

Non-traditional Communication Assignments

Writing Across the Curriculum+ Program August 2018



Workshop Outline

- Introductions
- What communication skills do students need?
- Non-traditional communication assignments
- UBC resources
- Summary, educator resources, workshop survey



What is your experience with non-traditional communication assignments?



Workshop Objectives

We aim to help you:

1. Identify a variety of non-traditional communication assignments that have been used in science courses and discuss benefits and challenges for each;

2. Plan how you might apply non-traditional communication assignments into your course(s), including how you would assess them; and

3. Recognize resources at UBC for the implementation of such assignments.



Teaching communication skills in the university classroom (what and how)

On the handout:

List some communication activities (products) that science students might do *during* and *after* their degree.

How are you currently teaching the skills required to successfully accomplish these activities?

Be prepared to share with the larger group.



Non-traditional communication assignments

- Press releases
- Blogs and other social media
- Wikis
- Videos and podcasts

Press releases

A short (e.g. 300-500 words) written piece providing journalists with basic information about a piece of news (e.g. research at UBC).



UBC researchers develop new method to test for antioxidants in chocolate

Food scientists at the University of British Columbia have developed a faster and cheaper way to quantify antioxidant levels in chocolate. It's a method they plan to use in new research to help uncover when antioxidant levels rise and fall during the manufacturing process, from raw cocoa beans to chocolate bars.

Source: UBC News Website - http://news.ubc.ca/2016/11/29/science-for-sweet-tooths/

Press releases - Benefits

- Authentic
 - Helps students think about science in the news
- Develops skills for writing to a non-specialist audience
 - Helps students translate jargon
 - Exposes students to scientific writing (journal article)
- Introduces a different format and style than typical science writing
 - Emphasizes concise writing
 - Requires summarizing information and focusing on the main points
 - Demonstrates student comprehension of complex subjects



Press releases – Example Assignments

- Conduct experiment, write scientific article and onepage press release (materials science, Widstrand *et al.* 2001)
 - Writing reviewed by peers and by writing fellows hired for the class
- Press release for a scientific article (Biology, Robin Young BIOL200, more on UBC ScWRL Website)
 - Changed from writing a scientific essay; students participate in a science writing workshop
- Starting with a news article (Astronomy, ASTRO322 University of Alberta)
 - Students choose an astronomy media story, find the original article, summarize and write a press release



Press releases – Assignment Tips

- Teach students to write in this format and style
 - e.g. workshop on difference in language between press release and scientific article; jargon activity
 - Provide example press releases
- Allow for practice to help students balance the science content and language
- Help students focus on the important content for a press release and build their story
 - e.g. 3 question worksheet (Kross); inverted pyramid style
- Support students in reading the scientific articles
 - e.g. how are they structured, how to identify information to use, how to reference



Press releases - Assessment

- Assessment criteria to consider:
 - Scientific content
 - Organization/structure
 - Grammar/mechanics of writing
 - Style (e.g. written in journalistic style)
 - Headline (e.g. catchy, positive, and specific)
 - Lead (e.g. draws in reader, 1-3 sentences max)
 - News value (e.g. clear why it was written)



Headline (e.g. catchy, positive and specific)

Lead (e.g. draws in reader, 1-3 sentences max)

Science for sweet tooths

Media Release | November 29, 2016





UBC's Xiaonan Lu and Yaxi Hu are testing antioxidant levels in raw cocoa beans to chocolate bars. Photo: Martin Dee

UBC researchers develop new method to test for antioxidants in chocolate

Food scientists at the University of British Columbia have developed a faster and cheaper way to quantify antioxidant levels in chocolate. It's a method they plan to use in new research to help uncover when antioxidant levels rise and fall during the manufacturing process, from raw cocoa beans to chocolate bars.

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Blogs and other social media

<u>Blog</u>: A website containing entries written in an informal, conversational style. Entries may be on a topic or set of topics and may contain text, images, data, and videos.

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» Home » 2016 » May » 09 » A big classroom is no barrier to teaching science writing - lessons from the front lines

A big classroom is no barrier to teaching science writing – lessons from the front lines

May 9, 2016

By Robin Young

Have you ever been involved in a large class? How big was it? 50? 100? 300? The class that I coordinate, Biology 200, involves 1,200 students in a single term. It's bigger than my high school was, and it's one of the biggest classes in the Biology Program. Because it's so big, people often assume that we *must* rely on computer-graded, multiple-choice tests, and that we don't do any meaningful writing. To be honest, i'm terrible at writing multiple-choice questions, so I avoid it. As for writing, Biology 200 has always had an essay, but in the past it's been pretly labour intensive, and not much fun for anyone. So, a few years ago we decided to change that.

