

Michael Paul Alley

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Education

B.S. 1979 Engineering Physics (with High Honors), Texas Tech University
M.S. 1982 Electrical Engineering, Texas Tech University
MFA 1987 Writing (terminal degree), University of Alabama

Academic Experience

2006–present Associate Professor, Engineering Communication
Leonhard Center, College of Engineering, Penn State
2004–2006 Associate Professor, Engineering Education,
College of Engineering, Virginia Tech
1999–2004 Instructor, Mechanical Engineering, Virginia Tech
1994–1998 Adjunct Assoc. Professor, Engr. Prof. Development, University of Wisconsin
1993–1994 Instructor, University of Maryland (European Div.)
1988–1992 Lecturer, Mechanical Engineering, University of Texas
1987–1988 Lecturer, English Department, San Jose State University

Honors and Recognition

1. Ronald S. Blicq Award for Distinction in Technical Communication Education (2014), IEEE Professional Communication Society
2. Lecturer in Distinguished Lecture Series of the National Science Foundation (2011), sponsored by Engineering Directorate, Washington, DC, 75 participants.
3. Keynote Speaker, Confex Norge AS Conference on Science and Media (2011), Oslo, Norway, 100 participants.
4. Nomination for Best Paper Award at National American Association for Engineering Educators Conference (2007), nominated by Division of Experimentation & Laboratory Oriented Studies.
5. Nomination for Best Paper Award at National ASEE Conference (2005), nominated by Liberal Education Division.
6. Dean's Teaching Award, College of Engineering, Virginia Tech, 2005

7. Teaching Excellence Award, Department of Engineering Professional Development, University of Wisconsin, 1996
8. Teaching Excellence Award, College of Engineering, University of Texas, 1990
9. Curriculum Innovation in Mechanical Engineering, First place, 1990, American Society of Mechanical Engineers
10. Best Paper Award, American Society of Engineering Educators, Gulf-Southwest Conference, 1989

Research Interests

1. Assertion-Evidence approach to presentations in STEM
2. Improving the teaching of writing and presentations in large STEM courses
3. Engineering Ambassador Network: recruiting talented and diverse students into STEM and empowering the undergraduate engineering recruiters with advanced communication and leadership skills

Research and Scholarly Publications

Books

1. Alley, M. (2013). *The Craft of Scientific Presentations*, 2nd ed. New York: Springer-Verlag, 285 pages (translated to Chinese; first edition also in Japanese). First edition reviewed in *Physics Today*, *Technical Communication*, *Physics World*, *Photosynthetica*, *Journal of the Academy of Marketing Science*, and *Zeitschrift für Physikalische Chemie*.
2. Alley, M. (2000). *The Craft of Editing*. New York: Springer-Verlag, 159 pages. Reviewed in *Technical Communication*, *International Microbiology*, and *European Association of Science Editors*.
3. Alley, M. (1996). *The Craft of Scientific Writing*, 3rd edition. New York: Springer-Verlag, 10th printing, 282 pages (also in Japanese and Arabic). Reviewed in *New Scientist*, *Chemical Engineering Progress*, *Technical Communication*, *International Microbiology*, *Photosynthetica*, *Journal of the American Statistical Association*, and *European Association of Science Editors*.

Recent Journal Papers (Peer-Reviewed)

1. Garner, J. K., Alley, M., Haas, C. & Kaplan, A. (2017). From Undergraduates to Ambassadors: The Impact of EA Network Training. *Journal of Engineering Education* (submitted for publication).
2. Garner, J. K. & Alley, M. (2016). Slide structure can affect the presenter's understanding of the presentation's content. *International Journal of Engineering Education*, 32 (1A), pp. 39-54.
3. Garner, J. K., & Alley, M. (2013). How the Design of Presentation Slides Affects Audience Comprehension: A Case for the Assertion-Evidence Approach. *International Journal of Engineering Education*, 29 (6), pp. 1564-1579.

