THE SAVVY RESEARCHER: TEACHING INFORMATION MANAGEMENT SKILLS TO GRADUATE STUDENTS

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INTRODUCTION

Graduate students are overwhelmed with the planning and organization process it takes to complete a thesis or dissertation. Librarians have traditionally focused on the need to teach research skills through the rubric of information literacy. However, as the complexity of technology and multi-disciplinary/inter-disciplinary research evolves, it seems increasingly necessary to add an additional element: information management skills. How can librarians aid students and faculty in building an intricate set of information management skills? In a hybrid study exploring the possibilities of workshop topics and delivery, Hoffman, et al. (2008) used qualitative and quantitative methods to examine perceived information literacy needs of graduate students. The surveyed students were given a list of proposed workshops and from the list, four driving motives for attending library workshops emerged: topic is relevant to work (e.g. subject specific), information presented is what is needed to know, hands-on instruction and small class size. Although it is encouraging for librarians to see that students are curious about these topics, this presents the question, “Where do students currently take their questions about information management issues?” George et al. (2006) found that students at Carnegie Mellon University reaffirmed what librarians had suspected – graduate students do not come to the library as their main source of information, they are more likely to ask a peer or faculty member for research assistance.

Who better to teach information management skills than librarians? Run-of-the-mill library instruction rarely leaves time to cover information management topics such as current awareness tools, copyright concerns or scholarly communication. The University of Illinois at Urbana-Champaign created an open workshop series called the Savvy Researcher. This premise of these workshops prompts librarians to reconsider the open workshop as a venue for the inquisitive graduate student. This paper examines how to develop a successful lesson plan that entices the graduate students into the library while legitimizing the librarian’s role as navigator in information management.

WHERE DO OPEN WORKSHOPS FIT INTO AN INFORMATION LITERACY PROGRAM?

Lifelong learning skills are best developed through a triad of library instruction opportunities including course-integrated, one-shots and open workshops. These experiences are reinforced by the expert reference services and subject expertise that librarians provide.
Open workshops can be defined in myriad ways including traditional face-to-face instruction, quick modules woven into one-shots, online software to teach online (e.g., DimDim and Elluminate), and via pre-recorded podcast or videocast sessions. Open workshops provide the opportunity for librarians to share their information organization expertise in diverse ways. While this interactive session focused on in-person workshops, Hoffman, et al. (2008) found that graduate students want blended learning opportunities and, if offered, would prefer “attending” online workshops that fit their busy academic lives.

**Interactive LOEX Session**

The interactive session during the LOEX conference engaged participants in brainstorming ideas for open workshops, developing lesson plans, and provided tips for success through a closing Pecha Kucha presentation. “Every path has its puddle: We wore rain boots so you don’t have to.” The introductory brainstorming session gathered topics which could be further developed into a 60-minute workshop or scaled down to be inserted as a module within course-integrated instruction. Several active learning techniques were modeled including a segment called PowerLearn, a form of speed dating for instruction. Participants pulled their efforts together in order to outline a lesson plan for workshops and/or modules customized to the needs of their institution (Appendix A).

PowerLearn is an instruction technique based on speed dating. Participants were instructed to use the handout (Appendix B) to interview individual attendees at four minute intervals. When time expired, interviewers jotted down ideas generated in the interview and choose a second person to repeat the interview process. This process was conducted three times in total and was meant to provide the participants an opportunity to talk to as many attendees as possible in a short period of time. This type of active learning technique could be used across a variety of constituencies including undergraduates, graduate students and faculty.

All handouts and transcribed presentation materials can be found online. (http://uiuc.libguides.com/loex)

**Creating Lesson Plans**

In creating workshops that address the most pressing information management needs of the student, assessment is crucial. The Savvy Researcher series was developed over a period of time, informally surveying the students through conversation at the Information Services Desk, after tool-based workshops, and during course-integrated library instruction. Offerings currently offered by Illinois cover a wide variety of topics including the development of advanced searching skills, current awareness services, locating hard-to-find research materials (dissertations, statistics, conference proceedings and white papers), citation management, journal impact factors, locating grant funding sources, the *Getting Things Done* organization method, academic integrity and plagiarism, copyright, scholarly communication and GIS.

The framework of each workshop addresses three main considerations:

- What knowledge and/or skills do the students want to learn?
- What purpose does this workshop serve?
- How can students/faculty to demonstrate their learning?

For example, a workshop titled “Practical Copyright: Considerations for Teaching and Research” covers the basics of copyright and the four principles of Fair Use. The instructor poses real-life scenarios to stimulate critical thinking skills in working through common problems faced by students in their research and teaching (Appendix C).

Considerations in brainstorming workshop topics include:

- What information management topics are you interested in as a librarian?
- What level of awareness could be raised in relation to the research process?
- What skills or strategies do students need in order to succeed as academics?
- Are there complexities and habits that students need to unlearn?
- What are some obstacles the students raise when you are on the reference desk? When teaching a class? (Appendix B)

Topics generated by interactive LOEX session attendees included: grant writing and locating funding sources, identifying a range of literature in a discipline, RSS feeds and Table of Contents Alerts, entering the professional arena through publishing and conferences, iterative process of research, how to get research resources post-graduation, evidence-based research practices and comparing dissertation proposals.