So how do you build a writing assignment for 1,200 students that doesn't crush the teaching team under the weight of supporting it? It's a tail order, to be sure. It took a combination of creative thinking and careful planning, and the result was what we call our 'Press Release Assignment'. Here's some things I've learned about building writing assignments from this experience.

The 'easy' way is often very labour intensive.

When instructors think about designing assignments, the easiest way to design is to have students write things, which the instructors will then read and mark. With 1,200 students, that simply won't work. We can't mark everything. So the things that we do mark need to be chosen wisely. The rest of the supporting assignments must be dealt with some other way, so that they don't overwheim us. For Biology

Source: <u>ScWRL Website</u> - <u>http://scwrl.ubc.ca/2016/05/09/a-big-classroom-is-no-barrier-to-teaching-science-</u> writing-lessons-from-the-front-lines/



Blogs and other social media - Benefits

- Develops skills for writing online for non-specialists
- Introduces a different format and style
 - Conveying science topics in a conversation
 - Writing in a more personal and informal style, need to engage the reader
 - Online is more dynamic, can include hyperlinks to content
 - Opportunity to include other media (e.g. photos, video clips, etc.)
 - Can be low-stakes writing (e.g. reflective writing, journal)
- Allows for direct interaction with audience
 - e.g. With peers, can increase student engagement if they read and comment
 - May encourage students who speak less often in class
 - May increase student interest and ownership for learning



Blogs and other social media – Example Assignments

- Communicating controversial science (Science Communication, Leach, University of Queensland)
 - Blog entries commented on a variety of issues related to a scientific controversy, used as a tool for thinking and analysis for essay and presentation
- Communicating a science topic of interest in journalistic style (Communicating Science SCIE 300 UBC)
 - Students select topic (motivational)
 - Become familiar with blogs as a medium for communicating science and journalistic style





Taken from Brownstein and Klein (2006)



Blogs and other social media – Example Assignments

- Critiquing statistics in news articles on Twitter (graduate school introductory statistics, Everson *et al.* 2013)
 - 10 posts of links to different news articles, link to course content and critique
 - e.g. IQ and exercise. A huge sample size of 1.2 million, but no women in the sample! http://bit.ly/6B55g1 #epsy5261.
- Sharing field observations on Twitter (Ornithology course, Margaret Rubega, University of Connecticut)
 - Tweet at least 5 times about observations of bird behaviour, include location information and relate to course content (#birdclass)



Blogs and other social media – Assignment Tips

- Determine the purpose of the assignment and stick to it
 - Learning or interacting, argument or commentary or community
 - Establish relevance for students and recommend blogs or Twitter feeds to follow
- Train students to write in this format and style
 - Discuss what makes an effective blog/tweet
 - Highlight examples of good blogs/tweets
 - Show how to use to hyperlinks in their blog and distinguish the quality (e.g. peer-reviewed literature vs. other bloggers)
- Scaffold learning and allow for practice to help students build their skills
 - Try focusing on particular elements in different blogs (e.g. writing style, then visual aids, etc.)



Blogs and other social media – Assignment Tips

- Monitor posts and participate in discussions
 - Ensure polite behavior and prevent bullying
 - Make sure students know what is acceptable (course policy)
- Be aware of issues of privacy and safety with the use of public sites
 - Give students the opportunity to speak to you privately about concerns and provide an alternative assignment
 - Encourage use of pseudonyms and avoid posting private information
- Do not assume that students are tech savvy
 - Have conversations/training about online privacy (e.g. UBC Digital Tattoo Project)
 - e.g. privacy settings on Facebook for posting with a hidden profile



Blogs and other social media - Assessment

- Criteria to consider in the assessment:
 - Opinion/argument within the post
 - Text layout and use of graphics (e.g. images/audio/video)
 - Hyperlinks
 - Appropriate referencing/attribution
 - Tags
 - Comments/discussion