4. Garner, J. & Alley, M. (2011). PowerPoint in the psychology classroom: lessons from multimedia research. *Psychology Learning & Teaching*, vol. 10 (2): 95–106.
5. Neeley, K. A., Alley, M., Nicometo, C. & Srajek, L. (2009). Assertion–Evidence structure of presentation slides: Acceptance and resistance. *Technical Communication*, vol. 56 (4), 346–360.
6. Garner, J. K., Alley, M., Gaudelli, A. & Zappe, S. (2009). Common use of PowerPoint versus assertion–evidence structure: A cognitive psychology perspective. *Technical Communication*, 56 (4), 331–345.
7. Alley, M., Schreiber, M. M., Diesel, E., Ramsdell, K., & Borrego, M. (2007). Increased student learning and attendance in resources geology through the combination of sentence-headline slides and active learning measures. *Journal of Geoscience Education*, 55 (1), 83–89.
8. Alley, M., Schreiber, M. M., Ramsdell, K., & Muffo, J. (2006). How the design of headlines in presentation slides affects audience retention. *Technical Communication*, 53 (2), 225–234.
9. Alley, M. & Neeley, K. A. (2005). Rethinking the design of presentation slides: a case for sentence headlines and visual evidence. *Technical Communication*, 52 (4), 417–426.

Recent Conference Papers (Peer-Reviewed)

1. Miller, E. & Alley, M. (2017). The assertion-evidence approach in technical presentations: Overcoming resistance in professional settings. To be presented at the *2017 ASEE National Conference*, Columbus, OH.
2. Garner, J. K., Sontgerath, S., Alley, M., Haas, C. & Kaplan, A. (2017). Developing a role identity as an ambassador and professional through hands-on activities. To be presented at the *2017 ASEE National Conference*, Columbus, OH.
3. Alley, M., Garner, J. K., Haas, C., & Thole, K. (2016). Engineering Ambassadors Network. *National Science Foundation Symposium on Envisioning the Future of Undergraduate STEM Education: Research and Practice*. NSF, Arlington, VA.
4. Alley, M., Menold, J., & Garner, J. K. (2016, October). Teaching presentations to large numbers of engineers and scientists. *2016 ProComm Conference*, IEEE, Austin, Texas.
5. Alley, M., Haas, C., Garner, J. K., & Thole, K. (2016, June). Year 3: Progress on the Engineering Ambassador Network: A professional development group with an outreach mission. *2016 ASEE National Conference*. New Orleans, LA.
6. Alley, M., Haas, C., Garner, J. K., & Thole, K. (2015, June). Year 2: Progress on the Engineering Ambassador Network: A professional development group with an outreach mission. *2015 ASEE National Conference*. Seattle, WA.
7. Alley, M., Miraldi, L., & Garner, J. K. (2015, June). Work in Progress: Memory maps as a means to help engineering students fashion words on the spot in their technical presentations. *2015 ASEE National Conference*. Seattle, WA.
8. Alley, M., Haas, C., Garner, J. K., & Thole, K. (2014, June). Progress on the Engineering Ambassador Network: A professional development group with an outreach mission. *2014 ASEE National Conference*. Indianapolis, IN.

