

What's Not to Like? Business Students' Opinions about PowerPoint Slide Design

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Abstract

This paper examines 25 business students' preferences for PowerPoint presentations and investigates students' responses about designing slides. The students were experienced and inexperienced PowerPoint viewers and designers. The results show students were sensitive to slide design and strove for effective design in their own presentations. The focus of students' responses was white space. Students preferred and aimed to create uncluttered slides. Students' noticed presentations with compelling and clear images, and they used images carefully in their own presentations, considering content and quantity.

Introduction

Since the 2003 publication of Edward R. Tufte's *The Cognitive Style of PowerPoint*, a critique of PowerPoint and similar presentation software, business communicators and business communication instructors have discussed the merits and pitfalls of using projected slides during presentations. Tufte argues that PowerPoint (PP) leads presenters to simplify their messages and to generate slides that obscure rather than support and enhance presenters' meanings.

In the essay, Tufte analyzes PP slides used by NASA engineers in a presentation to officials in January 2003, right before the space shuttle Columbia accident. Tufte argues that NASA engineers failed to convey the impending danger clearly to officials because the engineers had filtered their message through the medium of PP, a medium that, according to Tufte, facilitates bad practices like "vaguely quantitative" language, misdirection of audience attention, inclusion of irrelevant information, ambiguity, and "typography . . . so choppy and clunky that it impedes understanding" (pp. 8–9). He closely analyzes the slide shown in Figure 1 (as well as other slides) to support his points.

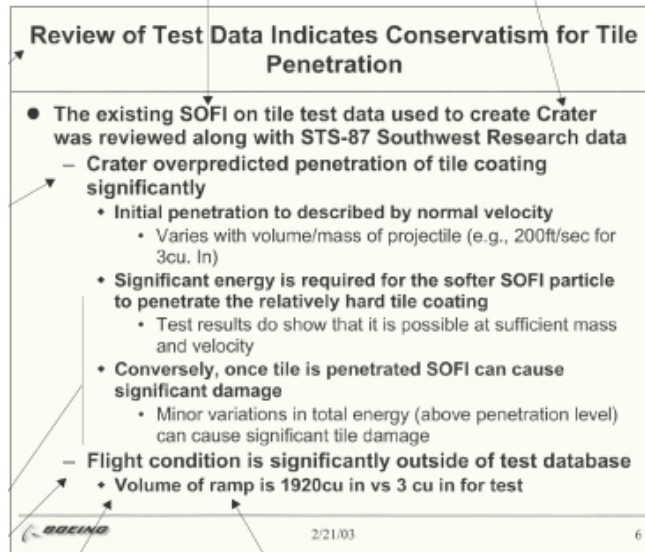


Figure 1. The NASA PowerPoint slide that Tufte uses as evidence (2003, pp. 8–9).

Few technical communication experts would argue that the NASA slides analyzed in Tufte’s essay are effectively composed and designed, but many would argue with Tufte’s claim that “the cognitive style of PP compromised [NASA engineers’] analysis” (p. 7). In general, though, many business communicators and instructors would likely agree with Doumont’s (2005) assessment that Tufte’s fault-finding is justified insofar as many people, when designing slides for their presentations, include unneeded information and use too many colors and decorations (p. 68).

In light of recent debates about the use of PP during academic and business presentations (e.g., Keller 2003; Norvig 2004; Thompson 2003), particularly the discussions arising in regard to effective design of PP slides (e.g., Doumont 2005; Manning & Amare 2006), studies that investigate perceptions and processes of slide design are needed. However, except for several studies of instructors’ use of PP during lectures (Lowry 1999; Mantei 2000; Szabo & Hastings 2000), little research has examined presenters’ preferences for PP presentation design. In addition, no research to date that we know of examines presenters’ reports of their processes for designing PP presentations.

