IRRATIONAL
LABS

Behavioral Design

The scientific approach
to designing for behavior
change for product managers,
designers, & researchers

Behavioral design is a problem-solving approach that uses insights from the field of behavioral economics to develop and design solutions that change behavior (**for good**).

This guide will walk you through how to use behavioral design in your product development and design process.

IMPORTANT: We only recommend and endorse using this toolkit **for good**. If used appropriately, you can help people be happier, healthier, and wealthier.

Imagine you were a completely rational human.

If you wanted to lose weight, you would start eating less. You'd say no to dessert. You'd go to the gym more. If you wanted to use your phone less, because using it brought you less joy than doing other things, you'd simply use it less. You'd stop scrolling. You'd stop checking. You would never sleep with your phone by your bed.

Sadly, this is not the reality for most people — we may have these goals, but we don't take these actions. Behavioral economics is the field that maps these irrationalities. It has disrupted the traditional economics theory that suggests we act only to optimize utility. Classical economists claim that supply and demand are the primary forces driving our behavior. Behavioral economists have shown social norms, loss aversion, present bias, and more drive our decision-making as much as or more than classic time and money considerations.

While this is now old news to most people, all too often product managers, marketers, and designers act like classical economists when trying to understand their customers. They assume people fully understand and can predict their own preferences. They assume that people's preferences outweigh all the irrational motivations that exist in our environment.

Companies that understand human behavior know that the purely rational model isn't valid anymore. They understand that 'irrationalities' affect almost every decision. These companies seek out innovative ways to design for irrationalities and to test their intuitions against reality.

How do companies design for real customers?

Companies that understand that their customers are not fully rational use **behavioral design**.

Behavioral design uses what we know about the psychology of decision-making — behavioral science — to purposefully inform design decisions. At Irrational Labs, we use this systematic approach with organizations across industries to successfully design products, revise features, and change users' behavior <u>for good</u>. With these steps, you can bring the behavioral design process to your own organization.

The behavioral design process has three primary phases:

1 ### Do a behavioral diagnosis.
Identify your desired behavior and outline every step your users have to take to achieve it.

2 ### Identify psychological biases.
Determine the barriers that get in the way of decisions and the benefits that motivate them.

3 ### Experiment.
Choose one barrier to address and design an experiment to test an intervention.

PHASE I: Do a behavioral diagnosis

The first step toward changing user behavior is understanding users' current behavior at the most granular level possible.

1. Collect Data About the Problem

First, we review and analyze existing data sets about the problem. This includes looking at product usage or program Key Performance Indicators (KPIs), if applicable, to develop a quantitative understanding of current user behavior. In addition, we synthesize scientific literature in the relevant domains, highlighting tactical insights that can influence the hypotheses we make. Reviewing literature allows teams to leverage the massive amount of research that already exists.

TRADITIONAL PM
Let's interview five people

BEHAVIORAL PM
Let's start with a literature review
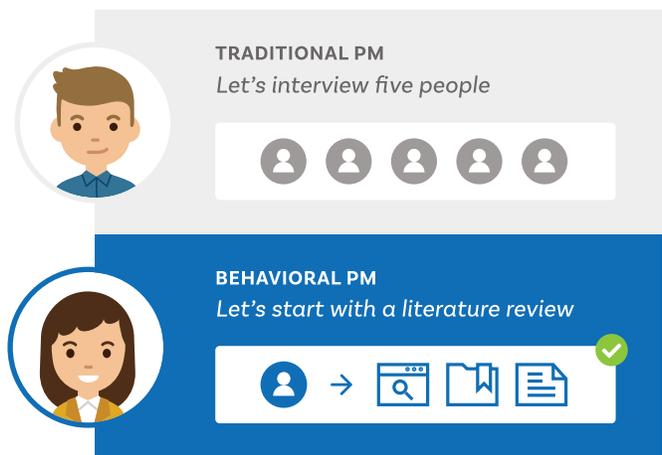
2. Pick a Key Behavior

Based on this rigorous review of the literature and data analysis, we propose a limited set of key behaviors for the research team to focus on during their analysis phases. This is the most important step in the whole process. To change behavior, you need to define the exact behavior you want someone to do, and when they should do it. We call this getting *"uncomfortably specific."* It should be as specific as: "Grab a Red Delicious apple from the kitchen fruit bowl every weekday morning, right before walking out the door for work." If you're not a little bit uncomfortable defining your key behavior, you're doing it wrong! After you create a behavioral map (next step), you may come back to this step and check the key behavior.

