

## Online Technology starts to revolutionise Questionnaire Design

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What is a questionnaire? Fundamentally this is a tool designed to listen to respondents in order to test a hypothesis - or a number of hypotheses - and in turn the conclusions are designed to help people make confident decisions.

A questionnaire is a meeting place of three stakeholders. There's the client who wants answers that will help them make the decisions they need to make. Then there's the researcher, who wants sufficient information (sufficient in quantity and quality and format) to analyse the results and deliver the necessary conclusions to the client. Respondents make up the third stakeholder group, and they are no less important in the process. They are generally happy to share their opinion, though they need satisfying that the questions are relevant, fair and enable them to express their real opinions without being boxed into un-representative choices. They also want brevity in inverse proportion to their level of engagement with the subject matter.

A questionnaire is a three-way head-on collision between different stakeholders with different needs. The analyst wants more data. The respondent wants a shorter experience. The client might add their own different complications to the agenda. Things always get compromised as a result, and few questionnaire writers ever feel that their latest questionnaire is perfect. It may feel too long, or later in the analysis stage we wish – darn it – that we'd asked a question about the x factor. We create thoughtful multi-choice questions and we still get respondents complaining that we didn't quite give them **THEIR** option. At the same time we waver between asking numeric quant questions, or throwing things open to open-enders. Both have their advantages.

Now I say this as a matter of contextualising the questionnaire design process. The researcher is stage managing a three-way collision of needs and processes.

Over the years, questionnaire writing has become somewhat standardised. We have well-tested tools we can put into play – semantic scales, Likert scales, and standard questions. So a traditional paper or CATI survey written by you or me will end up looking remarkably similar. We'll both cover off the demographic questions to describe the respondent. We'll try out similar batteries of questions to rate aspects of the client's product. Out of 5, how important were the following to you?

The tradition of questionnaire writing has, over time, become very top down. It starts with the basic things we must cover, (for example demographics, user profile, brand repertoire etc) and then begin testing the various hypotheses we need to test.

To use an illustration, an airline might give me a questionnaire that asks me to describe myself (male, 50+, New Zealander, flying long haul) and then ask me to describe the plane I'm on, and the flight number and which class I'm flying (hey, that's me down the back) and then proceed to test dozens of hypotheses about why I might be enjoying or not enjoying my flight, and why I might prefer or not prefer the airline. In fact airline surveys are usually lengthy, and even on a long haul flight where there's nothing much better to do, there always feels like something better to do.

That's because the questionnaire is top down. You're asking me what YOU think is important, and not asking me as the passenger what I think is important.

With a paper survey there's not much we can do about it. As a questionnaire writer I've got to cover off many possible hypotheses because they just MIGHT be significant. So I ask you about the seats, and the carpet, and the meals, and the coffee and the inflight entertainment and whether the flight left on time and whether the flight crew smiled etc etc.

On-line technology changes things. Just as online technology has flipped shopping on its head (top-down book retailing, based as it is on blockbusters) has been giving way to the bottom-up, consumer driven Amazon experience. I don't even have to walk past all those Dan Browns to find the research books I'm looking for. In travel booking the same thing has happened. My next flight to Cambodia is being booked my way, using the detours and connections of my choice. I don't have to wait for a travel clerk to make a suggestion. (No, Miss, I do NOT want to have the Singapore Overnight Free Upgrade plan, thanks.)

With online surveys this same empowerment is being engineered into questionnaire design.

- RELEVANT SKIPS AND BRANCHES ARE MUCH EASIER. If I didn't have an inflight meal, then I miss all the questions about the freshness, flavour, portion size etc. If I had the vegetarian meal, then I only get asked the Vegetarian questions. Cool.
- SORTING EXERCISES AND OTHER INTUITIVE TOOLS. Some online providers (I use Buzz Channel) enable drag and drop sorting exercises where respondents are able to drag various words, pictures, ideas or brands into one another of a range of buckets. These are intuitive for the respondent, and they enable us to leave irrelevant pictures/concepts/words unsorted: parked to the side. Slider scales, sorting exercises, ranking ladders – these are now widely used, and enable the respondent to work 'their way' instead of converting all their feelings into our language, which is mostly numbers.
- SMART LOGIC. My provider has just launched an upgrade which enables us to build skips and branches based on open ends. So if I asked you an opening question: "Welcome to our flight – please tell me, what are three things you feel the airline has done right to make your experience more enjoyable?" and you wrote an open ender and mentioned the coffee, well the smart logic technology sees that word "coffee" and takes you to another question. "So we can keep improving: what, for you, makes a truly enjoyable cup of coffee?"

In isolation these technologies are cool and fun, and make our lives either more easy or more interesting – and sometimes both. But if the medium is the message, as McLuhan put it, then I think something much bigger is going on. The technologies are totally reshaping the nature of the three way collision – turning what used to be a crash into something more like a gentle merge.

For a start, the technologies enable us to ask individuals only about the things that are relevant to them. If nobody mentions the coffee then we know it isn't turning people on or off. If everybody mentions the coffee then we know we've got a very important deliverable and we've got text that tells us what people really feel defines great coffee. I bet we could do a segmentation based on that.

The increasingly intuitive nature of online surveys gives us new ways of testing hypotheses. I used to avoid ranking questions, if possible, because they always seem to confuse people. (No, sir, only one

of the variables can be awarded a “1.”) The ladders, which allow people to drag their “most important” things to the top are just way easier to understand. Ranking questions and sorting exercises allow us to use different types of scales that reflect the way people evaluate things (in sorting exercises I almost always add a *Bin of Shame* among the options,) and collect data that paper or CATI surveys didn’t quite allow.

The longer-term impact is clear. With questionnaires becoming more respondent driven, and our spreadsheets showing great empty patches due to the skips and branches, we’ll need to move analytically from the classic “mean score” and “cross-tab” approach, and start taking a more narrative style of analysis where we follow groups of people in various rivers of experience. Look at this: the people who mentioned the coffee mostly skipped the meal. And the people who rented the headsets then watched the movie and basically loved the flight from that point on.

This kind of analysis may require Bayesian modelling, or Latent Class Segmentation, and will require a lot more intensive interaction between the researcher and the data. You won’t get away with a pile of crosstabs because now you’ll be talking about experiences – stories – rather than treating each variable in isolation.

In old surveys, each cell in a spreadsheet is a granular piece of information. In new generation surveys, each cell in a spreadsheet is part of a branch – a series of cells that together make up a narrative.

New surveys will be more dependent on open-enders, so text analysis will become more central to the daily work-life of the research analyst. Aren’t words more communicative than numbers?

What are questionnaires? They are a medium in which we listen to respondents in order to test hypotheses and deliver answers to our clients. New generation questionnaires re-engineer the way we go about things. Personally I can see no downside to a trend that they help create: a trend toward listening harder and deeper not just to opinions, but also to whole stories.