This study fills gaps in research on PP in two ways. First, it examines 25 business students’ preferences for PP presentations. Specifically, students were asked to recall and evaluate other presentations that they had seen. Second, the student examines students’ responses about designing presentations. In addition, the study compares students’ preferences for PP presentation design to the recommendations of PP experts. Myriad manuals for creating PP presentations exist (e.g., Atkinson 2005; Finkelstein 2003; Munter & Paradi 2006; Wempen, 2003), but it is unclear whether business students who design PP presentations share experts’ opinions about what constitutes effective design.

PowerPoint Slide Design

Tufte and others malign PP, but it continues to be the presentation software that most people, including those who communicate business information, use in the workplace. Indeed, there is little but anecdotal evidence to justify Tufte's assertion that PP generates ineffective communication. In fact, several studies of instructors' use of PP during lectures showed that PP presentations improved students' performance (Lowry 1999; Mantei 2000; Szabo & Hastings 2000). Also, students stated that lectures accompanied by PP slides were more organized (Susskind 2005, p. 212).

Alley and Neeley (2005) investigated an alternative design of PP slides. They advocate succinct sentence headlines rather than phrase headlines for slide titles. So, for example, a slide might be titled "Digital data acquisition changes the data's form" rather than "Digital Acquisition System." In testing this alternative slide design, Alley, Schreiber, Ramsdell, and Muffo (2006) recently found that PP slides displaying key assertions in sentence headlines, as opposed to phrasal headings, significantly improved students' recall.

Alley and Neeley (2005) also advocate use of visual evidence, such as a picture or a graph, rather than bulleted text (p. 419, p. 421). Doumont (2005) also supports using visual elements, pointing out that visual language enhances a presenter's message, rather than competing against his or her oral communication. Farkas (2005), too, advocates alternative design. He supports using title slides throughout presentations (p. 27) and using explicit hierarchical structure of information through different styles of bullets (p. 26).

Blokzijl and Naeff's (2004) examined students' perceptions of PP presentations and indicated several slide design elements that are appreciated by and that annoy students. They found that good layout/legibility and use of diagrams, pictures, and graphs were two design elements that students appreciated most. In contrast, students rated poor layout/wrong color combination as the second-most annoying design characteristic, following effects (p. 75). Blokzijl and Naeff's study is one of few to examine viewers' preferences for PP slide design, and it leads into this study of business students' opinions of PP presentation design and the process by which they design their presentations.

Methods

Undergraduate business students were offered extra credit points in their business communication class to take our survey about PP. A total of 25 students responded to the questions about PP presentations and design of them. Students found the survey at the SurveyMonkey.com Web site (www.surveymonkey.com). They were told beforehand that the survey would take about 15 minutes. Students answered four questions that gathered demographic information about gender, age, and experience in viewing and designing PP presentations:

- Are you a female or a male?
- What is your age?
- About how many PowerPoint presentations that were created and presented by others have you seen in the last month?
- About how many PowerPoint presentations have you created and presented YOURSELF?

Of the 25 students, 16 were male, 8 students were female, and 1 student did not indicate sex. Of the 25 students, 17 were between the ages of 21 and 25. Another 5 were between 18 and 20. The other 3 were ages 26–30, 31–35, and 36–40.

In relation to their responses about their experience with PP, students were divided into inexperienced and experienced categories for both viewing and designing PP presentations. Table 1 displays this categorization.

Table 1. Business students' experience with PP presentations.

Viewing		Designing	
Inexperienced (10 or fewer)	9	Inexperienced (5 or fewer)	11
Experienced (11 or more)	16	Experienced (6 or more)	14

Then, students answered six other questions about PP. Three of these questions solicited their evaluations of other people's PP presentations:

- What do you think is the biggest mistake the people make when they give PowerPoint presentations? For example, do you think that presenters tend to read the slides rather than speak conversationally about their topics? Or do you think that presenters use too much animation or too many sounds?
- What, if anything, do you dislike about the way other people design PowerPoint presentations? For example, do you think that presenters tend to put too many words on one slide or create graphs that are too complex?
- What is the worst thing that you have ever seen in a PowerPoint presentation? What was the best thing that you have ever seen in a PowerPoint presentation?

