Characteristics of a good user experience

Good design is easy to spot but often hard to pin down. What exactly makes a product effective to its users? Is it a matter of simplicity, structure, or functionality? The answer depends on the product in question.

In the earlier video, "The basics of user experience design", you were introduced to some primary characteristics of good UX. These characteristics—**usable**, **equitable**, **enjoyable**, and **useful**—can help you evaluate a product's design. In this reading, you'll learn more about each one and why they're important.

Usable

If a product is **usable**, it means the design, structure, and purpose of the product is clear and easy to use. As you evaluate a product for usability, you can ask questions like: Is everything in the design easy to find? Is the design's functionality easy to understand? Can users accomplish specific tasks within the design? As you evaluate, these questions can help you determine whether the design delivers a usable experience.

Imagine you are evaluating the usability of an airline app. Assuming the primary purpose of this app is to book a flight, the design should provide a clear and easy way to complete that task. For example, a section where you can easily enter travel and flight details on the homepage would be an example of good usability.

Equitable

If a product is **equitable**, it means a design is helpful to people with diverse abilities and backgrounds. In other words, the product's design addresses the needs of a diverse audience and ensures a high-quality experience is delivered to all users regardless of background, gender, race, or ability. Equity means providing people with the tools they need to accomplish their goals and support improved quality of life. Equity goes beyond the concept of equality, where everyone is given equal resources, because people often need different tools and support based on their needs. This is especially important to keep in mind for those in commonly disenfranchised groups. As you evaluate the equity of a product's UX, you can ask questions like: Are the needs of a diverse group of users considered? Does the product's design address the needs of traditionally underrepresented and excluded groups? These questions can help you determine whether the design delivers an equitable experience.

Imagine you are evaluating how equitable a social messaging app is. You might consider the design more equitable if the keyboard emoji list includes different skin tones and gender-neutral avatar options.

Enjoyable

If a product is **enjoyable**, it means the design delights the user. The design reflects what the user may be thinking or feeling and creates a positive connection with them. A product's design doesn't have to be enjoyable for it to function properly. But, an enjoyable design adds to an already functional product and can enhance the user's feelings about the experience. As you evaluate how enjoyable a product's UX is, you can ask questions like: Are there aspects of the design that consider the user's feelings? Does the design inspire delight in the user? Does the design keep the user engaged throughout their experience? These questions can help you determine whether the design delivers an enjoyable experience.

Imagine you are evaluating how enjoyable a video streaming app is. Design aspects that might increase how much you enjoy the product include personalized recommendations based on previous watching habits, or the ability to customize the appearance of your account.

Useful

If a product is **useful**, that means it solves user problems. In other words, the design intentionally solves a user problem that the designer has identified. It's important to note that, while similar, useful and usable have different meanings. A product that is useful isn't always usable. The same is true for the opposite. The distinction between the two is that usability refers to the product working well and being easy to use, while usefulness refers directly to the ability to solve user problems. As you evaluate how useful a product's UX is, you can ask questions like: Does the design add value to the user's experience? Does the design solve a problem for the user? Does the design help the user achieve a specific goal? These questions can help you determine whether the design delivers a useful experience.

Imagine you're evaluating how useful a banking app is. Users typically download these apps because they need a place to manage their money. With this in mind, aspects of the app that might be considered useful are features that can be used to transfer money between accounts and pay bills.

