

'To game or not to game: an investigation of the impact of survey visualisation and gamification' - MRS 'Methodology in context', London, 26 November 2015

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The MRS Methodology in Context conference was designed to examine the genesis, practice and implications of methodologies that generate valuable consumer and citizen insight. This presentation describes a unique experiment on the impact of visualisation and gamification on a global survey about a low-engagement topic. There are real concerns about the representativeness of survey participants who are recruited from online panels and gamification is a potential method of transforming and revitalising the survey experience. This article explores why, when compelling evidence for the impact of more engaging surveys exists, the average survey has changed little in the past seven years.

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The issue

In recent years, there has been a lot of attention paid in our industry to the need to engage online research participants, in order to address declining response rates and the risk of poor quality data. The number of people available through online panels has plateaued, and we are seeing cooperation and completion rates plummet. This raises real concerns about the representativeness of survey participants who are recruited from online panels. The implication is bad data for clients, and there is no doubt that the reputation of online surveys is in decline.

Gamification as a method of transforming the survey experience is not a new idea. There are companies that, with deserved success, specialise in gaming approaches, but it's fair to say that this remains something of a niche area. All the big panel companies we work with tell us that nine out of ten surveys they send out are not optimised for engagement, with the survey experience worlds apart from people's more typical experience online. And surveys sent out to clients' own customers are arguably worse, as many are scripted by non-

researchers.

Figure 1, from an experiment carried out by GMI and Engage Research, shows the drastic impact on survey completion rates of different levels of interaction in a survey.

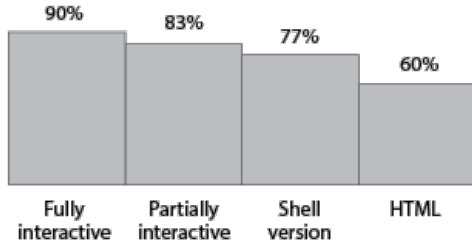


Figure 1 Average completion rates

This was published in 2008 and many similar experiments have followed. With such compelling evidence for the impact of more engaging surveys, why has the average survey changed so little in seven years?

I explore this important question in the conclusion to this paper – however, survey context is important. There are some types of survey where there has been less focus on engagement thus far, specifically:

- B2B surveys
- surveys in developing markets
- accurate behavioural data rather than brand perceptions (which by their nature are less tangible).

To explore whether these represent true barriers to more engaging surveys, we experimented with a survey that is partly B2B, global in nature, and whose main objective is to provide detailed behavioural information. In addition, we believe this survey provides a particular challenge as the topic – purchase and usage of printer ink – is of little intrinsic interest to consumers and businesses.

Our experiment

Our experiment consisted, in summary, of an attempt to make an existing global tracking survey about printer ink, which has been in place for many years, more engaging, and to measure the impact on both the data collected and the respondent experience. The key features were:

- carried out in three markets – UK, US and India
- sample consisted of both consumers and businesses
- three matched sample cells, with 100 interviews per cell per market.

The **baseline cell** was based on the existing survey with questions presented conventionally. The **visualised version** had each question presented in a clear and engaging manner, using visuals as much as possible, and with some other features such as time limits on answers. Figure 2 shows an example of the same question presented in a baseline and visualised way.

Thinking about technology products, which of the following do you or a family member own and use at home?
Please select all that apply.

<input type="checkbox"/>	Desktop computer
<input type="checkbox"/>	Notebook or laptop computer
<input type="checkbox"/>	Netbook or mini-notebook (defined as a portable computer, with a 7" to 11" screen and smaller keyboard than traditional laptop computers). Examples include Asus Eee PC, Acer Aspire One and HP Mini 1000)
<input type="checkbox"/>	Tablet computers or PCs (such as iPad or Samsung Galaxy Tab)
<input type="checkbox"/>	Standard mobile phone
<input type="checkbox"/>	Smartphone (such as an iPhone, Blackberry, Android phone etc.)
<input type="checkbox"/>	A printer. Please include any multi-function (combined printer, copier, and scanner) devices and any stand-alone devices for printing photos from digital cameras.
<input type="checkbox"/>	Wireless network
<input type="checkbox"/>	High speed or broadband internet access (e.g. ISDN, ADSL, T1).
<input type="checkbox"/>	Other internet access (e.g. dial-up over a conventional telephone line)
<input type="checkbox"/>	None of the above

Which of the following are used at home and owned by you or a family member?
Please select all that apply.