9. Vadyak, V., & Alley, M. (2014, June). Work-in-Progress: Undergraduate Teaching and Research Experiences in Engineering (UTREE): An engineering student organization with a communication focus. *2014 ASEE National Conference*. Indianapolis, IN.
10. Overbaugh, M., Alley, M., & Vadyak, V. (2014, June). Effect of student model presentations from a speaking contest on the development of engineering students as speakers. *2014 ASEE National Conference*. Indianapolis, IN.
11. Aippersbach, S., Alley, M. & Garner, J. (2013, June). How slide design affects a student presenter's understanding of the content. *ASEE Annual Conference & Exposition*. Atlanta: American Society of Engineering Educators.
12. Wolfe, K., Alley, M. & Garner, J. (2012, June). High quality visual evidence on presentation slides may offset the negative effects of redundant text and phrase headings. *ASEE Annual Conference & Exposition*. San Antonio: American Society of Engineering Educators.
13. Neeley, K. A. & Alley, M. (2011). The humble history of the "bullet." *ASEE Annual Conference & Exposition*. Vancouver: American Society of Engineering Educators.
14. Donnell, J., Aller, B. & Alley, M. (2011). Why industry says that engineering graduates cannot write: a literature review. *ASEE Annual Conference & Exposition*. Vancouver: American Society of Engineering Educators.
15. Garner, J., Sawarynski, L., Alley, M., Wolfe, K. & Zappe, S. (2011). Assertion-Evidence slides appear to lead to better comprehension and retention of complex concepts. *ASEE Annual Conference & Exposition*. Vancouver, Canada: American Society of Engineering Educators.
16. Marshall, M., Alley, M., Zappe, S., Thole, K., Frecker, M., & Engel, R. Ambassador program for recruiting girls into engineering—appropriate messages, messengers, and modes of delivery. *2010 Frontiers in Education Conference and Exposition*. Washington, D.C.: FIE.
17. Alley, M., Zappe, S. & and Garner, J. (2010, June). Projected words per minute: A window into the potential effectiveness of presentation slides. *2010 ASEE National Conference and Exposition*. Louisville, KY: ASEE.
18. Garner, J., Alley, M., Gaudelli, A. & Zappe, S. (2009, June). Common use of PowerPoint versus assertion–evidence structure: a cognitive psychology perspective. *2009 ASEE National Conference and Exposition*. Austin, TX: ASEE.
19. Alley, M., Bruaset, A. M., Marshall, M., Sundet, M. & Zappe, S. (2009, June). Development of a national workshop to teach Norwegian Ph.D. students in Engineering and Science How to Communicate Their Research," *2009 ASEE National Conference and Exposition*. Austin, TX: ASEE.
20. Schuurman, M., Alley, M., Marshall, M. & Johnstone, C. (200, June). The effect of a targeted speech communication course on the public speaking self-efficacy of engineering undergraduates. *2008 ASEE National Conference*. Pittsburgh, PA: ASEE.
21. Alley, M., Srajek L., Stickler M., & Wagoner Johnson, A. (2007, October). Evaluation of two workshops for graduate students on communicating research in engineering and science. *Proceedings of the 2007 Frontiers in Education Conference*. Milwaukee, WI: IEEE.
22. Alley, M., Lo, J., McNair, L. & Edmister, W. (2007, June). Promoting undergraduate research by creating a research option in a technical communication course. *Proceedings of the 2007 ASEE Annual Conference and Exposition*. Honolulu: ASEE.

23. Alley, M. Schreiber, M., Ramsdell, K., Muffo, J. & Borrego, M. (2006, June). Testing the effects of sentence headlines in teaching slides for large classes. *Proceedings of the 2006 ASEE Annual Conference and Exposition*. Chicago, IL: ASEE.
24. Ramsdell, K., Schreiber, M., Borrego, M., & Alley, M. (2006, June). Integrating a new design of teaching slides with active learning measures in a large class. *Proceedings of the 2006 ASEE Annual Conference and Exposition*. Chicago, IL: ASEE.
25. Pierrakos, O., Vlachos, P. & Alley, M. (2006, June). Using research to educate freshman engineers and high school students about the multidisciplinary character of engineering. *Proceedings of the 2006 ASEE Annual Conference and Exposition*. Chicago, IL: ASEE.
26. Alley, M., Schreiber, M. & Muffo, J. (2005, October). Testing of a Presentation Slide Design That Relies on a Succinct Sentence Headline and Visual Evidence,” *Frontiers in Education Conference* (Indianapolis, IN: IEEE, 21 October 2005).
27. Alley, M. & Neeley, K. A. (2005, June). Discovering the power of PowerPoint: Rethinking the design of presentation slides from a skillful user's perspective. *Proceedings of the 2005 ASEE National Conference*. Portland, OR: ASEE.
28. Williams, A. & Alley, M. (2005, April). Assessment and subsequent improvement of a national web site for teaching communication to engineering students. *Proceedings of the 2005 Southeast Regional ASEE Conference*. Chattanooga, TN: ASEE.
29. Alley, M. & Robertshaw, H. (2004, November). Rethinking the design of presentation slides: The importance of writing sentence headlines. *Proceedings of the 2004 ASME International Mechanical Engineering Congress*. Anaheim, CA: ASME, paper 61827.
30. Alley, M. & Robertshaw, H. (2004, November). Rethinking the design of presentation slides: Creating slides that are readable. *Proceedings of the 2004 ASME International Mechanical Engineering Congress*. Anaheim, CA: ASME, paper 61889.

