City University of New York (CUNY)

CUNY Academic Works

2017

Library Science Strategies for Natural Sciences [Library]

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Activity: Library Science Strategies
Location: Computer Lab during Studio Hour

Learning Outcomes
Students will be introduced to the concept of library academic resources.
Students will learn the strengths and weaknesses of different forms of information.

Introduction
Strategy and exploration are the keys to effective research. Students often mistake academic research as similar to "Googling." This session will stress the importance of mastering the research process in an academic context. It will encourage students to become familiar with the diverse tools and resources provided by the library.

This session will give students a quick outline of the research process. It will stress the importance of identifying information needs, resources and strategies. It will also provide tips and tools for managing the search process and results effectively.

Frames	Core Competencies
Searching as Strategic Exploration	Inquiry & Problem Solving
	Integrative Learning

Slides available here: https://shortlib.org/s/nsflesson

1. Slide 1: Use when the section requires a Pre-Survey assessment.

2. Slides 3-4: These questions are intended to serve as an icebreaker and get the students thinking about information literacy and the library. Lead a discussion and have students answer the questions. The goal of Question #1 is to frame the idea that research is a synthesis of data and information. The goal of Question #2 is for students to recognize that they need knowledge about library resources to conduct thorough research, just like they need to learn how to use laboratory equipment and scientific methods to collect data. (5 minutes)

3. Slides 5-6: What do you know? Discuss the differences between the words; data and information. Connect them with the word problems. Data is often collected in a laboratory by conducting research, but scientists need information to perform experiments and understand their findings. Information (and data) are available in the library, but, like the laboratory, scientists need to learn how to use the tools the library provides to conduct research. That is what librarians provide, and why we call it library science. Introduce the agenda for the rest of the session, to offer a quick method for performing research in the library. (5 minutes)

4. Slide 7: What do you need? The first step is to determine the initial scope of the task required to meet a research need. Outline simple process for understanding a research assignment. Stress the importance of asking: When is it due? How long does it need to be? What format or citation styles are required? What is the topic? What sources needed? Answers to these questions will

determine which library tools are appropriate for the research need. Suggest the use of planning tools available on the Library's Academic Research Basics for Students like the Research Project Calculator and sample MLA/APA papers. Conclude with the importance of brainstorming and exploring resources that will develop background knowledge (5 minutes)

5. Slide 8: Where will you find it? The next step is to be aware of all the research tools available. Highlight the weaknesses of web search engines like Google for academic research. Discuss the importance of matching an information need to an appropriate search tools. Introduce the Library's Database (5 minutes)

6. How will you find it? Introduce general process, strategies and techniques. Show students how to navigate the LaGuardia Library's research tools. Demonstrate how to refine needs and search strategies as necessary, based on search results using filters, Boolean Operators, etc. If there is not a research topic for the class, try using artificial intelligence in the demonstration. If in computer lab, encourage students to practice. (10 minutes)

7. Slide 9: If there is time, return to Slide 8 to conclude with places students can get help on campus.

8. Slide 10: Use when the section requires a Post-Survey assessment.

(Optional) Homework / ePortfolio Assignment

1. Search a library database and find one academic journal article.

2. In most academic articles, facts and statistics, or DATA, are collected in order to answer a research question. What data does the article use to explore its research question? Where did this data come from? Write 2-3 sentences.

3. In most academic articles, previous studies and outside sources, or INFORMATION, are used to explain and support the article's conclusions. What information does the article use to explain and support the conclusions? How are information sources cited? Write 2-3 sentences.

4. Post your response to your ePortfolio.