

Clear Thinking = Clear Writing

Plain English = Good English

More Revisions = Superior Writing

Writing Clearly: Three Equations for Hard-core Engineers

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I dedicate this article to Late Hiru Jhangiani who first gave me an opportunity to write in this Journal in 2002, and who strongly advocated cultivating written communications skills among HVAC Engineers.

Introduction

Back in August 1994, on the third day of my new job with a mechanical and electrical (M&E) consulting firm at Singapore, my boss asked me to write a letter to a client to request for some design information. I looked around and asked the secretary (who served a group of engineers) to take dictation. But seeing her long face, I sensed something was not right with my request. Indeed, the secretary grabbed the opportunity to inform me the following 'official procedure' for writing a letter:

I should first write a draft with my hand and then give it to her for typing. (Those days, 'computer on every desk' was not yet a reality.) The typed draft would come back to me for a review, and then it would go to my boss for a review. After that, she would retype the draft, followed by reviews by me and my boss. And the cycle would go on until the letter was perfect enough to be sent out.

I thought it was simply crazy and was taken aback by the elaborate process of writing a simple letter, but had little choice than to flow with it. We sent out that letter after four rounds of refinement over the next six hours.

Puzzled and frustrated, I could not resist asking my boss to explain the logic of pouring in such an enormous amount of time and effort in writing a letter. And he obliged with the following explanation:

"We are in the consulting business. We don't make physical products like chillers or cooling towers or air handling units. Our product is knowledge, which we express in drawings, reports, specifications, procedures, letters, etc. And every time our clients read one of our documents, they evaluate us by its quality. Not just technical quality, which sometimes they may not understand, but also the quality of language. If we are sloppy in our communications, say misspell a word or miss critical information, they can conclude that if this firm cannot take care of small things, they cannot be trusted with bigger responsibilities."

Till then I used to believe that technical competence was supreme, but he created a mini paradigm shift for me. And he went on...

"We even go to great lengths to get the names right. It is not okay to spell Jean-Thierry Pyke as Jean-Thiery Pyke. And we don't use white fluid or overwrite in our documents. We strive to keep all

About the Author

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our communications precise, concise, grammatically correct and complete. We believe we should be technically sound, but that's not enough. We should also be sound in our communications—verbal and written."

I got the point, but he was not finished.

"You're new, and you will surely remember this first letter for ever. The six hours we spent today were not wasted; that's our investment in you and our communications. A few weeks down the road you won't take so much time to produce a letter. Please remember that whenever you write something, you are not only making a statement about your language abilities, but also about your thinking, commitment to quality and attention to details."

His elaborate and passionate explanation left me wondering whether I had joined a communications or an engineering consulting firm. But that day turned out to be a momentous day; it set me off on a new journey that would lead me to an unforeseen destination. Seven years later, in 2001, I started my own consulting and communication firm, Content Alive. From a hard-core engineer who cared a little about communication skills, I turned into someone whose very livelihood hinged on the ability to communicate.

Three Equations for Clear Written Communications

Over the last 20 years, I have come across several situations that underscore what my boss was trying to drive in my head: In the technical field, communication skills can make a decisive difference.

I have seen vendors with technically and commercially acceptable equipment losing big contracts because of their incomplete, sloppy business proposals. I have seen contractors misinterpreting and misquoting projects, and ending up with painful disputes because of confusing and complicated specifications. And I have seen companies working hard to somehow increase the thickness of their technical reports, but eventually losing the client's trust.

I have seen project managers unknowingly delaying their projects because of their habit of writing long-winded, vague e-mails. I know many hardworking and knowledgeable engineers whose career trajectory has prematurely reached a plateau for the sheer lack of communication skills. And I have also seen engineers with good communication skills rising to the top even when their technical knowledge is not that robust.

If you do see the strategic value of written communication skills to your organisation and career, here are three equations to help you become a more effective and influential communicator:

Equation 1: Clear Thinking = Clear Writing

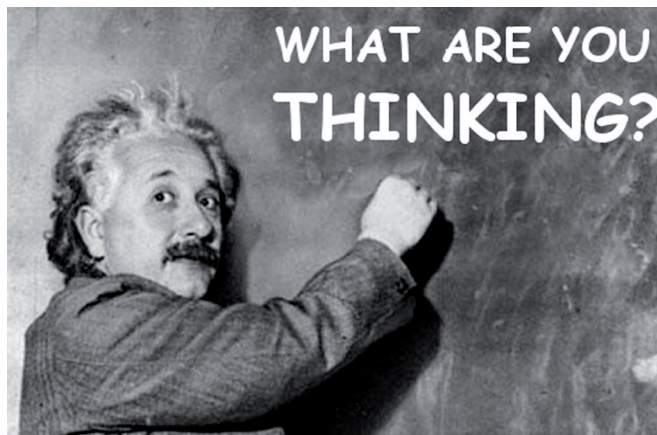
Equation 2: Plain English = Good English

Equation 3: More Revisions = Superior Writing

All you have to do is to take care of the left hand side variables in these equations and the output on the right hand side would take care of itself.

