



2015 Mentor Session: **Applying Skills to Writing** **Clear, Concise, and Effective** **Findings, Deficiencies, and** **Non-conformances**

Tips for Writing Clear Findings



Writing with Clarity

“If you can’t explain it simply, you don’t understand it well enough.”

-Albert Einstein





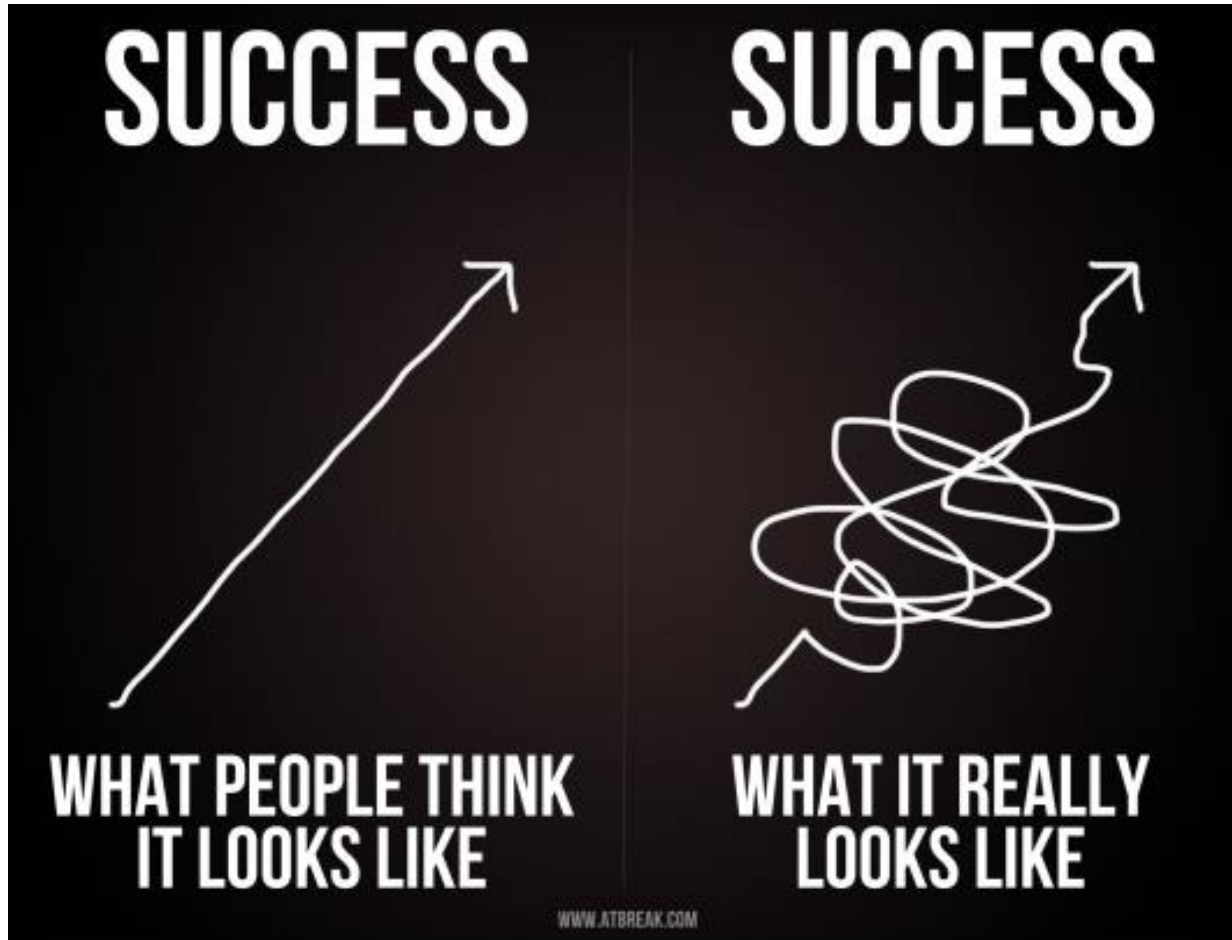
For Labs Only? Continuous Improvement

“Continuous improvement is better than delayed perfection.”

