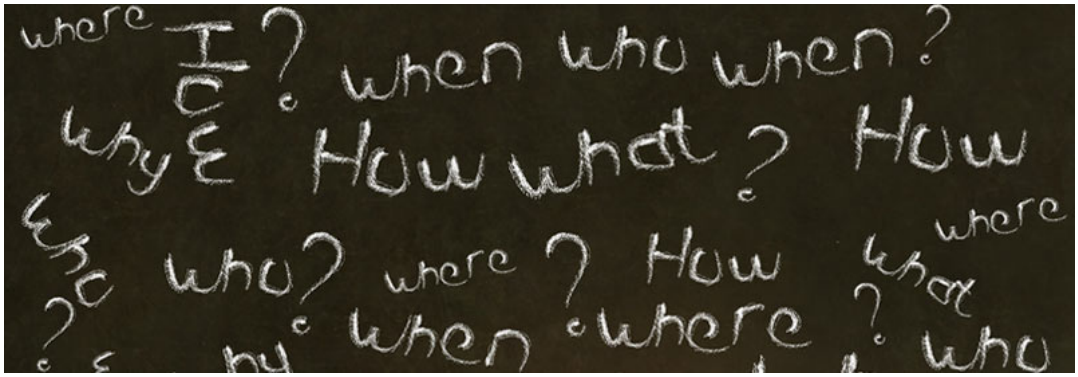
Nudging toward Inquiry. Developing Questions and a Sense of Wonder

Article



Sometimes, revolutionizing our practice isn't practical or feasible, but a small change (with a big impact!) is. In this "Nudging" column, we're working our way through the inquiry process and sharing our strategies. Inquiry doesn't replace information literacy; it encompasses it. It encourages librarians to consider instructional design beyond information search, retrieval, citation, and use. Inquiry-based learning invites school librarians to step into all aspects of instructional planning, from activating prior knowledge straight through to reflection. Librarians pursuing inquiry-based instruction are building on the bedrock of information literacy, not starting from scratch.

Questions

Student-generated questions can help motivate and drive deeper research connections and minimize fill-in-the-blank research. But if you have ever started a research project by leaping straight into student-developed questions, you may have ended up disappointed by students' low-level questions that led to low-level search experiences. Elementary students tend to ask how many babies their animal has, middle school students ask about the capital of a country, and high school students may ask when a historical figure was born. None of these questions lead students on an inquiry journey that lasts longer than it takes to click on Google's first search result.

The problem isn't that students are poor questioners; it's that they may lack a strong content foundation upon which to build better questions (Kramer and Largent 2005). School librarians can prepare students to be ready to ask better questions by working with teachers to awaken and/or build robust prior knowledge before developing questions. Master teachers know that it is almost impossible to examine questioning in a vacuum— questions build on what we already know. And if students don't know much, they flail and grasp for entry-level information and end up with entry-level questions. Put in simple terms, good inquiry develops when we know a little bit about something but want to know more.

Linking prior knowledge to great questions is not a new partner process. The classic KWL chart that awakened and recorded prior knowledge under the K ("what do we think we know") column (Ogle 2006) can continue into W ("what do we Wonder") in questioning. In this month's suggestions about questioning, you'll see frequent references to activating or building students' background knowledge.

Similarly, the "See, Think, Wonder" strategy (Fontichiaro 2010) asks students first to identify what they see or read, try to make sense of that input based on what they already know, and, finally, construct questions for what remains unanswered. Following you will see approaches by three librarians that help guide students to more open or "green light" questions ("Red Light, Green Light" 2005)—questions that invite learners to keep exploring beyond recall-level facts. We'll also see how librarians have pushed the concept of wonder and questioning as a mindset, not merely a skill or checklist item. Also listed are some articles from *SLM*'s archives that can extend your thinking.

Responses Gathered from the *SLM* Blog

Visualization Leads to Wonder

I had great success using photographs to help history come alive for some American History students. The assignment was to come up with a question of import on any topic from the twentieth century. I had the class in the Reference room pouring over our American Decades volumes from Gale, trying to find something that excited them.

