CHAPTER 7

RESEARCH AS INQUIRY

Teaching Questioning in FYC for Research Skills Transfer

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According to the 2016 Project Information Literacy Report, while some information literacy (IL) skills are transferring beyond college, our college graduates are still missing the element of questioning as a foundation for academic inquiry (Head, 2016). The IL challenges facing first-year composition (FYC) instructors are myriad, and include a lack of shared terminology from the common core to college instructors and librarians (Brown & Walker, 2016), a confusion of knowledge of technology skills with knowledge of information literacy skills for both students and high school instructors (Stockham & Collins, 2012), a lack of ability for instructors to collaborate with librarians (Gregory & McCall, 2016; Stec & Varleis, 2014; Wojahn et al., 2016), and professors’ hesitancy to engage with librarians during, prior to, and after library sessions (Zoellner, Samson, & Hines, 2008). Space and time in the classroom might be blamed for many of these pushbacks against directly integrating IL instruction into FYC. However, information literacy is a foundation of today’s Internet-centered research, and having excellent information literacy skills will be necessary for tomorrow’s scholars. The question is: How can we begin to train these scholars in our classrooms? Is it possible to include direct IL instruction in an already overburdened FYC curriculum?

There may be an ongoing argument as to what the role of FYC is (Fulkerson, 2005), but most FYC courses prepare students to be researchers in their disciplines. The first step in becoming a researcher is to develop the curiosity and inquiry skills needed to begin discovery. Although all of the above issues deserve to be addressed, instruction that directly supports the ACRL Framework Research as Inquiry frame is highly suited to already existing classroom practices in FYC. Including inquiry as a learning outcome in FYC may have the power to alter students’ Google-dependent research methods, to form foundational inquiry behaviors, and to transfer those positive research practices to discipline-specific courses and the workplace. Addressing the need for classroom-ready and classroom-tested methods, this chapter will briefly explore the barriers and challenges to Research as Inquiry before illustrating how inquiry might be a strongly transferable skill, and offering several malleable applications for integrating Research as Inquiry into any FYC.

**BARRIERS AND CHALLENGES TO RESEARCH AS INQUIRY**

Students with poor research habits were likely common in FYC courses well before writing studies asserted itself as a discipline in the 1970s, yet the advent of Internet research has given students the impression that they already know how to research any information they desire—through Google. As most instructors of FYC may observe, students’ confidence in their search skills is often misguided, and when students are faced with search platforms other than Google, they can become easily frustrated (Corbett, 2010). Much research has shown that students depend almost solely on Google for their research (Purcell et al., 2013), that new high school instructors believe that understanding how to Google constitutes information literacy (Purcell et al., 2013; Stockham & Collins, 2016), that dependence on Google as a go-to research tool confuses students’ understanding of the Internet itself (Corbett, 2010; Wojahn et al., 2016), and that library databases, which require instruction in order
to adequately use them, can be overwhelming and frustrating for students who are mainly Google-literate (Corbett, 2010; Wojahn et al., 2016; Yancey, 2016).

A further argument is that students’ reliance on Google has created an expectation of expediency that is problematic given the slow and often circular pattern of research. This expectation of immediacy is paired with standardized testing’s creation of students whose dispositions, when influenced by current K–12 testing, are answer-oriented (Wardle, 2012). The linear, answer-oriented behavior of entering a few search terms into Google and the search engine returning “answers” is in conflict with the more circular pattern of research, or as Purcell and colleagues (2013) describe it, the “slow process of intellectual curiosity.” This slower process of circular research based on curiosity is necessary to achieve what the ACRL IL Framework calls Research as Inquiry. “Research as Inquiry” is defined by the board as such: “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.” This iterative nature depends upon students’ ability to refine their search terminology and to revisit their initial research question in a circular pattern of behavior, which is in direct conflict with the linear pattern of searching Google for an answer. This is not to argue that Google has no place in the academic world—most instructors use Google as regularly as students do. However, actively teaching Research as Inquiry can offer students pathways to less frustrating interactions with databases, and can encourage students to modify—or make more circular—all of their research habits.

The first knowledge practice of Research as Inquiry is that students are able to “formulate questions for research based on information gaps or on reexamination of existing, possibly conflicting, information” (ACRL, 2015). It is in this initial formulation of a question that students often become mired. Although it is beyond the scope of this chapter to argue that our society is becoming more pliable and less able to create lines of inquiry due to the mass of information available on the Internet, this may be a factor in students’ struggles. The “Google effect,” as Corbett (2010, p. 267) calls students’ inability to understand that the Internet is not simply Google, has created a one-stop shop for answers, and few opportunities for students to create questions in their classrooms or in their lives. In fact, students often expect answers to un-formed questions. This inability to create questions in the face of multiple, conflicting sources will become pervasive throughout students’ discipline-specific courses if not addressed at the threshold of their college education—in FYC. Practice with inquiry as a transferable skill can encourage students to bring those modified, potentially more circular, research habits into their discipline-specific courses.

