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UX-Research Methods Glossary

Attitudinal Methods

A class of research methods that collects self-reported data about users' perceptions and attitudes. Attitudinal data is based on "what users say." Surveys, user interviews, and focus groups are attitudinal methods. Attitudinal methods are often contrasted with behavioral methods, which collect data about user actions and behaviors.

A/B Test (A/B Testing)

An analytics method that involves randomly deploying two different versions of a product to two different user groups in order to identify which works best. The winning version is usually selected based on metrics such as conversion rate or click-through rate. To conduct an A/B test, you will need to install specialized analytics software.

Analytics

A class of research methods that involve collecting real-time usage data for a product. Examples of collected metrics include the number of user visits, the number of clicks on a particular element, percentage of users who took a particular action (e.g., checkout, scroll) on a web page. Analytics research methods are not controlled: the data collected reflects users' behaviors in their natural environment. Using such methods requires that the product is instrumented with analytics software such as Adobe Analytics or Google Analytics.

Behavioral Methods

A class of research methods that collect data reflecting users' actions and behaviors. Unlike attitudinal methods, which are based on "what users say," behavioral methods are based on "what users do." Examples of behavioral methods include usability testing and analytics methods.

Card Sorting

A research method in which study participants group individual labels according to criteria that make sense to them. This method helps designers to group items into categories and create an information architecture of a site or application. Card sorting can be "open" (if the categories are not defined in advance of the study and participants group similar items into clusters) or "closed" (if a predefined set of categories is given to participants and they are asked to assign items to these categories).

Clickstream Analytics

An analytics method that involves analyzing the sequence of pages that users visit as they use a site or application. It can provide insights about potential issues, typical navigation routes, and the content that users interact with right before completing key actions on a site or in an application.

Concept Testing

An attitudinal research method that involves collecting users' thoughts and attitudes about a product idea ("concept") in its incipient stages, usually through a qualitative survey. It is used very early in the discovery phase of the design process to understand whether a specific product idea meets users' needs and expectations.

Context Methods

A class of research methods that involves capturing the context in which users naturally engage in a specific behavior. The context can be captured directly, by observing users in their natural environment (field studies), or indirectly, by asking them to log context details whenever that behavior occurs (diary studies).

Contextual Inquiry

A type of field study in which the researcher watches the user as they naturally perform their task in their normal environment (e.g., home, office) and asks for information to understand how and why the user did what they did. Contextual inquiry is a combination of in-depth observation and interview and aims to gain a robust understanding of work practices and behaviors. Contextual inquiry is typically conducted in the early discovery stages of a project.

Desirability Study

A research method that involves exposing participants to a product and then asking them to select a few words that describe their reaction to that product out of a list of possible options. This type of method can bedone qualitatively or quantitatively, to assess the aesthetic properties of an image and whether they are consistent with a desired brand image.

Diary Study

A research method used to collect self-reported data about user behaviors, activities, and experiences over an extended period that can range from a few days to months. During that period, study participants are asked to keep a diary and log specific information about the activities of interest.

Ethnographic Study

A class of qualitative research methods that involves observing users in their natural habitat. In UX, the term is used as a synonym for "field study." However, in social sciences, ethnographic studies involve immersion in a particular culture or community, to observe the behaviors and rules of that community.

Eyetracking

A behavioral research method that involves tracking users' eye movements as they interact with a product or perform a specific activity, to determine where they focus their attention. Eyetracking studies require special equipment to capture participants' eye movements. Eyetracking data can be used to understand which design elements attract users' attention and which are ignored.

Field Study

A research method that involves observing the users in their natural context. Field studies are a type of context method. Field studies vary in the amount of interaction between the researcher and the participant. Some field studies are purely observational, while others involve active participation from the researcher in the form of interviews or tasks given to the user.

First-Click Test

A behavioral, task-based research method in which participants are given a specific task before they are exposed to a design and then stopped immediately after their first click on the corresponding screen. This test works best when users have a specific goal in mind the first time they encounter the site. The first-click test is similar to the five-second test in that they are both very quick; however, in the first-click test, participants are likely to ignore most page elements that are not directly related to their goal.

Five-Second Test

An attitudinal research method in which a study participant is shown a design for five seconds and then asked to describe what they saw. A five-second test is meant to gather users' first reactions to the aesthetic qualities of a design.

Focus Group

A qualitative, attitudinal research method in which a facilitator conducts a meeting with a group of 6–9 people to discuss their experiences with a product or service. The term "focus" relates to the role of the facilitator, who maintains the group's focus on certain topics during discussions. Focus groups are used in the early discovery stages of product development to gauge users' mental models and expectations.

Formative Method

Any method that focuses on determining which aspects of the design work well or not, and why. Formative evaluations occur throughout a design or redesign and provide information to incrementally improve the interface. Formative methods are often contrasted with summative methods, which are used after a design has been finalized to provide an overall assessment of its usability.

Moderated Usability Testing

The traditional type of usability testing which involves a facilitator (moderator) and a participant interacting synchronously. The facilitator gives participants tasks to do one at a time and may probe with further questions and clarifications; they can also ask the participant to stop when they consider it necessary.

Multivariate Test

A design-optimization method in which multiple variants of specified design elements are tested in a user interface, with the goal of maximizing an analytics metric such as conversion. This method determines which combination of the variants results in the highest-performing design. For example, a multivariate test could be used to determine whether a button should be labeled Place Order or Submit and whether it should be blue or red.