The other three questions solicited their opinions about their processes for designing PP presentations:

- If you have designed a PowerPoint presentation, describe the steps you took in designing it. For example, did you create an outline or use the AutoContent Wizard?
- If you have designed a PowerPoint presentation, what is the most difficult part of designing a PowerPoint presentation? (For example, do you think it is difficult to choose a good color scheme or to organize slides into a logical order?) Whatever

- your answer, why do you think that this is the most difficult part of designing a presentation?
- What features of PowerPoint do you like to use in your own presentations or see in the presentations of others? For example, do you like interesting fonts, bright colors, pictures, animation, or video?

Results and Discussion

The following section describes the results obtained from the 25 business students—their evaluations of other people's presentations and their opinions about their own PP design processes.

Evaluating Presentations

Business students' survey responses indicate that several factors can contribute to what students perceive to be a successful or unsuccessful PP presentation. Their responses fall into these general categories:

- **White space** describes the ratio of text to background that appears on a slide. Cluttered slides have more text, and students considered them to be more difficult to read and understand.
- **Delivery** describes the ease with which the presenter facilitates the presentation, makes eye contact, and shows overall enthusiasm for the subject matter.
- **Style** refers to background color, font family, color schemes and slide layout. Over half of the students preferred the use of a PP default template.
- **Images** refers to static graphics on a slide, such as clipart, charts and graphs. Students preferred images that were clear and easy to understand in relation to the amount of time the presenter spent on a slide.
- **Animation** refers to slide transitions, moving text, embedded video, flash animation and sounds. Students expressed a preference for "professional" animations that enhanced the presentation's message.

In response to the question *What do you think is the biggest mistake the people make when they give PowerPoint presentations?*, 18 students (72%) agreed with the example answer that we provided with the survey question, saying that presenters put "too much text" on a slide. Students provided other answers, sometimes listing more than one "biggest mistake." Besides the prompted response about too much text, 10 students said that the biggest mistake that presenters make relate to delivery (40%) and, and 8 students said that the biggest mistakes related to style (32%).

No single factor outweighed any other in students' responses to *What do you dislike about the way other people design PP presentations?* Sixteen students (64%) identified too much text as undesirable, 14 students (56%) cited issues with style as a detractor, and 7 students (28%) reported misuse of images as detractors from presentations. These findings suggest that struggling to read slide text and viewing poor style may be more

annoying to students than distracting animations and other effects, which only 5 students (20%) referenced.

Interestingly, when asked to recount the best and worst PP presentations that they have seen, students' responses revealed another important element—harmony; nine students (36%) commented that images, animations, and delivery must complement the content. In recounting characteristics of the worst presentations they had ever seen, 9 students (36%) identified poor delivery, and 12 students (48%) reported too much text on a slide. The pervasiveness of these factors across students' responses supports experts' assertion that presenters tend to use PP slides as a crutch and to deflect the audience's attention to the slides and away from themselves (e.g., Keller 2003).

In describing the best presentations that they had seen, 7 students' responses (28%) again related to the design principle of harmony, and 6 students (24%) responded that they preferred slides with compelling and clear images. Six students (24%) mentioned useful, professional-looking animations. This latter finding challenges the assumption that animations like transitions are overused and overdone, distracting the audience from the speaker's delivery. Students' responses show that they were aware of the complex relationships between content and images as well as content and animation, and their responses challenge Tufte's (2003) assertion that PP filters and obscures content.

The importance of the six categories identified above appears to differ only slightly based upon the participants experience level of viewing PowerPoint presentations. When recounting the best PowerPoint presentation that they had seen, 5 inexperienced users commented on delivery, but no experienced users did. That said, both 5 experienced and 5 inexperienced viewers agreed that reading off slides, a type of poor delivery, was the biggest mistake that presenters could make.