3. Make a Behavioral Map

Next we move into mapping what actually happens. What are people doing? We do this mapping with a high level of attention to detail. Imagine we identified the problem as early childhood math learning in public education and the behavior as having a substitute teacher successfully complete full lesson plans. In the mapping stage we would look at the small details of the environment to identify what was happening. E.g., *the sub teacher comes in 15 minutes prior to the start of class and looks at his phone for 10 of those minutes. He reviews the 5 sentences of instructions left to him by the teacher prior to class starting. He does not acknowledge the kids as they enter. He takes the first 10 minutes of class to get to know students' names. The class list has errors. The kids correct two of the names. He spends 5 minutes of the 15-minute lesson on directions to ensure the kids understand what's going on.* By focusing on what people do instead of what they say, we can generate hypotheses about how to solve a problem based on actual behavior.

Ask yourself:

What is **each and every step** that a person has to complete to successfully reach their behavior?

Phase I: FAQs

What are common mistakes in identifying a key behavior?

Sometimes people mistake outcomes for behaviors.

An outcome is: "losing 10 pounds" or "getting acquisition cost under $16."

An uncomfortably specific behavior looks like:

- "I will go for a run for 30 minutes every Wednesday at 5pm before I pick the kids up from school"

- "I will water the plants every Saturday afternoon and Tuesday morning, using the watering can I leave by the front door, as I walk in from my yoga class."

- "New customers will open up a short-term savings account during the first use of our banking services and put $100 in it."

How do you know what steps a user is taking?

Use data if it's available! If you know how people act, let this inform your behavioral map. Look at whatever data you have on product usage or program uptake to map out the typical user's behavior during each step. How long do they linger? What do they interact with? When you don't have the benefit of step-by-step analytics, try to find other data that helps uncover actual behavioral patterns to help narrow down your diagnosis.

How detailed should we get?

In a behavioral map, every page, every field, every click, and every decision counts as a step.

Do we focus on actual or ideal behavior?

For the map, focus on how people actually behave, not the ideal behavior. It's natural to create a map for how you think people will act, but since people aren't always rational, designs that assume "optimal" user behavior can miss the mark.

Make a Behavioral Map — FAFSA Example

Debt from student loans is crushing many U.S. college graduates. However, about 2M students who were eligible to receive grants from the government did not apply. For the behavioral diagnosis, we laid out every step a student needed to take to complete the key behavior "Submit the FAFSA (Free Application for Federal Student Aid) before my state's deadline."

START

Decide what colleges you will apply to

Go to guidance counselor's office and make an appointment

Show up to your appointment and ask the guidance counselor if there are ways to get funding for college

DATA INSIGHT
15% of high school graduates who didn't apply didn't know it was an option[1]

Skim the FAFSA booklet that you are given

DATA INSIGHT
In some states, as few as 33% of graduating seniors complete a FAFSA

DATA INSIGHT
FAFSA completion is strongly associated with postsecondary enrollment and persistence

Apply for college(s) (October- January)

Decide to complete the FAFSA (October - April)

Review the basic eligibility requirements

Look up your state's submission deadline and guidelines on www.fafsa.gov

Estimate your potential financial aid through FAFSA's online calculator, FAFSA4caster

DATA INSIGHTS
Eligible students miss out on an estimated $2.5+ billion in Pell grants because they didn't complete the FAFSA

32% of students who didn't apply assumed they weren't eligible

DATA INSIGHT
Every state is unique; at least 23 have aid deadlines BEFORE the federal deadline

It can take up to 3 days for accounts to be approved

DATA INSIGHT

Create FAFSA ID

Go to FAFSA.gov

Choose a new username and enter your Social Security number

Set your password and four security questions

Wait for account approval to start using your ID and submitting informationt

Gather all the information you'll need

Log in again (remember login info)

Fill out Student Information page 1

Fill out 20+ Student Information pages*

- Your driver's license and Social Security number (SSN)
- Your parents' SSNs and birthdates
- Your family's latest federal income tax returns
- W-2 forms
- Bank statements
- Records of untaxed income
- Information on your family's investments (real estate, money market funds, stocks, etc.)
- List of the school(s) you have applied to

Create save key

Start application

DATA INSIGHT
Completing the application takes an average of 30-60 minutes

- Enter last name
- Enter first name
- Enter middle initial
- Find/remember SSN
- Enter SSN
- Enter date of birth
- Scroll down
- Click 'Next' button

KEY BEHAVIOR

Submit FAFSA form

*Note: A full behavioral map should include EVERY step and substep. For this one, that would involve breaking down each of the substeps in "Fill out 20+ Student Information pages."

