A brief assessment of Michael Alley's ideas regarding the design of PowerPoint slides[1]

David K. Farkas
University of Washington
March 1, 2010
farkas@u.washington.edu
http://faculty.washington.edu/farkas

1. Michael Alley's arguments and empirical evidence are problematical

Researchers naturally seek to present their ideas persuasively. However, I believe that Michael Alley is more of a partisan and polemicist than a fair-minded researcher. Both his arguments and his experiments seem unreasonably biased toward his design ideas. One aspect of this problem is that he very often contrasts his designs to particularly bad instances of standard designs. Consider this example of a standard slide:

Synthesizing Diamonds

- How would we feel about the uniqueness of diamonds if it was possible to make one in a laboratory, just like the real thing?
- Science has finally found a way to replicate in a few days something that nature has taken millions of years to produce - diamonds. These synthetic diamonds are so close to the real thing, that they have the same atomic structure as natural diamonds. Even the most sophisticated machines are finding it hard to tell the difference. More importantly, these diamonds can be made and sold at a profit.
- History of diamond synthesis:
  - late 19th century
  - 1950s: GE and Swedish Team
  - "New Alchemists": Russia
- De Beers working to develop ever-more sophisticated detection equipment, trying to identify the synthetics vs. real diamonds

(From Garner, Alley, Gaudelli, and Zappe, 2009)

The first two bullet points are extremely verbose; the third bullet point is overly condensed.

At times Alley glancingly justifies this habit. His rationale is that PowerPoint *encourages* these bad designs or that many presenters are unsophisticated and are apt to create such slides. These are both

---

reasonable assertions, but to conduct a valid experiment Alley should compare his design with competently designed standard slides. A further point: especially given the poor quality of the control slides used in Alley's experiments, his findings, while statistically significant, are surprisingly modest.

2.   Alley does not pay enough attention to the role of the speaker

Alley (along with Atkinson and Tufte) does not focus sufficiently on the speaker. For long stretches of Alley's writing one would think that he was discussing standalone slide decks. Presentation slides exist to support a speaker, and the role of slide content—in particular slide text—is to display the super-structure of the speaker's ideas. Alley's main argument for sentence-style slide titles (which Alley calls "headings") becomes much weaker when we remember that while a phrase-style slide title may not convey the main idea of the slide, the speaker can and should. In fact, good speakers may *prefer* to convey the slide's central idea orally rather than have the audience read it. Because Alley largely ignores the role of the speaker, his extensive arguments about cognitive load and dual encoding (Garner, Alley, Gaudelli, and Zappe, 2009) are largely irrelevant. How can you meaningfully talk about the comprehension of slides in an oral presentation when you leave out the speaker?

3.   There is a good case for sentence-style slide titles

Despite my dissatisfaction with Alley's sweeping and poorly supported claims, I do believe that there is a good case for sentence-style slide titles. Slide titles phrased as sentences (or phrases that make an assertion) *do* focus the audience's attention on one idea. Furthermore, audiences are likely to better remember a statement presented as a slide title than as a bullet point.

If I were coaching technical professionals on how to design slide decks, I would certainly encourage them to carefully consider using sentence-style slide titles. But I would give them the freedom to phrase each slide title in the way that seems best to them. There are actually many variables in the phrasing of slide titles, and many considerations that govern the speaker's decision. For example, how we phrase a slide title depends in part on the speaker's plan for speaking from ("glossing") this particular slide, but it also depends in part on the phrasing of the previous and subsequent slides.

Sentence-style slide titles have the virtue of forcing a disorganized speaker to think about the theme of each slide. Therefore, requiring sentence-style slide titles may make sense for an organization intent on "idiot-proofing" presentations—although clueless speakers may still find ways to screw up. Requiring sentence-style slide titles may also make sense if speakers are given the decks that they must speak from, although I favor allowing speakers to tweak the deck to suit the presentation they plan to give.

4.   Sentence style headings constrain the presenter

One drawback of sentence-style headings, especially when the sentences are long, is that they can hinder the speaker in glossing the slide. Because phrase-style title slides are less constraining, the speaker can more easily find an articulate way to begin glossing the slide. Consider this speaker-friendly slide:

How we recruited study participants

- Visited meetings of community organizations
- Left leaflets in libraries and other public buildings
- Explained the study on the city's website

Here is just one of many ways in which the speaker might begin glossing this slide:

> *We thought it would be difficult to recruit participants in a small, rural community. But this turned out not to be the case. We quickly got as many people as we needed.*

The speaker now gestures toward the first bullet point:

> *One way in which we recruited our study participants was to visit meetings . . . ."*

This same speaker might have glossed the slide title a little differently:

> *The published literature predicted that we would have trouble recruiting participants in a small, rural community. But this turned out not to be the case. . . .*

Still another possibility is that the speaker—perhaps because of time constraints—will omit the fact that the research team was expecting difficulty recruiting participants. When speakers are not overly constrained by the phrasing of slide text, they are apt to give more extemporaneous, dynamic, and audience-focused presentations. Skilled speakers can effectively gloss sentence-style slide titles, but less skilled speakers, I suspect, are apt to read the slide title verbatim or else pause to let the audience read it. It would be very useful if Alley provided videos of speakers using his design.

5. There is no good reason to require visual evidence on every slide

I question Alley's absolute insistence on "visual evidence." You will be hard-pressed to find an expert on visual communication who believes that every assertion should be supported by a visual. It may be true that technical professionals need to be encouraged to use more visuals. It is probably true that there are too many decorative and semi-decorative ("thematic") visuals in technical presentations. But if you require visual evidence for every assertion, there will be many useless visuals. Finally, because Alley specifies a visual to support each element of slide text, many of his visuals are very small.

6. There is nothing inherently wrong with bullet points

Brief, well-phrased bullet points do not harm a technical presentation. Audiences benefit when key ideas are displayed in a straightforward hierarchy. A list of bullet points may not provide all the necessary connections among the ideas they convey, but that is the job of the speaker. Furthermore, with careful phrasing, a standard slide deck that effectively supports a presentation can also serve reasonably well as a standalone deck.

Aesthetic considerations should not be ignored, and there is no reason why every slide in a standard slide deck should look the same. The different roles of individual slides and the different kinds of content should naturally lead to variations in layout and other aspects of visual design. For presentations that are not highly technical and that are intended for marketing and similar purposes, I endorse the ideas of Garr Reynolds, Nancy Duarte, and like-minded experts on aesthetic, high-impact graphics.

There is much more to be said about presentation slides, but I have stated my chief objections to Michael Alley's design ideas and research program. I have no personal animosity toward Michael Alley. I've never met him. We've never competed for a grant or a job or anything else. About two years back he invited me to serve as a paid consultant on a research project he was working on, but because of our different views about presentation slides and because of my other commitments, I thought it best to decline. My sole reason for challenging the work of Michael Alley, Cliff Atkinson, and Edward Tufte is my conviction that their ideas will lead to worse rather than better presentations.

References

Alley, M., M. Schreiber, K. Ramsdell, and J. Muffo. 2006. How the design of headlines in presentation slides affects audience retention. *Technical communication* 53:225–234.

Garner, J. K., M. Alley, A. F. Gaudelli, and S. E. Zappe. 2009. Common use of PowerPoint versus assertion-evidence slide structure: A cognitive psychology perspective. *Technical communication* 56:331–345.