Designing Presentations

Students also answered questions about their process of designing PP presentations. Students indicated that during the design process, they worked to create simple and direct presentations, and their comments centered on these elements of PP design:

- White space
- Images
- Style
- Animation

In general, the students' responses regarding the design process of PP presentations corresponded to the topics of their responses about viewing the presentations of others.

That said, a clear process for designing PP presentations did not emerge from students' responses to the prompt *If you have designed a PowerPoint presentation, describe the steps you took in designing it.* However, 13 students (52%) used the example design step provided in the question—creating an outline—in stating their first step in creating a PP

presentation. Students indicated that taking the time to create an outline forced them to create a backbone for their presentation and helped to keep them focused the creation of their presentations.

The students' preference for creating an outline did not correlate with their experience level. Both students who were inexperienced and experienced in designing PP presentations made comments like the following:

- "I would first outline the different slides I want, then I outline the content of each slide, and I generally use the key ideas with a few visual."
- "1. Create the outline separately, 2. Apply outline to PP, 3..."
- "I make outline first, then fill in the content, then add pictures and stuff."

Outlining the whole presentation plays an important role in students' design process; then students move on to choosing words for individual slides and adding images.

In response to the question *If you have designed a PowerPoint presentation, what is the most difficult part of designing a PowerPoint presentation?*, the one element that the students found to be the most difficult to design was choosing appropriate visual design elements for the slides, which includes the images and style: 10 students (40%) said that choosing elements related to the look of the presentation was the most difficult part of the design process. Another 7 students (28%) related that ensuring enough white space for visibility and clarity was the most difficult part of designing a presentation. In particular, students noted that narrowing down their information was challenging:

- "The most difficult part of designing a PowerPoint presentation is condensing the information one wants to report onto slides so that they are SIMPLE, easy to read and follow, and follow as logical order."
- "Not put too much information on a slide and making slides that are visibly clear to the audience."

Students also indicated an appreciation for slides that balanced clarity with visual interest. The difficulty in the decision process for many of the students was to balance their need to simplify text to get to the point with their personal preference for images:

- "Making sure it isn't all text. This makes for boring slides. I find it hard cutting out words to make it 'points' and not sentences."

These comments reflect students' struggle to design slides that were uncluttered enough to read yet interesting enough to engage the audience. Thus, the idea of harmony between content and design is critical in designing PP presentations, just as it is in viewing them.

Students' preference for imagery is particularly reflected in their responses to the question *What features of PowerPoint do you like to use in your own presentations or see in the presentations of others?* Students listed "pictures" as a favorite PP element:

- “Pictures are important to have something interesting for the viewer to look at.”
- “I like to use pictures, as they are a great way to give examples of what one is communicating in the PowerPoint presentation.
- “Pictures make a presentation much more enjoyable as well.”
- “Pictures. Any visual assistance makes for better PowerPoint.”

Although there was no direct relationship found between experienced versus inexperienced students in their comments about designing presentations, the students overall were clearly in agreement with Doumont (2005) regarding images as a way of enhancing the presenter’s message. In addition, with regard to visuals, students were savvy enough to know that there are limits to how much one should use visuals when trying to create and maintain clarity. Given students’ general lack of training in PP, it would be useful to know if students came to their preference from experience viewing presentations or from reading articles, manuals, or Web sites devoted to PP presentations.

Conclusion

In sum, this small survey of business students’ opinions about PP indicates that students are sensitive to PP slide design and strive for effective design in their own presentations. Overall, the primary focus of students’ responses was white space. Students preferred and aimed to create slides that get to the point and do not contain too much text. Students’ responses also show that they use images carefully, considering both content and quantity. However, students’ responses indicate that adding images is of secondary importance in the design process.

Other areas of research include elements that students and other PP presenters prefer to see and use in presentations. In particular, further research could explore the presentation design process of students and other presenters. What, for example, does the “outlining” step entail? How do people decide that they have edited the text on their slides sufficiently? How do people choose the images that they decide to use? Larger surveys and analysis of think-aloud protocols will help answer these questions about designing PP presentations.

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