Website Editorships

1. Alley, M. (1996). *Writing Guidelines for Engineering and Science Students*. <http://www.craftofscientificwriting.com>. First Google listing for the search term *engineering writing*. Annually, this web site received more than a half million visitors.
2. Alley, M (2016). *Assertion-Evidence Approach*. <http://assertion-evidence.com>. First Google listing for the search term *engineering presentations*. This website is on pace to receive more than 250,000 views per year.
3. Alley, M. (2016). *Craft of Scientific Posters*. <http://craftofscientificposters.com>. Top Google listing for the search term *scientific posters*. This website is on pace to receive more than 250,000 views per year.

Recent Invited Lectures, Webinars, and Workshops

1. Northeastern University (30 March 2017). “Rethinking Scientific Presentations: The Assertion-Evidence Approach,” invited lecture. Boston, MA: 30 faculty.

2. University of Pittsburgh (24 February 2017). “Rethinking Scientific Presentations: The Assertion-Evidence Approach,” invited lecture. Pittsburgh, PA: 30 grad students and faculty.
3. Texas Instruments (7-8 December 2016). “The Craft of Technical Presentations,” workshop. Dallas, TX: 15 engineers.
4. Volvo Corporation (28 October 2016). “The Craft of Technical Communication,” workshop. Greensboro, NC: 25 engineers.
5. SciComm (10 October 2016). “Rethinking Scientific Presentations: The Assertion-Evidence Approach,” invited lecture. University Park, PA: 30 faculty and graduate students.
6. Simula Research Laboratory (26-30 September 2016). “Communicating Scientific Research: Part II,” Norwegian national course. Fornebu, Norway: 50 PhD students.
7. Engineering Ambassadors Network (9-11 September 2016). “Becoming an Engineering Ambassador,” training workshop. University Park, PA: 200 students and advisors.
8. Texas Instruments (9-10 August 2016). “The Craft of Technical Presentations,” workshop. Dallas, TX: 15 engineers.
9. Texas Instruments (14-15 July 2016). “The Craft of Technical Presentations,” workshop. Dallas, TX: 15 engineers.
10. NIOSH (11 July 2016). “Rethinking Scientific Presentations: The Assertion-Evidence Approach,” invited lecture. Pittsburgh, PA: 45 scientific researchers.
11. Shanghai Jiao Tong University (13-17 June 2016). “Communicating Engineering Research,” workshop. Shanghai, China: 50 graduate students.
12. Asuragen (18-19 May 2017). “Rethinking Scientific Presentations: The Assertion-Evidence Approach,” workshop. Austin, TX: 45 scientists and engineers.
13. Simula Research Laboratory (9-13 May 2016). “Communicating Scientific Research: Part I,” Norwegian national course. Fornebu, Norway: 50 PhD students.
14. Texas Instruments (7-8 April 2016). “The Craft of Technical Presentations,” workshop. Dallas, TX: 25 engineers.
15. Southwest Research Institute (7-8 March 2016). “The Craft of Scientific Communication,” workshop. San Antonio, TX: 25 research engineers.
16. Texas Instruments (14-15 December 2015). “The Craft of Technical Presentations,” workshop. Dallas, TX: 15 engineers.
17. NIEHS Superfund (18 November 2015). “Rethinking Scientific Presentations: The Assertion-Evidence Approach,” invited lecture. Puerto Rico: 75 graduate students.
18. Purdue University (11 November 2015). “Rethinking Scientific Presentations: The Assertion-Evidence Approach,” invited lecture. West Lafayette, IN: 100 students and faculty.
19. Simula Research Laboratory (26-30 October 2015). “Communicating Scientific Research: Part II,” graduate course. Fornebu, Norway: 12 PhD students.
20. Engineering Ambassadors Network (9-11 October 2015). “Becoming an Engineering Ambassador,” training workshop. Worcester, MA: 150 students and advisors.
21. University of Hartford (18 September 2015). “Teaching Writing in Engineering and Science Courses,” workshop. Hartford, CT: 40 engineering and science faculty.