PHASE 2: Identify psychological biases

The second step of behavioral design is to identify and label the psychological biases a user encounters as they proceed along the behavioral map in Phase 1.

The goal is to list the specific biases users experience at each step in the behavioral flow. As you may know, the world of psychological biases gets complex very quickly! Wikipedia lists close to 200. To simplify this world, our team uses a model we call the 3Bs. By no means is this framework inclusive of all the biases. However, it does serve to give us a place to start when analyzing a system.

3Bs

BEHAVIOR

The first B stands for Behavior (duh!). We can't solve any problems without identifying the behavior that needs to be changed.
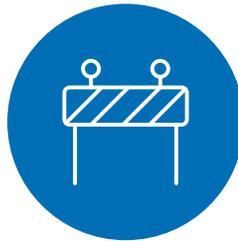
BARRIERS

The second B stands for Barriers. Barriers add or decrease friction to completing a behavior. TLDR: make it easy for me to do!

BENEFITS

The third B stands for Benefits. Benefits add or decrease motivation to completing the behavior. TLDR: make me want to do it!

There are dozens of specific psychological biases that fall under the theme of Barriers and Benefits. Once you master the main concept of Barriers and Benefits, you'll be able to go a level deeper and identify the specific psychologies at play.

Let's Try it. For each step of your behavioral map, you'll want to:

1. Identify Barriers

We ask ourselves a series of questions to assess what barriers exist in the system. This helps us understand why users may take — or not take — an action. Then, we label each step with the barrier.

We've identified four types of barriers commonly found in a product experience that can help you start to categorize the psychological biases affecting your users:

Attention

The world is busy and overloaded, and our attentional resources are extremely limited. We can only focus on a limited number of things at a time, which means important details can be missed. **Is attention bias a problem for your key behavior? Ask these questions to find out:**

Do people remember it?
(Availability bias)

Do people see it?
(Saliency bias)

Do people want to see it?
(Information avoidance)

EXAMPLE:

If you're not paying attention, you may not remember an important task or date. Sometimes a simple reminder can go a long way in helping redirect people's attention to an item. In one study, people with upcoming court dates who received reminder texts focused on plan-making were 26 percent less likely to miss their court dates than those who had received no texts.[2]

Cognitive Overload

We're wired to limit our cognitive effort. When given higher levels of decision difficulty or faced with a more complex set of choices, we can procrastinate or opt out of taking action altogether.[3] **Is cognitive overload a problem for your key behavior? Ask these questions to find out:**

Is the best option clear?
(Choice Overload)

Do people lack time/energy?
(Scarcity, Depletion)

Do people lack the confidence to make the decision now? *(Procrastination, Decision Paralysis)*

EXAMPLE:

When it comes to freedom of choice, more is not necessarily better. When faced with a choice of what medicine to prescribe to a patient with osteoarthritis, family physicians were significantly less likely to prescribe anything at all when they had three options to decide between vs. two options to decide between.[4]

Status Quo

We have a natural bias toward the present state of affairs, and often view a change from the status quo as a loss. **Is status quo bias a problem for your key behavior? Ask these questions to find out:**

Do people realize the opportunity cost of staying in the status quo? *(Opportunity cost neglect)*

Are there potential losses from moving away from the status quo? *(Loss aversion, Regret aversion, Sunk costs)*

Is it easy for people to switch? *(Cognitive overload)*

EXAMPLE:

Many employees with health insurance are offered a myriad of health plans to switch to each year during open enrollment, but they often get overwhelmed by the number and complexity of options. In Switzerland, it was found that switching rates were significantly higher in areas with fewer health care plans than in the higher choice areas.[5] Having more options backfired and increased the likelihood that people would stick with the status quo.

