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Instructing the Undergraduate in Government Information

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Today's presentation is not just for undergraduates. Anyone who is unfamiliar with libraries, especially your library, will benefit from these tips. We will cover many different topics, including teaching methods and how to present paper and electronic Government information effectively.

The first element of an instruction session is choosing an appropriate teaching method. Four of the basic methods are lecture, hands-on/demonstration, students teach, and a combination of these. Deciding which one is best for you depends on circumstances such as class size, media you are teaching, and the number of students in attendance.

Everyone has sat through a lecture before. As a matter of fact, many of us experienced this method this morning. So you know, a lecture can be many things. At times, it can be a stimulating presentation of wit and information, and at other times it can drone on for hours and all you get out of it is a not so restful nap. What we, and everyone else, need to keep in mind are the questions "When is a lecture a good teaching method?" and "When is it bad?" A lecture can be good when the class is very large. Lectures can also be useful when the class time is very limited, under 40 minutes. This time frame gives you just enough time to teach the vital information the students might need to begin a project. To help make the lecture more stimulating, use subject related visual effects and examples in your teaching. If you have a comic strip or joke/story that is applicable, show or tell it to the class. However, telling long stories that do not have a punch line or are not applicable to the assignment at hand can be detrimental to your 40 minutes or less of teaching. The more unclear and unfocused your lecture is, the more students will lose interest. This is inevitable. Think carefully about this method if it is the only one you intend to use because a bad lecture is usually a bad learning experience.

Much more interesting than the lecture method is the hands-on/demonstration. Most people have a better learning experience when they practice and learn at the same time.

Example: most students will understand searching a database better if they search themselves than if they were instructed while sitting at a table in a classroom and were never able to try themselves.

The hands-on method is excellent to use when students have a specific assignment that they are working towards. This way they can search their subject while learning the source at the same time. The only time this is slightly ineffective is when the class does not have a specific assignment or when the class is so large there is not enough equipment or books for everyone. (Two students per computer or books works fairly well. Any more than this gets crowded and distracting.)

For small classes (under 20), an excellent and interesting method is to let the students teach much of the class. This is a great opportunity for peers to teach peers. Plus, all students get the chance to become experts on a particular source. This works really well for either print or electronic media. However, if the class is too large, this method will be too time-consuming if you only have one class period.

Example: Pair students in groups of 2 or 3. Each group is given either a reference book, an index, or a URL (Uniform Resource Locator). Students are given 5-10 minutes to answer the following questions: What is the title/URL? How is the source accessed? Is it indexed? How? What type of information can you find in it? How is it useful for this assignment or course? Have students tell the rest of the class the answers to these questions.

The best method, and first choice in my opinion, is a combination of any of the above. The best thing about a combination of methods is that everyone is happy. You have the opportunity to say anything vital that must be stated and the student gets a chance to be an active learner in the class. If including a lecture, be sure to keep it focused on the assignment or topic!

Once you have chosen your method of teaching and have planned your course, keep the following tips in mind. These will help make your presentation clear and effective to the listeners.

- 1. No library jargon without definitions**

Never assume that a student knows the definition of bibliography or citation. Some will know, but many will not. Always define your terms the first time you use it.

- 2. Be enthusiastic**

If you act bored, why shouldn't the students? Your enthusiasm will be catching if you make the most of it.

- 3. Body language**

This is especially important during a lecture. Move around the room and be active. Point to the overhead, if that is what you are using. Hold up a book and flip through it when talking about it.

4. **Room elements**

Remember how easy it is to fall asleep at the beach under the warm sun? It is just as easy in a classroom with a furnace set too high and 40 other bodies. Keep the room a bit on the cool side to keep students (and yourself) awake and alert. Another room element to keep in mind is the room setup. You want to be able to see all eyes, but you do not want them to be so compact that they are uncomfortable.

5. **Your voice**

Use it to its potential.

6. **Be casual and have fun**

This class is not going to make or break your career. Learning, and teaching, how to find information should be a great experience for all. Don't spoil it for you and the students by taking yourself too seriously.

Effectively teaching Government information is primarily the same between paper and electronic formats. The few differences are how to present the information and using it in the chosen teaching method. Paper is the format that we librarians must often force feed to today's undergraduates. Paper indexes and reference books are often seen as artifacts of research days past. The most effective techniques for teaching paper is either hands-on or students teach. With both of these, students get the chance to see what wealth of information various books and indexes have. One thing to remember is that the more difficult the research, the more assistance the students may need. This may include offering office hours or an extra instruction session.

A quick method to help students that will educate after the instruction session is over is to give handouts that explain a particularly difficult source or concept (Census tracts or bill tracking).

