DESIGNING INQUIRY FOR UPPER ELEMENTARY STUDENTS: LESSONS LEARNED FROM DRIVER’S ED

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One of the most memorable achievements of adolescence is the independence gained from obtaining a driver’s license. Students are highly motivated to study the rules of the road, hone their skills behind the wheel, and meet all the state requirements to reach their goal. They are invested in the process because they value the outcome. The Driver’s Education instructional course is well designed to include multiple opportunities for practice over time, with a gradual release of responsibility. What can we learn from this experience? How can we foster a similar level of engagement as we prepare students to navigate the information highway? The Common Core English Language Arts Standards provide a roadmap for designing inquiry for upper elementary students that calls for relevance, rigor, and relationships—the current 3R’s in education.

Relevance
A fifth-grade student was asked what he thought of the Civil War research project his class was recently assigned. Heaving a sigh, he replied, “I don’t see the point in doing all this work. My teacher asked us to find the answer to her question—and she already knows the answer!”

Finding Value in the Outcome: Who should own the learning?
How do we make inquiry meaningful for students? Consider these options:

• Cultivate a culture of wonder. Give your students a blank journal where they can record their thoughts and questions about topics they are thinking about or studying. Keep this wonder journal easily accessible anytime questions or wonders surface. Encourage learners to jot down all their questions. What doesn’t make sense to you? What are you curious about? Where are the holes in your understanding?
• Create a wonder wall, like a graffiti wall, in your school library. Don’t have open wall space? Use an online tool like Padlet that allows students to post questions and refine them throughout their inquiry journey. Give students the opportunity to generate questions about topics they want to explore. Encourage them to refine their questions as they build background knowledge about the topic under investigation.
• Model good questioning techniques. As students begin to study a topic, such as Plymouth Colony, generate some of your own wonderings aloud. Explain the difference between open and closed questions.
− Closed questions can usually be answered with a quick Google search. For example, "How many people traveled on the Mayflower?"
− Open questions require careful reading and synthesizing of information. An open question begs to be argued. "How might the story of the colonists’ first Thanksgiving change without the support from Chief Massasoit and Squanto?"

Don’t provide all the questions, letting your students take a back seat. Give students time to wonder. Let them have a voice in choosing the destination for their inquiry journeys.

Rigor
It is early Sunday morning. Our student driver navigates her car in an empty parking lot to practice some basic skills. Start and stop, maneuver the turns, and parallel park, all with the support and coaching of her instructor. This is a great beginning, but at some point, she’ll have to take the car out in traffic.

Instructing with Your Foot on the Passenger Brake: The teacher is in control!
As primary students engage in research, teachers and school librarians often design learners’ tasks like that empty parking lot—a safe place to practice skills. Teachers assign the topic, e.g., Native Americans. They also determine what the students should learn, e.g., clothing, diet, shelter, etc. Finally, librarians provide the resources that contain the needed information, usually from nonfiction books written about each tribe. Students fill in the blanks on their note-taking worksheets, and the task is complete. Unfortunately, too many upper elementary teachers continue this practice, void of opportunities for students to apply higher-level thinking skills that require analyzing, evaluating, and synthesizing information to build understanding. Students are never challenged to leave the empty parking lot.

Real inquiry is rigorous. It is messy. It can be vague and ambiguous, nudging students toward alternate routes, prodding them to reflect on the information gathered, urging them to make connections and draw conclusions. Real inquiry fosters perseverance, flexible thinking, and metacognition. How do we move students from the parking lot to the highway? What kinds of experiences will help them build capacity to become discriminating users and producers of ideas and information?

The Common Core Writing Anchor Standard 7 calls for “short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation” (Common Core State Standards Initiative 2014). A close look at this anchor standard reveals two important components to consider in designing research tasks:

1. The task is driven by a question.
2. Students are expected to demonstrate understanding of the topic as a result of their research.

Merging into Traffic: It may be a white-knuckle ride; however, if you never give them the wheel, they won’t learn how to drive.

Take another look at the Native American assignment in light of the two components mentioned above. Add the research question, "What adaptations would your tribe need to make if they were moved to a different region?" The original research assignment can be viewed as a "pre-search" activity, helping students build the needed background information about the lifestyle of their targeted tribe. However, to answer the research question, students will also need to investigate the new region to learn about the resources, climate, and other conditions that exist there.

GIVE STUDENTS TIME TO WONDER.
LET THEM HAVE A VOICE IN CHOOSING THE DESTINATION FOR THEIR INQUIRY JOURNEYS.
Reflecting on their tribe’s current lifestyle and what they understand about the new location, students must draw conclusions and make inferences using information from the sources to support their claim. Here is an excerpt from Jack’s research findings:

Members of the Arapahoe Tribe from the Great Plains are nomads. They follow the buffalo herd because they rely on buffalo for food, housing materials, and other things. They would need to change their diet if they moved to the Southeast because they would not find buffalo in Florida. They would also have to develop farming skills...