-Mark Twain



For Labs Only? Continuous Improvement



For Labs Only?

Precision and Accuracy

□ Precision

➤ Precision of analysis

- ✦ Reproducibility

➤ Precision of language

- ✦ Reproducibility

- ◆ Words and phrases that are simple and clear
- ◆ Words and phrases that are consistently understood to varied audiences



For Labs Only?

Precision and Accuracy

□ Accuracy

➤ Accuracy of analysis

- ✦ The quality of being true, correct, exact

➤ Accuracy of language

- ✦ The quality of being true, correct, exact
 - ◆ Words and phrases that correctly and exactly describe the observation
 - ◆ Words and phrases that correctly and exactly describe a non-conformance to a method or standard requirement



For Labs Only? No!

- Continuous Improvement
- Precision and Accuracy

Objective to consider in this session:
How can we apply these concepts to reports issued to laboratories?



Good communication skills benefit everyone



What can we do? Let's review!

- A quick review of “the basics” can go a long way
- Not difficult to build a “continuing education” for staff on *basics of writing* ... lots of resources & tips on the internet



What can we do? Let's review!

- APHL presentation “Writing Science for the Public”, April 2012
- *Eloquent Science: A Practical Guide to Becoming a Better Writer, Speaker, & Atmospheric Scientist* (David M Schultz)



Simple, Concise, & Clear

- Writing findings: a “quick expert commentary”
- **Ideas** *may be* complex
 - ... but **writing** *must not be.*
 - Paragraph level
 - Sentence level
 - Word level



Simple, Concise, & Clear

Paragraph level clarity

- **Short**
 - Include only relevant and related ideas in the same paragraph
 - Give “visual rest”: 2-3 short paragraphs likely more effective than 1 long one



Simple, Concise, & Clear

Paragraph level clarity

- **Cohesive**

- “Flow”; tied together
- Transitional devices guide readers and show how the parts relate to one another





Simple, Concise, & Clear

Paragraph level clarity

- Cohesive
 - Repetition
 - Enumeration
 - Transition



Simple, Concise, & Clear

Paragraph level clarity

- Cohesive

- Repetition

- Repeating key words and phrases
 - May or may not be identical
 - *For example*: repeat a key phrase from the regulatory citation in the statement of nonconformity





Simple, Concise, & Clear

Paragraph level clarity

- Cohesive
 - Enumeration
 - Organize ideas into lists
 - Use words like “first”, “second”
 - Use “bullets” to make a visual list





Simple, Concise, & Clear

Paragraph level clarity

- Cohesive
 - Transition
 - Writers *guide* readers
 - Clear transitions are keys to your reader's understanding



Simple, Concise, & Clear

- Transitional words:
 - **Sequence**
 - again, and, following this, subsequently, also, another [etc.]
 - **Comparison and Contrast**
 - at the same time, on the contrary, unless, even though, unlike, despite [etc.]



Simple, Concise, & Clear

- Transitional words:
 - **Cause and Effect**
 - therefore, consequently, accordingly [etc.]
 - **Emphasis**
 - especially, significantly, essentially [etc.]



Simple, Concise, & Clear

- Transitional words:
 - **Time**
 - while, since, later, throughout, during, often, rarely [etc.]
 - **Examples**
 - for example, in general, specifically, such as, another way, except [etc.]



Simple, Concise, & Clear

Sentence level clarity

- Active vs. passive verb tense
 - Active is generally “stronger”
 - Is it important who is performing the action?