Example: N410 Tertiary Care in the Community

This class is taught every semester at Valparaiso University to senior nursing students. Their assignment is to find demographic information and statistics for a particular area of a Northwest Indiana town. Essential documents that are taught are Census tract maps and the accompanying CD's and books, MMWR, and several local and state documents with health statistics. Handouts that are given to the students include a photocopy of a portion of a tract map, the tract legend, and a sample page from the book showing the statistics for a particular tract area. Before leaving class, each student looks at a tract map and figures out how to interpret the lines and numbers. As

students return to the library to work on their project, they refer back to the handouts to remember what they were taught and educate themselves.

The N410 library session is highly effective because students learn a specific skill that helps them complete an assignment. They also come away confident in their abilities to conquer an area of the library and their research.

Some of the most frequently taught documents are:

- Census & Statistics
- Anything having to do with Congress and Bill making

Congressional Record, Y fiche, Public Laws, Serial Set, CIS indexes (although they are privately produced, they are wonderful for teaching the undergraduate)

- Maps of any nature
- Department of Health & Human Services

As mentioned before, teaching paper and electronic can be very similar. Following are some similarities and several similarities that will affect the success of your instruction session.

More and more students are coming to the library and expecting all of the answers to their questions to be available via the Internet or by some other electronic means. Fortunately, the U.S. Government is a leader in the electronic presentation of information. It is exciting to be able to showcase Government documents in the electronic environment. The problem is not lack of electronic information, but retrieval of the exact piece of information when needed. The challenge for Government documents librarians is to master, organize and negotiate the wealth of electronic Government information and be ready to share it with our users.

From my experience teaching undergraduates how to use both paper and electronic Government documents, and as one of three trainers for GPO Access in Indiana, I have developed this top ten list of suggestions for introducing electronic Government information to undergraduates.

Top Ten List

10. Size up your audience

Most students have never been introduced to the wonderful world of Government information. While many young undergraduates have used the Internet, returning adults may be computer illiterate or downright computer phobic. Size up your audience. Ask them what their experience level is with both Government documents and using electronic databases to find information. Don't expect them to necessarily tell the truth, the whole truth

and nothing but the truth. Throughout the session talk TO them, not AT them. Ask questions for feedback that denotes some level of understanding. Watch their eyes and body language. Glassy eyes and tense or overly relaxed postures either means a very late night or complete incomprehension.

Be casual and have fun! Encourage questions and don't be flustered if you don't know all of the answers. Make a note of the questions you can't answer and get back to the class or individual at a later date.

9. Explain a few sources well

Although you want to encourage students by showing them the wealth of Government information available, you don't want to overwhelm them. Most students are in your classroom for one reason and one reason only. They have a paper to research and need specific answers to specific questions. Even if their assignment involves the use of a lot of different sources DO NOT TRY TO TEACH MORE THAN TWO SOURCES IN DEPTH. Take two databases that complement each other, like the Federal Register and the Code of Federal Regulations, or choose a Web site, like the Census Bureau, and illustrate the best searching techniques for retrieving data from that site.

8. Use CURRENT and/or RELEVANT examples

Nothing turns a class of undergraduates off faster than to sit and listen to an explanation of library research that does not relate specifically to their class assignment. They want to know how every source that you introduce can be used to find information on their topic. Talk to the instructor. Get a copy of the class assignment. Get a list of topics that students have already chosen to work on. Pick a topic yourself and work through the assignment. If the type of research is defined but not the subject, for example, do a legislative history on some topic, use current events or other timely topics of interest.

7. Explain/review Boolean and free-text searching techniques

Boolean logic, free-text searching are jargon, gobbledegook to most students. While natural language searching is inching its way into some databases and Web search engines, the best results still come from some organized arrangement of keywords, the use of truncation, and synonyms.

The key is to keep your instruction simple. We all know that most databases offer a plethora of advanced searching techniques, and certainly you will want to tell the students where they can locate instructions on search enhancements. However, you cannot cover them all without losing most, if not all, of your audience. Introduce students to the basic search techniques that will retrieve what they need most of the time.

- **ADJ, AND, and OR**

Most databases can be searched using these three Boolean operators (connectors), so make sure students understand how to use these basic terms.

- **"Quotation marks"**

Databases in GPO Access and many Web site engines use quotation marks to search an exact phrase.

- **Truncation**

Explain what truncation is and how it can be used to retrieve roots of words that encompass plural and variant spellings.

- **Relevancy ranking**

It is useful to discuss relevancy ranking when introducing GPO Access databases. Because retrievals can be very large in some of these databases, relevancy ranking helps students select the most important items.

The pitfalls of free-text searching should be emphasized. Warn students that most databases are not ready for natural language queries. Tell them about stop words and using synonyms to broaden their searches.

6. Use a combination of teaching methods

Research shows that everyone learns differently. Some students prefer being shown how to do something. Others want to be told, and still others like to work from an instruction sheet. Most of us learn better with a combination of these techniques. The optimum setting for teaching electronic Government documents to undergraduates is a computer lab with a teacher's workstation where you can show and explain an electronic source and then leave time for the students to experiment on their own. However, if you don't have a computer lab, try to have some way of giving the class a live demonstration of the product with plenty of time for questions and further demonstrations after you have covered the basics. Always have a handout that summarizes the main information that you want them to remember.

