

Speech: The Words You Say

Desperately eager to reach his students, his sensitivities sharpened by his own past difficulties, Oppenheimer made it a point to pay as much attention to the troubles of his charges as to the intricacies of his subject. His language evolved into an oddly eloquent mixture of erudite phrases and pithy slang, and he learned to exploit the extraordinary talent for elucidating complex technical matters.¹

–Daniel J. Kelves

Simply put, speech is what you say in a presentation. A speech targeted to the audience is essential for a presentation's success. Consider J. Robert Oppenheimer's early lectures given at California-Berkeley in 1929. Only 25 years old, but already well known for his work on the quantum theory, Oppenheimer began his teaching that first semester with a class full of eager graduate students. Halfway through the semester, though, the number of students registered for his course had dropped to one.²

The principal reason that students dropped the course was that Oppenheimer did not target them in his speech. For one thing, Oppenheimer's pace was much too fast for the students. Interestingly, although the students considered the pace to be much too fast, Oppenheimer felt that it was too slow.³ Another problem with Oppenheimer's speech was that he made "obscure references to the classics of literature and philosophy."⁴ The combination of these two problems caused many of the students to complain to the head of the department. However, Oppenheimer was already aware of the problems

and worked hard to slow his pace, to clarify his ideas, and to make connections between his points. The result was that Oppenheimer's later students found him to be "the most stimulating lecturer they had experienced."⁵

One important element of speech that Oppenheimer failed to achieve in his early lectures was the matching of what was said to the audience, purpose, and occasion. When this match does not occur, one essentially gives the wrong speech. Another important aspect of speech with which many scientists and engineers struggle involves finding the words that communicate the work in an engaging manner. Put another way, a scientific presenter faces the challenge of not only presenting the work in a precise and clear manner, but also presenting the work in a way that maintains the audience's attention. After all, if the audience drifts off, then no communication occurs.

Notes

¹D.J. Kelves, *The Physicists* (Knopf, New York, 1978), p. 218

²P. Goodchild, *J. Robert Oppenheimer* (Houghton Mifflin Company, Boston, 1981), p. 25

³N.P. Davis, *Lawrence and Oppenheimer* (Simon & Schuster, New York, 1968), p. 27

⁴D.J. Kelves, *The Physicists* (Knopf, New York, 1978), p. 218

⁵P. Goodchild, *J. Robert Oppenheimer* (Houghton Mifflin Company, Boston, 1981), p. 25



<http://www.springer.com/978-1-4419-8278-0>

The Craft of Scientific Presentations

Critical Steps to Succeed and Critical Errors to Avoid

Alley, M.

2013, XIX, 286 p. 59 illus., 53 illus. in color., Softcover

ISBN: 978-1-4419-8278-0