Into the Curriculum

Nudging toward Inquiry:
Strategies for Searching for and Finding Great Information
compiled by Kristin Fontichiaro

In this year’s “Nudging” column, we’re working through the inquiry process and sharing our strategies. Inquiry does not replace information literacy; rather, it encompasses it. Inquiry-based learning invites school librarians to step into all aspects of instructional planning, from activating prior knowledge straight through to reflection. Libraries pursuing inquiry-based instruction are building on the bedrock of information literacy, not starting from scratch.

Smart Searching
Usually, “Nudging” focuses on stages when we share the instructional load with teachers; this month’s focus of search, however, requires us to look inward at our own expertise and areas for growth. It can be useful for us to refresh our thinking and ask ourselves some guiding questions about our own ongoing and developing approaches to search. For example, ask yourself these questions:

▶ Turn their questions into search queries?
▶ Brainstorm and combine keywords effectively?
▶ Make the most of their preferred search tools and sites like Google, YouTube, and Wikipedia?
▶ Extend their knowledge of additional resources?
▶ Focus their work by creating a pathfinder or Google Custom Search?
▶ Select appropriate sources for the task at hand?
▶ Recognize authority in sources?
▶ Navigate within databases and resources to select the text and multimedia resources that best match their search needs?
▶ Recognize when they need additional information?
▶ Track their journey through online social bookmarking tools like Diigo or Delicious, apps like Evernote, or bibliography lists or cards?
▶ Recognize when their search journey is complete enough to move on to the next research step?

The submissions below reflect that many librarians are thinking about Search 2.0 and how to adapt their instruction to impact student comprehension. Most have also consciously decided to stop fighting students’ preference for Google, instead using Google tools and tips to meet their students halfway.

Suggestions from Readers
(Submitted via the SLM blog at http://blog.schoollibrarymonthly.com)

Visualize Search
Our “Googletes” have latched on to Google’s WonderWheel [Note: after doing a Google search, click “more search tools” in the left column to reveal this tool, which displays related topics in a mind map format]. It works wonderfully well in narrowing the topic.

—Linda Garrett, Crestwood High School, Dearborn Heights, MI

Question Authority
When I’m talking to groups of middle or high schoolers about databases, I begin by establishing why they should care about the difference. After selecting a topic (elements), I show them a large stack of clippings, files, notebooks, and miscellaneous papers and tell them they belonged to some long-lost relative who was interested in chemistry and the elements. I tell them the stack represents years of my uncle’s research and collection. Then I show them a copy of an authoritative book on the topic such as Theodore Gray’s *The Elements: A Visual Exploration of Every Known Atom in the Universe*. Next I ask them which source they’d like to use in writing a three-page paper about the elements. When they answer “the book,” I ask them, “Why?” They invariably say things like it’s easier, it’s organized, it has an index. Every once in a while they get to the idea of authority, but if not I throw that in.

Next I tell them that the problem they are going to have when they conduct research online is that everything will look like the book. Every hit they get, every link they open will appear to be “good” information. I go back to the stack of stuff and ask if some of this is good accurate information. Yes, probably. The problem is, you can’t be sure. That’s why the most efficient way to conduct research is to use a database. At that point, I talk to them about the databases available through MeL (Michigan’s statewide database).

Occasionally, I bring out an old *Reader’s Guide to Periodical Literature* and tell them about the way it was in my day.
This includes a description of the person at the periodicals desk disappearing into a back room with my carefully written request slip only to surface fifteen minutes later without the magazine, or with the magazine but missing the pages I needed. I don't think they believe me. Maybe research was more interesting because it was so difficult? Hmmmm.

—Cate Roberts-Snyder, Northwest Community Schools, Jackson, MI

Limit The Scope, But Not the Quality
Make available to students a database of the best research sites on the Internet. Infotopia (http://www.infotopia.info) is my student-safe search engine indexing only sites previously recommended by librarians, teachers, and educational and library consortia.

—Michael Bell, Retired School and University Librarian Administrator, McAllen, TX

Make a Google Custom Search
Too much information or not enough? Either way, our students (probably like yours) are drawn to Google when conducting online research. I collaborate with a seventh grade science teacher on an in-depth research project on astronomers throughout history. Of course, we gathered many Web sites for the students to use in order to research the astronomers and posted them on the library Web page. Some used them and some didn’t. How could we encourage students to select information relevant to their topic and encourage them to feel self-directed? I turned to Google Custom Search (http://www.google.com/cse). I created a Google account using my school email address (to keep this separate from my personal Google account). I followed the directions, naming my customized search engine and entering my preferred Web sites. The sites you enter will be the only ones crawled when the students enter queries. After entering the list of sites, I embedded the link on our library Web page. I showed the students how to access the customized search engine, letting them know that they are searching Google, but the information they find is specific to their topic and more focused on their research needs. It was a win-win deal: the students felt empowered by searching Google and we knew they were being directed to relevant Web sites.

—Paula Chessin, Londonderry (NH) Middle School

Teach Strategies for Composing a Better Search
We know that kids want to start with Google and recognize that Google has a powerful algorithm that can sometimes confound them, so we provide a strategic intervention to make Google work for them, versus having them get frustrated at working through Google and wind up using less than optimal results. At our school (grades 1-5), we teach our students three simple strategies to help them narrow the number of Web sites considerably. Working with a partner, students then have time to practice narrowing searches using these strategies. We post these hints on our school library Web site and also distribute laminated cards for the students to refer to whenever they need it—at school, at home, or wherever they are when searching.

The hints are:
▶ Use quotation marks to search for exact phrases (for example, “rain forests”).
▶ Use the minus sign to eliminate words (for example, dolphins –football).
▶ Be site specific. Limit your search to only a certain type of site (for example, “Thomas Edison” site:edu).

—Jean K. Sand, Matthew Thornton School, Londonderry, NH

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Do you have a great strategy to share about how to extend beyond information literacy and into inquiry-based learning? Join us on the Nudging page of the SLM blog (http://bit.ly/nudging).