5. Prepare online guides

Not only is it essential to have handouts for the students, but it is also essential that you put your handouts on the Web for increased accessibility. These handouts can be bibliographies and/or Webliographies, complete with hot links to databases and/or Web sites. They can be how-to guides for individual databases, subject guides, guides to using specific types of materials like maps, census, or statistics, or guides to using your library or documents collection. Making your guides available electronically serves many purposes. Inevitably the students will lose their handouts and come looking for another copy. Having your guides in electronic format can save the library money in printing costs. Students can easily locate the sources you introduced them to by just clicking on the hot links on the guide. Library staff can easily access information needed to help students working on class assignments. Since it is easier to update guides that are in electronic format, electronic guides can and should be revised frequently to keep them relevant and informative.

If you don't have time to prepare your own online guides, you might be able to find a guide already prepared by someone else which you can link to until you have time to develop your own. ALA/GODORT has an excellent Handout Exchange available on the University of Michigan's Documents Center Web site:

www.lib.umich.edu/libhome/Documents.center/godort.html. Be sure if you use someone else's guide that you give them credit on your Web page.

4. Create a permanent Web site of Government sources

If you are going to teach electronic Government information it is important that you develop at least one Web page of links to core Government sources. Again if you cannot develop your own pages the Government Information Technology Committee of GODORT has prepared a Government Information Web page template for libraries without the resources to design and maintain a Web page on their own. The template is created to be quickly and easily edited and loaded. It is available at **www.library.unt.edu/gpo/template/index.html**.

3. Teach evaluation of Internet resources

It is a natural inclination to accept everything in print as the absolute, gospel truth. Just as we have taught students to evaluate printed sources, we need to remind them to always question the validity of electronic information, including Government information. A few basic checks can help them evaluate their source(s):

- Check the authority of the author.
- Who is the author and what are his/her credentials for providing the information?
- What institution (company, Government, university, organization) sponsors this information?
- What bias might there be with the information presented by this author or institution?
- Check the scope and criteria for inclusion.
- What kind and how much information is included/excluded in/from the database/Web site?
- What is the purpose of the information--to inform, explain, persuade?
- Who is the intended audience for the information?
- Check the currency of the data.
- When was the site last updated?
- What information was updated?

2. Be prepared for electronic failure

As prepared as you might be, remember something always goes wrong. You could experience a minor glitch to a major electronic failure. Count on having some kind of backup. You may even have to resort to the low-tech, hands-on, paper handouts and show and tell.

1. Encourage future contact

Encourage students to contact you for individual follow up on their project or future projects in which Government information may be useful. Depending upon your library policies, give each student a business card, or tell them how they can best reach you, via e-mail, phone, or by appointment.

Even though we may be knowledgeable about Government documents and eager to help students find Government information, the rest of the library staff may not be as willing or able to help when students come to the library for help in locating Government information. The other issue is that many Government document librarians do not have the opportunity to teach an instruction session. It is important that we not only share our knowledge and enthusiasm for Government documents with students, but with librarians and staff as well. Here are some ways that will help you teach other librarians the wealth of information that is available through Government documents.

- Invite other librarians/staff to your presentations
- Keep your peers informed of Government documents and information
- Team teach
- Share enthusiasm for the wonderful world of Government information
- Provide a bibliographic instruction session for other instructors

Now for the hands-on part of the presentation. We have prepared for you actual assignments that students have brought into the library needing answers. These questions come from all areas of the academic curriculum. Think of three or four Government documents or areas that might be helpful for the students. Try using these questions in your instruction session with other librarians and library staff. Good luck!

1. Choose a census tract. Identify three socio-economic data elements. Compare 1980 and 1990 figures.
2. Research the evolution of Supreme Court interpretation of a specific aspect of the Bill of Rights.
3. Research some aspect of the U.S. - Central American Relations.
4. Track the effects of El Nino on the weather conditions of the Midwest.
5. Investigate the behavior of the spotted owl.
6. What percentage of sex offenses are committed by juveniles and what is the recidivism of teenage sex offenders?
7. What is the average amount of time that a person 20-26 stays at their job?

8. What is the employment projection for Hospitality/Tourism/Leisure management and salaries to the year 2005?
9. Write a legal brief on a Supreme Court case in the area of Mass Communication Law.
10. What is the Government's perspective on music education?
11. What is the Government's current policy on school lunch programs?
12. I am looking for a grant that will allow me to dance in France.
13. I am looking for information on public grazing rights on Navajo Indian Reservations.
14. I need information on pancreatic cancer.
15. What is the current role of the Government with the issue of tobacco advertising?