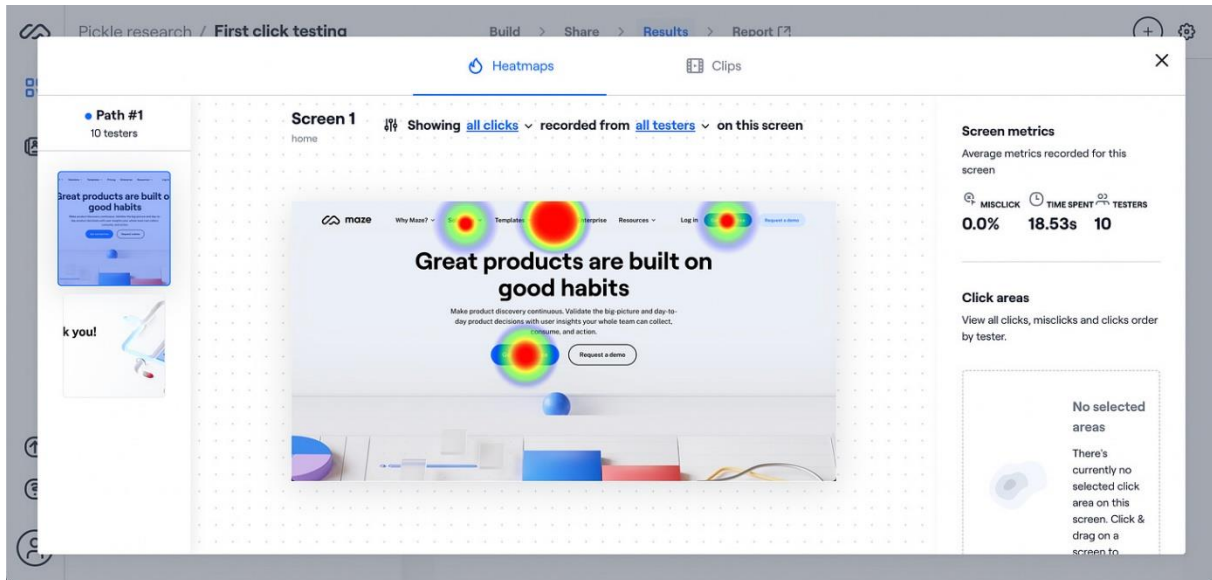
5.1 Give the user a task to accomplish



Provide users with a specific task or goal to accomplish using your prototype (e.g., “make a reservation”). Observe how they interact with it to achieve that goal.

This is a great way to identify any usability issues.

5.2 First-click testing



Source: maze.co

Track the first click users make when presented with a task. This test helps you evaluate if the interface is intuitive and if users can find the capabilities they need.

5.3 Ask what would happen



Ask the users to imagine a scenario where they use a prototype and describe what they think would happen next. This can help you gain insights into how users perceive your idea and identify any areas for improvement.

5.4 Card sorting



Ask users to categorize information related to your prototype (e.g., content or features). What are their expectations? What are their doubts?

I find it a great way to validate assumptions about organizing the content.

5.5 The 5-Second test



Show users your prototype for just five seconds. Next, ask them what they can recall.

This is a great way to identify areas where you must improve the design or messaging. It also works great with landing pages.

5.6 Storyboarding



Use a series of sketches or illustrations to tell a story about how your idea works.

This can help you validate whether users understand your concept and find it engaging. I find this useful primarily at the initial stage of exploring the solution space.

5.7 Prototype A/B testing



A/B testing is not limited to experiments on production.

Create two or more prototype versions and test them with different groups of users. This can help you determine which version is more usable or desirable.

5.8 Thinking aloud



Start by defining a series of tasks or goals. Next, ask the first-time user to discuss their thought processes as they interact with your prototype.

This is an excellent way to validate your assumptions about usability and identify gaps in the user experience you might not have discovered otherwise.

6. Experiments in Production

Experiments in this category assess ideas within a live environment involving real users. They provide the most immediate feedback.

6.1 Feature Stub



A feature stub is a placeholder for a planned feature. It can be as straightforward as an icon, link, or button. Users who interact with it receive a "coming soon" message.

Tips:

- Use this method to measure interest in a planned feature without fully developing it. The feature should be in your backlog.
- Collect data on how many users attempt to access the feature.
- Use the data to prioritize development based on user interest.

