

# The A/B Testing Manual

**Excerpt**

**Draft**

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# The A/B Testing Manual

Thanks so much for your interest in *The A/B Testing Manual!* As promised, here's a free excerpt from the full book, about **research**.<sup>1</sup> I hope it's helpful for you and your business.

If this provides any value, you should grab the full course. Head over to [The A/B Testing Manual's site](#) and get your copy today. And in the meantime, if you have any questions, you can always get in touch.

Thanks again for your interest, and I look forward to hearing from you!

— Nick Disabato

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<sup>1</sup> There's also a [free lesson from the video course](#) on our site, if you're curious.

# Why research?

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I know this is a course called *The A/B Testing Manual* – yet over half of it is devoted to research. Research is absolutely critical to any successful, revenue-generating A/B testing process. Why? *Research is how you come up with better test ideas that are more likely to win.* If you ask me “how do I create good test ideas?”, the answer is *always* to research.

A research-driven test idea always beats a stab in the dark. You need to unlearn the speculative, debate-driven design process that so many organizations practice to their detriment. Fortunately, research isn’t as daunting as you think it is – and you may already be doing a lot of it.

## What Research Is

First, let’s get on the same page. What is research? I define research as any information-collecting process that requires direct communication with people who use – or could use – your product. Research can take many forms; here’s just a few:

- Literally calling and interviewing customers. Recruit people on your website and get on the phone with them. Talk about what they deal with on your product, and try to assess how it fits into the broader context of their lives.
- Tracking people. Heat maps, analytics, scroll maps, and referral tracking are all forms of this. If you have looked at data and acted on it, that’s a form of research.

- Surveying people. Throw something on Wufoo or Typeform, call it your business's annual survey, and ask questions about their use, demographics, and desires.
- Usability testing. You have a prototype or an existing product. You want to see how people use it. So you sit someone down at a computer, ask them to complete a predetermined set of tasks, and assess how successful (or unsuccessful) they were.

## Why Research Matters

Research is foundational to any design process. Remove research, and you are no longer performing design, but you're stabbing in the dark about what the design *could* be. People perform design-like activities every day: they argue about letter spacing, their favorite color, or whether something doesn't "feel" right. But I *guarantee* you that you aren't just *not performing design* in those situations, you're acting with an insufficient understanding of your customers – and you are missing a *massive* strategic opportunity.

I am not alone in believing this. There are numerous terrific books on why research is important and helps you generate *bonkers* revenue; [here's my favorite](#). The number of strong business cases in support of a comprehensive, ongoing research process underpinning all design decisions can be measured in *scientific notation* – but business owners fail to understand the ROI, retreat to the ego-stroking comforts of internal trench warfare, and get completely owned by a competitor in five years.

As a designer, research is a *significantly load-bearing component* of my work. I have never, *ever*, in ten years of experience, encountered a research-bereft project that would have been hurt in *any capacity* by the addition of research. I've seen a lack of research tank multi-million-dollar, ten-month reworks. I have never seen a research-focused project do the same. I have dealt with dozens of each.

Moreover, research is the only way I know how to create something people will want to buy. You are not smart enough to make something on your own; you have to kick your ego to the curb and *talk to people*.

Additionally, creating something that people will want to buy is the only honest way I know how to generate revenue in a business. If you want to make gobs of money, you need to research. And then you need to throw your preconceptions away, keep an open mind, and *act* on it. You need to take the research *seriously*. Research is not something you say “huh” to and then throw away.

As a designer, I have found no other shortcuts to revenue generation. You must research. You *must*.

I'm happy I just convinced you that research is the way forward. Assuming I haven't, though, here's another figure: the tests I've supported with research have had a **68% success rate**. Without research, though, my success rate drops to 18%. The industry-wide success rate of all A/B tests is often cited as 15%. And Peep Laja has cited his research-driven success rate at 98%.

Put another way: do you like using testing to generate revenue? Then you should probably integrate research into your testing plans.

If you want a deeper dive into research, I recommend [Just Enough Research by Erika Hall](#), as well as [the episode of Kai and my podcast about research](#) from a couple of months back.

