

PROS & CONS OF
QUALITATIVE AND
QUANTITATIVE
**IN USER
EXPERIENCE
RESEARCH**



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PROS & CONS OF QUALITATIVE AND QUANTITATIVE IN USER EXPERIENCE RESEARCH



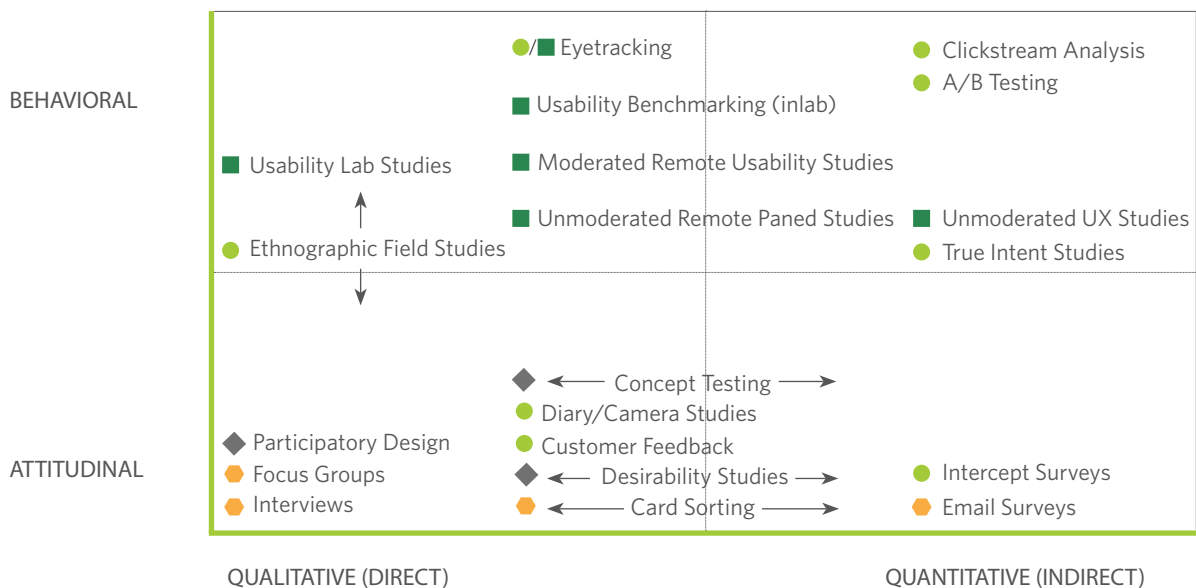
IN USER EXPERIENCE RESEARCH, all methodologies fall on a scale from Qualitative to Quantitative. As you move across this gradient, the usefulness, potential questions answered, and results garnered change categorically. It's important to understand the difference between the types of data, and to know when which type of method is appropriate. In early stages of product development, you might lean on qualitative to do more exploratory work, while once you have an established product, quantitative methods may be more helpful in understanding how most users are interacting with your product. In this white paper, we'll clarify the strengths and weaknesses of each type of research, to help UX researchers make the right decision for their product every time.

KEY FOR CONTEXT OF PRODUCT USE DURING DATA COLLECTION:

- Natural use of product
- Scripted (often lab-based) use of product
- ⬢ De-contextualized / not using product
- ◆ Combination / hybrid

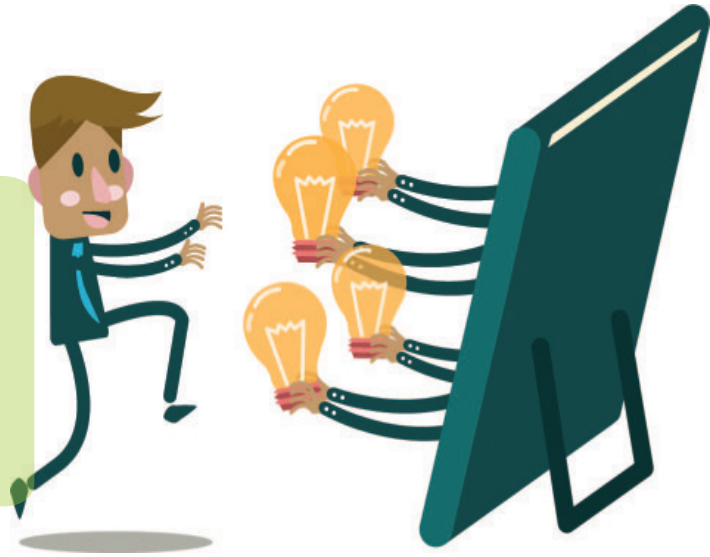
A LANDSCAPE OF USER RESEARCH METHODS

Chart created by ©Christian Rohrer¹



WHAT IS QUALITATIVE RESEARCH?

Qualitative research methods are those that explore broad questions through textual, difficult to encode data such as verbal answers, rather than numerical data. These methods usually rely on smaller numbers of individuals giving detailed, free ranging answers to questions. This provides detail about how users feel about a product, how they interact with it, and why they are having that interaction. Methodologies include things like Usability Lab Studies, Ethnography, Customer Journey Mapping, and Participatory Design.



STRENGTHS OF QUALITATIVE RESEARCH

One, it's **EXPLORATIVE**, which allows it to be used in early stages of product development. Qualitative research can be as simple as bringing people in for a focus group to talk about a potential product. The questions don't need to be fully formed yet, but can be explored in a conversational format, rather than a strict set of questions or answers.

Additionally, qualitative research answers the question **"WHY?"** Simply asking a person whether they prefer prototype A or prototype B will give you that preference, but to understand why this is a preference is a deeper, more detailed type of question. Qualitative research excels at answering these types of questions.

While you are answering the "Why?" type questions, you can also tackle more **BROAD AND MALLEABLE** questions than you can with quantitative research. The ability for a moderator to hold a conversation with an individual opens opportunity to answer tangential questions, or change questions to be more appropriate during a research session. Not needing to hypothesize every possible question in advance, but to have a free-flowing conversation is a major strength of qualitative research.

Qualitative research **CAN ALSO BE RELATIVELY INEXPENSIVE**. You'll need to pay for your participants, of course, and potentially for a space to perform research. However, you don't often need fancy tools to actually perform the research or the analysis.

WEAKNESSES OF QUALITATIVE RESEARCH

Qualitative research **CAN'T BE AUTOMATED**, at least not to the extent that quantitative can. Because the resulting data is difficult to encode to a discrete set of answers, a researcher must manually analyze the data that comes in each time. We'll see more about automating quantitative research later on in this paper.

You also **HAVE LESS STATISTICAL POWER TO YOUR FINDINGS**. Due to the low number of participants involved in most qualitative research, you won't have the sample size to make strong, confident assertions about behavior for the whole population.



WHAT IS QUANTITATIVE RESEARCH?



Quantitative research methods are those that utilize a large number of responses to more static questions, in order to analyze that data statistically. The gathered data is likely to come in percentages or averages, and questions are specific with discrete answer choices. Some methodologies that fall on the quantitative side of the spectrum are Intercept surveys, True Intent studies, and Competitive Benchmark studies.

STRENGTHS OF QUANTITATIVE RESEARCH

Quantitative research excels at answering the questions **"WHAT?"** and **"HOW MANY?"** In a preference question, for example, it's easy to use quantitative research to decide if Prototype A or Prototype B is preferable to an audience, and what percentage of the audience prefers each prototype.

Quantitative research relies heavily on providing **STATISTICAL POWER** to your data, typically through testing the p-value of the results. The large numbers of participants allow you to draw conclusions about a population from a smaller subset, and be relatively confident that your conclusions are sound.

This type of research is also very good when you want **CONCRETE DATA** about a certain aspect of your site/product, without too much exploration. For instance, you might be interested in how many people click on a link on your site when attempting a specific task. Using clickstream analysis, you can see exactly the percentage of users who click on that link.

BENCHMARKING AND TRACKING METRICS are also easy with quantitative research. Finding a baseline for your site or app's performance, and then tracking that over time is a numbers game, and it means you can easily compare your results with other sites/apps or with your past performance.

Higher levels of **AUTOMATION** are available when performing quantitative research. Many online research software companies provide tools for ongoing voice of the customer programs, intercept surveys, or quick feedback that can be run and monitored on a weekly or monthly basis.

WEAKNESSES OF QUANTITATIVE RESEARCH

Can be more **EXPENSIVE**, given the common need for online survey software, statistical analysis software, and depending on methodology, paying for panelists to take your surveys.

In many cases, quantitative data is useless without some **KNOWLEDGE OF STATISTICS**, both to perform the statistical analysis, and to understand and disseminate the results. Working with hundreds or thousands of responses requires a different skillset than understanding ten or twelve people who interacted with an app.

The responses in quantitative are **STATIC** in most cases. Because a researcher isn't typically present with quantitative research - there are too many participants to guide them all individually - confusing answers remain confusing answers, and can't be delved into for more detail.





WHILE READING THESE STRENGTHS AND WEAKNESSES of the different types of research, it may have occurred to you that the strengths of quantitative are the same as the weaknesses of qualitative in many cases. If you thought that, you were right! That's why at Key Lime Interactive we recommend a blending of the research types, either through a hybrid approach incorporating both types of research in one methodology, or to include each type at different stages of the product development cycle. You may want to start with more qualitative methods early in your product life cycle, and as the questions get clearer and measurements more specific, start to include more quantitative methods. The only way to assure coverage of all major research questions is to use multiple methodologies that cover the spectrum from qualitative to quantitative.

¹ <https://www.nngroup.com/articles/which-ux-research-methods/>

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