Mental Models

Our preconceptions for how something works (our understanding of the surrounding world) can bias our actions and social behaviors. Mental models are often based on incomplete facts, visible norms, past experiences, and even intuitive perceptions. These mental models can help shape actions and behavior. They influence what people pay attention to in complicated situations and define how people approach and solve problems.

While mental models can be very helpful, they can cause problems and become barriers when they're not consistent with what you want your users to understand or experience. **Are mental models a problem for your key behavior? Ask these questions to find out:**

What are people's pre-existing attitudes and beliefs?

Do these pre-existing attitudes and beliefs align with the key behavior?

Are their assumptions different from what's being presented?
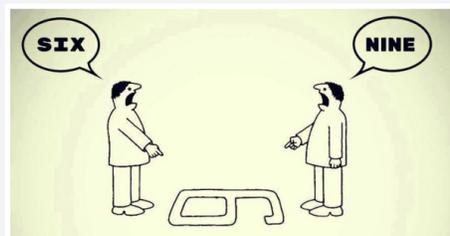
EXAMPLE:

Brazil experienced a dramatic drop in fertility in the last decades. One analysis points to an unexpected reason for the change: soap operas. When Brazilian communities were exposed to engaging soap operas about families with few children, fertility rates declined significantly — by up to 11 percent — for women aged 25-44.[6] The soap operas directly and visibly challenged the mental model about how many children families should have.

2. Identify Benefits

To design for behavior change, we want to amplify existing benefits or create new benefits. Where barriers add friction, benefits add motivation.

EMOTIONAL (HEDONIC)

We want to be here if possible

I want this tomorrow	*I want this today!*

FUTURE · **NOW**

I need this tomorrow	*I need this today!*

This is an uphill battle

FUNCTIONAL
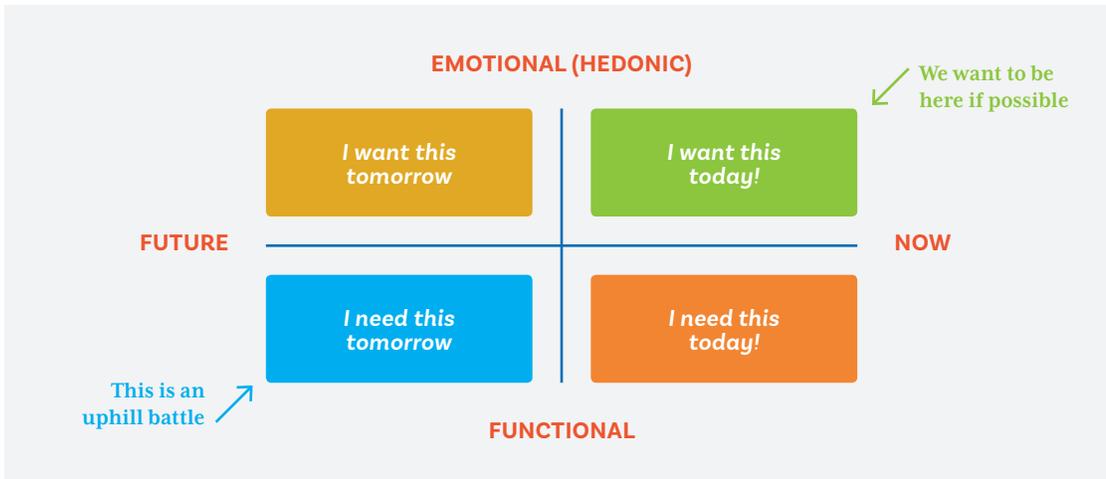
There are different types of benefits. Some benefits happen immediately; I buy a lottery scratcher and immediately get to scratch off the ticket and see if I won. Some benefits happen in the future; I put money in my savings account, and in the future I will have enough to take a vacation. Benefits that happen immediately are more motivating than benefits that happen in the future.[7] If you've ever bought french fries instead of a salad while actively trying to eat more healthily, you can appreciate that we overvalue the present compared to the future. We tend to have a hard time delaying gratification and prefer rewards that arrive sooner rather than later.

When reviewing your behavioral map, label the benefits that people get from using your product. Identify whether these benefits are immediate or delayed. Identify whether the benefits are emotional or functional.