Participatory Design

A research method in which one or several users are invited to offer their own solution to a particular design problem. Participants may be provided with some basic building blocks that they could use to create their designs. The resulting designs are not usually implemented, but rather used to get an understanding of users' needs and expectations

Paper Prototyping

A type of usability testing that is related to the Wizard of Oz method and in which an early-stage design is shown to the participant on paper. The piece of paper schematically represents the prototype of a specific page. The participant indicates to the facilitator which action(s) they would take on that page in order to complete the assigned task. The facilitator (or another person present in the room who plays the role of the computer) then changes the page to reflect the new state of the system. Paper prototyping is a type of prototype testing.

Prototype Testing

A type of usability testing in which the interface being tested is a design prototype rather than a live product. The prototype can be presented to the participant on paper (paper prototyping) or using interactive prototyping software. Prototype testing is used before a design is implemented to identify potential usability issues and fix them, or to explore how alternative design solutions fare with users.

Qualitative Method

A type of research method that aims to collect observational data about users' behaviors and interactions. Such data may identify whether particular aspects of the interface are easy or hard to use. Focus groups and user interviews are examples of qualitative methods. Usability testing can also be qualitative when used to uncover issues in a design.

Qualitative Usability Testing

A type of usability testing that aims to collect observational data about user behaviors and interactions and that is often used to identify problems in an interface. Qualitative usability testing can be moderated or unmoderated.

Quantitative Method

A type of research method that collects metrics such as success, satisfaction, conversion, task time, or number of user visits. Quantitative methods focus on numbers. Examples of quantitative methods include analytics-based methods and quantitative usability testing. In quantitative usability testing, metrics such as task time and success are gathered in order to assess whether particular tasks are easy to perform.

Quantitative Usability Testing

A type of usability testing that collects metrics such as task success, user satisfaction, and time on task to understand whether particular tasks were easy to perform. Quantitative usability testing is usually used to assess the overall experience of a product and make inferences about user behavior in the target user population.

Remote Research Method

Any type of research method that involves a facilitator and one or more participants and in which the participant is in a different location than the facilitator. Usability testing, focus groups, user interviews, and contextual inquiries can be done remotely, with various degrees of success.

Remote Moderated Usability Testing

A type of user testing in which the facilitator and the participant are not in the same room and interact through video-conferencing software.

Retrospective Think-Aloud Protocol

A variation of the think-aloud protocol in which participants are asked to explain their behavior immediately after they interact with a product. In a variation of the protocol, participants may be shown a replay of their interaction and asked to explain out loud what they were thinking when they were doing those actions. Retrospective think-aloud is used in situations where thinking out loud would be too distracting for participants (e.g., during complex activities) or would contaminate data (e.g., in eyetracking or quantitative usability testing).

Summative Method

A research method that focuses on evaluating the user experience of a product, usually by comparing it with that of a competitor or of one of its own prior versions. Quantitative usability testing is usually used as a summative method.

Survey

A research method in which a participant responds to multiple-choice or open-ended questions that are presented to them online, on paper, or by phone. Surveys are an attitudinal research method that collects participants' self-reported perceptions and attitudes. Surveys can be used to collect qualitative or quantitative data.

Task Analysis

A research method that studies how users perform a specific task: their goals, the different steps they take, the order in which they do them, when and where they do it, and what information they need during the task. Task analysis often involves a mix of interviews and context methods such as contextual inquiry, field studies, or diary studies. It is used to inform the design of complex workflows for a product.

Think-Aloud Protocol

The practice of asking a usability-testing participant to "think out loud" as they are interacting with an interface – in other words, to verbalize their actions and thoughts. It is widely used in qualitative usability testing to supplement the behavioral data provided by the participant's actions.

Tree Testing

A task-based research method that evaluates a hierarchical category structure (or tree) by having users find the locations in the tree where specific resources or features can be found. It is an information-architecture method used to assess how well the navigational hierarchy of a site matches users' expectations.

Unmoderated Usability Testing

A type of usability testing in which there is no facilitator (moderator) and in which the tasks are presented to the participant by special software. Unmoderated testing is usually remote, with the participant testing the software at their location of choice, through an Internet connection. However, it is possible to run unmoderated usability tests in person, by having the participant interact by themselves with the interface of interest.

Usability (UX) Benchmarking

A type of summative research method that involves evaluating a product's user experience by comparing its performance against a competitor or a previous version of the same product. Many UX benchmarking studies are quantitative usability-testing studies in which participants perform a set of top tasks; metrics such as task success, task time, and satisfaction are collected and compared across product versions or competitors.

User Interview

A one-on-one attitudinal research method in which an interviewer asks a participant questions about a topic, listens to their responses, and follows up with further questions to learn more details. User interviews can be used by themselves in discoveries to inform the early stages of product design or can be combined with other methods such as contextual inquiry and usability testing.

Usability (User) Testing

A research method in which a researcher (called a "facilitator" or a "moderator") asks a participant to perform tasks, usually using one or more specific user interfaces. While the participant completes each task, the researcher observes the participant's behavior and listens for feedback. Usability testing can be qualitative or quantitative. Qualitative usability testing is used to identify problems in an interface, whereas quantitative usability testing focuses on collecting metrics that help assess the overall user experience of the product.

Wizard of Oz

A moderated research method in which a participant interacts with a prototype manned by a human who controls the system responses. This method is used to test early stages of the design, before investing resources in developing it. It is also used to understand users' expectations, mental models, and vocabularies.