22. Texas Instruments (10-12 September 2015). "The Craft of Technical Presentations," workshop. Dallas, TX: 15 engineers.
23. Westinghouse (10-12 September 2015). "The Craft of Technical Presentations," workshop. Pittsburgh, PA: 15 engineers.
24. University of Virginia (5 May 2015). "Rethinking Scientific Presentations: The Assertion-Evidence Approach," invited lecture. Charlottesville, VA: 30 graduate students.
25. AREVA Nuclear Power (4 May 2015). "The Craft of Scientific Writing," workshop, Columbia, MD: 15 engineers.
26. Dublin College University (27-28 April 2015). "Communicating Scientific Research," workshop. Dublin, Ireland: 50 graduate students.
27. North Carolina State University (2-3 March 2015). "Rethinking Scientific Presentations: The Assertion-Evidence Approach," workshop. Raleigh, NC: 20 visiting Japanese students.
28. North Carolina State University (2 March 2015). "Rethinking Scientific Presentations: The Assertion-Evidence Approach," invited lecture. Raleigh, NC: 15 graduate students.
29. NASA Goddard (8 December 2014). "Rethinking Scientific Presentations: The Assertion-Evidence Approach," invited lecture. Goddard, MD: 75 researchers.
30. United Technologies Research Center (5 December 2014). Rethinking Scientific Presentations: The Assertion-Evidence Approach," invited lecture. Hartford, CT: 45 researchers.
31. Texas Instruments (22-23 October 2014). "The Craft of Technical Presentations," workshop. Tucson, AZ: 15 engineers.
32. Texas Instruments (20-21 October 2014). "The Craft of Technical Presentations," workshop. Santa Clara, CA: 15 engineers.
33. IEEE Professional Communication (13 October 2014). "Teaching Writing and Speaking to Engineers," keynote address. Pittsburgh, PA: 50 conference attendees.
34. Texas Instruments (4-5 September 2014). "The Craft of Technical Presentations," workshop. Dallas, TX: 15 engineers.
35. Texas Instruments (11-12 August 2014). "The Craft of Technical Presentations," workshop. Dallas, TX: 15 engineers.
36. Battelle Memorial Institute (19 August 2014). "Research Writing for Engineers and Scientists," workshop. Columbus, OH: 20 engineers and scientists.
37. Texas Commission on Environmental Quality (17 July 2014). "Technical Writing for Engineers," workshop. Austin, TX: 200 engineers and technical staff.
38. AREVA Nuclear Power (10 July 2014). "The Craft of Scientific Writing," workshop, Columbia, MD: 15 engineers.
39. Texas Instruments (26-27 June 2014). "The Craft of Technical Presentations," workshop. Dallas, TX: 15 engineers.
40. ASME IGTI Conference (16 June 2014). "Rethinking Scientific Presentations: The Assertion-Evidence Approach," invited lecture. Dusseldorf, Germany: 45 researchers.
41. Texas Instruments (12-13 June 2014). "The Craft of Technical Presentations," workshop. Freising, Germany: 15 engineers.