"Benefits" don't always have to be literal, like money or goods. There are also psychological principles (like following norms, reputation, and altruism) that can serve as motivating benefits. In fact, psychological benefits are often the most powerful!

Do you need to add to or modify your current benefits? Ask yourself these questions:

|	
Do people receive an emotional benefit from doing your behavior? *(Present bias)*	Is there a sense of urgency to act now? *(Present bias)*
Do people receive an immediate and concrete benefit? *(Present bias)*	Are people motivated, but not following through? *(Intention-Action Gap, Self-Control)*

Example: Given a choice between receiving $150 today or $180 in one month, most experiment participants opted for the former option, foregoing a 20 percent return. In a follow-up, when asked if they would prefer $150 in one year or $180 in 13 months, most chose to wait the extra month for the extra $30.[8] In both scenarios the higher payout was just one month delayed, but when we are presented with the opportunity to have something NOW, it feels more valuable.

Warning: With great power, comes great responsibility. By adding immediate concrete benefits to your behavior, you will increase someone's motivation to take action. This is wonderful when you're helping someone do something they intend to do — eat healthy, meditate, save money! But it is predatory when you are using this power to influence someone to do something outside of their long-term intentions (play more video games, buy more things, spend more time on social media). While it's difficult to know someone's exact long-term intentions, one rule of thumb is to imagine this scenario: If your user were to look back on their decisions with your product a day or two later, would they feel regret? Do not try to nudge users into doing more of a behavior that has the potential to cause regret.

Organizing your behavioral flow and identifying relevant barriers and benefits is a key step to creating behavior change. With an understanding of these principles, you can create more effective solutions to improve uptake of your key behavior.

Identify Barriers — FAFSA Example

In 2014-2015, 11.6 million eligible college students missed out on an estimated $2.7 billion in federal aid simply because they didn't apply. We reviewed each step of the FAFSA to uncover the barriers and benefits involved in applying for financial aid.

CHOICE OVERLOAD

START

Decide what colleges you will apply to

Go to guidance counselor's office and make an appointment

Show up to your appointment and ask the guidance counselor if there are ways to get funding for college

Skim the FAFSA booklet that you are given

STIGMA

FRICTION / COMPLEXITY

FRICTION

Apply for college(s) (October–January)

Decide to complete the FAFSA (October - April)

Review the basic eligibility requirements

Look up your state's submission deadline and guidelines on www.fafsa.gov

Estimate your potential financial aid through FAFSA's online calculator, FAFSA4caster

FRICTION

LACK OF MENTAL MODEL

LACK OF URGENCY

Create FAFSA ID

FRICTION

Choose a new username and enter your Social

...a.gov

ATTENTION BIAS

...and ...tions

FRICTION / COMPLEXITY

Wait for account approval to start using your ID and submitting informationt

Gather all the information you'll need

Log in again (remember login info)

Fill out Student Information page 1

Fill out 20+ Student Information pages

LACK OF TRUST

• Your driver's license and Social Security number (SSN)
• Your parents' SSNs and birthdates
• Your family's latest federal income tax returns
• W-2 forms
• Bank statements
• Records of untaxed income
• Information on your family's investments (real estate, money market funds, stocks, etc.)
• List of the school(s) you have applied to

Create save key

Start application

• Enter last name
• Enter first name
• Enter middle initial
• Find/remember SSN
• Enter SSN
• Enter date of birth
• Scroll down
• Click 'Next' button

KEY BEHAVIOR

Submit FAFSA form

Phase 2: FAQs

How granular should we get?

In short, very. Some barriers can be big, like accessing and filling out long forms to apply for student aid, but barriers can also be much smaller, like remembering your login and password. Remember — every click, every field, every signature, every step, and every call is a barrier.

Is a Barrier always a "step" or an "action" someone takes?

Not necessarily. Having to think, to remember something, or to make any decision counts as a barrier. The more you can reduce these cognitive barriers, the better.

Can barriers be good?

Yes, there are some cases where adding barriers is a good thing! If you want to keep people from doing undesirable behaviors, adding barriers can help. For example, keeping unhealthy food in a hard-to-access place will make people less likely to reach for it.

PHASE 3: Experiment

The final step is to design a solution that increases the key behavior you picked in Phase 1.

