

Learning to Write Like a Scientist: A Writing-Intensive Course in a Microbiology Field

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Genre as social action

- “Genre as Social Action”
 - Carolyn Miller
- Genre as
 - Formal features *AND*
 - Social situations



- “Disciplinary genres are tools used to accomplish work central to a discipline. In the university, those genres arise from specific work done in disciplinary classrooms—that is, lab reports arise from and are shaped by the need to record lab work and share results”
 - Elizabeth Wardle, “Mutt Genres”



Genre as both restrictive *and* generative.

- Genre “provides opportunities for writers to engage in purposeful communication with their audiences in ways that those audiences recognize as legitimate”
 - Carpenter and Krest
- Less likely to be viewed as mere “formalism”
- Communication with the scientific community in a way that it will recognize



This “social” conception extends to teaching and learning.

- Academic genres defined by the recurrent rhetorical situations one encounters as one specializes.
 - (Miller; Swales; Medway; Bazerman; Bawarshi; Wardle; Devitt)
- In responding to these situations, uninitiated writers slowly learn and internalize the conventions of their discipline.



- “It is crucial to note that this gradual and often-subtle process of observation, modeling, and intervention requires the neophyte to use the language of the community *while* participating in its activity not *before* participating...”
 - David R. Russell. *Writing in the Academic Disciplines: A Curricular History*.



Learning a genre may not be transparent.

- As uninitiated writers become initiated may begin to see genre conventions as static, universal, and self-evident
- “This theory of writing acquisition helps explain why writing in the academic disciplines has been so little studied or systematically taught. Because apprentices in a discipline very gradually learn its written conventions as an active and integral part of their socialization in a community, the process of learning to write seems transparent.”
 - David R. Russell, *Writing in the Academic Disciplines*.
- Writing as the uncomplicated record of thought.



Prior Writing Instruction May Not Transfer

- “Transfer” is an ongoing debate in composition studies
- Amy Devitt argues that we can teach generalized “genre awareness.”
- Michael Carter suggest that novice writers can employ “global strategies.”
- Elizabeth Wardle and others doubt the ability of novice writers to transfer knowledge from setting to another.



Difficult to teach out of context.

- “Thus, genre makes sense to the people who create, use, and change them, but they are difficult, if not impossible to teach to people out of context.”
 - Elizabeth Wardle, “Mutt Genres”



If you teach, you teach writing.

- Students often encounter these unfamiliar genres, as they specialize, usually as upperclassman.



MB 385/ BI 385

3 credits, WIC course

- Lectures:** Tuesdays/Thursdays, 2:00-3:20, Nash 204.
- Instructor:** Dr. Kate Field
354 Nash Hall; 737-1837; kate.field@oregonstate.edu
- Teaching Assistant:** Nicole Kirchoff (kirchofn@onid.oregonstate.edu)
- Office Hours:** Wednesday and Thursday 10 am, or email for an appointment
- Prerequisites:** BI 211, 212 and 213, or equivalent.

WIC: This class is a Writing Intensive Curriculum (WIC) course and satisfies the requirement for a WIC course in some majors. *You are responsible for checking with your adviser to see if this class will satisfy the WIC requirement in your major.*

Introduction:

The rate of disease emergence has increased rapidly within the last 50 years. Some of these diseases, like SARS, AIDS, and West Nile virus infection, appear to be new to humans. Others, such as malaria and tuberculosis, have emerged as new threats because they have developed drug-resistant forms, or changed their range or incidence. As the recent Ebola outbreak demonstrates, **Emerging and reemerging infectious diseases (EIDs)** greatly concern the scientific, medical, and public health communities and the general public. *are inextricably linked to national and global politics, and arouse controversy, fear*






The Genres

- Grant Proposal
- Case Report
- Press Release



The Students

EXPERIENCE QUESTIONS I am a:

#	Answer		Response	%
1	Freshman		0	0%
2	Sophomore		5	15%
3	Junior		16	47%
4	Senior		13	38%
5	<u>Postbac</u>		0	0%
6	Other		0	0%
	Total		34	100%



