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When to Use Context Methods: Field and Diary Studies

Summary: Context methods provide an understanding of users' real-life settings and behaviors. They inform the design of products and services.

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Some [UX-research methods](#) involve asking users to pretend they're in a [realistic but hypothetical](#) situation. For example, in a usability test, participants may be given the task to book a hotel room for an upcoming vacation to Croatia.

Other UX-research methods like interviews, surveys, and focus groups can involve asking people to describe how they did something in the past. For example, in an interview, we might ask a participant to tell us about the last time that they booked a vacation.

While we hope that users will remember important details or behave as if they really were planning a vacation, there might some important contextual information we'd miss out on by using these user research methods alone.

Context studies use a very different approach. They involve **observing users' behaviors in their real-life context**. Participants are not asked to do anything special, except perhaps answer a few questions.

Context methods are user-research methods that involve studying users in their

real-life environments. The goal of context methods is to learn about users'

environments, workflows, tools, [pain points](#), and habits. Three popular context methods are [diary studies](#), [field studies](#), and [contextual inquiry](#).

A note on terminology: we use the phrase **context methods** because all these methods study the users in their context. Some other terms that may be used for these methods (in particular, for field studies and contextual inquiry) are **ethnographic methods** or **field methods**.

Why We Need Context Methods

Context methods ensure that our research has high **ecological validity** (which is similar to [external validity](#)) — in other words, that we have an accurate understanding of how users behave naturally in their real lives.

Field and diary studies are particularly useful during the **discovery phase** of a design project, when we're trying to build up our understanding of our users and find opportunities to improve their experiences. They're also commonly used to [develop customer-journey maps](#).

These methods can uncover:

- Discrepancies between what we *believe* users do and what they actually do
- Differences between what users *say* they do and what they actually do
- Additional tools that users employ while completing tasks or people that they work with
- Common interruptions that occur while users work
- Workarounds that people use when a product or service doesn't perfectly fit what they need
- Habits or routines
- Edge cases

For each of the following sections, let's imagine we're working for a vacation-booking site that allows users to book flights, hotels, rental cars, and tours.

Discrepancies Between Expected and Actual User Behaviors

We often make assumptions about how our users will use our products and services. Those assumptions don't always match reality. Real life can be much messier. Accounting for all real-life situations is impossible, even for experienced and talented designers.

By learning about these discrepancies over time, we develop a deeper understanding of our users, and we can tailor our experiences to fit people's real behaviors.

Example	
Context method	Diary study
Finding	Initially we assumed that vacation planning is completed during one session. But in the study most users completed the planning very slowly over a long time.
Design impact	We implement new features to help visitors quickly pick up where they left off, whenever they return to our vacation-booking site.

Differences Between What Users Say and What they Do

When we ask users about their typical or past behaviors (using [interviews](#) or surveys, for example), they often give us inaccurate information. That can happen for a variety of reasons, but typically is due to innate [human biases](#) and [memory limitations](#).

In addition to observation-based methods like usability testing, [context methods](#) can help us catch these inconsistencies.

Example	
Context method	Diary study
Finding	In a survey, most respondents told us that they always plan their

14/02/2022 16:12

When to Use Context Methods: Field and Diary Studies

	vacations on weekends. However, during a diary study, we noticed that many participants reported doing vacation-planning activities in the evenings on workdays.
Design impact	We take this cadence into account while planning when to run A/B tests .

Additional Tools and People

When we conduct usability testing, we tend to get hyperfocused on our specific product. There isn’t necessarily anything wrong with this approach — it’s necessary when you’re working to discover problems within a specific UI. But without context methods, we might miss out on understanding how people use our product alongside other tools and products.

For example, we might discover that many of our users need to write things down using pen and paper while using a complex app. That might indicate that we’re asking people to store too much information in their [short-term memories](#).

Additionally, in usability testing, we typically test with one person at a time. This may not be reflective of how people complete a task in reality. For example, users might need to discuss things with their partners or get approval from coworkers. People with low tech skills might need help from a tech-savvy family member.

Example	
Context method	Field study
Finding	People typically planned their vacations with one or more other people. They frequently shared options and had discussions about where to stay and what to do while on the trip. This was often done via text or email, but also through offline, in-person discussions.
Design impact	We make it easier to save options to be discussed later. We offer <i>Share</i> buttons. Additionally, we add a voting feature, so that large groups can easily decide on the most popular choice.

Common Interruptions

While participating in a usability test, participants are likely to stay focused on the task at hand. But in the real world, people aren't always able to focus entirely on one task until it's done. They might have to multitask, handle disruptions during the task, or pause their activity to complete a different task first.

Example	
Context method	Field study
Finding	While planning a trip, people often needed to pause during planning to fetch documentation such as passports and resources such as travel guides.
Design impact	We provide a list of necessary documents and encourage people to gather them before beginning their planning, to reduce mid-task interruptions.

Workarounds

Human beings are resourceful. If a design doesn't perfectly match what they need, they'll find ways around it.

Consider the phenomenon of “desire paths” in landscape design — people often trample beautiful grass if they can shorten the route to their destination. ([Flickr has a group](#) dedicated to collecting photos of these desire paths.)