42. SMU (1 June 2015). "Communicating Engineering Research," workshop. Dallas, TX: 25 graduate students.
43. Texas Instruments (29-30 May 2014). "The Craft of Technical Presentations," workshop. Tucson, AZ: 15 engineers.
44. JDS Uniphase (14-15 May 2014). "The Craft of Technical Presentations," workshop. Santa Rosa, CA: 30 engineers and scientists.
45. Texas Instruments (5-6 May 2014). "The Craft of Technical Presentations," workshop. Dallas, TX: 15 engineers.
46. Texas Instruments (21-22 April 2014). "The Craft of Technical Presentations," workshop. Santa Clara, CA: 15 engineers.
47. Texas Instruments (19-20 March 2014). "The Craft of Technical Presentations," workshop. Dallas, TX: 15 engineers.
48. Novartis (30-31 January 2014). "The Craft of Scientific Presentations," workshop. San Francisco: CA: 45 participants.
49. Texas Instruments (15-16 December 2013). "The Craft of Technical Presentations," workshop. Dallas, TX: 15 engineers.
50. Texas Instruments (2-3 December 2013). "The Craft of Technical Presentations," workshop. Freising, Germany: 12 engineers.
51. Simula Research Laboratory (25-29 November 2013). "Communicating Scientific Research: Part II," graduate course. Fornebu, Norway: 25 PhD students.
52. Institute for Energy Technologies (21-22 November 2013). "Presenting and Proposing Scientific Research," workshop. Lillehammer, Norway: 20 scientific researchers.
53. National Academies of Engineering and Science (12-13 August 2013). "The Craft of Scientific Presentations," workshop. Pittsburgh, PA: 24 engineers and scientists.
54. SPIE (5-7 August 2013). "The Craft of Scientific Presentations," workshop. Sao Paulo, Brazil: 50 participants.
55. SPIE (24-25 July 2013). "The Craft of Scientific Presentations," workshop. Osaka, Japan: 45 participants.
56. Battelle Memorial Institute (11 July 2013). "Research Writing for Engineers and Scientists," workshop. Columbus, OH: 20 engineers and scientists.
57. Northeastern University (8 May 2013). "Rethinking the Design of Presentation Slides," invited lecture. Boston, MA: 35 graduate students.
58. University of Massachusetts Medical School (6 May 2013). "Rethinking the Design of Presentation Slides," invited lecture. Worcester, MA: 50 medical researchers.
59. Simula Research Laboratory (4-8 March 2013). "Communicating Scientific Research: Part II," graduate course. Fornebu, Norway: 30 PhD students.
60. SPIE (5 February 2013). "The Craft of Scientific Communication," workshop. San Francisco, CA: 25 participants.
61. AREVA Nuclear Power (17 January 2013). "The Craft of Scientific Writing," workshop. Charlotte, NC: 10 engineers.
62. 360BSI Workshop (17-18 September 2012). "The Craft of Scientific Communication," workshop. Jakarta, Indonesia: 25 technical professionals.