## **What I Do First**

Research as much or as little as you'd like, but you should *always* research enough to confidently understand your customers' behavior – and use research to support your testing decisions. That said, there are a few things I do in every single project, no matter what:

### **Heat & Scroll Maps**

I *always* run heat and scroll maps on key pages in our funnel, in order to understand where people are clicking and how many of them are scrolling. I typically use [Crazy Egg](#) to do this, although [VWO](#), [Clicktale](#), and [Mouseflow](#) do roughly the same thing.

Heat maps teach us where people click, and scroll maps help for longish pages – to show whether we're actually capturing customers' attention. If people are clicking frequently on an element that isn't plicant, we probably need to link it somewhere. If people stop scrolling after a given section, we probably need to rework or remove it.

All elements on the page should support conversion and revenue generation, *period*. Heat maps often support what we know politically: that

customers simply don't care about the ancillary bells & whistles we add to make ourselves feel good about features, instead preferring the *benefits* and *outcomes* that our product can provide.

I can't tell you how many times I've stared at a heat map where the product's big new marquee feature was a huge dark spot on the page; it is best measured in *scientific notation*. Most people favor visiting your pricing page, signing up for a trial, and they don't do much beyond skim. Heat maps teach us that your page needs to be as tightened and conversion-focused as humanly possible.

## **Google Analytics**

Next, I run Google Analytics on the site – if it's not there already. Once I get access, I spend some time fine-tuning the installation to make it clear how people are really behaving.

I *guarantee* you that your Google Analytics installation has *significant* room for improvement. You probably installed it and forgot about it. Or you just look at how many people are hitting the site.

Google Analytics is a byzantine horror. It's insanely painful and distracting to work with in any detailed fashion. Nobody wants to do it. This means, as an A/B tester, you have a *hugely expensive problem* that *people with money want solved*.

It behooves you to wrangle the beast. Learn Google Analytics, establish solid goals that reflect conversion and revenue, and monitor it continuously

to ensure that you're meeting your metrics. You can use Google Analytics to learn:

- What people are doing. Where are they going? How do they typically interact with your funnel?
- The impact of every feature on every page. How focused are each of your funnel's features around conversion and revenue generation? Heat and scroll maps help with this, too.
- Whether specific browsers are hurting conversion. Go to "Audience → Technology → Browser & OS report" in Google Analytics. This tells you whether a specific browser or operating system is leaking revenue for you. Now you have a development problem on your hands.
- Whether any pages are too slow. Speed absolutely matters, especially as mobile becomes a thing. Go to "Behavior → Site Speed → Page Timings" and check if there are any outliers. Fix them. *You will make money.*

ConversionXL has more resources on Google Analytics: [how to configure it](#) and [how to set up goals, segments, and events](#).

## Heuristic Evaluation

"Heuristic evaluation" sounds like something you pay a doctor to do, but it's not that hard. It essentially means you create a check list of criteria that a website should have in order to support best practices in conversion, and you evaluate whether your site succeeds or fails in each of these criteria.

The notion of heuristic evaluation goes back to the early days of usability research in the mid-Eighties. It's likely that you have a practice quite similar

to it in your own organization: think of it as unit testing, KPIs, or brand guidelines, and you're on the right track.

[Here are some of the oldest criteria for heuristic evaluation](#), by Jakob Nielsen. That article is so old it can *drink*; [here's a more modern methodology](#). Craft a series of heuristics that best fit your site's revenue goals, and get at least two others to evaluate the site alongside you.

## Surveys

Finally, I run a survey of prospective customers. Why? Because any research-driven process should provide a mixture of *quantitative* (analytics, heat maps, A/B testing results, etc) and *qualitative* (stories, interviews, etc) information. Gathering qualitative insights can teach you about your customers in ways you couldn't even imagine.

I use [Typeform](#) or [Wufoo](#) to configure the survey and collect the responses. Just include a survey callout at the top of your home page, and put respondents in a contest to win a free month of your service. For a SaaS, typical softball questions should include:

- What's your job role?
- Do you already subscribe to our service?
- If so, how long have you been a customer?
- Do others on your team have access to this?