To do this, pick a barrier you want to remove or a benefit that you want to add to the system. You'll use this insight to drive your design decisions. You may nail it the first time, or you may be way off the mark! To understand the effectiveness of your solution, design a controlled experiment and see if you have changed the likelihood that someone will complete your key behavior.

Wow!

Sounds tough.

We agree.

You will have to prioritize the most impactful psychological barriers and come up with solutions to address them. We've broken this down into four steps for you:

1. Prioritize the List

This is both the hardest and most subjective step. You can't feasibly address all the behavioral barriers in your flow, so you must consider which changes will make the biggest impact on user behavior. Ultimately you should choose the barrier in your flow that most detracts from people completing the key behavior. Here are two tips:

Understand dropoff points

Evaluate a mix of user data & behavioral flows to see if there are any obvious places where users are getting stuck.

Understand feasibility

Evaluate whether or not you can (logistically speaking) change this area of the product or user flow.

2. Identify Solutions

Next think through how to use behavioral economics principles to reduce barriers or increase immediate benefits.

Some biases can be fixed easily with small tweaks; others require complete overhauls. If you're unsure of a solution's potential impact, mark it as a testing opportunity.

Here are a couple examples of biases that can be used to eliminate barriers and increase benefits:

Social Norms

Our behavior is heavily influenced by what others do and think is good. We try to behave similarly to those around us. This is true even when making a different choice would be better! One group of researchers set out to positively influence conservation behavior — namely, towel reuse — in hotel rooms. They found that hotel guests who read a sign saying that the majority of previous guests had conserved resources by reusing their towels were significantly more likely to reuse their own towels compared with guests who read a sign urging them to help save the environment by reusing their towels.[9]

Examples of social norms that encourage positive behavior:

An in-product message saying "More than 75% of our customers reduce waste by opting for paperless billing."

Your landlord in your new apartment telling you every unit in the building composts.

Your local library branch posting that over 90% of patrons return their books on time. Do people see what the majority of others are doing?

Implementation Intentions

People are biased toward the present and often have a hard time following through on tasks if the steps are not clearly laid out. Implementation intentions are prompts that specify when, where and how to act. In one study, researchers called up eligible voters in advance of the 2008 presidential election. Voters who were prompted to create a voting plan through implementation intentions were significantly more likely (4.1%) to vote than those who were not called (and those who were called with a different script).[10]

Examples of implementation intentions that encourage positive behavior:

The doctor's office receptionist asking you when and how you are getting to your appointment.

Making a plan to reduce caffeine consumption by saying "If I get a craving for coffee, I will make green tea instead."

You can use this table as a starting guide to identifying solutions based on the main behavioral barriers. While behavioral science may feel complex, human behavior can actually be quite simple. Many of these solutions just boil down to **reducing barriers** and **increasing immediate benefits**.

Question	Main Barrier	Get Even More Specific	Solution Options
Do people remember it?	Attention	Availability Bias	Use reminders
Do people see it?	Attention	Saliency Bias	Make it salient
Do people want to see it?	Attention	Information Avoidance	Use deadlines and scarcity
Is the best option clear?	Cognitive Overload	Choice Overload	Use social proof, defaults, and relativity, and simplify
Do people lack time/ energy?	Cognitive Overload	Scarcity/Depletion	Simplify the ask, increase the benefits of doing it today
Do people lack the confidence to make a decision now?	Cognitive Overload	Procrastination/ Decision Paralysis	Make the ask feel easier: reduce or streamline choice, use social norms
Do people receive an immediate, concrete benefit?	Present Bias	Present Bias	Add immediate/concrete rewards, social proof, loss aversion, regret aversion
Is there a sense of urgency to act now?	Present Bias	Present Bias	Use deadlines and scarcity
Are people motivated, but not following through?	Present Bias	Intention-Action Gap, Self-Control	Use pre-commitment, implementation intentions
Do people realize the opportunity cost of staying in the status quo?	Status Quo	Opportunity Cost Neglect	Make opportunity cost salient, use choice framing
Are there potential losses from moving away from the status quo?	Status Quo	Loss Aversion, Regret Aversion, Sunk Costs	Make the alternative more appealing, use financial incentives
Is it easy for people to switch?	Status Quo	Cognitive Overload	Reduce switching costs
Do people see what the majority of others are doing?	Social Norms	Social Proof	Use majority, wisdom of crowds
Does the behavior of others signal what is socially acceptable?	Social Norms	Implicit Social Proof	Use messenger effect or reciprocity, recommend defaults

3. Design an Experiment

Set up a controlled experiment to test your solution (or multiple solutions) against a control group. By comparing the effects of solutions on your key behavior across different conditions, you can figure out which interventions are effective.