63. Simula Research Laboratory (28 May 2012). “Writing Research Proposals,” workshop. Fornebu, Norway: 20 PhD post-doctoral students.
64. Institute for Energy Technologies (29-30 May 2012). “Communicating Scientific Research,” workshop. Lillehammer, Norway: 45 researchers.
65. Shanghai Jiao Tong University (7-11 May 2012). “Communicating Engineering Research,” workshop. Shanghai, China: 50 graduate students.
66. Lawrence Berkeley Laboratory (20 April 2012). “Rethinking the Design of Presentation Slides,” 3-hour invited workshop. Berkeley, CA: 50 attendees.
67. University of Texas El Paso (6 April 2012). “Rethinking the Design of Presentation Slides,” seminar. El Paso, Texas: 30 faculty and graduate students.
68. University of Tennessee (29 March 2012). “Rethinking the Design of Presentation Slides,” seminar. Knoxville, TN: 45 students.
69. American Association of Medical Colleges (9 March 2012). “Rethinking the Design of Presentation Slides,” invited lecture. Santa Fe, NM: 75 attendees.
70. Lawrence Berkeley Laboratory (27 January 2012). “Rethinking the Design of Presentation Slides,” 3-hour invited workshop. Berkeley, CA: 100 attendees.
71. AREVA Nuclear Power (26 January 2012). “The Craft of Scientific Writing,” workshop, San Jose, CA: 18 engineers.
72. SPIE (25 January 2012). “The Craft of Scientific Communication,” workshop. San Francisco, CA: 40 participants.
73. Natick Army Research Laboratory (12-13 January 2012). “The Craft of Scientific Presentations,” workshop. Natick, MA: 35 participants.
74. University of Seville (21-22 November 2012). “Communicating Scientific Research,” workshop. Seville, Spain: 30 researchers in physics.
75. University of Massachusetts Medical School (17 November 2011). “Rethinking the Design of Presentation Slides,” workshop. Worcester, MA: 35 attendees.
76. National Science Foundation (16 November 2011). “Rethinking the Design of Presentation Slides,” invited lecture to Distinguished Lecture Series. Washington DC: 75 attendees. Film: http://www.nsf.gov/news/mmg/mmg_disp.cfm?med_id=71558&from=vid.
77. Drexel University, College of Engineering (6 October 2011). “Rethinking the Design of Presentation Slides,” invited lecture. Philadelphia, PA: 75 attendees.
78. Clemson University, College of Engineering (1 September 2011). “Rethinking the Design of Presentation Slides,” invited lecture. Clemson, SC: 75 attendees.
79. Shanghai Jiao Tong University (20-21 June 2011). “Communicating Research,” 2-day invited workshop. Shanghai, China: 30 attendees.
80. Seoul National University (14 June 2011). “Rethinking the Design of Presentation Slides,” invited lecture. Seoul, Korea: 125 attendees.
81. University of Maryland, NSF Controls Conference (30 April 2011). “Rethinking the Design of Presentation Slides,” invited lecture. College Park, MD: 150 attendees.
82. Confex Norge AS (30 March 2011). “Rethinking the Design of Presentation Slides,” keynote address to Science and Media Conference. Mountain View: 75 attendees.

83. Google (27 January 2011). “Rethinking the Design of Presentation Slides,” invited lecture. Oslo, Norway: 100 attendees.
84. European Space Observatory (23-24 November 2010). “Research Communication for Engineers and Scientists,” 2-day workshop in Santiago, Chile, 45 participants.
85. European Young Investigators (5 November 2010). “Research Communication for Engineers,” 3-hour workshop in Salerno, Italy, 75 participants.
86. University of Seville, Physics Department (28-29 May 2010). “Communicating Scientific Research,” 2-day workshop in Seville, Spain, 30 participants.
87. University of Bucharest (25-26 May 2010). “Communicating Scientific Research,” 2-day workshop in Bran, Romania, 45 participants.
88. Harvard Medical School (5 March 2010). “Rethinking the Design of Presentation Slides,” invited lecture. College Park, MD: 150 attendees.
89. King Abdullah’s University of Science and Technology (30 July 2009). “Communicating Engineering and Science,” 1-day workshop. Jeddah, Saudi Arabia: 25 participants.
90. NSF Workshop (6-7 July 2009). “Survival Skills in Engineering and Science for High School Girls,” 2-day workshop. Kingston, Jamaica: 30 participants.
91. MIT (30 January 2009). “Rethinking the Design of Presentation Slides,” invited presentation. Cambridge, MA: 30 students and faculty.
92. Simula Research Laboratory (10–14 May 2008). “Communicating Research in Engineering and Science,” 5-day workshop. Oslo, Norway: 50 participants.
93. Sandia National Laboratories (7 February 2008). “Communicating Research in Engineering and Science,” 1-day workshop. Albuquerque, NM: 20 post-docs.
94. Sandia National Laboratories (21–22 January 2008). “Communicating Research in Engineering and Science,” 2-day workshop. Livermore, CA: 20 participants.
95. International Society of Exposure Analysis (16 October 2007). “Communicating Science to Lay People,” invited lecture. Durham, NC: 125 conference attendees.
96. Wharton School of Business (4 April 2007). “Rethinking the Design of Presentation Slides,” invited presentation. Philadelphia, PA: 40 students and faculty.
97. Society of Toxicology (20 March 2007). “Communicating Science to Lay People,” invited. Charlotte, NC: 150 conference attendees.
98. Institute for Energy Technologies (22-25 September 2006). “The Craft of Scientific Presentations,” 3-day workshop. Oslo, Norway: 75 participants.
99. SPIE Security and Defense Conference (April 2006). “The Craft of Scientific Communication,” 1-dy workshop. Orlando, FL: 24 participants.
100. United States Geological Survey (11 July 2005). “Rethinking the Design of Presentation Slides,” invited presentation. Menlo Park, CA: 80 researchers. Film: <http://wwwrcamnl.wr.usgs.gov/wrc/videos.htm>.
101. University of Illinois (15 April 2005). “Incorporating a New Design of Presentation Slides into Large Engineering and Science Classes,” invited presentation (Urbana-Champaign: University of Illinois, 15 April 2005), 30 faculty.
102. SPIE-Optics West Conference (24 January 2005). “The Craft of Scientific Communication,” 8-hour workshop. San Jose: SPIE, 25 participants.