 Desktop computer	 Notebook or laptop computer	 Netbook or mini-notebook	 Tablet computers or PCs	 Standard mobile phone	 Smartphone
 Printer	 Wireless network	 High speed or broadband internet access	 Other internet access	 None of the above	

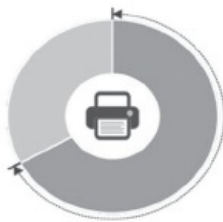
Figure 2 Example of same question presented in a baseline and a visualised way

The **gamified** survey was the same as the visualised version, but with some additional quiz-type questions dropped in. An example is shown here as Figure 3.

Do you think most owners are happy with their ink cartridge?


Yes


No



67% of people who took part in a similar survey felt happy about their ink cartridges!

Figure 3 Example of gamified survey questions

Better quality data

Throughout the research we found that our visualised surveys gave us higher levels of participant cooperation, and hence better quality data than the baseline.

For example, we needed to know what model of printer people own. Most people would have to go and look for this information; by making this a timed task and challenging them to do it as quickly as possible, we got more valid answers rather than 'don't know' responses.

We also needed to know how many cartridges of different types had been bought; and, by using a more visual approach with an incremental counter, we got much fewer ‘don’t knows’ than with a conventional question.

Figure 4 shows an example of the impact on rating scales. We changed from a grid-type question to a sliding scale – the expression on the little yellow face changes as you drag it. As a result we got a higher standard deviation; in other words, participants were using the rating scale more fully, giving us better accuracy and more sensitive data.

How satisfied are you with the performance of the [redacted] e.g. in terms of speed to first print, print speed in pages printed per minute?

Please rate your satisfaction using the 10 point scale where 1 is not at all satisfied and 10 is completely satisfied.

Not at all satisfied	1	2	3	4	5	6	7	8	9	Completely satisfied	10
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the reliability of your [redacted] ? By reliability we mean that the printer works every time you send something to print.

Please drag the handle to the appropriate position




Figure 4 Example of the impact on rating scales

Open-ends also gave us more in some markets. Here is a typical answer from the baseline survey in the UK explaining the satisfaction score given:

‘Has never let me down, so easy to use.’

And here is a typical answer from the gamified survey, giving us much more detailed insight:

‘It doesn’t use a lot of ink compared to my other printer. Prints about the same speed but doesn’t take as long to process the print job so starts faster than my other printer.’

There’s also evidence of more honest answers. In India, getting ink cartridges refilled rather than buying them new is widespread, but people know it’s not what they are supposed to do. A more engaging survey led to higher admission of that behaviour (24% cf. 6% in the baseline survey).

The examples shown so far illustrate the benefits of visualisation, but there were also instances of gamification having even more impact. For example, gamification led to a higher use across the whole scale in attitude batteries. Visualisation alone doesn’t have much impact on scale usage, but when the survey is also gamified we get more thoughtful responses.

Better respondent experience

More engaging surveys don’t just give us better data, they also lead to a better experience for the respondent. In

our experiment, at the end of the interview we asked respondents a few questions about their experience. On the metric of how much they enjoyed the survey we got higher scores for the visualised survey, and even higher from the gamified version (Figure 5).

	Baseline	Visualised	Gamified
How much enjoyed filling in questionnaire (out of 10)	8.32	8.59	8.7

Figure 5 Survey enjoyment ratings

Respondents were invited to comment on their answers and some typical comments follow. In all three markets, and for both the visualised and gamified versions, respondents commented on how different this was from their typical experience.

‘I liked this survey a lot: I liked all the little pictures and scales. It was very new and different than any other survey I’ve taken.’

‘I liked the facts thrown in. Some questionnaires can be tedious but this was quite fun!’

‘It was very enjoyable and interactive. Use of images indeed helped me understand the questions better.’

And it’s not just overall enjoyment: we got better scores on ease of understanding the questions, and the variety of question types was appreciated, especially within the gamified version. Gamification can even make a longer survey acceptable. In the UK, the gamified survey took longer than the other versions but there was no impact on the overall rating of survey length – and in fact the proportion who were unhappy with the length was lower for the gamified version.