A young lady, who has since become our valedictorian, asked me for help choosing a topic. I turned pages in her decade book, telling exciting stories about topics I saw there. She said, "Mrs. Earnshaw, when you explain it like that it sounds so interesting. When I look at the topics I just can't tell if they would make a good research project." I thought seriously about what she told me and realized that the students just didn't have the prior knowledge they needed to choose a topic. When I read the

words on each page, pictures formed in my mind about the events they described. It was not so for the students.

I had a brainstorm and gathered all the books I could find with photos of events from the twentieth century. I had an old *Life* magazine, *The Century* by Peter Jennings, *Our Century in Pictures,* edited by Richard Stolley, and others. The next class I handed out the books and watched the wonder cross my students' faces as they turned the pages and saw bodies strewn on the ground from the fire at the Triangle shirtwaist factory, and black civil rights protestors in Birmingham being blasted with fire hoses. — *Tracy Earnshaw, School Librarian, Coginchaug Regional High School, Durham, CT*

Modeling Wonder

Creating a culture of inquiry at a school can begin by the teacher simply sharing and modeling their own curiosity and questions that they have with their students. There are many different types of questions and some of them can be answered very quickly, and others take time to discover.

I created an *Animoto* (http://bit.ly/kulyk) to share with my students about what I wonder about, and questions that I had after traveling to different places in the world. Not only did I learn about the world around me, I learned the importance of asking questions, and where to go when I want to find them. — *Tamzen Kulyk, Teacher-Librarian, Saskatoon Public School Division, Saskatoon, Saskatchewan*

Let Pre-Search Guide Students to Thoughtful Questions

Elementary and middle school students usually lack the prior knowledge or worldly experiences to develop good questions or wondering about inquiry topics. One way I have facilitated question or wonder development is providing opportunities for students to "pre-search" before even thinking about questions. The students choose a topic of interest and are encouraged to read, skim, and examine pictures using print and/or Web resources. After spending some time delving into their topic, I ask the students what more they would like to know about their topic, what they are wondering, or what questions they have. I have found the greater their prior knowledge, the easier it is for them to formulate thoughtful questions. We also discuss whether the questions they have are easily answered with a few words or require an explanation steering the students to those questions or wonderings that beg for more of an explanation. The "pre-search" process also helps students to narrow their topics, if they are too broad. One student I had was interested in the topic of "art." After her "pre-search," she decided that Leonardo da Vinci might be a more manageable topic. Her "pre-search" caused her to wonder about da Vinci's scientific, as well as artistic, contributions and why he was so secretive about his work. I thought these were pretty remarkable wonderings for a second grader.— *Laurie Olmsted, School Library Media Specialist, Birmingham (Michigan) Public Schools*

Strategies from the *SLM* Archives

(Note: Articles three months and older are available through EBSCO, ProQuest, and H.W Wilson databases)

Callison, Daniel. "Questioning Revisited." *School Library Media Activities Monthly* 22, no. 6 (February 2006): 40-43.

Fontichiaro, Kristin. "Awakening and Building Prior Knowledge with Primary Sources: See, Think, Wonder." *School Library Monthly* 27, no. 1 (September-October 2010): 14-15.

Fontichiaro, Kristin. "Nudging toward Inquiry: Awakening and Building upon Prior Knowledge." *School Library Monthly* 27, no. 1 (September-October 2010): 12-13.

Kramer, Kym, and Connie Largent. "Sift and Sort: The Answers Are in the Questions!" *School Library Media Activities Monthly* 21, no. 8 (April 2005): 33-37.

Levitov, Deborah. "Assessing Questions." *School Library Media Activities Monthly 25, no. 5 (January 2009): 2. "Red Light, Green Light: Guiding Questions." School Library Media Activities Monthly* 22, no. 5 (October 2005): 25.

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American Association of School Librarians. *Standards for the 21st-century Learner.* American Association of School Librarians, 2007.

Fontichiaro, Kristin. "Awakening and Building Prior Knowledge with Primary Sources: See, Think, Wonder." *School Library Monthly* 27, no. 1 (September-October 2010): 12-13.

Ogle, Donna M. "K-W-L: A Teaching Model that Develops Active Reading of Expository Text." *Heading Teacher* 39, no. 6 (1986): 564-70.

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