Prior Instruction

#	Question	YES I received specific training or instruction	NO I did not receive specific training or instruction	Total Responses
1	<u>paper</u> in a science course	23	11	34
2	<u>lab notebook</u> (for a course or your own research)	25	9	34
3	<u>lab report</u>	24	10	34
4	<u>research proposal</u>	10	24	34
5	<u>grant proposal</u>	8	26	34
6	<u>case report</u>	2	32	34
7	<u>press release</u>	2	32	34



The Press Release

Press release assignment: For this assignment, pretend the scientist author of the historic paper is a *present-day scientist at OSU*. Rewrite the paper as a two-page (double spaced), 300-600 word press release. You may write your paper based on the outline you generated in your group (in class), or come up with your own approach. Your press release should start with a heading, “Media Release”, the date, and then an informative and interesting title, followed by a subheading. **The first few sentences must contain the most important or innovative information, and could also include an interesting example to draw the reader in. The release must cover the following questions: Who? What? When? Where? Why? These should be covered early in the text—background comes later.** Get rid of the archaic wording in the original paper. Write using terms that the majority of people will understand, but don’t condescend. Bibliography (not included in page count): list the paper your release is based on, plus any references you used in writing the press release, in EID format.



Initiation

“*Bacillus anthracis* is a bacterium that causes a serious disease of animals, as well as humans, called anthrax [general]. In previous cases of the disease, rod shaped bacteria were found in infected animals, however the mode of transmission of the bacteria was not fully understood. [background]. Dr. Koch used microscopic techniques to discover spores [methods], an alternate form in the life cycle of *B. anthracis* [innovation], and then used culture techniques [methods] to show the spores were infectious to naïve organisms [innovation]. The presence of a spore stage in the *B. anthracis* life cycle explains the previously unanswered question of how Anthrax infections enter populations, and should allow farmers to protect their populations from Anthrax epidemics [thesis-like statement that is concise and most pertinent to innovation saved for the traditional “thesis spot”].”

-Student’s first paragraph of first draft.



Students claimed that low-stakes drafts and feedback during the writing process were the most helpful activities.

#	Question	Pre-Writing (notes, research, freewrite, brainstorming, outline, etc.)	Drafting (first ungraded draft)	Feedback on First Draft	Revising First Draft	Feedback on Final Draft	Total Responses
14	I understand and could explain the key components of a research proposal or a grant proposal.	11	7	12	2	1	33
15	I am familiar with the way scientific press releases are structured.	13	6	12	0	1	32
16	I feel confident that I could write a clear and succinct press release.	8	3	16	1	5	33
17	I know what a case study should contain.	14	5	12	0	1	32
18	I feel confident that I could write a case study from patient data or results.	10	5	14	0	4	33

Writing as a Process

- “Practices that assist students in developing an effective writing process include: class discussion of writing as a process, peer review of early drafts, teacher feedback to early (ungraded) drafts, and the assignment of reflective cover letters turned in with final drafts that detail the writer’s process.”
 - “Statement of WAC Principles and Practices.”



Works Cited

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- Bazerman, Charles. "Systems of Genres and the Enactment of Social Intentions." *Genre and the New Rhetoric*. London: Taylor and Francis. 1994. Print
- Carpenter, J. Harrison and Carpenter Harrison. "It's About the Science." *Language & Learning Across the Disciplines* 5 (2001): Print.
- Carter, Michael. "Ways of Knowing, Doing, and Writing in the Disciplines." *College Composition and Communication*. 58.3 (2007). 385-418. Print.
- Devitt, Amy J. "Generalizing About Genre: New Conceptions of an Old Concept." *College Composition and Communication*. 44.4 (1993). 573-586.
- Miller, Carolyn R. "Genre as Social Action." *Quarterly Journal of Speech*. 70.2 (1984): 151-167. Print.
"Statement of WAC Principles." The WAC Clearinghouse. Colorado State University.2014.
- Swales, John. *Genre Analysis: English in Academic and Research Settings*. Cambridge University Press, 1990. Print.
- Wardle, Elizabeth. "'Mutt Genres' and the Goal of FYC: Can We Help Students Write the Genres of the University?" *College Composition and Communication* 60.4 (2009): 765–789. Print.