More interesting questions are:

- Why did you choose us?
- What do you use us for?

- What value have you gotten out of it lately?
- What new things would you like to see?
- Are there any aspects to our service that you find frustrating, or which you'd be likely to change?
- How were you recommended to use the service?
- Did you take a look at any of our competitors?
- On a scale from 0 to 10, [how likely are you to recommend us to a friend or colleague?](#)

All of these should give you ample information for crafting the right pitch, addressing the right concerns in a marketing page, and shepherding people through the process.

## **Then, Come Up With Test Ideas**

If you go through this whole process and *don't* come up with something significant to change in your conversion funnel, congratulations! You have the world's only perfect website. Your trophy is in the mail.

If you work through all of this and want to create significant reworks of your layout and pitch, then *you're on the right track*. Keep following that hunch and create tests that *work*.

# Undercover research

Optimization must come from the top – and it must be a long-term commitment. What happens if you don't have that commitment, though? How do you earn it?

First and foremost, research is critical to your optimization strategy. Yet research is not supported strategically in most organizations – and it's the first thing to be cut from any budget. People perceive research as a luxury that you perform once you're ready to burn some cash.

I will say this until the day I die: *researching your paying customers is absolutely essential to your business*. If you're reading this book, you probably agree.

But what if the rest of your organization doesn't agree? Well, it's on you to convince them. You'll be playing the long game on this, and it's going to be frustrating for a while. But it's important to do so. In every W-2 gig I had before going independent, I fought this fight. Every time research wasn't already a core practice of the business, I either convinced the team that research is essential – and subsequently developed research into a durable, essential component of the design process – or I quit.

Assuming *you* don't want to quit your job, then, how do you convince an organization about the value of research on a \$0 budget with no administrative support? In the absence of a budget, the one thing you'll be able to burn is *time*. The adage “fast, good, cheap: pick two” applies to research as well.

Let's assume we want *good* research, and let's assume we need *cheap* research. This is fine: you're playing the long game, after all.

## **A summary of conversion-focused research**

Let's just get on the same page about what research involves. It includes a blend of *quantitative* and *qualitative* methods:

### **Quantitative research methods**

- Analytics
- Browser & device analysis
- Heat & scroll maps
- Behavior recordings
- Heuristic evaluation

### **Qualitative research methods**

- User interviews
- Usability tests
- Surveys

You can do most of this for free. You can alleviate a lot of effort for under \$500. Here's everything you can do for free:

### **Research Methods on a \$0 Budget**

- Analytics: Google Analytics is free. This is such a powerful tool that you have no reason *not* to use it extensively in your optimization efforts. In fact, I guarantee you that you're probably already gathering considerable

information about your customers without realizing it. [Here's ConversionXL's tutorial about fine-tuning your GA install](#). It tells you the exact steps you need to take to gather more demographic information about your customers – and begin configuring revenue- and conversion-focused goals.

- Browser & device analysis: This warrants its own category, because it really just amounts to bug-fixing. But you can take a look at the device & browser breakdowns on Google Analytics, weigh them against your average conversion rate, and make a *strong* case for fixing a *lot* of revenue-leaking problems. Everything from “the checkout page doesn’t work on Firefox” to “our mobile site is atrocious” can be vetted through GA for exactly zero dollars.
- Heuristic evaluation: You can do this yourself, at your desk, without anybody knowing about it.
- Heat maps: There are numerous free, open-source heat map tools. [Here's one](#). If you're a developer, do what you can to deploy it. If you're not, take a developer out for coffee and make the case for it. State the case that it will be turned off when you get enough data. Show examples of heat maps justifying revenue-generating design decisions for other businesses. (You probably won't get scroll maps for \$0, but it's definitely possible.) Too much work? [Hotjar has a free plan](#).
- Surveys: [Wufoo has a free plan](#). That's the link to register for it.

- Recruitment for usability tests & customer interviews: use Wufoo's free plan for them. Don't forget to get the participant's contact info (phone, email, *and* Skype/hangout/etc) at this step!