“Desire path” by [Metro Centric](#) (licensed under [CC BY-SA 2.0](#)): People have worn their own (more direct) path through the grass.

User-created workarounds often signal a design failure. We can treat them as opportunities for improvement.

Example	
Context method	Field study
Finding	Vacation planners often pulled up our site in one tab and Google Maps in the other. They flipped back and forth between the two tabs, trying to understand the geography of the city they planned to visit. This process was tedious and inefficient.
Design impact	We decide to highlight local points of interest on a map (airports, landmarks, historical sites, restaurants, bars) to help people

Habits or Routines

Methods like usability testing capture behavioral information about users in relatively short period of time — typically an hour or two. Thus, they aren’t useful for learning about behaviors that take place over a longer period of time (days, weeks, or months).

Context methods (particularly diary studies) can uncover behaviors that users engage in frequently. These often take the form of habits or routines that users don’t think much about and may forget to mention when asked about past behaviors during an interview.

Example	
Context method	Diary study
Finding	While considering an upcoming trip, users often checked flight prices every week, hoping to find a discount.
Design impact	We add a price-alert feature — users can indicate their interest in a specific flight, and then receive updates on its price via email or text.

Edge Cases

It’s impossible to plan for every way in which our users could want to use our product. Context methods can uncover unplanned situations and unexpected user needs.

Example	
Context method	Field study
Finding	A few participants who were planning to go on a trip with their dogs. They needed to determine the pet policies of all their

14/02/2022 16:12

When to Use Context Methods: Field and Diary Studies

	...get. They needed to determine the pet policies of airlines, flights and hotels.
Design impact	We add a special <i>Pet Friendly</i> filter to allow people to quickly see their options when traveling with their pets.

When to Use Which Context Method

The right context method for the job will depend on your research question. First, it’s important to understand what each method entails.

In a **diary study**, participants document their experiences (thoughts, feelings, and behaviors) over a set period (a few days, a few weeks, or longer). The researcher usually provides some prompts in advance or during the study period for participants to answer. Diary-study participants might share photos, videos, or written submissions; and the researcher may follow up with questions about entries during the study period. (It’s also common to have a wrapup interview after the diary-study period is over.)

In a **field study**, participants go about their daily lives in their own environment (e.g., home or office) while researchers observe and document their behavior, as well as the environment. Researchers focus on not interrupting the participant and try to be as much of a “fly on the wall” as possible. A field study can last anywhere from an hour to a day or even longer (although a duration of 1–2 hours is typical).

A **contextual inquiry** is a special type of field study that combines observations and interviews. While traditional field studies emphasize observation without any interruption or interaction with the participant, in contextual inquiries the researchers rely on the interview to augment and validate their understanding of the participant’s behaviors. For example, the researchers might start with a short interview to learn about the participants’ typical day and common tasks, then, as they observe the participant, they may ask clarification questions about what they’ve observed.

The table below highlights some differences between diary studies and ethnographic methods like field studies and contextual inquiry.

	Field studies and contextual inquiries	Diary study
Type of data collected	Mostly behavioral data, with some attitudinal data collected from interview questions	Mostly attitudinal data (often behavior is self-reported)
Location of the researcher	Same as the user's location (in-situ)	Remote
Typical length of study	Hours	Days to weeks
Communication	Synchronous (the researcher communicates with the user during the session)	Mostly asynchronous (the researcher typically receives, reads, and reacts to diary-study entries after the entry is recorded)
Type of contextual data collected	The environment: people, things, and systems the user interacts with to accomplish a goal	Context (time, location, etc.), user actions and reactions associated to the recorded event
Common limitations	Users may alter their behavior because they are being observed	Participants may omit to record all events or details of interest
Research question	How people do specific tasks in their environment	How people use a product over time; how they carry out a longer task

Returning to the vacation-planning example, let's imagine that we're interested in finding out what the end-to-end experience of booking a vacation is like. We might choose a diary study since the task could involve many days or even

weeks of planning activities.

A field study or contextual inquiry may not capture all significant activities and events in the vacation-planning process. During the diary study, recruited participants who are thinking about planning a vacation would keep a log of any vacation-related activities.

If, on the other hand, we were interested in how users purchase vacations using the web, a field study or contextual inquiry would be best. We could ask participants to save their booking tasks until we can observe them, and then, when we are with them in their own environment, we could see their setup (devices, browsers) and strategies (if they work with others, refer to bookmarks, make notes, etc.) for finding the right vacation package.

Summary

Diary studies, field studies, and contextual inquiry are three methods which provide contextual information — information about our users' real-life settings and experiences. Use an observational method (like a field study or contextual inquiry) when you want to learn how users perform a task in their own environment. Use a diary study when you want to learn what the user experience looks like over time.

Further Learning

For more information on these methods, see our [Context Methods study_guide](#).

For in-depth information on context methods and other qualitative methods such as usability testing and interviews, consider our full-day course [Context Methods: Ethnographic User Research](#) or the week-long series on [Qualitative Research](#).

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