The product development life cycle

Every new product, whether it's an app or a physical object, follows a specific set of steps that take it from the first spark of an idea to the release of the final product. This is called the **product development life cycle**, and it has five stages: **brainstorm**, **define**, **design**, **test**, and **launch**. Depending on where you work, the exact names of each stage might be a little different, but the overall process is generally the same.
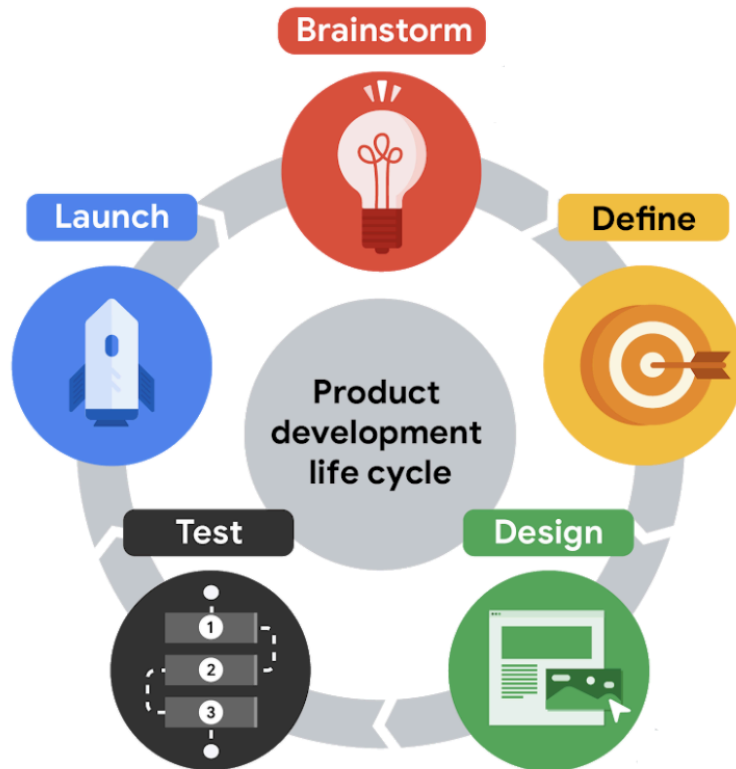
Around the circle there are icons for each phase of the lifecycle - brainstorm, define, design, test, launch

In this reading, you'll explore the product development life cycle and how UX design fits into each stage. As you might have guessed, UX designers are most engaged during the *design* stage of the product development life cycle, but they work closely with team members — like researchers, product managers, and engineers — throughout the entire life cycle.

As a product moves through the development life cycle, the team might need to spend longer working in one stage than in others, or repeat certain stages based on feedback. The success of each stage depends on the previous stage's completion, so it's important to do them in order. Check out each of the five stages of the product development life cycle!

The first stage of the product development life cycle is the **brainstorm** stage, when the team starts thinking of an idea for a product. Your team might already know the user problem that you want to solve when you begin the product development life cycle. If not, coming up with a list of user problems is a great place to start.

It's important to pay attention to the diversity of your team at this stage. Teams that have meaningful diversity across identifiers like race, gender, abilities, family structure, age, and ethnicity are

generally more effective at brainstorming because they bring together a lot of different lived experiences.

Consider this example: If you're designing a new app to help working parents and guardians, your team might start the brainstorming stage by listing common problems that working parents and guardians face, like a lack of reliable childcare, transportation concerns, or trouble managing schedules. Your team might review user feedback about other similar products or the results of user surveys to help guide your ideas. After you've brainstormed lots of user problems, your team chooses one and starts coming up with ideas for solutions to that problem.

The brainstorm stage is also an ideal time to check out your product's competitors and identify if there are already similar products available in the market. You want your product to fill a gap in the market or solve a problem better than existing products. Completing research into both your competitors and your users helps determine what problems need to be addressed by the product's design.

One more thing to keep in mind: A UX designer at a large company might not be very involved in the brainstorm stage. But a UX designer at a startup or small business could have a big role to play!

Define

The second stage of the product development life cycle brings together UX designers, UX researchers, program managers, and product leads to **define** the product. The goal is to figure out the specifications for the product by answering questions like: Who is the product for? What will the product do? And, what features need to be included for the product to be successful?

During the define stage, your team narrows the focus of your idea. One product can't solve every user problem. Continuing with the example for an app to help working parents and guardians, your idea should focus on helping parents and guardians find reliable childcare *or* manage their schedules, not both. In this stage, a UX designer might help the team pin down the focus of the idea, but a product lead will probably be the one to define the scope of the project.

The research you completed in the brainstorm stage comes in handy now. Using what you've learned, you will pinpoint your potential users' problems. Your team can't assume they know what problems users are experiencing without asking the users directly.

Design

The third stage of the product development life cycle is **design**. This is when you, as a UX designer, really get to shine! At this stage, UX designers develop the ideas for the product. Generally, UX

designers start by drawing wireframes, which are outlines or sketches of the product, then move on to creating prototypes, which are early models of a product that convey its functionality.

UX writers are also involved in the design stage and might do things like write button labels or other copy within the product's wireframes and prototypes.

At this point in the life cycle, UX designers make sure to include all of the product specifications that were outlined in the define stage. You might also check to ensure that each part of the design fits together in an intuitive way. For example, UX designers might check that the screens of an app flow in a way that makes sense to the user. Or that each interaction, like tapping a button, has a correlating action, like an item getting added to a cart. On the other hand, with a physical product, UX designers might check that one piece of a physical object matches up to the connecting piece. Finally, UX designers also make sure that each task a user needs to complete is clear and easy to understand, like navigating from the homepage to the checkout confirmation page in an app.

