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Published in UX Collective

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How to select appropriate UX Research methods

Know Your Options and When to Use Them.



Photo by [mentatdgt](#)



While you may associate UX Research with usability testing, the field has a



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can decide which methods fit best. While it's easy to fall into a rhythm of using the same tried and true methods, challenge yourself to diversify your approach in order to uncover richer and more robust insights.

Should you use quantitative or qualitative methods?

Quantitative and qualitative methods have different applications, and they each have inherent strengths and weaknesses. Quantitative methods answer “what”, while qualitative methods answer “why” or “how”. Quantitative methods require large sample sizes, offer fixed choices, and border on data science and statistics, while qualitative methods generalize from smaller samples, are more open-ended, and border on psychology and anthropology.

Quantitative research

Common methods

- Surveys with multiple-choice questions and/or Likert scales
- Usage analytics
- A/B testing
- Eye-tracking

Strengths

- Ideal for answering “how many” and “how much” questions.
- Standardized format requires less time to administer and analyze.
- Provide numerical values that can be analyzed statistically.

Limitations

- Measurement tool may be overly narrow and skew results.
- May miss contextual factors.
- Require large numbers of participants (hundreds to thousands).



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- Open-ended interviews, focus groups, or questionnaires
- Ethnographic field studies
- Participatory design exercises
- Usability or concept tests

Strengths

- Ideal to answer “why” and “how to fix a problem” questions.
- Focus on the in-depth experience of the respondent.
- Require small numbers of participants.

Limitations

- Findings may not be generalizable to larger or differing populations.
- Data collection usually takes longer per respondent.
- Results may be tainted by the researcher’s biases, preferences, or goals.

When to use each method

With practice, you’ll become more confident in matching research methods to the problem at hand. Ideally, you’ll employ both qualitative and quantitative methods. A common question is should you conduct quantitative then qualitative research, or qualitative then quantitative research? When approaching new products, features, or problem spaces, it’s usually best to start with in-depth qualitative work and then confirm trends and generalizability with quantitative work. If you’re revisiting or evaluating old work, it’s best to start with quantitative work to understand common trends and issues and then add depth and nuance with qualitative work.

As the table below details, your methods may change based on the product development state. Early stage strategic research may call for qualitative or quantitative methods, while defining and iterating on designs mainly relies on qualitative methods and assessing more finalized designs mainly relies on quantitative work.




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	Product Development Phase		
	Strategize	Execute	Assess
Goal:	Inspire, explore and choose new directions and opportunities	Inform and optimize designs in order to reduce risk and improve usability	Measure product performance against itself or its competition
Approach:	Qualitative and Quantitative	Mainly Qualitative (formative)	Mainly Quantitative (summative)
Typical methods:	Field studies, diary studies, surveys, data mining, or analytics	Card sorting, field studies, participatory design, paper prototype, and usability studies, desirability studies, customer emails	Usability benchmarking, online assessments, surveys, A/B testing

[Nielson Norman Group](#)

Overview of common methods

Nielson Norman Group has a great [article](#) describing various research methods and when to use them. Some of the most common methods include:

- **Ethnographic Field Studies:** researchers meet with and study participants in their natural environment, where they would most likely encounter the product or service.
- **Participatory Design:** participants are given design elements or creative materials in order to construct their ideal experience in a concrete way that expresses what matters to them most and why.
- **Concept Testing:** a researcher shares an approximation of a product or service that captures the key essence in order to determine if it meets the needs of the target audience; usually done one-on-one either in person or online.
- **Card Sorting:** a quantitative or qualitative method that asks users to organize items into groups and assign categories to each group. This method helps create or refine the information architecture of a site by exposing users' mental models.
- **A/B Testing:** a method of scientifically testing different designs on a site by randomly assigning groups of users to interact with each of the different designs and measuring the effect of these assignments on user behavior.



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- **Usability-Lab Studies:** participants are brought into a lab, one-on-one with a researcher, and given a set of scenarios that lead to tasks and usage of specific interest within a product or service.
- **Usability Benchmarking:** tightly scripted usability studies are performed with several participants, using precise and predetermined measures of performance.

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Once you have a clear idea of what you want to learn, you can begin defining your research approach. You'll need to determine if you're asking a quantitative "what" question, a qualitative "why", or a combination of both. From there, you can survey your available research methods and determine which make the most sense.

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