

On increasing the power of presentations (p cubed)

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$$p^3 \text{ presentations}$$

$$p^3 = p1 \text{ (story)} \times p2 \text{ (supportive media)} \times p3 \text{ (delivery)}$$

In Medicine we believe our practice is evidence based and effectual. We review our results, keep abreast of the literature and make changes as knowledge evolves. Most presenters believe the same for their presentations. The majority of presentations directly contradict well established psychological principles, aspire to a level around them only of mediocrity and are almost uniformly ineffectual. Worse than this, we instruct our colleagues to present in the same way.

A presentation is made up of three parts; The first, p1 is the facts, data, information, teaching or message that the presenter intends for the audience to receive, the “story”. The second, p2 is the slide set constructed as supportive media for the p1 and shown, as the third, p3, is delivered on the day. Together, these three parts make up the whole, the presentation. The value of the whole may be seen mathematically as the product of the three, (p cubed) each factor contributing to the overall result.

The routine presentation is constructed by a speaker entering their p1 directly into the presentation software. At the event this supportive media p2 forms the script that is delivered p3, often verbatim, to the audience. Using a simple mathematical formula, it can be seen that $p1=p2=p3$ and thus the value of the presentation, $p \text{ cubed} = p2$. The slide set is the presentation. This is evidenced frequently by the request, “could you send me your presentation?” Effectively, the p2 encapsulates the whole of the presentation and the speaker is redundant.

Psychological research details the many flaws in such presentations. Kosslyn¹ identified 93 individual

psychological principles that the average presentation breaks. Some are complex but the most obvious and intrinsic is that if there is text on a screen, the audience will read the text. This will be in preference to listening and in advance of the speaker reaching the same point in the text. It is very hard to read and listen at the same time if the two inputs are discordant. Many would struggle to read, listen and write at the same time. Ultimately, it is impossible to read, listen, write and think contemporaneously with different inputs. This is cognitive overload.

Visual and auditory inputs are processed in different parts of the cortex. Prioritising one input is at the expense of another. Our brains function best with a single linguistic and logical input. A simple example is seeking silence when trying to study or concentrate. The ubiquitous presentation fails because of multiple competing inputs causing cognitive overload. Simple studies have been carried out comparing data retention of students receiving identical auditory input but comparing annotative (standard) and illustrative p2. The standard, text based presentation fails. The illustrative p2 is vastly superior allowing an audience to focus on the spoken message and giving space for cognition. This results in much greater understanding and ultimately data retention.

For the majority of presenters, changing from an annotative to an illustrative p2 is not simply about style. Most presenters use p2 as a script (or prompt) and without it they would be unable to deliver their p1. Occasionally forced by failures of technology, a speaker will be forced into giving a presentation without their script. The p1 delivered is dramatically

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different. Rather than reciting a list of facts, the presenter may give a simpler message or facilitate discussion or challenging the audience to consider a facet of the topic proposed. The perceived value of such an ad hoc presentation is frequently much greater than that which would be expected from the standard, text based version. This is due to multiple factors, not least the vulnerability and availability of the speaker, but demonstrates that the audience needs are not simply a data download.

The key to improving presentations is to fundamentally reconsider their construction. Rather than “covering” a topic, a more specific understanding of the audience needs should be undertaken. The efficacy of a data download in p1 is minimal. Engagement with a message, a call to arms, a challenge to reconsider or explanation of complexity is of greater value and longevity. The precise p1 should

be derived from the specific audience needs rather than a desire to deliver lists of facts. The supportive media p2 can then be designed to facilitate greater understanding: its purpose is illustrative. Delivery of such a reconstructed presentation will naturally be different. The mathematical product of this change must be an improvement on the standard approach as the p cubed value of the presentation is now greater than the value of the original text based p2 alone.

Is such investment worthy of time and effort? What value presentations? The current technique fails. The opportunity to speak is a privilege, audiences are grateful of investment in time and effort and the wisdom and insight presenters have to offer is worthy of all of that and much more. Embracing change in the nature of construction and delivery of presentations will increase the power of presentations.

Reference

1. Kosslyn SM, Kievit RA, Russell AG, Shephard JM. PowerPoint(®) Presentation Flaws and Failures: A Psychological Analysis. *Front Psychol*. 2012 Jul 17;3:230.