Test

Next, your designs move into the **test** stage. UX designers work with engineers to develop functional prototypes that match the original designs, including details and features that fit the company's brand, like font and color choices. This also means writing the code and finalizing the overall structure of the product.

Or, if you want to test your designs earlier, another option is to test a functioning prototype of the product, using a design tool like Figma or Adobe XD. You'll learn how to create prototypes of your designs later in the certificate program.

At this stage, the designs go through at least three phases of testing: internal tests within your company, reviews with stakeholders, and external tests with potential users. A **stakeholder** is a person you need to work with to complete the project or anyone who has some interest in the project, either within or outside of the company.

Running these tests is typically the responsibility of the UX researcher on your team, if you have one.

- First, the team **tests the product internally** to look for technical glitches and usability problems. This is often referred to as alpha testing.
- Then, the product undergoes a **test with stakeholders** to make sure the product is aligned with the company's vision, meets legal guidelines for accessibility, and follows government regulations for privacy, for example.
- Finally, there's an **external test with potential users**. This is the time to figure out whether the product provides a good user experience, meaning it's usable, equitable, enjoyable, and useful. This is often referred to as beta testing.

Gathering and implementing feedback at this stage is absolutely critical. If users are frustrated or confused by your product, UX designers make adjustments or even create new versions of the design. Then, the designs are tested again, until there's little or no friction between the product and the user.

It's important to call out that the product development life cycle isn't a completely linear process. Your team might cycle between designing and testing a few times before you're ready to launch the product!

Launch

Finally, you've arrived at the fifth and final stage of the product development cycle: the **launch** stage, when the product is released into the world! This might involve listing an app in the Google Play Store or Apple's App Store, making a website go live, or putting a physical product on store shelves. The launch stage is a time to celebrate your work and start promoting the product. Marketing professionals on your team might post about the new product on social media or publish a press release. The customer support team might get ready to help new users learn how the product works. Program managers also meet with the cross-functional team to reflect on the entire product development life cycle and ask questions like: What worked and what could be improved? Were goals achieved? Were timelines met? Making time for this reflection is super important, since it can help improve the process going forward.

For a physical product, the launch stage might be the end of the product development life cycle. But for a digital product, like an app or website, launching the product to a wider audience provides another opportunity to improve on the user experience. New users might find problems with the product's functionality or features to improve that no one noticed before. So, after the launch stage, teams will often cycle back to the design and testing stages to start working on the next version of a digital product.

Who are my users?

In the field of user experience design, the "user" comes first. A **user** is a person who is trying to solve a problem and is looking for a product or service to help them solve it. The **user experience** is the journey that the user takes with that product or service. As a UX designer, your goal is to keep the user at the center of every decision you make, and to do that, you need to get to know your user. Most of the initial UX research that you conduct at the beginning of the project will be focused on getting to know the characteristics of your users, their goals, and their pain points. Understanding the user empowers you to design experiences that are helpful or easy to use.

One of the key challenges of getting to know your users is avoiding taking a narrow view of the user, or making assumptions about what users need based on stereotypes. Users who seem to be different from one another might actually have shared wants and needs. Make sure to step back and get a clear picture of *all* your potential users–which often means that you'll need to specifically plan to address the needs of users who are often overlooked.

To reach as many users as possible, you'll consider questions such as these as part of your user research approach:

- Do my users have impairments or disabilities to consider–whether temporary, situational, or permanent?

- How familiar are my users with technology?
- How are my users accessing the product or service?
- Where and when are my users accessing the product or service?
- Have I considered all my potential users?

The goal for user research is to get the widest possible selection of potential users to include as research participants. Make sure to consider income level; demographic data such as age, gender, and ethnicity; educational background; and geographic location.

Do my users have impairments or disabilities to consider?

You might be surprised to find out that more than 1 billion people around the world have a disability, out of a global population of 7.8 billion. In the U.S., one in four adults identifies as having a disability. The term **accessibility** refers to the design of products, devices, services, or environments for people with disabilities. As a UX designer, it's important to keep users with disabilities in mind as you design features or new products. Designing for accessibility isn't an obstacle, but a way to get your products to as many users as possible.

Accessibility is about making products accessible to all people, whether they have a disability or not. Think about inclusive product features that increase magnification, like enlarged fonts. Or features that help everyone understand videos, like closed captions.