Assessment for an open workshop is different than what would be implemented for course-integrated instruction. Since students are at varying levels of competencies and attending workshops on their own time, pre- and post-testing would be difficult. Librarians can build on student motivation and gain insight to open workshops by using the one-minute paper method (Angelo & Cross, 1993). Questions that could provide valuable feedback include:

- What is one particularly baffling aspect of the research process for you?
- As a graduate student, where do you see your biggest improvements in library research?
**Tips for Teaching**

The LOEX session concluded with a Pecha Kucha presentation, “Every path has its puddle: We wore rain boots so you don’t have to.” Pecha Kucha is Japanese for “chit-chat” and this presentation style uses 20 slides that are narrated for 20 seconds each, giving the presenter 6 minutes and 40 second to elaborate on a specific idea. In proposing that librarians consider adding open workshops to their instruction repertoire, the presenter offers specific tips to increase success.

1. Ask the students what they want.

   Surveying students doesn’t have to be formal. Make observations while you are on the reference desk, when you are teaching one-shots, talk to your colleagues and teaching faculty, read the literature.

2. Embrace your inner marketer.

   Pair innovative techniques with the most direct ways to advertise workshops. Word-of-mouth can be the most effective and you will have many repeat attendees. Come up with snazzy titles since they will spark curiosity and interest.

3. Find organizations on campus that are willing to co-sponsor and/or provide support for your workshops.

   This can be as simple as adding your workshops to a campus calendar or advertising at academic events. Send announcements to campus departmental listservs. Take advantage of orientation activities at the beginning of the semester. Some examples of campus partners could include the Graduate College, Center for Teaching Excellence, Vice Provost’s Office for Research, etc. These will vary from institution to institution.

4. Ask a variety of librarians to teach.

   Librarians have a diverse array of academic interests, leverage those strengths. If your science librarian has a passion for Journal Impact Factors, ask him or her to teach a session on how to interpret impact factor data. If you have a librarian who is interested in GIS, ask him or her to teach SPSS or ArcGIS. By including your colleagues, you will not only build a team spirit in the library but you will increase learning since the instructor has a passion for the topic.

5. Stagger days and times when your sessions are offered.

   Keep in mind that all students have busy and varied schedules, so if you want in-person attendance, you need to make sure that you offer each workshop several times per semester, on different days, at different times.

6. Set up an online registration system.

   This will not only help you keep track of your numbers, but a registration system could keep track of student’s disciplines. If your instruction lab holds 15 students, set a limit of 15 registrants with a wait list of 5. There may be a percentage of students unable to attend each time, but this will help to increase attendance.

7. Send an email reminder the day before the workshop.

   The day before the workshop, send an email reminder to the 15 students, plus the 5 on the waitlist. Since these are open workshops, sometimes students will sign up at the beginning of the semester, and by the time the workshop rolls around, something has arisen in their schedule. In order to make sure the instructor’s time is valued, the following text could be added to the email reminder, “This is a really popular workshop, so if you are unable to attend, please reply to this email so that the next person on the waitlist will be able to attend.”

8. Use the email reminder as an opportunity to share more information e.g. time management tips.

   Show students that you care about their academic careers by incorporating “something extra” into your reminder emails. For example, include quick tips on how to use Table of Contents Alerts or recently updated features in RefWorks.

9. Incorporate active learning into all your sessions.

   It’s tempting to lecture in these types of situations. However, for learning to truly occur, activity needs to happen. Be as creative as possible in active learning segments. By using various techniques in each session, the instructor will be meeting the learning needs of whomever may be in the room.

10. Give attendees more than what they expect.

    Since attendees choose to attend open workshops on their own time, don’t waste it. Plan well, be thorough. Be cognizant of the nature of the open workshop: attendees will have varying academic experience and come from a multitude of disciplinary backgrounds. Provide handouts on other topics that may be relevant to their academic work e.g., searching the online catalog, announcements for upcoming library events.

11. Offer your content in multiple formats.

    Since student’s schedules vary widely, acknowledge that people who want the information from your workshop may be unable to attend an in-person session. There could be several reasons for this: maybe it doesn’t fit their schedule, maybe they are a distance learner, maybe the student is naturally an online learner. Consider offering your workshop in multiple formats e.g., LibGuides, podcasts, or videocasts.

12. Consistently and constantly reevaluate your sessions.

    Sometimes a workshop that was successful one semester will not be the next. Make sure that your topics are timely and update your lesson plan on a regular basis. Mix up your workshops with a variety of concept-based and tool-based workshops. A few examples include how to find the tough stuff (e.g., conference proceedings, dissertations and statistics) and searching for and legalizing using digital images.
13. Try something new.