Simple, Concise, & Clear

Sentence level clarity

- **Parallel structure**

- **Draft:** *The laboratory did not maintain records for method training or ethics.*
- **Improved:** *The laboratory did not maintain records for method training or ethics training.*



Simple, Concise, & Clear

Sentence level clarity

- Subject / verb distance
 - Subjects need verbs ... don't keep your reader waiting



Simple, Concise, & Clear

Sentence level clarity

□ Subject / verb distance

- **Draft:** The **instructions** for addition of supplemental nutrient, mineral, and buffer solutions to dilutions containing more than 67% of sample as described in SM 5210B 5.c.2 and omitted from SM 5210B 5.c.1 **should be moved** to the end of the first paragraph in 5210B.5.c. [30 words separate subject from the verb.]
-



Simple, Concise, & Clear

Word level clarity

- Precision and accuracy
 - **Precise words** – carefully chosen for a specific meaning
 - “issue was resolved” vs. “corrective action was effective”
 - (the requirement is for corrective action to be effective)



Simple, Concise, & Clear

Word level clarity

- Precision and accuracy
 - **Accurate words** – carefully chosen to communicate the observation by the assessor
 - “did not demonstrate” vs. “did not always demonstrate”
 - Does it make a difference?



Simple, Concise, & Clear

Word level clarity

- Concise, Simple
 - Bigger may not be better
 - For example: “utilize” or “use”?
- Avoid redundant combinations
 - “general overview” → “overview”
 - “currently underway” → “underway”



Simple, Concise, & Clear

Word level clarity

- **Acronyms**

- Consider your reader

- **Pronouns**

- Is the noun to which a pronoun refers clear to the reader?
 - Beware of “this” and “it” ... often far from “their noun”



And, don't forget ... The Power of Punctuation

- Colons
- Semicolons
- Commas
- Elipsis
- Apostrophes
- Dashes; Hypens
- Periods





Simple, Concise, & Clear

- Writing tip:
 - First, **write for accuracy**
 - Include all relevant details
 - Next, edit for:
 - Simplicity
 - Concision
 - Clarity



Simple, Concise, & Clear

TESTS for clearer findings:

- **The AESTHETICS TEST**

- How does it look?

- Is the paragraph long?

- Are there visual breaks?

- consider: bulleted lists, shorter paragraphs separated by a blank line, bold or italicized words

- Is there an acronym overload?



Simple, Concise, & Clear

TESTS for clearer findings:

- The “WHAT WAS OBSERVED?” TEST
 - Is the actual observation clear?
 - **Draft:** “The laboratory did not maintain a schedule of annual audits.”
 - **Improved:** “The laboratory did not maintain a schedule of annual audits. The laboratory’s internal audits were done in February 2012 and October 2014.”





Simple, Concise, & Clear

TESTS for clearer findings:

- The **EXAMPLE TEST**

- Are examples available and given?

- **Draft:** “The laboratory did not always have documentation of demonstration of capability for each analyst.”
- **Improved:** “The laboratory did not always have documentation of demonstration of capability (DOC) for each analyst. For example, DOC records were not available for the analyst hired in September 2014.”



Simple, Concise, & Clear

TESTS for clearer findings:

- **The TWICE TEST**
 - If you have to read it twice ... improve it.

(Don't presume your reader will read it twice!)



Simple, Concise, & Clear

TESTS for clearer findings:

- The PEER TEST
 - Assessor – to – assessor review

(Would another assessor have written that finding?)





Simple, Concise, & Clear

TESTS for clearer findings:

- The **OUT LOUD TEST**
 - How does it read “out loud”?

(Do natural pauses or emphases change the intended meaning or main idea?)





Simple, Concise, & Clear

“I have made this letter longer than usual, only because I have not had the time to make it shorter.”

-Blaise Pascal



Resources

- <http://punctuationmadesimple.org/>
- <http://www.punctuationmadesimple.com/>
- Web searches: Try these key terms:
 - Writing with clarity
 - Concise writing
 - Coherent writing

