



Writing Across the Curriculum Community of Practice (WAC-CoP)

Reducing Jargon in Science Writing

February 9, 2016

Guest Speakers: Chris Balma, Director of Communications, Faculty of Science; Jenna Zukswert, Graduate Student, Department of Forestry, Research Assistant on CWSEI project on the impact of jargon on student learning.

Objectives of the WAC-CoP:

- 1) To connect people across the university that are involved in teaching writing in the sciences;
- 2) To facilitate sharing of experiences, challenges, ideas and best practices in the teaching and learning of writing in the sciences in an informal, risk-free environment.

Overview of this month's Lunch and Learn:

At this month's Lunch and Learn, Chris Balma and Jenna Zukswert discussed the role of jargon in both student learning, media communication and academic practice. Jenna presented the findings of a recent CWSEI project on the impact of jargon on science learning. They found that students who learned science concepts prior to learning the associated scientific jargon used less jargon in their answers and were better able to explain the concepts than students taught content and jargon simultaneously. Jenna also shared results that demonstrated that students generally understand less jargon than they think they do, with common errors being the omission of important details in their definition, confusing similar terms or using a non-scientific definition. Chris discussed the importance of recognizing your audience and knowing when to employ jargon in writing about science and when to avoid it. He noted the importance of minimizing jargon when writing for a mainstream audience. However, he suggested that online audiences vary; some audiences are highly dedicated to particular topics, so knowing where to incorporate jargon is a valuable skill. One of the most difficult things for students (and scientists) is realizing they are using jargon, as jargon is so embedded in the everyday language of scientists. Chris suggested testing your writing with a member of the appropriate audience to help recognize jargon. The group discussed ways to help students understand and use jargon, how to increase student understanding academic and non-academic writing practices and how to incorporate writing as tool for learning.

Key suggestions:

1. Improve student comprehension by teaching jargon-free concepts first and introducing jargon second.
 - a. Results from the CWSEI project showed a correlation between learning concepts first and having a better ability to explain the concepts in written answers. The



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- cognitive load for jargon in Biology courses can be similar to that of learning a new language.
- b. Help students identify and understand jargon by providing hyperlinks in course writing or having students provide a glossary with their writing.
2. Help students know their audience and write for that audience.
 - a. Explain the value of writing for different audiences (e.g. press releases, online blogs for community work, jargon for policy initiatives).
 - b. Design assignments that are written for different audiences. Many students will not remain in academia.
 3. Use writing with limited jargon as a learning tool.
 - a. Using limited jargon requires students to show their understanding through examples and analogies, which can strengthen their comprehension of the concepts.
 - b. Limited or jargon-free writing can be incorporated into classes through journals, written reflections (e.g. define a concept, summarize a class), etc. Such writing becomes more meaningful if included in some way into the final grade for the course.

Additional Resources

- Science Writing Resources For Learning (SCWRL) Educator Resource: Succinct Writing and Dealing with Jargon
<http://scwrl.ubc.ca/educator-resources/strategies-for-teaching-writing/using-peer-review/>
- SCWRL Student Resource: Editing Succinctness and Dealing with Jargon
<http://scwrl.ubc.ca/student-resources/guideline-for-effective-writing-writing-process/editing-succinctness-and-jargon/>
- McDonnell, L., Barker, M.K., and Wieman, C. 2015. Concepts first, jargon second improves student articulation of understanding. *Biochemistry and Molecular Biology Education*, 44(1): 12-19.
<http://onlinelibrary.wiley.com/doi/10.1002/bmb.20922/abstract>

Questions?

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