Presenting Data Effectively: Communicating Your Findings for Maximum Impact

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Presenting Data Effectively: Communicating Your Findings for Maximum Impact

Abstract
As program evaluators we aspire to conduct sterling evaluations. However, the value of these evaluations quickly declines if we fail to effectively communicate findings in meaningful ways to stakeholders. In my work presenting data to a wide variety of audiences from elected officials to university leaders, coworkers, academics, and partner organizations, I have put effort into being concise, accurate, and clear in my communications. I have been less intentional about designing the graphics and other elements of data presentation in ways that align with how our brains operate and how we best retain information. So I was very curious about what “Presenting data effectively: Communicating your findings for maximum impact,” by Stephanie Evergreen, has to offer to my work as a Cooperative Extension administrator, educator, program evaluator, and professor.

Disciplines
Educational Administration and Supervision | Educational Leadership | Instructional Media Design | Other Education

Comments
This manuscript is from the American Journal of Evaluation; December 35(2014):594-596. doi:10.1177/1098214014530800. Posted with permission.
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As program evaluators we aspire to conduct sterling evaluations. However, the value of these evaluations quickly declines if we fail to effectively communicate findings in meaningful ways to stakeholders. In my work presenting data to a wide variety of audiences from elected officials to university leaders, coworkers, academics, and partner organizations, I have put effort into being concise, accurate, and clear in my communications. I have been less intentional about designing the graphics and other elements of data presentation in ways that align with how our brains operate and how we best retain information. So I was very curious about what “Presenting data effectively: Communicating your findings for maximum impact,” by Stephanie Evergreen, has to offer to my work as a Cooperative Extension administrator, educator, program evaluator, and professor.

I started my relationship with the book by briefly flipping through the pages. The contents include a liberal dosage of figures, inset boxes (which I later learned are “callout boxes”), easy-to-read text, and navigational icons. This format compelled me to jump right in as an eager learner. However, as a good academic, I wanted some proof that Dr. Evergreen knew what she was talking about. It didn’t take long to realize that her body of work is deeply based in communication science, piloted with experts and applied in the field. She leads Evergreen Data and Evaluation, LLC, a data presentation consulting firm and serves as a speaker, designer, and evaluator. Her Ph.D. in interdisciplinary evaluation focused on graphic design use in research reports, which spurred this book and her other work. She spent five years with the Evaluation Center at Western Michigan University and founded the American Evaluation Association Data Visualization and Reporting Topical Interest Group. She recently coedited two issues of New Directions for Evaluation on data visualization.

The book covers four major topics to enhance data presentations: (1) compelling images, (2) intelligent colors, (3) intentional typefaces, and (4) appropriate arrangement of data elements. I found this information to be presented in a very accessible way. Evergreen provides figures showing weak and strong examples of the concepts she is presenting. She also delivers a narrative full of humor, personal stories, and convincing rationale for adopting new practices. For the most part, her suggestions for improving data visualization can be accomplished using standard Microsoft Office software and publicly available websites. However, I must admit that I’m not as much of a data nerd as she claims to be so I glazed over and started skimming text and figures when the details got deep. To retain the information for my experiential learning style, I will also need to join her for a hands-on workshop or follow the steps in the book while working at my computer.
I found the first chapter, “The justification for presenting data effectively,” to be the most useful. It provides a compelling case for why I should after all these years as a presenter and report writer, change what I do. Who can argue with enhancing data presentation to improve my professional and personal credibility and competence, save money, respect the time and intelligence of my learners/coworkers/decision-makers, and make a difference in the world? She says, “The intention is to help you use the tools you already have to make more compelling data presentations so that you can better convince your stakeholders of the worth of your work, secure more attention and funding, and make the world a better place” (p. 16). The first chapter also provides an overview of research behind the practice changes that she is suggesting, drawn from the fields of vision science, cognitive psychology, communications, and graphic design. I appreciated the brief and direct applications of this body of science tied directly to data visualization practice. Evergreen specifically says, “Data presentation sits at the intersection of closely related fields like usability testing, user-interface design, graphic design, journalism, and document design” (p. 14).

The core chapters on graphics, type, color, and arrangement provide depth on each topic, with multiple examples especially suited for academics and program evaluators. She provides the science and technical best practices on these topics but also shows the need to get at the emotion behind these concepts. Her goal is to tell an important and meaningful story and to be strategic through simplification and emphasis of elements. She ties this goal to the need for our audiences to have effective information uptake, gain early attention, and get that information into their long-term memory. Each chapter provides an overview of the learning objectives, the main content, key points to remember, activities to extend the learning, and multiple tools, tips, and references to gain more information. She basically tells us what we will learn, shares it, and then summarizes it. The main tips for each chapter and section are highlighted in callout boxes and also found in a useful summary appendix entitled, “Research and evaluation report layout checklist.” I kept a list of best practices she offers throughout the book and came up with twice as many as found in the checklist. Some of my favorite gems not on the checklist include: (1) build the cost of stock photos for presentations into the project budget; (2) it takes only three seconds to capture attention so use images; (3) create a visual theme or brand throughout a presentation or report that you want to be remembered for; and (4) “Bar charts work best when comparing categories. Line charts are most appropriate for looking at change over time. Scatterplots most effectively represent correlations and linear relationships” (p. 50).

