

Crime Scene Investigation as an Analogy for Scholarly Inquiry

By comparing the steps of researching and writing a paper to the steps taken by crime scene investigators, students learn that research is an iterative process through which new knowledge leads to new questions.

CONCEPT IN CONTEXT

Lower-level college students are usually mystified by the scholarly research process. Most undergraduates come to college with little or no formal research instruction and have seen no practical examples of real-world scholarly inquiry or output. This lesson provides students with a practical analogy for scholarly inquiry using an example they are all familiar with, crime scene investigation. By comparing the steps taken in researching and writing a paper to those taken by investigators as they examine a crime scene, the librarian helps students understand that research “is iterative and depends upon asking increasingly complex or new questions whose answers in turn develop additional questions or lines of inquiry in any field.”¹

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Level: Basic

Estimated Time: 30 minutes

This lesson can work as a whole class activity/discussion or students can be divided into teams. The goal is for students to arrive at independently derived structures of the inquiry process that can then be brought back to the larger group for discussion.

MATERIALS NEEDED

- White board, chalk board, or smart board

LEARNING GOALS

- Students will become familiar with the inquiry process.

- Students will recognize scholarship as the independent production of new knowledge.
- Students will appreciate the role of inquiry as a habit essential to all independent learning.

ANTICIPATORY SET

The librarian begins class with a discussion of the following questions:

- How many of you have ever written a research paper before?
- Why have you been asked to write a research paper for this course?
- Will you be asked to write research papers again after this course?
- Why are you asked to write research papers not just once, but many times?

LESSON OBJECTIVE STATED

Librarian Script: “Today we will try to answer the question of why we are asked to write research papers in college, not just once but many times. We want to be able to say what the ultimate point of our work is. To do so, we will define research as a process of inquiry and compare it to a form of inquiry we are all familiar with. Based on this analogy, we will try to understand what we can accomplish not just in college, but in everyday life if we are able to successfully undertake inquiries for ourselves.”

INPUT/MODELING

The librarian asks students, “What does the word ‘inquiry’ mean? What does it mean to inquire?” The idea of questioning/asking questions is thus educed.

The librarian divides a whiteboard into two columns. On one side the librarian writes “CSI” and asks students if they know what the acronym means. Crime scene investigation is a popular topic in popular culture and forensics a growing field. A clip from the beginning of an episode of *CSI* or similar show or movie can be shown (optional). The librarian poses the next question: “What do crime scene investigators do?”

By working through a number of questions posed by the librarian, students articulate the following series of steps (or something like them) that comprise an inquiry into a crime scene.

Crime Scene Investigation = Inquiry

1. Get big picture of the crime scene (circle with yellow tape)
2. Analyze crime scene—break into parts (evidence, witnesses)
3. Ask questions (of witnesses, of evidence in lab)
4. Answer questions (which may raise new questions; repeat 3 & 4 as needed; this step gets at the iterative nature of inquiry)
5. Synthesize answers—solve crime
6. Present argument in court that organizes answers to questions

Questions the librarian can pose:

- What does a crime scene investigator do first when they get to a crime scene?
- After delimiting the crime scene (determining the big picture that needs to be investigated) what is their next step?
- Once the crime scene is analyzed into what's important and what's not, what must the crime scene investigator do with the evidence/witnesses?

Having completed the first step of the inquiry process, the class turns to the other half of the whiteboard and compares crime scene investigation to writing research papers, again through discussion. Based on the first discussion some variation of the following typically results:

Research Paper = Inquiry

1. Get big picture of a topic
2. Analyze topic—break into parts (subtopics, related issues)
3. Ask questions
4. Answer questions—using information sources (which again may raise new questions; repeat 3 & 4 as needed; this step gets at the “iterative” nature of inquiry)
5. Synthesize answers—thinking about information
6. Present argument in paper that organizes answers to questions

Having clearly established the process common to both forms of inquiry, the class reconsiders the answers given to the question of why students write

research papers. The earlier answers are correlated to the steps in the processes outlined. The librarian can typically point out that none of the earlier answers takes into account the whole process that has been laid out.

The question is posed again: “Why do you write research papers in college—not once, but many times?”

Turning to the crime scene investigation column, the librarian begins a new inquiry, asking:

1. How much does the investigator know when the case starts?
2. How much does the investigator know at the end?
3. What did the investigator do from start to finish?
4. Who made and presented the discovery?

By answering these questions, students begin to see an analogy. Students discover that just as crime scene investigators independently learn who committed a crime and are responsible for that discovery and its cogent articulation, so too do students start out knowing little about a topic and know more by the end. Further, they, like investigators, must “make a case” and articulate what they have learned. Inquiry is established as a method of independent learning. When writing research papers, students engage in inquiries through which they learn to build on what they discover and become producers of new knowledge, i.e., scholars.

The answer the class started with is posed for the final time: “Why do you write research papers in college—not once, but many times?” with the focus on “but many times.”

The librarian asks, “What happens when you do something over and over again?”

The librarian directs the discussion toward the idea that through writing multiple research papers students acquire habits of independent learning and argument building. These habits are characteristic of scholars and others who must learn and demonstrate their learning.

GUIDED PRACTICE

The remainder of class session is given over to a group inquiry into a topic using the library’s resources. This models the steps of the inquiry process uncovered through the previous discussion.

CHECK FOR UNDERSTANDING

By its nature, the Socratic Method checks for learning as the inquiry into the nature of inquiry progresses. The librarian can ask students to recognize analogies between the one set up in the lesson and other everyday activities/phenomena.

INDEPENDENT PRACTICE

Disciplinary faculty can assign their students a short, metacognitive writing assignment as an appendix to their final research papers by asking them to reflect on and articulate the steps of the inquiry process they undertook to complete their papers.

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NOTES

1. Information Literacy Competency Standards for Higher Education Task Force. "Framework for Information Literacy for Higher Education, Final Draft." Chicago: Association of College and Research Libraries, January 16, 2015. <http://acrl.ala.org/ilstandards/wp-content/uploads/2015/01/Framework-MW15-Board-Docs.pdf>.