Throughout the rest of the certificate program, you'll learn more examples of how features that were initially designed for users with disabilities became universally used by non-disabled people as well. You'll also learn more about how to effectively apply accessibility principles to your designs.

How familiar are my users with technology?

User experience doesn't just focus on the experience of existing users, however. It also includes paying attention to the needs of people who are about to become users. Nearly a billion people, of all ages, all around the world, are getting online for the very first time.

When it comes to designing for this emerging population of potential users, their level of **digital literacy** is a key consideration. The American Library Association defines digital literacy as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills." People with limited digital literacy might not be familiar with certain design patterns, calls to action, or icons that those of us with more online experience take for granted. For example, they might not know what "swipe" means in relation to a touchscreen. They may not even know what a touchscreen is. This can affect their confidence and willingness to explore new technology.

How are my users accessing the product or service?

It's important to keep in mind that not all users will access your product or service in the same way due to the cost and availability of devices and internet services. These factors are often due to other broader and historical factors in the markets you might be designing for.

Some users might not have reliable or unlimited access to the internet. This might be because the data they have purchased has run out or because their network coverage is inconsistent or sporadic. As a UX designer, you should try to find ways to take the offline experience into account as well. For more examples of ways you can create a rich offline experience for your users, check out the article *Offline UX design guidelines* on web.dev.

Where are my users accessing the product or service?

In some cases, you might be designing a product or service intended for use by people in various locations around the world, which creates some additional considerations, like local languages and cultural norms. Keep in mind that cultures and norms are ever-changing as people integrate and recontextualize technology in their lives, so you'll need to continue to research potential users to identify shifts in user problems, preferences, and usage patterns over time.

Users who speak languages other than the primary language of the product or service you're designing might want or need to switch languages on their device depending on what they're trying to accomplish. For example, a user might want to read in Hindi but type using the English keyboard. Or the user might encounter a concept that cannot be easily translated from one language to another. Designing a multilingual keyboard option, and using universally-recognized icons, like an icon with a local currency sign for a banking app, are just a few key ways UX designers can make it easier for users in different locales.

Key takeaway

Your goal as a UX designer is to solve a user problem by creating a design that makes every user feel like you designed the experience just for them no matter who they are, where they live, how much they earn, what their abilities are, or how highly they're educated. Gaining a comprehensive understanding of your user's context is an important place to start, and you're already on your way.

Common retrospective questions

Every design sprint is an opportunity for your team to learn something new. This is especially useful for entry-level UX designers joining a design sprint for the first time.

During a design sprint, the focus is on:
- Understanding the design challenge
- Ideating solutions
- Deciding which solutions to build
- Prototyping a few solutions
- Testing those prototypes

Immediately following the design sprint, your team should hold a retrospective. A **retrospective** is a collaborative critique of the design sprint. The goal of a retrospective is to make sure everyone who took part in the sprint has the chance to give feedback and think about opportunities for improvement.

The key questions to ask during a retrospective are:
1. What went well?
2. What can be improved?

Answering these questions will help you work better as a team and as an individual. Make sure everyone feels empowered to share their experiences, and that personal identifiers, like race or gender, don't prevent members from being honest. Before the retrospective begins, tell the group that any feedback provided will be used to reflect on the experience and improve the process for the next sprint.

What went well?

Start the retrospective by discussing the parts of the design sprint that were successful and areas where the team did well. Maybe a new process was created that could be applied to future sprints. Or maybe the addition of a new digital tool enhanced the team's productivity. Analyze your team's wins, and think about how they could be applied to future sprints.

Questions you might ask during this part of the retrospective include:

- Which tools saved you the most time and effort?
- When did you feel the most satisfaction?
- What helped you make your best contribution to the team during this sprint?

This is also a good time to acknowledge a team member's strong performance. Celebrating successes builds relationships and increases cohesion and harmony within the team!

What can be improved?

After highlighting everything that went well, it's time to shift gears and think about areas for improvement. Your team will want to know what went wrong, so that you all can do better next time. Encourage everyone to participate in sharing areas for improvement. You might even take turns going around a circle and adding challenges to a shared list. If anyone is nervous about speaking up, invite each person to write their thoughts anonymously on individual sticky notes. Then, all of the improvements can be reviewed together. This eliminates concerns about causing offense and reduces the chance of groupthink. **Groupthink** can occur in a group discussion when one person shares an opinion and everyone immediately agrees with the opinion, instead of sharing their own

feelings about a topic. Groupthink prevents each person from having an equal say, and it might mean certain areas for improvement are overlooked.