Inquiry as Transferable

As a study, transfer of knowledge is in its infancy. Defined by Dana Driscoll, transfer is “how much knowledge from one context is used or adapted in new contexts” (2011). Knowledge is learned, then carried to a new situation where prior knowledge becomes the basis for further learning. Researchers have offered some initial behaviors needed for a strong possibility of transfer, including reflection (Adler-Kassner, Clark, Robertson, Taczak, & Yancey, 2015), cuing students (Brent, 2011), and increasing metacognitive awareness to enable students to ask “good
questions” about writing situations (Elon, 2015). The ability to create lines of inquiry into any discipline and any topic should and can be highly transferable into disciplines outside of writing studies.

It’s notable, then, that the Elon Statement on Writing Transfer acknowledges that “Prior knowledge is a complex construct that can benefit or hinder writing transfer” (2015). Prior knowledge can include attitudes and beliefs that impact students’ abilities and dispositions. Yancey in Adler-Kassner and colleagues (2015) asserts, “all writers are influenced by factors of prior knowledge that are . . . very powerful, and often in unhelpful ways” (p. 37). In Information Literacy, prior knowledge almost always includes the use of Google for research. Even when students are taught to use databases during library sessions, as many researchers have shown, students are likely to believe that databases are for school, whereas Google is for life (Corbett, 2010; Purcell et al., 2013; Wojahn et al., 2016). This duality of thought can inhibit the transfer of research skills.

As a result of these challenges, rather than disconnect Google from the academe, connecting inquiry as a behavior that applies to searching databases, searching Google, and investigating the credibility of all sources may allow for transfer of the IL practice Research as Inquiry. Because many students are inadvertently taught that Google is bad research and databases are good research (Corbett, 2010), placing the focus on instruction in inquiry can avoid this divisive thinking and create a single positive practice: Research as Inquiry no matter what tool is utilized. Even Google searches can become circular and lead to increasingly complex questions and ideas if the practice of Research as Inquiry is engaged.

Further, incorporating inquiry as a learning outcome of the FYC classroom in reading, discussion, and writing can add metacognitive and self-reflective elements that many researchers assert enhances skills transfer from FYC to writing in the disciplines (Adler-Kassner et al., 2015; Elon, 2015; Wojahn et al., 2016). Because one of the 2016 Project Information Literacy Report’s major findings is that our college graduates assert they’re not being taught to question, and employers have made it clear that questioning is a desirable skill for college graduates (Head, 2016), using Research as Inquiry to transfer questioning skills from FYC to discipline-specific writing and beyond should be a priority. The ACRL IL Framework asserts: “inquiry extends beyond the academic world to the community at large, and the process of inquiry may focus upon personal, professional, or societal needs” (2015), which potentially makes the teaching of inquiry quite significant. Inquiry, which the following assignments will illustrate, can be incorporated in ways that engage students’ metacognition and reflection practice and can prime Research as Inquiry for transfer.

RECOMMENDATIONS FOR FOSTERING INQUIRY

The following are applications that were developed for use in both community college and four-year college classrooms over two years while I was a recipient of a Reading Apprenticeship (RA) grant for faculty development through Assessment in Action (AIA). All of the work here derives from my study of RA; however, simultaneously I was studying transfer, and so I modified the classroom resources to reflect those transfer-focused studies. I
found that the goals of RA closely align with those of transfer. Strong inquiry skills are at the heart of both reading critically and transferring knowledge from first-year composition into Writing in the Disciplines WID courses and beyond. Although these methods are malleable for several levels of composition, they were developed for second-semester or second-year English composition courses with an academic-research focus.

These inquiry-based assignments might be applied before and during the research process including in reading and synthesis of information, during in-class discussion of shared texts, in research question development, in database searches, and in research writing and reflection. By incorporating versions of the following assignments, students might increase their ability to frame Research as Inquiry and to create increasingly complex lines of inquiry during each stage of the research process. In their ability to be decontextualized, these applications lend themselves to transfer into writing in the disciplines courses and potentially to prepare students for inquiry in the workplace.

**Reading and Questioning**

Integrating questioning into reading is not a new concept, but the behavior of questioning during the reading process, popularized by Reading Apprenticeship (RA), makes a strong foundation for self-reflection and metacognition through inquiry. RA is an instructional framework that guides classroom applications to assist students to feel safe discussing the difficulty of texts and exploring metacognitive inquiry during the reading process, rather than after the fact (Greenleaf & Schoenberg, 2017). For more on RA see Box 7.1, “What Is Reading Apprenticeship?”

