

How to Illuminate Your UX Design With Qualitative & Quantitative Research



When organizations decide it's time for a digital launch or redesign, far too many rely on assumptions and arbitrary preferences for critical decisions. You can spend tons on a digital project, but unfortunately, you're undermining its success if your choices aren't informed by thorough research.

What kind of research can be applied to developing a user experience (UX)? Should you apply the measurable, numerical results from quantitative research, which applies site traffic patterns and other data to inform decisions? Or should you use the observations and insights from qualitative research, such as user surveys and testing?

The short answers to the above questions are "Yes. And yes."

If quantitative research measures the "what" of website user behavior, then qualitative research supplies the "why."

Though the goals for your digital project may differ, the best digital experiences are inevitably derived from consulting a wide variety of resources.

Why user research is worth your organization's time—and money

The beginning of any project is built upon gathering information. In considering the needs of your website or digital product from the ground up, you and your agency design partner are exploring a dark room with only a flashlight.

Websites are built on the interrelationship of design decisions and functionality. But no matter where you point your flashlight, you can only view one small detail at a time. To get the full picture of your website and its needs, you need to illuminate every corner.

Qualitative and quantitative research act as flood lights, enabling you and your collaborators to consider your project from all angles. But when firms first pursue a redesign, most are unaware of the critical role UX research should play. Even if they're familiar with how testing methods inform design decisions, many organizations only see research as an additional investment of time and money.

The value of UX research may not be immediately apparent outside the design world. But basing design decisions on data protects your investment by keeping your project better positioned for success.

At the beginning of any agency collaboration, the discovery process examines your organization's business goals—and how they will be served at the end of a project. For many internal teams, this process marks the first time anyone has worked on their business rather than within the business.

Placing your digital project in the context of your business needs clarifies focus on a project from discovery all the way to content creation. Even if someone on your team has a personal preference for a design decision, the end result must serve your organization's pre-established goals in order to be viable. With the guidelines gained from discovery in place, you will develop a foundation that informs every step of a digital project. Every element must function in service of your business goals, and these decisions can only be supported through effective user research.





3 ways UX research improves digital design

With user research, designers and developers gain a better understanding of what your project needs to succeed. Both qualitative and quantitative approaches offer important insights in the following ways:

1. Builds empathy for your user:

Qualitative research provides insights into your users' interests, needs, and challenges when navigating your site. Through testing, your UX designers create targeted personas for users to develop the priority audience groups for your project. In the end, designers gain an understanding of other tools or workarounds your users are incorporating with your site to find what they need.

2. Validates assumptions about demand:

Quantitative research lowers internal biases about users by measuring their actions when presented with an option. Before your organization invests in specific website tools or features, user testing can confirm the level of user interest. As a result, your business doesn't lose time and money pursuing wasteful design elements.

3. Creates informed design decisions:

Qualitative research informs decision-making through observation of user behavior as an iterative design project progresses. Final projects grow stronger and deliver a greater return on investment by incorporating decisions that are backed by real data and user feedback.

Quantitative data and user feedback give designers a starting point

Before any work begins on a new website, UX designers need to know more about your existing site's performance. Analyzing what real users are doing on your live site provides crucial insights into the ways it can be improved.

Website analytics don't lie.

At the beginning of any project, site analytics provides hard, quantitative data about your users' interests and behavior.

In a digital economy, tools like Google Analytics are baseline requirements for every organization to better serve users. But your agency partner needs to collaborate with your IT team to ensure these tools are set up correctly and are delivering the proper insights.

Top 10 metrics to implement in Google Analytics

1. Apply filters to ensure you're gathering accurate data.
2. Track outbound links.
3. Monitor site downloads.
4. Track video plays.
5. Observe form submission behavior.
6. Navigation and CTA clicks.
7. Cross-domain tracking.
8. Monitor page element visibility.
9. Evaluate time spent on page and scroll depth.
10. Site search habits.

[Learn more about how to configure Google Tag Manager here.](#)



When properly implemented, Google Analytics provides a variety of details for your designers to lean into. For example, most websites can be categorized in two ways: document sites or app sites. Does your website function primarily as a resource for users to read? Or are you asking your audience to come and interact with one of your site's tools?

Depending on your answer, UX designers can begin crafting a user journey based on how well your existing website delivers on its core function. Quantitative data from high-traffic pages, drop-off points, and user demographics all indicate how well you're serving the audience your business needs. However, if your organization is looking to build a brand new digital project, you need to start working from a different baseline.

