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So You Think That Engineers Don't (or Can't) Write...

Gary Breed
Editorial Director



Many years ago when I first entered engineering school, there was a clear message to new students—the engineering curriculum is so extensive and difficult that it leaves very little room for a well-rounded education. Looking back nearly 44 years later, I can laugh about my fellow students who took pride in their inability to spell correctly, use proper

grammar, or present ideas in an organized manner. I don't laugh so much when I recall that the prevailing attitude kept engineering students isolated from campus life, including social issues of the day, which were *huge* on most college campuses.

When it comes to writing, it is a myth that engineers don't need to write well. Let me repeat that: *It is a myth that engineers don't need to write well.*

Engineers are required to write a lot—and effective writing will have a profound impact on an engineer's influence within the company, and on his or her entire career. If you don't think engineers write much, take a look at this list of things that are part of your job:

- Your engineering notebook
- Other documentation of your projects
- Internal company e-mails
- E-mail exchanges with other colleagues
- Presentations in meetings
- Contributions to instruction manuals

This is just the minimum. With experience and seniority, the list grows even longer:

- Product definition documentation
- Presentations to senior management
- Internal training materials
- Standards-compliance documentation
- Technical explanations to marketing and sales personnel
- Conference papers
- Magazine articles (of course!)

As you look at the above list, you can see that writing is important. Note that oral communications is also “writing” in the sense that ideas must be organized into words. It makes no difference whether those words are written, spoken, or turned into bits and bytes.

Notes on Writing

Here are a few things I’ve come up with over the years to help explain how writing relates to engineering:

First, engineers are smart; most of them were very good students in grades K-12, not just at the university level. You probably learned the necessary vocabulary, spelling and grammar fundamentals by Middle School, then gained some familiarity with literature and speech in High School.

You need to remember those lessons! That English term paper

you did in High School was intended to teach both understanding of the subject matter and clear, accurate presentation of an idea or analysis (which sounds a lot like engineering, not just Dickens or Shakespeare...).

Next, it is my experience that the best engineers are also good writers. As just noted above, really smart people are good at many things. But these top engineers also worked hard on their writing, starting with a complete understanding of the subject and a desire to communicate their insights to others. Early in a career, effective communication is necessary to show the world your ability. Later on, it helps you share your knowledge for the next generation to build on.

Finally, in 25+ years on the magazine side of engineering communications, I have worked with many young engineers (and a few

older ones) on their first publications. One thing stands out from these early writing experiences—engineers *can* write, especially the parts of an article that are the key technical explanations. As new authors, they made sure they knew the subject, and a clear understanding translates readily into clear written explanations.

On the other hand, the narrow focus that is necessary for top-notch engineering can make it hard to see the relationship of the work to history or other current technologies. Many authors have difficulty explaining these “big picture” ideas in an article’s introduction and summary sections.

Fortunately, age and experience bring an awareness of the wider implications of your work—which makes it easier to write about!