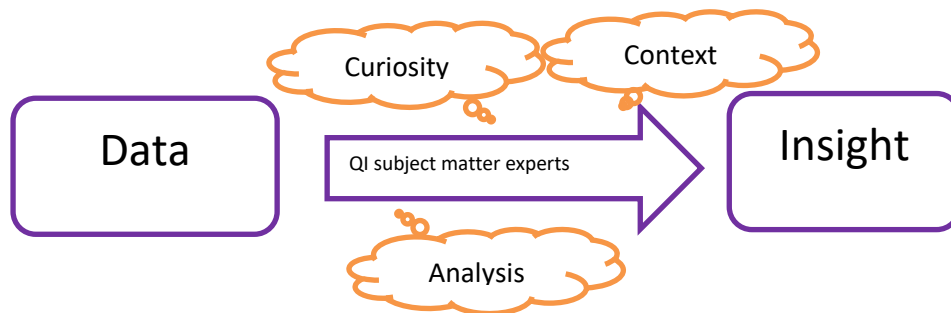


Turning Data into Knowledge

By Heather Hurst

One of the key quotes that we often repeat is that “without data, you’re just another person with an opinion”. This was said by W. Edwards Deming, who is very much one of the founders and ‘godfathers’ of QI. This quote beautifully illustrates the importance of using data to measure if the changes we are making, are in fact making the impact we want them to.

However there is an important follow on to this point. Which is that without information you’re just another person with a lot of data. The information is there to serve a purpose, which is to convey the story *behind* the data. Data analysis is the art and science of extracting insight from numbers. Hiding within the data is a piece of knowledge that can help a project turn an important corner.



So there are some key points to be kept in mind with reading any data, but a run chart especially.

- 1) It's important to separate out what is random and non-random variation. Remember, until a run chart signal emerges you are just looking at data that reflects the normal ebb and flow.
- 2) Don't react to a comparison between one data point to the one next to it. Again, this is just the normal ebb and flow and doesn't illuminate anything.
- 3) The only time you should react to one data point is if it's an astronomical data point, in which case one of the 4 run chart signals has been met.

Of course it's very easy to say that you should only react when you see a run chart signal emerge. We have all become so used to reacting every time a bar chart goes up and down. To use data in this way means we have to sit on our hands to see if a story emerges from the mist. You have to hold your nerve and resist the urge to report that “this is the third time we have seen an increase in....”. At this point you just need to calmly say “The data continues to show random variation”, and then wait.

Of course when a run chart signal is then met you can really celebrate (or commiserate if it's the wrong way), because you know that there is something real and meaningful behind that. You know that something fundamental has happened to bring about a movement in the data that *cannot* just be random. This is when you bring in your curiosity, context and analytic skills to tease out what has happened. You apply your knowledge of all the things that was taking place at that time to develop insight and understanding. You now know if the changes you have made have all been worth it, because you can see it. You're not just another person with an opinion.



(If you need a reminder about the run chart rules please check out our resources on connect, contact us for advice or come along to our measurement masterclass).