Clear Thinking = Clear Writing

Einstein once said: "You do not really understand something unless you can explain it to your grandmother." Similarly, you



cannot achieve clarity on paper unless you first achieve it in your head.

Clear thinking precedes clear writing. The main reason behind vague, confusing and incomplete e-mails, reports, proposals or specifications is not necessarily the poverty of language skills; often, it is insufficient thinking before writing. Conversely, a precise, to-the-point piece of writing is always a product of someone's investment in thinking prior to writing.

Before you write anything, remember to think about the following three direction-setters:

- **Objective:** Why are you writing? What is the objective of the e-mail, letter or report you are writing? Is it to give some information? Or to ask for some information? Or to get someone to act in a certain way? Or to guide people to make a difficult decision? Or to provide a solution to a problem? Or to persuade someone to think differently about an issue?
- **Readers:** Who will read what you are writing? What is their background? How much time do they have? Are they technical or non-technical people? What are their priorities and concerns?
- **Outline:** Keeping in mind the objective and readers, what are the key points that you should cover and in what sequence? And equally important, what should you keep out? What can be the possible outline of your document?

How many times we write e-mails, reports, proposals, etc. while lost in our own agenda and disregarding who we are writing for? Keeping the objective, readers' profile and an outline in your mind has a profound effect on the clarity of your writing.

People think writing is about writing, but writing is a lot about thinking.

Plain English = Good English

In 1942, during the Second World War, the United States government was all set to issue a blackout order, but President Franklin D. Roosevelt blocked it.

The order read: "Such preparations shall be made as will completely obscure all Federal buildings and non-Federal buildings occupied by the Federal government during an air raid for any period of time from visibility by reason of internal or external illumination."

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Offering a simpler alternative, President Roosevelt said: "Tell them that in buildings where they have to keep the work going to put something across the windows."

More than 70 years later, simplified written communications still remains a pressing need.

Gone are those days when complicated language, which only a few people could understand, was considered to be a sign of sophistication and competence. Today the name of the game is "plain English".

Plain English is defined as writing that the intended audience can read, understand and act upon the first time they read it. Plain English is now a government-backed movement in leading English-speaking countries like the UK, the US and Singapore. The plain English campaign encourages government agencies and private industry to simplify written communications to make it easy for the readers to understand.

Out of the many recommendations of the plain English movement, the following three are particularly effective for engineers:

Write Short Sentences

Try to grasp the meaning of the following 46-word sentence, which I have picked from a website:

At the heart of our professionally run business lies a proud heritage of industry, integrity and enterprise, focused on creating lasting value for our clients, improving quality and safety standards on every project, and maximising opportunities for our employees to help them achieve their career potential.

Reading a long sentence stuffed with too many ideas is like drinking soup with a ladle instead of a spoon. Long sentences may look impressive but they tax readers' memories and leave them confused.

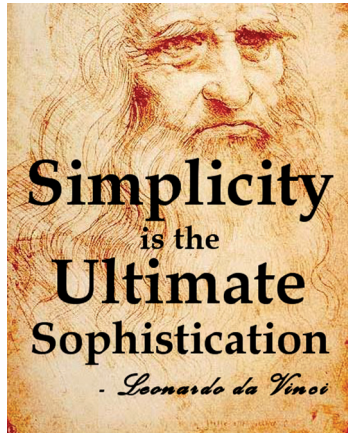
The clarity of your writing will dramatically improve if you break long sentences into short ones and write short ones in the first place. Good practice: Keep the average sentence length limited to 20 words.

Short sentences are long on clarity.

Avoid Clutter

Another quick way to improve the clarity of your writing is to get rid of clutter—the needless phrases. Phrases like the ones below routinely appear in our communications, but don't serve any purpose other than to waste the reader's time. Prune them ruthlessly and get to the point.

- We wish to inform you that...
- Please be informed...
- It should be noted that...



