Librarians for Sustainability

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Teaching Experience

- Information Literacy 2005-2006
- Information Literacy in the Sciences 2006-2015
- Subject-related instruction 2007-2015
- Information Literacy in Mathematics and Statistics 2015-

Research Interests

- Lifelong learning
- Sustainability
- Reference in virtual and real life environment
- Science literacy
- Information literacy in the disciplines

Librarians as Educators: Perpetual Questions

- Do librarians have to teach?
- If so, what do they have to teach: how to use catalogs and databases? How to write citations using MLA or Chicago style?
- What else?

Librarians in the 21st Century

- Digitization
- Interdisciplinarity
- Globalization

Stepping out of librarian's shoes…

- And doing something else… such as developing a new course, and not exactly related to the libraries.
- 2011: University–wide call to teach freshman seminars.
- Suggested themes:
  - Sustainability
  - Ethics
  - Globalization
  - Leadership

Sustainability Concept

- Often thought of as tied to another subject, such as environmental sustainability
- A broader understanding of sustainability refers to sustainable systems, sustainable organizations, and a sustainable future:
  - able to be used without being completely used up or destroyed
  - involving methods that do not completely use up or destroy natural resources
  - able to last or continue for a long time

  (From Merriam-Webster Dictionary)

Science Literacy Concept

There are three major types of science literacy (according to B.S.P. Shen*, formerly of Cornell University):

- Civic
- Cultural
- Practical

* Shen, B. S. P. (1975). Science literacy and the public understanding of science. In S.B. Day (Ed.) *Communication of scientific information* (pp. 44-52). Basel, New York : S. Karger.

Coming Up With The Idea…

- Science literacy: importance of conversations about science literacy with students, previous research (resulted in publications).
- Sustainability of food systems: gardening, working at a local food co-op, following food politics publications, especially those of Marion Nestle and Michael Pollan.
- Putting these two ideas together.

New Course:

- Science Literacy through Sustainability (Fall 2011).
- Food and Our Future: Understanding Science Literacy through Sustainability (Fall 2012, 2013, 2014).

Course Description:

- We read and hear about scientific studies in the popular media all the time. But how do we understand and use scientific literature? In this class, students will learn about current food–related issues connected with sustainability such as sustainable food supplies, production, and consumption, at the same time getting familiar with basic concepts of science literacy (civic, practical and cultural). Case studies will be examined to help students understand the importance of science literacy in our daily life. Students will also learn the basic principles of online research and the importance of information in their academic and personal lives.

Creating the Course

- Help from university administration (Office of Undergraduate Education, Office of Student Engagement), readings, sample syllabi and exercises, meetings with the instructors who previously taught freshman seminars.
- Planning syllabus.
- Finding a peer-mentor.

Putting It All Together

- Selecting a model for the class:
  - Readings
  - Four short papers
  - Group project: science zines
  - Blog postings
  - Visual materials

Course Readings

- General recommendations:
  - No textbooks
  - Short informative articles
  - Visual and audio materials such as TED talks, etc.
- My ideas: selecting a few issues that are important to food politics and can be related directly to sustainability.
- Science section of *The New York Times* (It's never too early to get into a good habit).

Some Food and Sustainability-Related Issues:

- Food waste and composting
- Food labeling
- Water
- Food security
- Unconventional gardening (ex: “Truck farms”, Pam Warhurst’s TED talk)

Writing Assignments: Short Essays and Blogs

- Short essays: 1.5 - 2 pages long, usually a reaction to assigned readings (ex. "The native grasses and what they mean," an essay by Wendell Berry from his book *The gift of good land*).
- Blog postings: mostly reactions to readings, in a shorter format than the essays (different writing format, utilizing Web 2.0 tools).

Science Zines: Why All the Rage?

- Small pamphlets that fit size 8.5x11" sheet.
- Intended audience: varies from kindergarteners to college students to general population.
- Disseminated "guerilla style" in unlikely places such as bus stops and coffee shops.
- Purpose: to spread the word about science.
- The Small Science Collective.

Incorporating Elements of Active Learning:

- Team work
- Class discussions
- Group exercises
- Group presentations of science zines

Trying Not To Be a Librarian In My Own Classroom But…

- Students need to know how to do research using library materials.
- Students need to master the art of citing.
- Students need to know how to meet standards of academic integrity.
- Therefore, they need practice!

Who is responsible for teaching students all these things?

- A perpetual question that may have various answers depending on who is being asked:
  - Teaching faculty
  - Parents
  - Students themselves
  - Librarians

Theory …

- "… The timing of a library session must be carefully considered. To be most effective, information literacy education must be integrated into courses at a time during which students will find learning library research proficiencies most valuable" (Flaspohler, 2012).

Main Goals

- Imparting some **essential** information that students will remember.
- Helping students with citations and references.
- Always trying to reinforce useful tips and ideas, no matter how small.
- My mantra (my personal learning outcome for every student, after every class): "Look for books in catalogs, look for articles in databases."

What Students Thought:

- "This class was very influential because it taught me many things inside and outside of class. One aspect is teaching freshmen how to deal with the new college experience."
- "How to have a better understanding of what I am reading when it comes to scientific literature."
- "Some of the most interesting things I learned were when we watched a video on food sustainability in different countries, and how they adapt to the weather."
- "How little it takes on our part to improve our consumer habits to be less harmful to the environment we live in."
- "It was small so we were able to get more help and talk more."
- "The truth that our current use of resources on the planet as a whole is unsustainable."
- "Reading the NYT for class."

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