Use customer feedback to your advantage

If you're aiming to improve an existing digital experience, your users have likely already offered their impressions. For example, customer service requests or support tickets provide useful indicators of how well your user experience is performing and what areas need improvement.

Given that the vast majority of users contact customer service with a problem, user feedback typically skews negative. But customer complaints are low-hanging fruit for your designers to identify user pain points. Support ticket totals can illustrate key areas of need, while user feedback demonstrates the biggest issues with your digital experience.

Best of all, this data from existing users is available without spending more money on further research. As long as your

organization retains call center and support records, you're sitting on a treasure trove of insights to inform the next version of your site.

Qualitative research paints a clear portrait of your model user

Organizations are often reluctant to turn to research when facing the already high costs of creating a digital project. But qualitative research is a fundamental way to confirm assumptions about your users' interests, opinions, and goals. Whether you're working to replace an underperforming site or creating something new, engaging your target audience will help to determine next steps.

Site analytics provides quantitative data, but it's a trailing indicator.

Whatever information can be found in website numbers, the data is drawn from something that's already happened.

For example, if you're only analyzing the hard data from the results of a horse race, you'll be left with the conclusion that you need a faster horse based on quantitative data. Through the broader perspective of qualitative research, you can find out whether what you really need is an automobile.

Qualitative data is typically acquired through direct user engagement. Though there are multiple approaches to gathering this information, the right method for your project will depend on time and budget. But don't skimp on this piece. Ideally, every project should incorporate a combination of different techniques from the tactics below to develop a well-rounded view of your users.



One-on-one interviews

A person-to-person, individual interview gathers information about how users navigate your site through a series of questions from a standardized script.

Advantages

- **Provides most direct, detailed results from users:** Open-ended interview questions that avoid yes/no answers generate detailed responses about navigation, motivation, or other impressions. You need to protect user anonymity to ensure your respondents feel free to express honest opinions.
- **Offers possibilities to dig for more user information:** Follow-up questions provide further context about each user's goals and pain points.

Disadvantages

- **Time-consuming and expensive:** To gather enough data, you should interview at least three to five users for each audience persona your project is targeting. Staging enough interviews to test complex digital projects can impact your timeline and budget.
- **Finding subjects can be challenging:** In most cases, your organization will be asked to gather a pool of prospective interviewees identified within your email list or online recruitment materials, such as via a site banner ad.
- **Format carries a high risk of skewed data:** Every interview response can be impacted by unconscious assumptions about your users. Each question must be planned in advance to minimize the possibility of bias.
- **Effective interviews require a skilled moderator:** Interviewing is an art. Your moderator must establish a rapport with users and communicate they're being heard. A poor moderator can skew your results by not allowing for silence as a user considers their answer, interrupting them, or attempting to direct their response.

User observations

Observation sessions allow you and your design partner to watch how real-life users engage with your site.

Advantages

- **Observations are location-flexible:** To avoid impacting user behavior, your observations should take place in your users' typical environment. The recent adoption of video collaboration tools has increased the use of remote observations during design engagements, which makes their use both easier and more intuitive.
- **Multiple options for observation formats:** Remote observations can be conducted through a screen-sharing service or asynchronously in response to a recorded set of instructions. Your moderator can deliver guidelines to users, who then document their experience through a video recording tool like [Loom](#). Applying a record of how well users are finding what they need and what challenges arise within your design or digital prototype offers a clear view into needed refinements.

Disadvantages

- **Unmoderated observations are less reliable:** An unmoderated approach asks users to interact with a digital experience on their own and to document the results. Moderated observations are more useful because they allow you to ask users to perform specific tasks focused on your navigation, design, or interactive elements. A moderator also can provide broad guidance to keep the test moving if a user gets stuck.
- **Moderated observations offer potential to introduce bias:** As with any user interaction, moderators must take care to not hold significant influence over an observation.

Surveys

Given how easily they can be deployed, surveys are among the most commonly utilized sources for user data.

Advantages

- **The fastest and cheapest qualitative tool:** You or your design partner can quickly generate and deploy surveys through tools like [SurveyMonkey](#), [Qualtrics](#), or [Google Forms](#).
- **Format is flexible:** Depending on your needs, you can shape questions to generate broader, more qualitative responses from users. Or you can narrow focus to receive answers that function as quantitative data.
- **Survey respondents provide a potential pool for further testing:** If you plan to incorporate a variety of approaches to qualitative data, users who respond to surveys could be tapped as participants in other research methods.