RatingCharacteristics

- 4 *Exceptional.* The blog post is focused and coherently integrates examples with explanations or analysis. The post demonstrates awareness of its own limitations or implications, and it considers multiple perspectives when appropriate. The entry reflects in-depth engagement with the topic.
- 3 *Satisfactory.* The blog post is reasonably focused, and explanations or analysis are mostly based on examples or other evidence. Fewer connections are made between ideas, and though new insights are offered, they are not fully developed. The post reflects moderate engagement with the topic.
- 2 *Underdeveloped.* The blog post is mostly description or summary, without consideration of alternative perspectives, and few connections are made between ideas. The post reflects passing engagement with the topic.
- Limited. The blog post is unfocused, or simply rehashes previous comments, and displays no evidence of student engagement with the topic.
- No Credit. The blog post is missing or consists of one or two disconnected sentences.

Source: ProfHacker Blog

http://www.chronicle.com/blogs/profhacker/a-rubric-for-evaluating-student-blogs/27196



Wikis

A website with content and structure edited by multiple people.



Source: UBC Wiki - http://wiki.ubc.ca/



Wikis - Benefits

- Authentic experience in contributing to online knowledgebuilding (if using Wikipedia)
 - Contribution is broadly accessible
 - Receive feedback on their work from other editors
 - Collaborate with a community of editors
- Introduces a different format and style for a non-specialist audience
 - Writing from a neutral point of view
 - Formal tone and plain language
 - Demonstrates student comprehension of complex subjects
- Encourages students to critically analyze online information and reflect on the sources
 - Students think critically about what they put online



Wikis – Example Assignments

- Wikipedia assignments can take a variety of forms
 - Write an article or make significant edits
 - Copy-edit an article
 - Add images to an article
 - Search for information gaps in an article
 - Add citations to an article
 - Contribute to UBC Wiki
 - Source: <u>Wiki Education Foundation</u> <u>http://tinyurl.com/zb622r3</u>
- Contribute or enhance a Wikipedia page on a Canadian topic in ecology, climate change or sustainability (Biology, Rosie Redfield BIOL345 UBC)





The Free Encyclopedia

Wikipedia:Wiki Ed/University of British Columbia/BIOL 345 Human Ecology

Not logged in Talk Contributions Create account Log in

Search Wikipedia

Read Edit View history

Q

(Term 2)

Project page Talk



Source: Redfield BIOL345 Wiki

https://en.wikipedia.org/wiki/Wikipedia:Wiki_Ed/University_of_British_Columbia/BIOL_345_Human_Ecology_(Term_2)



Wikis – Assignment Tips

- Consider where you will build the content
 - Contribute outside UBC (Wikipedia or WikiEdu)
 - Have a complex assignment, want to track student progress, use a template (WikiEdu)
 - More protected space, e.g. students writing about original research (UBC Wiki)
- Assist students to select appropriate articles or topics
 - Choose a topic that is well-established (not rated "start" or "stub" class on Wikipedia)
 - Students can review peers' work on Wikipedia and leave reviews online or offline
- Introduce students to Wikipedia (or Wikis), including appropriate behavior as part of a community of collaborating editors



Wikis - Assessment

- Criteria to consider in the assessment
 - Peer reviews and collaborations with peers
 - Quality of main contributions
 - Organization
 - Text layout
 - Hyperlinks
 - Graphics and multimedia
 - Citations

Videos and podcasts

Digital audio and video files made available online.



Science 300 Outreach Project - Novel Discoveries in Nuclear Physics

Source: YouTube Website - https://www.youtube.com/watch?v=R8Y4HlbWprA



Videos and podcasts - Benefits

- Allows students to practice with an authentic assignment for science communication
- Develops multiple communication skills
 - Writing for scripts, possibly conducting interviews
 - Oral communication (podcasts)
 - Visual and communication in multiple medias (video)
 - Analyze an audience and tailor communication
- Can be used as a peer-teaching tool
 - Extend class content to bigger picture
 - Students need to demonstrate understanding of complex topics
 - Increases understanding of some concepts and exam performance (Pegrum *et al.* 2015)



Videos and podcasts - Benefits

- Students are motivated by creating a novel and interesting product
 - Allows for creativity



Videos and podcasts – Example Assignments

- Video documentary assignment (Biology, Kuchel *et al.* 2014)
 - Groups produce 4-5 min. video on an environmental issue, emphasis on biological content
- Podcast on core chemistry concepts (Chemistry, Bartle et al. 2010)
 - 3 min. podcast on acids/bases or oxidation/reduction, loaded on class LMS, minor assignment
- Share projects or learning from the course (Psychology, Rawn PSYC 208; Capstone Design Projects, Engineering)
 - One option for groups of students to share with peers what they discovered or accomplished during the term





