

Professor Herbert Wilf, who in 1989 was on sabbatical at Stanford from the University of Pennsylvania, gave the Stanford mathematical writing class several pointers on good technical writing.

***Get the attention of your readers immediately.*** Snappy titles, arresting first sentences, and lucid initial paragraphs are all methods of doing this.

As examples, he showed us a paper by Andrew M. Gleason with the title “Trisecting the Angle, the Heptagon, and the Triskaideagon”; a paper by Hugh Thorston that began “Can a graph be both continuous and discontinuous?”; and the first paragraph of an autobiographical piece by Olga Taussky-Todd that started with some insight into the author’s fascination with matrices. Gleason’s paper was attention-getting mostly because Gleason is famous – “that helps.”

***Get everything up front.*** Tell your readers in plain English what you are going to write about and let them decide for themselves whether or not they are interested. (You can quintuple your readership if you let them in on what it is that you are doing.”)

***Remember that people scan papers when they read them.*** Potential readers will skim looking for statements of theorems. If all of your text is discursive they will have nothing to latch onto. Summarize your results using bold face (“or neon”) so that the page flippers can make an informed decision. Similarly, drop notational abbreviations and convoluted references in the statements of theorems.

***A little motivation is good, but readers don’t like too much.*** Presenting examples that do not yield the desired results can be quite useful, but the technique loses its charm after a small number of such examples. (Far from overdoing this technique, many writers will introduce mysteriously convenient starting points for their theorems. “Whenever I see ‘Consider the following . . . ‘I know the author really means to say ‘Here comes something from the left-field bleachers.’”)

Donald E. Knuth, Tracy Larrabee, Paul M. Roberts. *Mathematical Writing*. The Mathematical Association of America. Washington, D.C. (1989). pp. 59-60.