6.2 404 Test



Add links or buttons for a feature that doesn't yet exist to monitor how frequently users try to access it.

Traditionally, users receive an error message (HTTP 404) when they interact with the feature, which carries a higher risk of user frustration compared to a Feature Stub.

That's why I recommend displaying a user-friendly message that explains the situation and offers a benefit (e.g., a voucher). Use this opportunity to ask for details (via a survey or obtaining contact information for future user interviews).

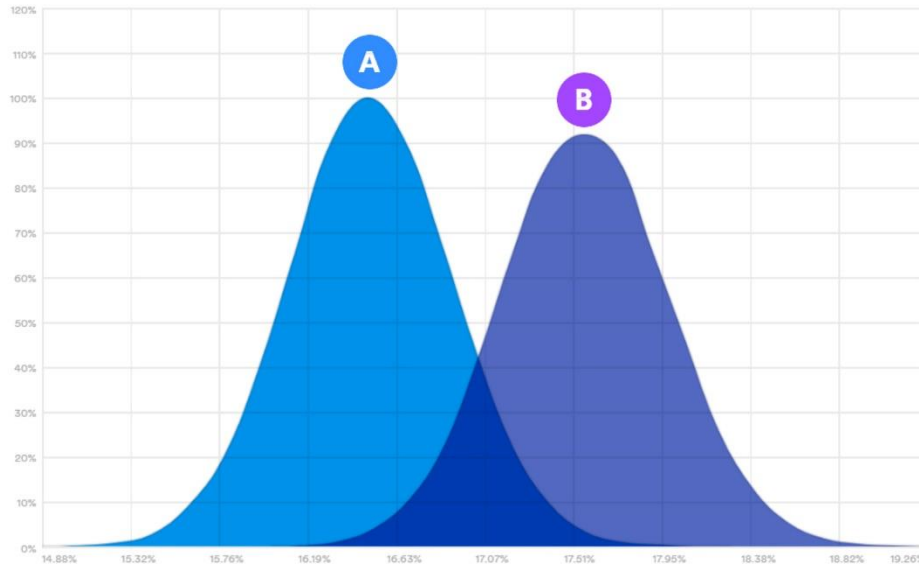
Tips:

- Use this method to measure interest in an idea you consider.
- Track how many users try to access the feature.
- Use this information to validate potential ideas.

6.3 A/B Test



Compare two versions of a feature or interface to see which performs better regarding user engagement, conversion, or other key metrics.



For a comprehensive overview, see [A/B Testing 101](#)

6.4 Multivariate Test



Similar to A/B Testing, but uses more than two variants. I don't use this method often, as it increases complexity and reduces the amount of data you can collect for each variant.



Source: [HubSpot](#)

For a comprehensive overview, see [A/B Testing 101](#).

7. Recommended Tools to Use When Experimenting

7.1 Clickable User Prototype



A clickable user prototype is the most critical tool for digital products.

It's an interactive mockup of your product or feature that allows stakeholders and users to navigate it. It doesn't have full functionality but visually represents the user's journey.

Popular tools:

- Balsamiq, Miro: Ideal for low-fidelity clickable prototypes.
- Figma: Best for high-fidelity clickable user prototypes.

7.2 Product Brochure



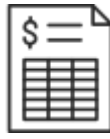
Traditional methods like physical product brochures still hold value in some scenarios, like conferences or visiting enterprise customers.

A well-designed brochure visually represents the product, highlighting its value proposition, capabilities, and benefits. It's potentially more attention-grabbing than an email.

Tips:

- Highlight pain points and benefits rather than merely listing features.
- Include tangible customer value, like market research, best practices, or case studies.

7.3 Data Sheet



Data sheets are more technical and detailed than brochures. They provide in-depth specifications, features, and technical aspects of the product.

Aimed primarily at stakeholders who need a comprehensive understanding of the products, data sheets help make informed decisions.

7.4 3D Printing



3D printing allows companies to turn digital designs into physical prototypes quickly and cheaply.

It can help stakeholders understand a product's look, feel, and scale. It's an invaluable tool for design iterations, where small changes can be made digitally and then reprinted to test and compare.

Tags: Physical products

7.5 VR Product Simulation



Virtual Reality (VR) takes product simulation to another level. Instead of just seeing a product, users can interact with it in a virtual space.