Consider each phase of the design sprint to structure the feedback: understand, ideate, decide, prototype, and test. At what point were there missteps? What caused those challenges? Share your perspective if a phase or two didn't go according to plan.

Questions you might ask during this part of the retrospective include:

- What went wrong that caught you off guard?
- Which problems came up the most often?
- When do you think we experienced the biggest challenge as a team?

Then, examine the sprint's outcome or final product, and ask questions like:

- Did the team overestimate or underestimate the work required to complete the design?
- Did an external factor derail your productivity?
- And most importantly, does the final design actually solve the user problem?

Identify ways that the team could have ended up with a better solution.

Keep in mind, retrospectives are about empowering, not shaming. This is not the time to call out an individual for poor performance. If you have issues with a team member's work, it's best to address it with that person privately, not during a team-wide retrospective.

Lessons learned

By the end of the retrospective meeting, your team will have a better understanding of what went well and what could be improved. Naturally, you'll want to take lessons learned into your next design sprint.

Before your next sprint, review the conclusions you reached at the end of the last retrospective. Your conclusions should inform how you conduct the next sprint. Perhaps you need to include a more diverse team, allow more time for ideating, or test with additional users before moving forward with a design.

Questions you might ask include:

- What did you discover during the sprint that you're still wondering about?
- How could the current process be holding the team back from creating better solutions?

Takeaways

Remember: Speak up and share your suggestions for how the next design sprint could be better. Don't be afraid to suggest anything you think will improve the project or next sprint. The only bad suggestion is the one not shared!

Learn more about UX research

There are two key parts to every UX design project: conducting research to learn about the users you're designing for, and gathering feedback about their perspectives. UX design is all about putting the user first, and research helps designers understand those users.

UX research focuses on understanding user behaviors, needs, and motivations through observation and feedback. Your product design should be built upon research and facts, not assumptions. UX research aligns what you, as the designer, *think* the user needs with what the user *actually* needs. Remember the product development life cycle from an earlier course of the program? The **product development life cycle** has five stages — brainstorm, define, design, test, and launch — that take an idea for an app, website, or product to its launch.

Let's check out how research fits into the product development life cycle.
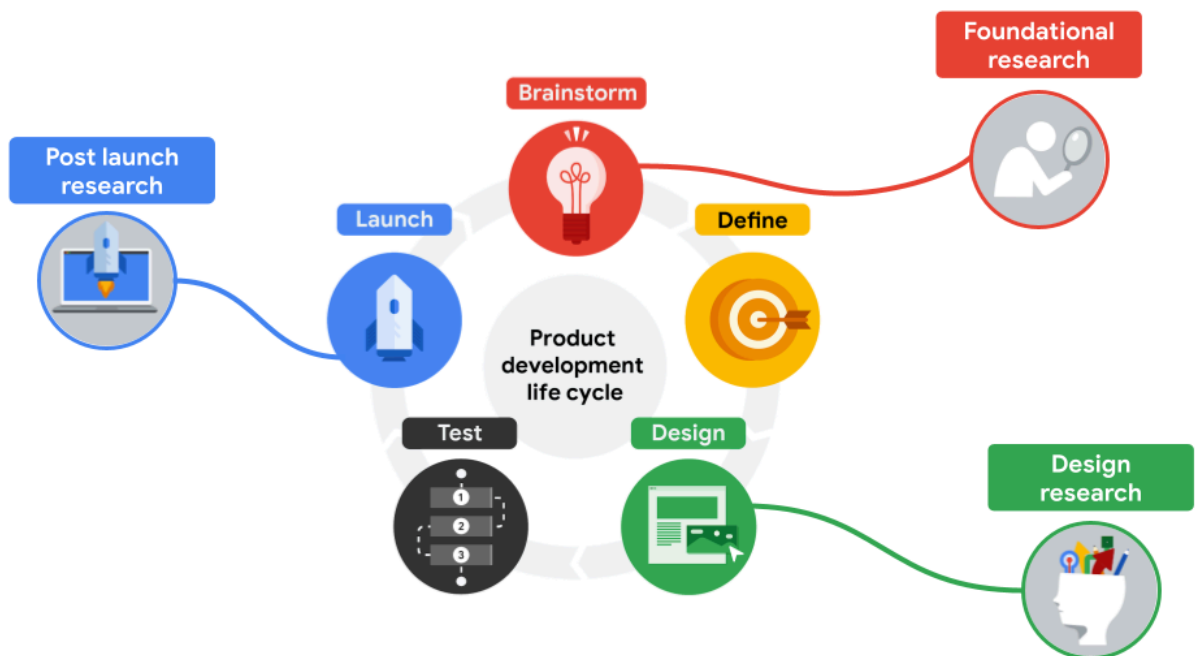
Foundational research

Foundational research is always done *before* you start designing. Within the product development life cycle, foundational research happens during the brainstorm stage (stage one) to help you

empathize with users, understand their needs, and inspire new design directions. During this stage, you will also make personas and user stories, which you'll learn about soon.