Each chapter provides important detail on the topic presented. For example, the chapter on graphics covers how to create more effective posters and presentations. Evergreen’s research has discovered that imagery is the weakest part of evaluation and research reporting. Based on this research and her experience, she suggests creating a visual theme throughout the presentation that draws your readers’ attention to you and your information and then engages them throughout to increase information uptake. She advises using high quality graphics sized to match changes in meaning of the data. She also suggests principles for the proper placement of images with surrounding text, proper use of background images, and the use of icons for visual short cuts. Evergreen points out that images can enhance the
emotional aspect of the presentation. Finally, she advises that the repetition of effective images creates
a brand for both the project and the evaluator or researcher.

A companion student study website provides downloadable tools and color images from the book as
well as a link to Evergreen’s blog that I found very helpful. I’d suggest that the title “Student study site”
is a misnomer since the resources are not just for credit course students. The resources are simply an
extension of the book that is important for all readers.

Surprisingly, I sometimes found my academic experience thrown to the wind. I had to rely on my early
years as a yearbook editor and college newspaper staff member to find my comfort zone. What do you
mean I shouldn’t create a document title all in caps, or I shouldn’t center the title or text? Yet, Evergreen
kept me engaged through meaningful examples, scientific rationale, and humor. For example she says,
“Visuals are a support tool, not a replacement for the speaker” (p. 6). I was also comforted when she
said, “Do not dismay – we can keep in step with the style manual and still improve the presentation” (p.
156). She continued to hold my attention when she used specific American Psychological Association
and Modern Language Association guidelines as support for or comparison with the practices she was
suggesting. I often smiled at her humor. For example, in talking about terminology she says, “Today’s
researchers refer to this as the pictorial superiority effect, a term so difficult to work into a conversation
that it clearly came from academia” (p. 10). This reminded me of my graduate school days when I
created a game called “acababble.” Her credibility with me also increased when I realized her suggested
practices were not only research-based but had been reviewed by a panel of graphic designers and then
piloted through field application. Finally, she made me feel hopeful when some of the deep details of
data nerdiness presented in the book made me glaze over. She understands the reality of my life as a
busy professional by providing multiple tips and facts to help me feel that the time invested in this work
is important.

I believe the book will be most useful for evaluators, students, researchers, consultants, nonprofit
organization workers, anyone who presents data, especially those who don’t have design staff support.
The most appropriate uses I see for the book are, first, as a reference guide or handbook for those of us
who present data to others and, second, as a text book for those of us who teach or build program
evaluation or research capacity in others. It would also be useful for those who write theses and
dissertations or create slide shows, posters, presentations, or reports where data need to be understood
quickly and deeply.

Even though I found the book full of advice and best practices that I specifically need to put to use,
missing were several items that could make the book more effective. As an evaluator I was surprised
that Evergreen didn’t include a strong message about the need to pilot data visuals with representatives
of the intended audience before the final presentation. I was disappointed that I had to create my own
comprehensive checklist of tips provided throughout the book, since the checklist in the appendix was
limited. It was also disappointing to have to go to the website for full color figures from the book and for
tools and templates that could have been provided as an appendix. Yet as someone who prefers to keep
the cost of books to a minimum, I can partially understand this decision.
I found the book was not something I could sit down and read straight through. I had to process it in chunks, as her research suggests. If you only have time or attention to read one chapter, I’d suggest chapter 1. If you like to see the big picture before jumping into the details, it may be helpful to read the chapter on arrangement of visuals before the chapters on graphics, type, and color. It could be best to dive into the chapters on these four elements when in the midst of actually working to create data visuals. Finally, there is an assumption that the reader has a relatively strong familiarity with Microsoft Office products; for those who do not have this foundation, including more basic information might be helpful.

Don’t let the title of the book fool you. The practices suggested are more than about sharing findings. The book is for anyone who presents information. In fact, I hope Evergreen expands her work in the future to include suggestions for navigating restrictive environments such as state and federal grant funding proposal venues. As someone who has spent years as an evaluation capacity builder for classroom and community-based educators, I am constantly looking for resources like this book to help make evaluation more palatable for non-evaluators.

*Presenting data effectively* arrived for me at the perfect time in my career. I am retiring from three decades as a professor, educator, and administrator with Cooperative Extension and moving into consulting. All of my career I’ve been lucky to have design support staff - and now I’ll be on my own. I’ve been known in the Extension world for my engaging teaching style, but now I’m stepping into a world where I’ll need visuals to better communicate my messages. I believe you will see some of Evergreen’s suggestions in my future presentations and documents. Her book has affirmed a lot of what I’ve learned over the years, but I’m pleased to find it now all in one place in an easy-to-use format. This book will not only improve my work but has already contributed to improving the evaluation profession through more effective and credible data presentations. As Evergreen says, “This is not about looking pretty. It is about presenting data in ways that align with how people see, think, and remember so that they can make more informed decisions and take action” (p. 164).