All of these methods are discussed later in this section of the course.

## Research Methods on a \$500 Budget

Why a \$500 budget? That's the petty cash limit for most company cards.

You can probably get \$500 requisitioned pretty easily – especially if you have your own corporate card. If not, talk to your boss during your weekly 1-on-1 ([which you have, right?](#))

You can do a *lot* with \$500. Mix & match these to taste:

- Recruitment for usability tests & customer interviews can get a *huge* upgrade by using [Ethnio](#). \$49.
- Usability tests & customer interviews need to provide some sort of compensation for the participant's time. I generally give out \$50 Amazon gift cards. (You can probably shrink this to \$20 if you're in a big crunch, but given the amount of time someone is spending, I'd make it as big as possible – *especially* if the participant has to commute to your office.) For 5 participants, this means \$250.
- Want to save a lot of time on your usability testing? Go to [UserTesting](#) and buy 5 tests for \$495.

**Heat & scroll maps** can become a *heck* of a lot more convenient by using [Hotjar](#)'s paid plans. **\$29.**

## No organizational support

It's one thing to know how to do all this. It's another to *actually do it*. Where should you start? This will probably vary from organization to organization, but:

1. **Quietly get your Google Analytics in order.** Most organizations don't even *look* at their GA install, much less optimize them. Knowing GA is a huge professional skill that every organization wants, few people have, and nobody wants to practice. Do everything you can to get administrative access to your Google Analytics account, and then configure goals on it. You may need to update your tracking snippet on your production servers. If so, provide comprehensive directions to any developers in charge.
2. **Run a heuristic evaluation on your site.** You'll be using GA, various browsers, and maybe even a dummy credit card. Talk with anyone who has the power to issue refunds – support, accounts receivable, etc – in case you need to run real-world transactions.
3. **Run a heat map.** Install Hotjar's tracking snippet on your site and get heat maps, scroll maps, and behavior recordings.
4. **Write up a comprehensive report about any conversion-killing issues** and send it to those in charge. Make a strong case for fixing them. If most of your office is in one room, hold a lunchtime talk to discuss your research efforts.

The outcome of this should be twofold:

- Your organization should fix – and measure the economic impact of – any major revenue leaks.
- You should get slightly more support to conduct additional research.

Hooray!

If you don't get more support, *continue making the case*. Spread the word. Talk to your boss. Explain to other team members why this is important to the health of the business. Do it until you get firm commitment to increased research.

### **A little organizational support**

If you *do* get such a commitment, you have a couple more things to do next:

1. **Run a customer survey.** You'll want to blast this out to your business's mailing list, and post it as a callout on your business's website.
2. **Get some usability tests.** Go to [UserTesting](#) and order 5 tests for a typical checkout flow on your website.

These keep your budget under \$500, but they provide high-value activities that begin *really* testing the waters for your business. Why? Because at this point, you've started actually listening to your customers – not merely observing their behavior. That's hugely important towards ensuring that future A/B tests are revenue-generating.

### **Keep pressing for more and more research**

Your mindset should change from day 1. While you're doing this research on the down-low, in conversations that end up in meaningless internal wheel-

spinning, ask: “Why don’t we figure out what our customers think about this?” And no, the answer isn’t “A/B test it.” It’s usually by *asking them*. Trust me: A/B tests are horrible interviewers.

Start with research that can be done simply, cheaply, and quickly. Then move to *slightly* more ambitious efforts. Your dreams of a 10-week ethnographic fieldwork project are laudable and currently unrealistic. And all the while, you should communicate the business value of research. You need to start small, get quick wins, and share widely with the organization as you nudge towards evermore ambitious research projects.

*This is how companies get invested in research.* Not through somebody like myself forcing them to go whole hog, but through incrementing small things, presenting their value, and progressing slowly.

# Don't Delay!

Thanks for reading our sample chapter of *The A/B Testing Manual*! You can get the full course on [The A/B Testing Manual's site](#) right now. We appreciate all of your support.