In foundational research, your goal is to figure out what the user needs and how to address those needs with your product. Strong foundational research can contradict your personal perspective on what a good solution might be.

Questions you might consider during foundational research include:

- What should we build?
- What are the user's problems?
- How can we solve those problems?
- Am I aware of my own biases, and am I able to filter them as I do research?

There are lots of research methods for conducting foundational research, but many of them are based on observations. Common foundational research methods include:

- **Interviews:** A research method used to collect in-depth information on people's opinions, thoughts, experiences, and feelings. You'll often conduct interviews of your target users themselves.
- **Surveys:** An activity where many people are asked the same questions in order to understand what most people think about a product.
- **Focus groups:** A small group of people whose reactions are studied. For example, your focus group might bring together eight users to discuss their perspectives about new features in your design. A focus group is usually run by a moderator who guides the group on a certain topic of conversation.
- **Competitive audit:** An overview of your competitors' strengths and weaknesses. You'll conduct your own competitive audit later in the course, so you will understand this research method well!
- **Field studies:** Research activities that take place in the user's context or personal environment, rather than in an office or lab.
- **Diary studies:** A research method used to collect qualitative data about user behaviors, activities, and experiences over time. Often, a user will log, or diary, about their daily activities and provide information about their behaviors and needs, which can help inform your designs.

Design research

Design research is done *while* you design. Within the product development lifecycle, design research happens during the design stage (stage three) to help inform your designs, to fit the needs of users, and to reduce risk. Each time you create a new version of your design, new research should be done to evaluate what works well and what needs to be changed.

In design research, your goal is to answer the question: How should we build it?

The amount of design research you conduct will vary depending on where you work and what you're building. The most common method used to conduct design research is a **usability study**, which is a technique to evaluate a product by testing it on users. The goal of usability studies is to identify pain points that the user experiences with your prototypes, so the issues can be fixed before the

product launches. You'll conduct your own usability study in the next course of this certificate program.

Additional research methods that might be used to conduct design research include:

- **A/B testing**: A research method that evaluates and compares two different aspects of a product to discover which of them is most effective. For example, you might have users evaluate two layouts for the homepage of your app to find out which layout is more effective.
- **Cafe or guerrilla studies:** A research method where user feedback is gathered by taking a design or prototype into the public domain and asking passersby for their thoughts. For example, you might sit in a local coffee shop and ask customers if they would be willing to test your app design for a couple of minutes and provide feedback.
- **Card sorting:** A research method that instructs study participants to sort individual labels written on notecards into categories that make sense to them. This type of research is largely used to figure out the information architecture of your project, which we'll discuss in the next course of the program — Course 3: Build Wireframes and Low-Fidelity Designs.
- **Intercepts:** A research method that gathers on-site feedback from users as they engage in the activities being researched. Intercepts are often conducted in the field, so this type of research is often considered a subset of field research. An intercept study can provide quick, high-level feedback.

Post-launch research

Post-launch research is done *after* the design is complete and your product has launched. Within the product development life cycle, post-launch research happens after the launch stage (stage five) to help validate that the product is meeting user needs through established metrics.

In post-launch research, your goal is to answer the question: Did we succeed? This research will tell you how your final product is performing based on established metrics, such as adoption, usage, user satisfaction, and more.

You should use research methods that give insight into what the user thinks of your product and if their experience using your product aligns with how you intended it to function. Research methods you might use to conduct post-launch research include:

- **A/B testing**
- **Usability studies**
- **Surveys**
- **Logs analysis:** A research method used to evaluate recordings of users while they interact with your design, tools, etc.

The key to a user-focused product: Research

Research is crucial to creating a product that satisfies users. As an entry-level designer, it might be tempting to assume what the user needs based on your own experience, but as you know: The user comes first. Always make sure that your opinions are backed up by your research. You should get feedback from your users before, during, and after you design!