- As a matter of fact...
- We are of the opinion...

Says American writer and literary critic William Zinsser: "Writing improves in the direct ratio of the number of things we keep out of it." Delete, delete, delete!

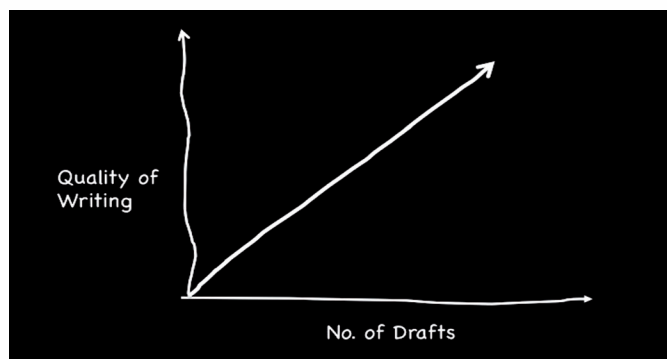
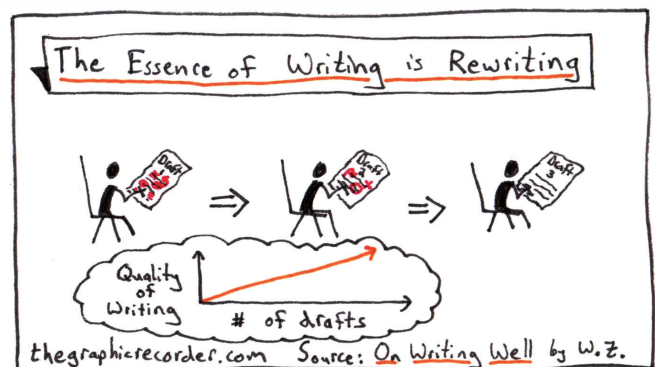
Minimise Jargon

As engineers we love jargon, which is defined as technical words or expressions used by a particular profession or group of people but which are difficult for others to understand. For example, HVAC engineers love the term "psychrometry", but non-HVAC people find it nonsensical.

Showing a little care with jargon in your e-mails, reports and proposals is a sure way to improve the clarity of your writing and influence your readers. Try the following strategies when dealing with jargon:

- Just like we do not expect our doctors to use medical jargon while dealing with us, avoid using highly technical words that your readers are unlikely to understand.
- If unavoidable, explain them the first time you use or define them in a glossary.
- If you feel defining a particular technical term not just once but after every few pages would help your readers and not force them to go back searching for its definition, please go ahead and define it more than once.

Bottom line: Make it easy for your readers.



More Revisions = Superior Writing

"Very few sentences come out right the first time, or even the third time. Rewriting is the essence of writing well." These are not my words. This nugget of wisdom comes from William Zinsser,

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one of the greatest American writers and the author of 19 books including the classic, *On Writing Well*.

Writing anything is a three-step iterative process: thinking, writing and revising. The third step – revising – is critical to the quality of your writing. When you rush through the last step, you crush the quality of your work.

If you want to test the equation between revisions and the quality of your writing, whenever you write an important e-mail the next time, do not send it out immediately after typing it. Take a break and look at it after 15 minutes. Fifteen minutes later, even though your language skills remain the same, you would see a couple of mistakes and areas of improvement. If you repeat the process, you will see even more opportunities to improve.

The Point?

If you are writing an important e-mail, report or proposal, be prepared to relentlessly review and revise it. That is the only way to avoid mistakes and improve the quality of your communication.

Bottom Line: Take Your Readers on a Desire Path

What is a desire path? I am sure you have walked on it many times. Desire path is the shortcut we create by walking repeatedly across an open ground.

Desire path is a classic illustration of the basic human need to spend minimum effort and time to do whatever we want to do. Because of this universal latent need, we like products, services, companies and people who take us on a desire path and hate those that require us to take the long route.



The secret of clear writing lies in having the attitude of taking the readers on a desire path, i.e., they should spend minimum effort and time to understand your e-mail, report, proposal, specifications, procedure, etc.

But if you wish to save your readers effort and time, you have to spend more effort and time at your end to think, write and revise. And that is what my boss made me do for those six hours while writing a single letter.

Why should you spend more effort and time to save the effort and time of your readers? Paradoxically, it will ultimately save your own effort and time. Not only that, you will find that the strategy of taking the readers on a desire path is good for your business and career.

So, the final equation:

More time and effort by you on your communications = Less time and effort for your readers = Good for your business and career.

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