Data continuity

One type of survey that is particularly resistant to being made more engaging is the tracker, because of concerns that the data collected won’t be comparable. The survey that formed the basis of this experiment is a tracker, and accurate data are essential as huge investment decisions are made on the back of them.

In this case, other than encouraging more honest answers as we noted earlier, the key behavioural measures did *not* vary across the three surveys as the example in Figure 6 shows.

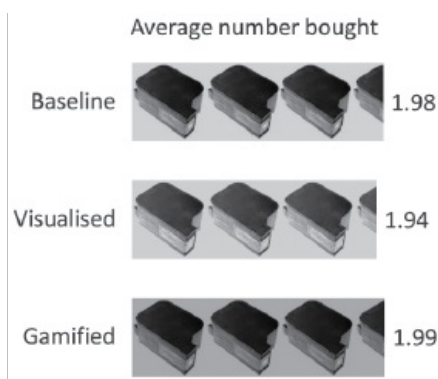


Figure 6 Key behavioural measures

Market differences

The impact of both visualisation and gamification was seen across all three markets, however we found less impact from visualisation and from gamification in India than in the other two markets. We’d put this down at

least partly to less burnout from taking more surveys. The participants in India had a lower tenure on the panel, and also had done far fewer surveys so had had less of an opportunity to become fatigued by unengaging surveys.

We saw slightly more of an impact, particularly of gamification, in the UK rather than the US. This is a bit harder to explain given that both sets of participants were equally experienced. Perhaps here in the UK we have a more light-hearted culture, or perhaps there was something a bit more British in style about the survey wording and quiz questions.

Conclusions

There's no doubt that survey visualisation, with all the other simple tricks, gives us better data and our participants a better experience. This experiment supports a huge body of evidence of that, and shows that it is equally valid for all types of survey. So what's preventing these principles being adopted more widely?

One influence is that we have got out of the habit of putting ourselves in our respondents' shoes. We must stop believing that everyone is as interested in our category as we are, and will happily spend 20 minutes or more filling out a lot of grey grids on the topic.

Furthermore, the research industry has been its own worst enemy in recent years. We have taught our clients that online research is cheap and quick, and in the search for ever cheaper, ever quicker, we've lost the ability to really think about what we are doing. Fortunately, however, if we really get behind this new approach there's no reason why it should cost a lot more, or take much longer than a standard survey.

When it comes to trackers we can't dismiss the continuity issue completely, however that's not sufficient reason to continue with bad practice. Nothing in business lasts for ever. Over time, many trackers migrated from face-to-face interviewing to telephone, and then from telephone to online. In the same way, trackers should change from boring to engaging survey design – calibration is always an option for those for whom continuity is fundamental.

It's fair to say that, from this particular experiment, the case for gamification is less obvious. However, gamification can be taken a lot further than we did in this case – we might describe our approach as the gamification 'lite' version. A fully gamified survey can be made more integral to the survey theme, with gaming rewards being linked to full and thoughtful answers, and there's plenty of evidence that this can be highly impactful.

We've seen that gamification impacts more on enjoyment and engagement in more 'burnt out' markets and, we suspect, in over-researched categories. Engagement will certainly become more important the more surveys people take, and there is a growing need to be ever more creative rather than relying on visualisation alone. The need for gamification can only increase.

There's a hint from our experiment that we might need to tailor gamification to different cultures, one indication that it's trickier to do. So gamification faces the same barriers as visualisation, but in addition we are only just starting to understand how best to go about it, and exactly what will and will not work in different situations. It's important to keep on experimenting and not to forget that very useful tool that's too much overlooked these days: the pilot survey.

In the meantime we've made a step-change to the way we carry out online research. Visualised and engaging surveys are the norm for us, not an additional option. We've also made all of our surveys method-neutral so that they will work on any type of device. Finally, we're recognising that, even with better surveys, we need to be respectful of respondents' time, so we are making every effort to ensure that each survey is not a minute longer

than it needs to be.

We urge all those involved in carrying out or using online research to do the same – for the sake of our industry as well as themselves.

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