Write a hypothesis.

Define what you think will happen as a result of your intervention by using the format "If ___, then ___, because ___." Your hypothesis should help clarify why you are testing this intervention and what effect you expect to see.

Create conditions.

Outline what your control condition is, and design one or more test conditions. A test condition should be the same as your control condition, but with **one** key variable changed (this is where your solution comes into play).

Randomly assign participants.

It's essential that participants are randomly assigned to conditions so you can eliminate potential biases or differences that may arise in self-selected or assigned groups.

When your experiment is ready to go, launch it with a **large enough sample** and see what happens. Your first one may be successful, or you may need to adjust your conditions and revisit your hypothesis. Once you've found an intervention that works, implement and scale it!

### 1/2 Population Gets Control   1/2 Population Gets Treatment
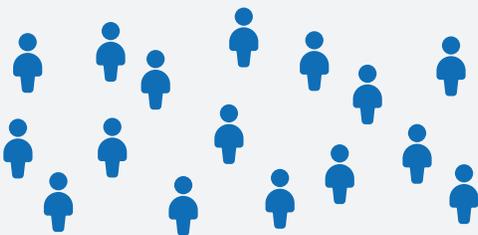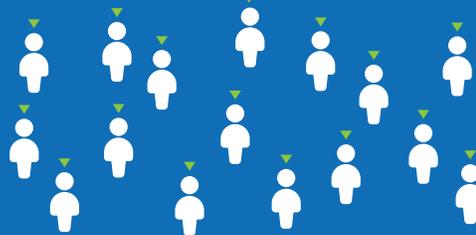
Example

In the FAFSA behavioral map, one of the key barriers we identified is that **the decision to file** involves a lot of **friction**. Students need to put in time and effort prior to applying, and many students are unsure if their family income qualifies them for financial aid. (The truth is that financial aid programs generally do not have explicit income cutoffs on eligibility). This creates a decision point that requires cognitive effort; students need to choose whether or not to apply. Some students may want to apply, but due to the effort and uncertainty involved, they procrastinate and end up not meeting the deadline.

We identified cognitive overload as the behavioral barrier that we thought most inhibits people from submitting their financial aid applications. We hypothesized that if we framed the application as a required part of the enrollment process, more people would fill it out because it would remove the heavy pressure to make a decision.

As a control, we texted one group of students a simple reminder that they could apply for financial aid and told them the deadline.

For our test condition, we texted another group that applying for financial aid was now a part of the University's enrollment process, and we included the same deadline.

MESSAGES   15 MINS AGO

> UPDATE: The FAFSA is now a **part of your fall enrollment process**. The priority deadline for everyone is April 15: *fafsa.gov*.
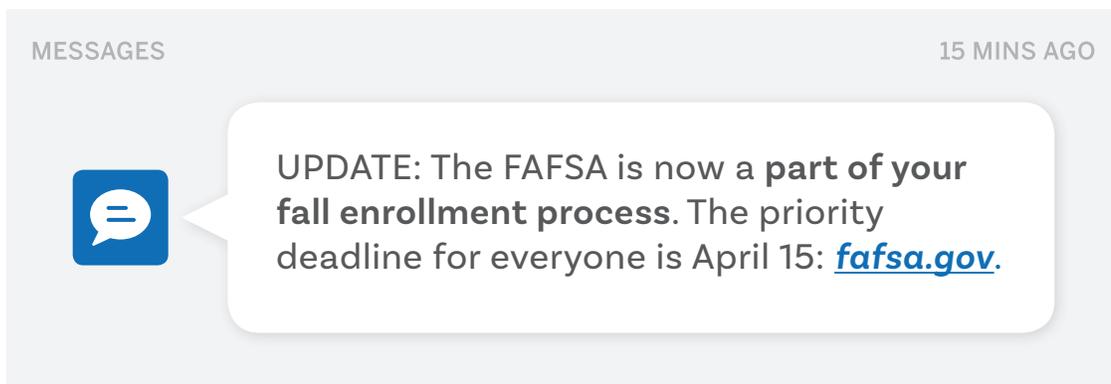
The results? For students who did not submit a FAFSA in the previous year, the odds of applying for a FAFSA on time this year *tripled* for students who felt that applying for aid was just a part of the enrollment process. If this intervention is rolled out, an estimated 230k more US students might apply for financial aid and have less debt.