Science 300 Outreach Project - Novel Discoveries in Nuclear Physics

Source: <u>YouTube Website</u> - <u>https://www.youtube.com/watch?v=R8Y4HlbWprA</u>



Videos and podcasts – Assignment Tips

- Provide technical training and ongoing support
 Create your own first
 Keep tools simple and inexpensive (e.g. campus tools)
 Consider a live demo in class
 Consider hiring help or accessing support on campus
- Consider privacy and copyright issues
 Make sure students understand which material they should and shouldn't use (Fair Use Guidelines)



Videos and podcasts - Assessment

- Consider if you will grade production value (e.g. reading a paper versus interspersing music) and which elements are important (e.g. sound audible and clear)
- Criteria to consider in the assessment:
 - Storyboard or script
 - Content/organization (e.g. relevance, clarity)
 - Structure/flow
 - Effective use of language
 - Voice and audience
 - Technical competence (e.g. lighting, sound quality, music, colour, visual composition, camera motion, editing, graphics)



Example from my class (Chemistry 233)

Organic Chemistry for the Biological Sciences "Choice Project" (handout)





III Download Reports + Add Course



ComPAIR Learning Application

Welcome to the ComPAIR tool! With this tool, you can 1) post assignments for students to answer, 2) see how students compare and offer feedback on pairs of their peers' answers, and 3) give individual feedback to each student or to the class as a whole.

Your courses Filter courses by keyword Image: CHEM 233 921 Organic Chemistry for the Biological See Assignments See Assignments Sciences > Edit Duplicate 1 assignment See Assignments


UBC Resources

- Blogs
 - UBC Blogs Support Website <u>https://blogs.ubc.ca/support/</u>
 - UBC Wiki Create a UBC Blogs Course Blog http://wiki.ubc.ca/Documentation:Connect/Create a UBC Blogs Course Blog (How to)
- Wikis
 - UBC Wiki Using the UBC Wiki for Course Work <u>http://wiki.ubc.ca/Help:Using_the_UBC_Wiki_for_Course_Work</u>
 - UBC Wiki CTLT Teaching With Wikipedia
 <u>http://wiki.ubc.ca/Documentation:Teaching_With_Wikipedia</u>
- Media
 - DIY Media <u>http://diy.open.ubc.ca/</u> (e.g. Podcasting Basics <u>http://diy.open.ubc.ca/audio/create-it/podcasting-basics/</u>)



UBC Resources

Media

- Learning Technology Hub Tool Guides <u>http://lthub.ubc.ca/guides/</u>
- Learning Technology Support <u>http://lthub.ubc.ca/support/</u>
- •Copyright at UBC http://copyright.ubc.ca/

•Student Privacy

- UBC Wiki Student Privacy and Consent Guidelines http://wiki.ubc.ca/Documentation:Student Privacy and Consent Guidelines/Instructor Use

UBC Digital Tattoo Project
 <u>http://digitaltattoo.ubc.ca/abouttheproject</u>



UBC Digital Tattoo Project

- Partnership between UBC Library, Irving K. Barber Learning Centre, Centre for Teaching, Learning and Technology, and U of T Faculty of Information and U of T Libraries
- Project is based on connecting UBC community members to collaboratively explore what it means to be a digital citizen in the ever-shifting online environment
- Site includes resources for students like "Cultivating your online profile", "Who owns your data?"
- #thinkb4U campaign last winter about allowing apps to access personal data and the implications



WAC+ Program Services

- Workshops
 - Teaching Succinct and Accurate Science Writing
 - Strategies for Student Success with Writing
 - Writing Assignment and Assessment Design
 - Providing Effective Feedback on Writing Assignments
 - Teaching Oral Communication in Science
- One-on-one consultations
- TA Training
- Class visits to discuss writing assignments



Assignment Planning Activity

Intended learning outcomes	Activity/assignment type & key tasks	Assessment/feedback components
Consider: knowledge? skills? attitudes?	Consider: scaffolding, group process, audience	Consider: peer review, brainstorming/revision
Connection with other	for product, purpose	stages, rubrics, production
course/program outcomes		quality vs. content





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