Consider offering a topic that the library has not traditionally considered in the past. For example, one of the most innovative ideas for a workshop at Illinois is “Past Writer’s Block.” In this session, the library offers a research community for students who are struggling to get through the research process. Material covered includes an advanced introduction to *Getting Things Done* (Allen, 2001), time to share research woes and solutions, and tips on how to get research subject expertise and writing assistance. Another example might include addressing professional development needs by covering how to create and design an effective poster session.

14. Don’t expect a full turnout.

Upon building an open workshop program, it will take time for word to get out on campus. It’s okay to start slow, it will help the program to gain solid footing in what it is trying to accomplish. It also provides an opportunity to try new ideas and work out the kinks on a smaller group before being inundated with eager students.

15. Recognize the diversity in the room.

Remember that open workshops attract learners at all stages of the academic process. In other words, attendees will not only include students from a variety of disciplines but also students that embrace technology, students that prefer print, students that just entered graduate school and students who are just about to defend their thesis. Be prepared to answer a variety of questions – and admit that you might not have the answer, but you can get back to them!

16. Consider teaching workshops geared to faculty.

Faculty have instruction needs as well – as technology changes, librarians can to do a better job of sharing these innovations with teaching faculty. Take the opportunity to offer open workshops geared toward their needs. This could be as simple as demonstrating a new database and working advanced searching skills into your examples or how to set up Table of Contents alerts for journals in their field.

**CONCLUSION**

Open workshops present an opportunity to teach the fun stuff, material that a librarian may not normally get to teach in a one-shot or course-integrated instruction. With open workshops, you can teach classes that are only limited by your creativity. How many researchers have thought, “If I only knew in the beginning, I could have…” Using a strategic combination of marketing techniques and active learning in the classroom, word of mouth has spread across campus. Students are attending open workshops in unprecedented numbers, once abandoned by the academic library as poorly attended and ineffective.

**REFERENCES**


Appendix A – PowerLearn

Appendix B – Brainstorming

Appendix C – Examples of “Practical Copyright” and “InfoHacks”
APPENDIX A

THE SAVVY RESEARCHER
Teaching Information Management Skills to Graduate Students

DEVELOPING A LESSON PLAN FOR OPEN WORKSHOPS

POWERLEARN (MODELED AFTER SPEED DATING!)
>> Interview your partner – you only have 4 minutes, so move quickly!

DEVELOPING LEARNING OUTCOMES

Partner #1 & #2
Name:
Institution type:
Interview question #1
1. What concepts do you want the students to learn?

ACTIVE LEARNING

Partner #3 & 4
Name:
Institution type:
Interview question #2
1. After briefly stating concept - How do you want the students to learn the identified concept(s)?
APPENDIX B

THE SAVVY RESEARCHER
Teaching Information Management Skills to Graduate Students

BRAINSTORMING
Graduate students are overwhelmed with the planning and organization process it takes to complete a thesis or dissertation. Librarians have traditionally focused on the need to teach information literacy and research skills, however as the complexity of technology and multi-disciplinary/inter-disciplinary research evolves it seems increasingly necessary to add a third prong, information management skills.

WHAT WOULD YOU TEACH?
If you could teach any advanced research or information management topic – what would it be?
Take 4 minutes to brainstorm your ideas.
Ask yourself some questions:

• What information management topics are you interested in as a librarian?
• What level of awareness could be raised in relation to the research process?
• What skills or strategies do students need in order to succeed as academics?
• Are there complexities and habits that students need to unlearn?
• What are some obstacles the students raise when you are on the reference desk? When teaching a class?
APPENDIX C

THE SAVVY RESEARCHER
Teaching Information Management Skills to Graduate Students

PRACTICAL COPYRIGHT: CONSIDERATIONS FOR TEACHING AND RESEARCH

What knowledge and/or skills do you want the students to learn?

- An introduction to the basics of copyright law
- Exposure to the guidelines of Fair Use
- Demonstrated practical scenarios applied within the framework of Fair Use
- Apply critical thinking skills to Fair Use to scenarios

How do you want them to learn it?

Students will:

- Engage in an open discussion about copyright ethics, guided by a librarian
- Assess, select and apply the four principles of Fair Use using two scenarios
- Know where to get more help

After an introduction on copyright basics and Fair Use by the librarian, students will be given two copyright scenarios. The scenarios will be real-life situations that are relevant to graduate students in their academic research and work. In groups, they will analyze and apply the principles of Fair Use and will debate the intricacies of Fair Use as it applies (or doesn't) to the two scenarios.

INFOHACKS

What knowledge and/or skills do you want the students to learn?

Introduction to:

- The Getting Things Done organizational method
- Citation management using RefWorks and Zotero
- Basics of current awareness tools
- Social bookmarking tools

How do you want them to learn it?

Students will:

- Compile a brain dump, and sort into two lists: actionable and non-actionable
- Become familiar with and practice using several organizational tools including citation management, current awareness and social bookmarking

This session is set up in two parts: the Getting Things Done (GTD) Method and quick introductions to several information management tools that may be new to them. This is a fast-paced workshop – students who have more questions and need more instruction are directed to the workshops that cover individual tools in more depth.

>>More examples can be found at: http://www.library.illinois.edu/learn/instruction/workshops.html

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