



WHAT'S IN A WORD?

Developer:

Pacific Science Center

Category:

Facilitation

Approximate length:

25 minutes

Format:

Workshop

MAIN IDEA:

Scientists learn to identify and avoid jargon and other potentially confusing or unnecessarily complicated language while talking about their research.

RELEVANT OBJECTIVES:

- Scientists develop communication strategies that support inquiry.
- Scientists develop a broader understanding of how people learn and the nature of informal learning environments.

HOW THIS RELATES TO OTHER PROFESSIONAL DEVELOPMENT ELEMENTS:

This element works particularly well before scientists are given an opportunity to practice visitor interactions such as the ones that occur in *Talk to your Neighbor* or *Prototype Rotation*.

ASSUMED PRIOR KNOWLEDGE AND EXPERIENCE:

We assume scientists have familiarity with technical language in their field of expertise and some understanding that technical language is difficult for people outside that field to understand.

ROOM SETUP AND MATERIALS PREPARATION:

Draw a chart on a whiteboard or poster paper that has three columns outlined with the titles: Term, Problem, Alternative.

PROCESS:

Part 1: Introduction (5 minutes)

- Explain that for this activity, we will be thinking about language and vocabulary. This portion of the workshop is focused on avoiding jargon, but be sure to point out that technical language serves a very important purpose and is definitely not always a bad thing. Technical language is important for clear and precise communication with scientific peers.
- Note that sometimes as scientists become comfortable with this technical language or “jargon,” it slips into everyday language. Take an audience poll: Who thinks they’ve accidentally used jargon? Ask participants for specific examples.
- Describe the many audiences scientists speak with on a day-to-day basis:
 - Scientific colleagues
 - Scientists in other disciplines
 - Students
 - Administrative staff
 - Family and friends
 - Visitors to a science center
 - People in line at the grocery store or in the next seat on a plane
- Explain that speaking to multiple audiences requires flexibility in word choice. The goal is always to maintain precision without sacrificing understandability. It’s not about dumbing it down; it’s about finding the right place of access or point of relevance for the audience in front of you.

Part 2: Discussion and group activity (10 minutes)

- Use a whiteboard or poster paper to walk through and discuss several examples of jargon and unclear language with the group as a whole. The board should be prepped with a chart that has three columns, as titled in the example below.
- In the “term” column, list several of the jargon/unclear terms as noted in the chart that follows. Leave the “problem” and “alternative” columns blank. You will begin to fill in the content as participants share ideas and brainstorm. Add to their lists as necessary.

Term	Problem	Alternative
Order of magnitude	- Technical - Won't know what it means	- good: "multiples of 10" - better: "10/100/1,000 times more/less"
System	- Multiple meanings (model organism, mechanism, group of things, etc.) - Technical	- Describe the system ("mouse") - "group of ___ that works together to do ___"
Elucidate	- \$100 word (i.e., bigger than necessary) - Attitudinal barrier	- "Discover," "find out," "figure out"
Nano	- Technical - Buzzword - People feel like they should know it but don't	- Remind of definition - Avoid if unnecessary - Use size scale comparisons
Breakthrough	- Sensationalizing	- Avoid it - Be specific in describing the advance

- Circle or create a separate list for the major categories of language to avoid. Discuss these in broad terms. They are:

1. Technical terms

- Don't know what it means
- May feel that they should know the meaning (e.g., nano, gene, cell, DNA, electron)
- Attitudinal barriers
- Additional examples: micron, order of magnitude, myocardial infarction, nano, NSF, $e=mc^2$

2. Multiple definitions

- Introduces misunderstanding
- Examples: work, morphology, coronary, system

3. \$100 words

- Often imprecise/vague
- Often misunderstood
- Attitudinal barriers/stereotypes of scientists
- Examples: elucidate, methodology, utilized

4. “Lazy” words—buzzwords, clichés, sensationalistic
 - Often imprecise
 - People are sick of hearing them
 - Examples: miracle, breakthrough, novel, literally, paradigm shift

Part 3: Activity and discussion (15 minutes)

- Ask scientists to break into pairs. Try to have people who work in different disciplines paired together. Each partner will discuss his or her research or work in science for two minutes (be sure to time this strictly). The partner will keep a running list of potentially problematic vocabulary or jargon using the *What’s in a Word?* Worksheet (see next page). Emphasize that there is no need to intentionally *avoid* using jargon. Encourage participants to focus more on how much they can describe in two minutes, rather than focusing on the language they are using.
- After both rounds, partners should switch lists and spend about five minutes discussing their experience and starting to brainstorm alternatives for some of their terms.
- Bring the group back together and facilitate some reflection. Questions might include:
 - Did anything on the list surprise you?
 - Are there words you knew for sure would be on the list?
- Have groups share alternatives for several of the jargon words identified, or work out possible alternatives as a large group.
- Conclude with the idea that it is important to plan your language as carefully as you plan your own work. Provide a few tips for continuing to watch for jargon:
 - Focus on the problem categories, not on creating an exhaustive list of words to avoid.
 - Use friends and family who are not trained in the same scientific discipline as test audiences to help identify jargon that may not be obvious to the scientist.

MATERIALS:

- o *What’s in a Word?* Worksheet (1 per participant, see the next page)
- o Whiteboard and markers or easel with paper and markers
- o Pens/pencils for participants

VARIATIONS OR MODIFICATIONS:

- Use different examples of jargon words in Part 2 discussion. After facilitating *What’s in a Word?* with scientists, you may have additional examples that can be included for future groups.
- Use fewer examples of jargon in Part 2 for a shorter element.