This is particularly useful for products with a spatial component, like real estate or automotive.



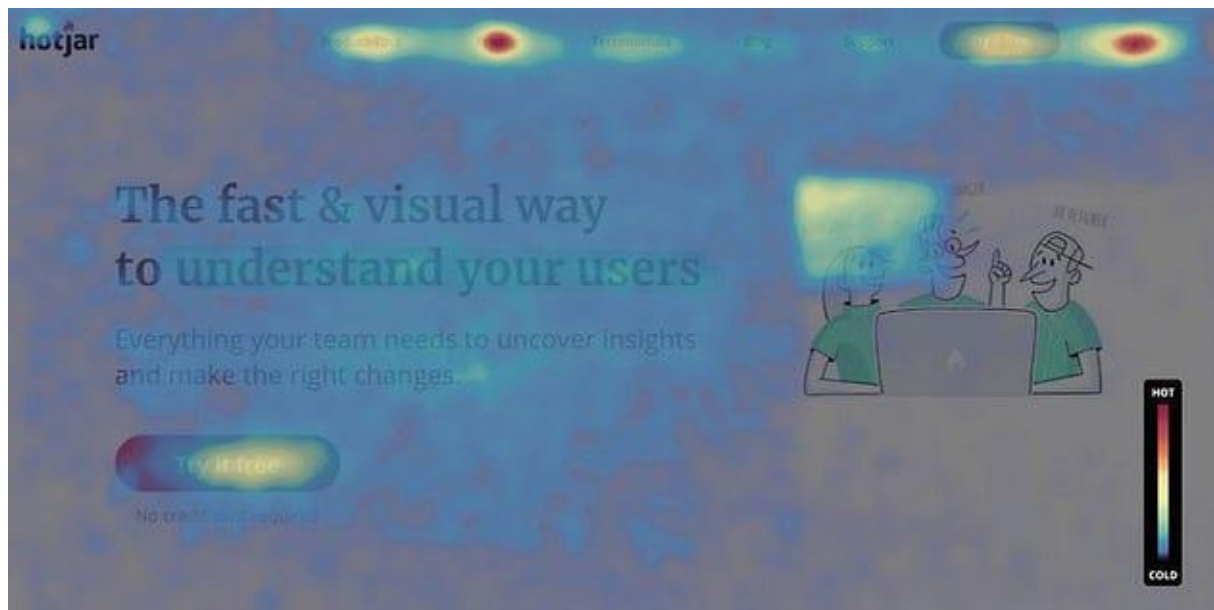
Source: [DENZA N7 3D Configurator on GDN](#) by Nvidia

Tags: Physical products

7.6 Heat mapping



Generate a heat map of how users interact with your prototype (usually, you will record clicks or moves). This can help you identify areas of the prototype that users are drawn to or struggle with.



Source: hotjar.com

Recommended tools: Maze, HotJar, Optimal Workshop, Microsoft Clarity.

7.7 UX Test Automation



Eliminate waste by automating your UX testing. I've become a fan of [Maze](#), which allows you not only to test ideas (user prototypes) but also to recruit and manage participants. Another popular tool is [Optimal Workshop](#).

Product Validation Cheat Sheet (PDF)



Product Validation Cheat Sheet

- ☐ Physical product
- ☐ B2B product
- ☐ Warning






































Minimal Products

| | | Value | Usability | Viability | Feasibility | Cost | Evidence | Tag |
|-----------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | Piecemeal |  |  |  |  |    |    | |
|  | Concierge |  |  |  |  |    |    | |
|  | Wizard of Oz |  |  |  |  |    |    | |
|  | Single feature |  |  |  |  |    |    |  |

Feasibility Prototypes

| | | Value | Usability | Viability | Feasibility | Cost | Evidence | Tag |
|-----------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|  | Spike |  |  |  |  |    |    | |
|  | Digital twin |  |  |  |  |    |    | <input type="checkbox"/> |

User Prototypes

| | | Value | Usability | Viability | Feasibility | Cost | Evidence | Tag |
|-------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|  | Give a task to accomplish |  |  |  |  |    |    | |
|  | First-click testing |  |  |  |  |    |    | |
|  | Ask what would happen |  |  |  |  |    |    | |
|  | Card sorting |  |  |  |  |    |    | |

Download: [from Google Drive](#)