

FAQs About Writing in MEEN 401

Technical Writing and Reports:

Do people actually read technical reports?

Yes! Technical reports communicate technical information, facts, and conclusions about engineering projects. A report such as the DR1 documents the design process so that readers, including other engineers, can understand your design choices and problem solving strategy. In professional settings, technical reports are used to communicate progress on specific projects to colleagues, supervisors, and other stakeholders.

What is the most important aspect of a technical paper?

Above all else, technical papers must be useful for their audience. This requires writers to adhere to the following tenets of technical writing: legibility, clarity, accuracy, and completeness.

Can you have too much detail in a report?

Yes. Including too much extraneous information in your report can negatively impact the overall clarity of the report. What constitutes “too much information” will depend on your audience and purpose for writing.

What's the best way to talk about a diagram in a report?

Diagrams and other visual elements are referred to as “figures,” and should be labeled numerically (e.g.: “figure 1.”). Be sure to cross reference each figure, which should be titled and labeled appropriately, by referring to it at the relevant point in the body of the text. You should also point out the specific details that you want the audience to pay attention to and explain what those details mean for the reader.

For example:

Cats’ coats come in many different colors and patterns. Such features can provide clues about a cat’s breed. For example, Figure 1 depicts a cat with a gray tuxedo coat.



Figure 1. Cat with a gray tuxedo coat.

The cat also displays short fur with a crisp pile, which may indicate that the cat is a British Shorthair.

In the example, the writer cross referenced the figure by calling it by its label, introduced the figure in the relevant point in the discussion (after the idea of cats' coats providing clues about a cat's breed), points out specific, important details (fur color, pattern, and length), and explains the meaning of those details (that the cat's coat suggests that it might be a British Shorthair).

What does it mean for writing to be concise in a long-form report such as the DR1? How concise is too concise?

Being concise means communicating all necessary information using as few words as possible. The operative phrase here is "all necessary information." As you write and revise, be sure to evaluate the information you include to make sure it all belongs and is necessary to the reader's understanding of your work.

In long-form reports, concision becomes even more important for effective communication with the reader. Readers of long-form reports expect to see concepts explained in significant detail. If you sacrifice necessary details in favor of writing as short a report as possible, then you won't meet the reader's needs or expectations.

Do I still need to use rhetoric in technical writing to make a point?

Yes! If you think of rhetoric as the art of writing effectively, then you can see how rhetoric comes into play even in technical writing. In the DR1, for example, your goal is to show the reader that you understand the design problem you've been asked to address. You demonstrate your understanding by explaining the client's needs, goals of the project, constraints, and concepts in science and engineering that will help you develop your design. How clearly you articulate these ideas in writing determines whether your audience will be persuaded that you have an adequate grasp of the problem and that you are ready to start looking for solutions.

How do you make sure that your audience isn't confused when explaining technical concepts?

When explaining technical concepts to a non-expert audience, be sure to consider what they likely know and what they may need explained. You can often explain a technical concept by providing examples or drawing parallels between the concept you're explaining and something the audience is likely to be familiar with.

Is it important to use transition sentences between sections of a report even if they are separately labeled?

Yes. Using transition sentences between sections shows your reader how those sections relate to one another. This creates cohesion in the report.

Writer's Block and Productivity:

How do I deal with writer's block?

Writer's block can happen for a number of reasons, fatigue, stress, perfectionism, anxiety, and other factors can cause us to stare at our computer, cursor blinking in a Word document, with nothing happening.

Addressing writer's block requires understanding its cause. Resting when we're tired or doing something relaxing when we're stressed can help us feel more comfortable to sit in our chair and write. If perfectionism is your biggest hurdle, then it can help to remember that no one writes perfectly; the vast majority of the successful writing (technical,

academic, creative, etc.) you've encountered is the result of revision. If anxiety is keeping you from writing, then freewriting for five minutes can help you take the plunge. Making a plan for writing (i.e. prewriting) is also helpful for giving yourself a sense of direction as you work through the beginning stages of a writing project.

How do I know when I should write versus take breaks?

A lot of our writing time is determined by deadlines and other obligations. Dedicating writing time during the work week can help you break your writing projects into manageable pieces. The catch here is that you have to protect this writing time; if you plan for an hour of writing between your morning and afternoon classes, for example, block that appointment off in your schedule and resist the temptation to make an impromptu lunch date with a friend.

You should also set agendas for your writing time. For example, you might plan to work on the background research of a report during your Tuesday writing session. Then on Thursday, you'll work on the problem section. Setting these agendas allows you to go into each writing session with the mindset that you'll work to complete specific tasks. If you find that you aren't able to complete the background research section on Tuesday, you can adjust your plan so that it better accommodates your progress.

When you should take breaks depends largely on your stamina. Some folks can write for hours at a time while others are lucky to focus for twenty minutes. Writing when you're tired, stressed, or otherwise struggling can be unproductive and frustrating. Building breaks into your writing time can help you build stamina. Consider a time management system like the [Pomodoro technique](#), which encourages you to work for less than an hour at a time and take short breaks between work sessions. Every writer is different, so try experimenting with different work to break ratios to figure out what works best for you.

When do breaks become unhelpful?

Breaks become unhelpful when we're using them to avoid writing entirely. Taking a short break after writing a few paragraphs is reasonable, but ignoring our writing entirely for two days after writing a few paragraphs is excessive. Just like with writer's block, it's important to figure out the cause of the avoidant behavior to address it.

How do I save time writing?

Writing is inherently time intensive, but you can save some time by planning ahead. Outlining your writing projects, for example, can help you make a game plan for how

you'll develop each section. You can further develop that outline by writing down the major points you want to make in each section of the outline. This is particularly useful for a background research section because it can give you an idea about which resources to gather for future citation.

Time management systems like the Pomodoro technique (mentioned above) can also help you save time. Working in short bursts of about 25 to 35 minutes forces you to be productive because you know you only have a short time in which to work and that a break is right around the corner.

How do you identify areas of improvement from previous writing?

Reading feedback on previous writing assignments and determining which pieces of feedback appear most often is a great way to identify weaknesses in our writing. If, for example, you regularly receive feedback that your writing is “choppy” or “doesn’t flow,” then that may indicate that you need more transitions between ideas. Then, during your next writing project, you can focus on making sure you are transitioning smoothly between ideas.

If you don’t have instructor comments on previous writing assignments, getting a friend to provide peer feedback is a good option (so long as they’re honest with you). Have a friend read your work and talk with you about where they get lost, confused, etc.

How do you become a good reader of your own writing?

As helpful as feedback from instructors and peers can be, it’s important to become good readers of our own writing.