Disadvantages

- **Holds potential for skewed results:** Much like interviews and observations, user surveys must be crafted to avoid unconscious bias that overlooks specific use cases or leads users to certain responses.
- **Uncertain user motivation:** Your email subscriber list is a valuable resource for sending quick surveys. And gift cards or other contest drawings offer further incentive to build the size of your survey population, but you have to consider your user's motivation. Are they responding because they're really invested in your organization? Or are they just trying to win \$500?
- **Successful surveys require careful design consideration:** You have to determine how many questions to ask in order to avoid user drop-off. As a general rule, most surveys should take less than 10 minutes to complete.
- **Lack of opportunities for follow-up questions:** Surveys don't allow you or your design partner to probe deeper into responses for more specific feedback.

You can mitigate the risk of gathering unreliable data by applying multiple qualitative research methods to increase your sample size.

Not Recommended: Focus Groups

Gathering multiple users to collect feedback on your site may seem like an efficient way for your design team to gather numerous perspectives at once. Ideally, the questions and resulting conversation during a focus group would mirror real-world engagement with your product.

But the nature of a focus group presents challenges. If there's a dominant personality within your user group, people have a

tendency to circle the wagons around that single opinion. Instead of gaining five fresh perspectives about how your site works, you get one genuine response followed by four nodding heads.

Plus, focus groups traditionally require specialized settings that allow for recording and observation by your team. Questioning multiple users at once may be more efficient, but the expenses and risk factors of a focus group outweigh these benefits.



Quantitative research refines qualitative information

After you've gathered information from user opinions and experiences, you should return to the most common issues to test how well your changes and updates perform. Imagine that qualitative research has found problems with a university's ability to offer a downloadable class schedule. By turning to quantitative research, you can track and respond to user preferences for design choices to improve the results from your qualitative data.

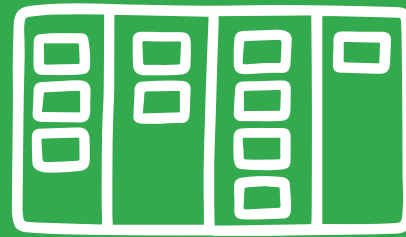


A/B testing

Any website issue can be resolved through multiple solutions. But you won't know whether any changes are effective if you don't test how your users respond. From changing the color or shape of buttons to shifting visual emphasis toward calls-to-action, your design partner has an assortment of options.

Unfortunately, optimal A/B testing often depends upon the viability of your current site. If your website is burdened by technical debt or an overly complex technology stack, your design partner may encounter problems adding new testing features. Experimenting with a new feature may trigger temporary issues elsewhere on your site.

That said, when you're talking about improving core functions of your website, you need to pursue every viable angle. It might be worth enduring brief service disruptions to meet critical business goals.

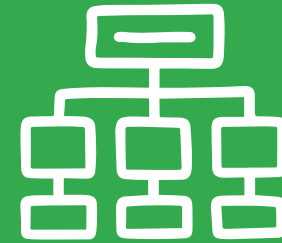


Card sorting

Card sorting helps UX designers build an information hierarchy for your design by organizing topics into groups. When you're working with a design partner, your early design comps are built in a way that makes sense to your organization. In reality, your users may have totally different ideas about what's most important on your site and where it's found.

Typically conducted in-person, card sorting asks participants to group parts of your site in a logical structure on notecards. This research is very useful for providing insights into how users look for what they need, especially if your site has a lot of content.

Once you understand how users look to navigate your site, you can engage them in determining a more intuitive way of displaying content.



Tree testing

After a card-sorting exercise, you can take your research a step further by asking users to validate their results. A tree test asks users where they believe they may perform specific tasks within the information hierarchy they created.

To conduct the test, you need to apply user cards to create a website menu, which includes all your content categories. Whether your categories include details such as "Services," "Schedules," or "Case Studies," you then ask your participants what they should find under each.

If your card-sorting efforts were successful, tree testing provides additional insight into users' design needs.

Comprehensive research is imperative for any redesign

In considering what kind of research to apply toward creating a strong user experience, there's only one clear answer: **The more information the better.**

At the start of any digital project, you and your design partner first need to determine your project's goals and how those fit in with your business. To build a successful website, you need to know what questions its design needs to resolve for users. Then you need to uncover the best ways to deliver the right answers.

Every source matters when conducting qualitative and quantitative user research and pulling insight from internal data. Unfortunately, there's simply no one-size-fits-all method that suits every organization for UX research.

But through thoughtful application of multiple research methods, you can illuminate the right design for the right audience that your business needs.