103. Environmental Protection Agency (4–5 November 2004). “The Craft of Scientific Presentations,” 2-day workshop. Boston, MA: 16 participants.
104. MIT (3 November 2004). “Rethinking the Design of Presentation Slides,” invited lecture. Cambridge, MA: 40 faculty and graduate students.
105. University of Oslo (10–13 June 2004). “The Craft of Scientific Presentations,” 3-day workshop. Oslo, Norway: 75 participants.
106. United Technologies (5 December 2003). “The Craft of Scientific Presentations,” 8-hour workshop. Hartford, CT: 15 participants.
107. University of Texas Medical Branch, Department of Anatomy (17 October 2003). “Rethinking the Design of Presentation Slides,” invited lecture (Galveston, TX: 125 faculty and graduate students).
108. University of Illinois, Academic Excellence in Engineering Education (1 March 2003). “Rethinking the Design of Presentation Slides,” invited lecture. Champaign, IL: 100 students.
109. University of Texas, Mechanical Engineering Department (20 September 2002), “Rethinking the Design of Presentation Slides,” invited lecture. Austin, TX: 60 faculty and students.

Recent Funded Proposals

1. Karen Thole, Michael Alley, and Joanna Garner (December 2014). “Supplemental Proposal: Leveraging the I-Corps Model to Propagate and Scale the Innovative Approaches to Learning Made Possible by the Engineering Ambassador Programs,” Proposal for NSF I-Corps, \$50,000, *funded*.
2. Karen Thole, Michael Alley, Melissa Marshall, and Joanna Garner (September 2013). “Creating a National Network of Engineering Ambassadors: A Professional Development Program with an Outreach Mission,” Type 2 Proposal for NSF TUES, \$650,000, *funded*.

Selected Service

1. National Coordinator, Engineering Ambassadors Network (2017): network of 20 schools across the country with mission of both recruiting talented and diverse students into engineering and empowering the undergraduate engineering recruiters with advanced communication and leadership skills.
2. Faculty Advisor, Leonhard Center Speaking Contest (2013-17): speaking contest in the College of Engineering at Penn State that draws 250 attendees to the finals (selected presentations available on <http://www.assertion-evidence.com/models.html>).
3. ASEE Division Chair of LEES: Liberal Education/Engineering and Society (2013).
4. ASEE Program Chair for LEES (2011).