230k more applicants
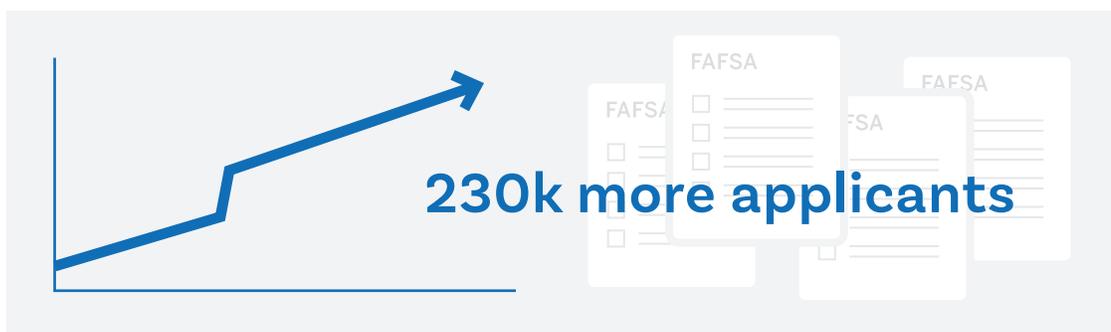
Phase 3: FAQs

How do I know if I'm ready to run my controlled experiment?

We've compiled a checklist for you:

- ✓ *Do I have a large enough sample for the amount of conditions I want to run?*
- ✓ *Do I have a control condition?*
- ✓ *Have I changed only one key variable per condition?*
- ✓ *Are participants randomly assigned to conditions?*
- ✓ *Do participants understand the key behavior that I want them to do?*
- ✓ *Do participants understand how to do the key behavior?*

Won't experiments take more time/resources than just launching something?

Probably not. Think about it — if you launch something that doesn't work and later have to redesign it, you have to double back and put in even more effort! We recommend picking experiments that test a big assumption you're making about a critical business issue. Testing correctly decreases the potential for negative outcomes at scale.

Can't I just run a pilot?

Not quite. A pilot is typically a preliminary study you'd run in order to evaluate the feasibility of actually implementing that feature. If you are curious about the amount of support calls you'll get and want to pressure test your service reps—launch a pilot! If you know an intervention will work, run a pilot to test operational risks to scaling it. However, if you can't predict what will happen, experiments are better. Pilots cannot help you determine if or how a new feature or product would work better than an alternative option.

I think both of these interventions should work; can't I combine them into one condition?

If you end up applying multiple changes to the same test condition and the intervention is successful, you won't know what caused the behavior change. Understanding the cause of the impact can help inform future design decisions.

I can't decide if I should run an experiment or not.

Many times there just isn't the time or money to test everything. However, for big decisions that have the potential to turn into long-term strategies, we recommend experimentation. Users don't always know what they want or how they'll act; the surest way to understand user behavior is to study what people do. Experiments allow us to figure out why something happens because we can make one small change to the system and measure the effect of that change.

Conclusion

Behavioral design can be applied anywhere. Want to create a new product to help students save money? Make your meditation app more sticky? Increase uptake of your city's recycling program? Use behavioral design. The three steps of behavioral design — diagnosis, identifying psychological biases, and experimentation — allow you to be confident in your efforts to influence behavior **for good**.

At Irrational Labs, we have worked with dozens of top companies to incorporate behavioral design into their workflow. We have run over 50 experiments to identify effective solutions that drive business and customer metrics. We have conducted hundreds of trainings inside big and small companies. We want to expand our impact so more organizations can use behavioral design to make behaviorally-informed, data-driven decisions. What changes can you enact to make a positive impact?

IMPORTANT: We only recommend and endorse using this toolkit **for good**. If used appropriately, you can help people be happier, healthier, and wealthier.

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