As a result of his research, Jack demonstrated his understanding of the broader concept that where you live effects how you live.

Logging Practice Hours: Building Research Skills

Writing Anchor Standard 7 refers to sustained and short research. Short research can be an effective vehicle for teaching information literacy skills and providing multiple opportunities to practice these skills over time. Often, these projects can be completed in two or three class sessions. This timeframe is ideal for school librarians operating on a fixed schedule—students’ interest often wanes if the research task is stretched over many weeks. The emphasis here is on the research process, not on the creation of an end product. Pare down the process by focusing on one or two skills. Consider the following short research task to practice website evaluation:

1. Start with a research question like, “Should kids be allowed to play Minecraft in school?”
2. Provide students with three websites. Ask them to examine all three in light of the research question.
3. In addition to gathering information from the sources to answer the question, have learners identify the two websites that best met their information need.
4. Don’t stop there. Ask students to explain their rationale for determining which website to eliminate. What did they find out about the author? Was the text too technical? Did the information in this source address the research question? Asking students to explain their choices fosters metacognition. This task encourages them to think about their thinking.

If you find that students have difficulty deciding what to include in their notes, create a short research project that will engage them in close reading of complex text:

1. Begin by crafting a research question that will require students to compare and contrast or analyze information. Since the goal is to provide practice in extracting relevant information from a source, preselect the resources so students can focus on the targeted skill. Select two articles that are short, yet rich with information to address the research question. Vary the resources to include primary source documents, maps, charts, or illustrations.
2. During the initial lesson, discuss the research question and preview the first resource together. Where possible, incorporate questions from their wonder journals or wonder wall.
3. Model the skills of close reading and note taking. As you read aloud, use an LCD projector to display the text so students can follow along. Let students hear your thought process as you work with informational text. Reread passages to clarify your understanding. Question the text that seems unclear. Separate the information that’s nice to know from the facts you need to know to answer the research question.
4. Show students that you vary your strategies for organizing your notes based on the task. Use a T-chart to weigh pros and cons of an issue or a concept map to show the relationship between parts of a topic to the whole, etc.
5. Pause to reflect on the information after reading small sections at a time. Let students watch as you record your thoughts, connections, and questions in a graphic organizer or in the margin of your notebook. The process of reflective note taking helps students digest the information in small bites, making it easier to synthesize their understanding of the topic under investigation.

6. Let your students get behind the wheel to comb through the second resource independently. Since you selected these resources you’ll know in advance what information learners should glean from them.

7. As students synthesize the information, give them the opportunity to collaborate on their findings and discuss the conclusions they’ve drawn. Although students’ responses to the question may vary, the emphasis should be on their evidence from the resources to support their claim.

Relationships
Whether students are engaged in a short or sustained research, be sure to slow them down at the intersection of Information Gathering and Synthesis to reflect on their progress and garner feedback from others.

Assessing Along the Way: Check your mirrors!
As soon as our new driver slides behind the wheel, he is expected to adjust the rearview and sideview mirrors. These tools provide constant feedback on how he is progressing through traffic. They also guide him in maneuvering around obstacles on the road.

In a similar way, students need tools and strategies to reflect on their progress throughout the inquiry journey. Here are two suggestions for building relationships as you promote self-assessment and peer feedback:

- Teachers and school librarians can collaborate to develop and implement formative assessment tools such as checklists, rating scales, and learning logs. Vi Harada and Joan Yoshina’s Assessing for Learning: Librarians and Teachers as Partners discusses numerous tools and strategies to involve students in assessing their own learning.
- Encourage students to test drive their ideas with a critical friend, someone who listens carefully, asks clarifying questions, and provides feedback to help achieve success. Students often see the teacher or school librarian as the go-to person when they hit a speed bump as they struggle to locate resources, make sense of conflicting information, or design an effective way to communicate their new understandings. With coaching and modeling, students can support each other by taking on the role of a critical friend. Here are some behaviors to cultivate in a critical friend:
  - Listen carefully.
  - Use questions rather than statements, e.g., “Have you thought about trying this database or using these search terms?”
  - Make suggestions that are realistic.
  - Provide rationale for your suggestions.
  - Be positive.

As you design new inquiry projects or refine existing ones, let the 3 R’s—relevance, rigor, and relationships—steer your course. Get ready to slide over, buckle up, and let your students drive the learning!

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Works Cited:

Recommended Resources: