



World Leaders in Research-Based User Experience

Triangulation: Get Better Research Results by Using Multiple UX Methods

Summary: Diversifying user research methods ensures more reliable, valid results by considering multiple ways of collecting and interpreting data.

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Topics: [Research Methods](#), [Analytics & Metrics](#)

A big hurdle to doing user research is convincing stakeholders that it's necessary. Aside from concerns that it will cost too much (it doesn't have to!) or take too long (it can be quick!), people who haven't experienced the benefits of doing research often raise concerns about how much it will help and whether the results can be trusted.

This last concern is especially common with small studies, where people rightfully point out that the conclusions can't be statistically 'proven.' This argument can be hard to overcome because the truth is: they're right. A small sample size *is* a limitation of many qualitative usability studies. Conversely, a lack of context and meaning is a big limitation of quantitative methods like analyzing analytics data.

All research methods are limited in some way. But the solution to overcoming these limitations is not to throw up our hands and quit doing research. Instead, the best approach is to use multiple research methods, so the limitations of one method are mitigated by data from another source. This approach of applying

multiple research techniques is called **triangulation**. According to the Encyclopedia of Research Design:

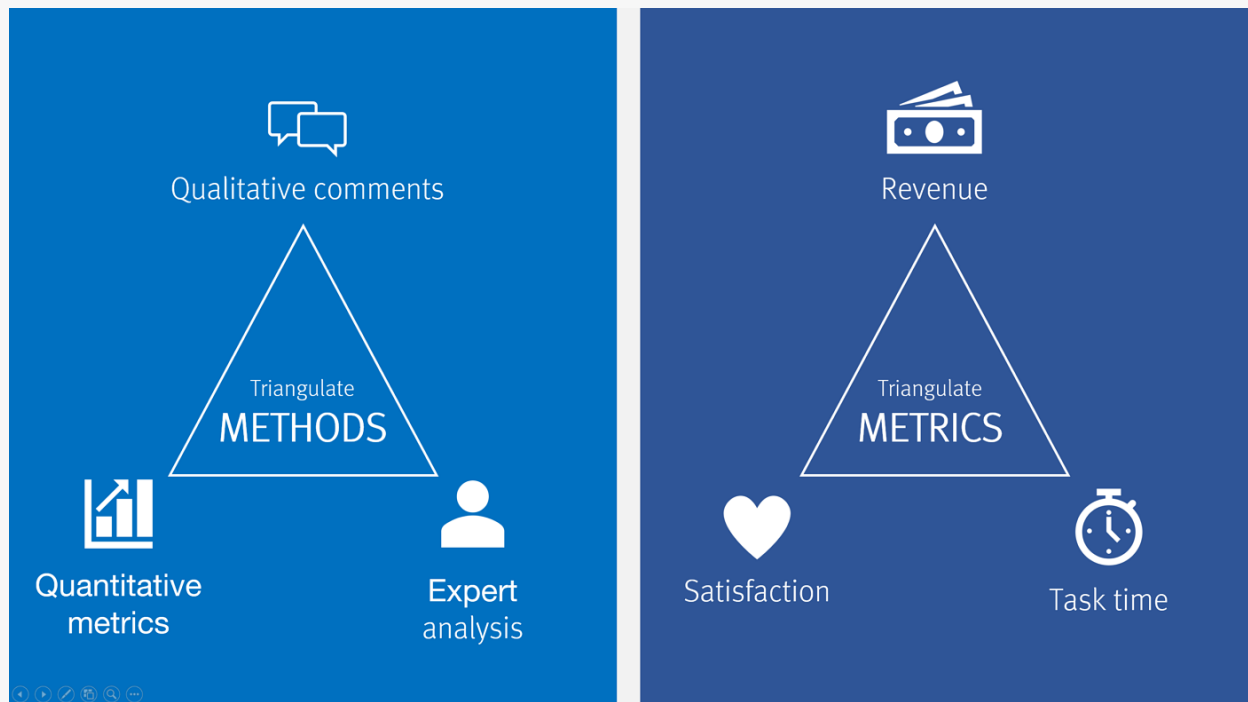
Definition: Triangulation is the practice of using multiple sources of data or multiple approaches to analyzing data, to enhance the credibility of a research study.

The term triangulation is borrowed from geometry, where knowing the precise location of 2 points allows you to determine the distance to another object. In social-science research, triangulation does not necessarily mean you need exactly 2 different methods — it just means seeking out alternative viewpoints or verification of results.

Essentially, triangulation means **looking at a question from a different point of view**, which lets you see part of the answer that wasn't previously apparent. You've probably done this many times in your everyday life — when you asked someone else's opinion about a situation, hoping that a different point of view will reveal something that wasn't obvious to you.

Examples of Triangulation in UX

Triangulation can take many forms. It can be as simple as going to check your existing body of analytics or customer-satisfaction surveys.



Triangulation can take many forms; two examples of how you could triangulate UX research are shown here. Left: Triangulate by using multiple methods to study the same activity, such as quantitative research, qualitative research, and expert review. Right: Triangulate by analyzing several different metrics related to the same activity, such as satisfaction ratings, time spent, and revenue volume.

Some examples of research triangulation are:

- Satisfaction metrics decline → you check revenue and time spent to see if they also changed
- A quantitative usability test indicates low subscription-form success rates → you do a qualitative study to understand what features are problematic
- Sales team reports that users think the software is hard to use → you do a usability study to observe problems.
- Analytics data indicate a feature has high error rates → you check customer-support records to determine if problems are reported with this feature.
- Interviews suggest a surprising purchase motivation → you do a survey to assess the frequency of that motivation.
- One researcher notes several themes in interview transcripts → another researcher does a separate theme analysis to check if she finds the same themes

When Should You Triangulate?

The more significant the decision, the more it pays to triangulate before making it. In fact, eventually you're going to get another source of data whether you seek it out or not — it will be data from the market success of your product once you've implemented your design. Of course, at that point, it will be harder and more expensive to adjust your product.

Triangulating in advance means you'll be less likely to be surprised by unexpected reactions from your real users.

The question should not be 'how much time can we spend on research' but rather 'how much risk of problems or failure are we willing to accept?'

Expensive choices, like redesigning a whole product, warrant robust triangulation with a mix of qualitative and quantitative data collection and analysis, as well as an external, independent analysis.

Simple, easily reversible decisions don't need so much investment. But experienced teams know that seeing whether other available data supports the favored approach is well worth at least a few hours.

Triangulation is much easier if you have a diverse and flexible skill set on your UX team. You need experience with a range of different methods in order to implement them quickly enough to be useful without slowing the pace of decision making and development. Ultimately, this diversity of skills is an important step towards having a mature UX practice that can rapidly deliver valuable and reliable insights.

Reference

Neili J. Salkind (ed). 2010. *Encyclopedia of Research Design*. Sage Publications. DOI: 10.4135/9781412961288.n469.

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