

Engineering Reports Rules

University of Oklahoma- CBME- ChE 4253 (Fall 2018)

Three Readers

Any good engineering report has three readers:

- 1) **Executive reader:** He/she will read some sort of Summary. Said summary should say directly, what was asked, and what is the answer and what methodology was used. Any additional comment regarding important issues (environmental, how much you believe your answers, % error), can be added in one sentence. If it appropriate, incorporate a recommendation of what needs to be done.
 - 2) **Managerial Reader:** Aside from the Summary, this reader will glance through the rest, that is will verify through your statements if the report is a good one or it is flawed in the choice of sources of data, the assumptions made, and will judge if the results merit further scrutiny and/or further review by the authors before moving on.
 - 3) **Detailed (picky reader):** The manager would assign this report to an engineer who will make a revision of the calculations, the assertions made, etc.
- Satisfying reader 1, requires condensing all the work in a few sentences.
 - Satisfying reader 2 requires to be organized in the presentation and making sure that there are key sections/sentences that describe the assumptions made, the sources of data, the analysis of said data regarding credibility, the strategy of analysis of the report (methods and tools) and the results. A good strategy is to summarize each section at the beginning AND at the end!!
 - Satisfying reader 3 requires providing supplemental material that show calculations made, starting data, etc. In this particular project, I would make sure that I have the original data source the data chosen or used, the method used (in your case order of magnitude) identified in the report with the corresponding level of detail (use of correction factors or not). You can show said details in an appendix of the report or in a carefully crafted (and understandable to others, i.e with titles and comments), excel spreadsheet. A good rule to satisfy the 3rd reader is to verify that that reader can use the data you provide and REPRODUCE the results you got.

Presentation

Project title, names, context (this class, a larger project, Manager request, etc.), and section titles/subtitles organization. It does help anybody that reads/grades the report to feel good about a well organized and easy to understand/grade narrative. It is good practice for Capstone and later for your professional life.

Final Thought: A good Engineer is one that can communicate well substantiated, verifiable results and provides recommendations when appropriate. Providing just results defines a Technician. We want you to become the former!!!