**Inquire of the Text Bookmarks**

Think aloud bookmarks (see Figure 7.1) are one such application beneath the RA framework. The original bookmarks created for RA

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**BOX 7.1**

**WHAT IS READING APPRENTICESHIP?**

In 1995, Cynthia Greenleaf and Ruth Schoenbach, the founders of the current Reading Apprenticeship at WestEd, began the Strategic Literacy Initiative to research literacy and create an inquiry-based literacy model—now known as Reading Apprenticeship. The model was first tested at a San Francisco high school as a course called Reading Apprenticeship Academic Literacy (RAAL), and it resulted in two years of growth in student test scores in only seven months of classroom work. The bestselling 2012 book Reading for Understanding: How Reading Apprenticeship Improves Disciplinary Learning in Secondary and College Classrooms by Ruth Schoenbach, Cynthia Greenleaf, and Lynn Murphy introduces RAAL and the Reading Apprenticeship instructional framework for classroom practitioners with a particular focus on four-year and community college students (Schoenbach & Greenleaf, 2017).

Today, through federally funded studies, the effectiveness of RA is being tracked in high schools and colleges across the country. It was through one such program that the author was funded and educated in Reading Apprenticeship. For more on the Reading Apprenticeship Framework, visit https://readingapprenticeship.org/our-approach/our-framework/.
encourage various types of questioning as part of active reading. This update more closely reflects the intentions of a first-year composition course working under the Habits of Mind framework and includes metacognitive and reflective elements to engage transfer (Adler-Kassner et al., 2015). Encouraging students to use the bookmark not just in a composition course, but in all courses, can assist them in understanding that the concept of inquiry is highly transferable.

**Play the Believing and Doubting Inquiry Game**

First suggested by Peter Elbow and mentioned in subsequent textbooks, this inquiry game is described by John Bean (2011) as: “teaching students to simultaneously be open to texts and skeptical of them” (p. 176), which supports the ACRL Research as Inquiry practice: “monitor gathered information and assess for gaps or weaknesses” (2015). This activity can be developed into an inquiry grid to assist students in questioning reading materials and prepare them to practice Research as Inquiry with search results and source material during any research process. This extremely flexible application can be used in a large class discussion, in small groups, or individually.

**Believing**

What's the author's claim? Question their influences.

Question the author’s intention as it aligns with your interpretation.

How does the claim relate to your experience?

**Doubting**

Question the author’s claim.

Upon what might the claim be based? Can you question these premises?

Where can you question the author about something they might have overlooked—perhaps with which you’ve had personal experience?

**Discussion and Inquiry**

Victor Villanueva (2014) describes using dialectic in his classes, which address difficult issues of race and intolerance in order to trace
their exigencies. Villanueva asserts that his students use dialectic as a method of inquiry. This practice might also be understood as sharing inquiry: looking at multiple senses of a text and being open to others’ interpretations of a text. To encourage this type of inquiring discussion, a worksheet reminiscent of the intentionality of Villanueva’s dialectic assignment might engage students in self-reflective inquiry. This type of assignment echoes the importance of inquiry as a component of critical thought and self-reflection and may assist students to meet the Research as Inquiry disposition to “maintain an open mind and a critical stance” and “demonstrate intellectual humility” (ACRL, 2015).

Inquiry Through Emotional Response

1. Question your emotional reaction to a text. Why did you respond to the text the way you did?
2. Question the origin of your emotional reaction to a text. What experiences have you had that made you feel the way you do?
3. Question the factors that contributed to your emotional reaction. What life experiences and values have led to your thoughts and reactions?
4. Question how others might have reacted to the text. How are others’ experiences different from your own, and how can you consider them in our discussion?

Research and Inquiry

Yancey (2010) models incorporating inquiry into classwork in order to stress the importance of inquiry for inquiry’s sake. She asserts that such assignments are exercises in thinking (p. 328) illustrating the shift from the K–12 model of claim and evidence to one that allows students to develop philosophical questions. The following assignment, inspired by Yancey’s work and my development of an inquiring classroom, shows efforts to alleviate students’ high levels of frustration with databases.

Question Creation

The Question Creation handout might be assigned after essay prewriting but prior to research, or during an informational library session in order to begin to meld students’ home research behaviors with their school research instruction. Research, according to the ACRL, depends on creating increasingly complex questions (2015). Here, students are asked to narrow their research question and create a stronger, more specifically worded question for their research projects through inquiry.

- What is your general observation or idea?
- A question you have about this idea or observation is?
- Look at the specific language of your question. Can you create more concrete words?
- Now, ask a question about your question by including a WHY element.
- Look at how your question reflects on society. Can you question its relationship to our world, and what’s important in our world?
- How can you further define the question elements for concrete, specific language?
- What ideas have you discovered or unveiled? Can you question those ideas?

Question Maps

The “timing of the research question” has been explored in various papers from Nutefall and
of an application with high transferability to research in other courses. I often give my students several copies and encourage them to use them for other research projects in their other courses (see Box 7.2).

**Writing and Inquiry**

*Researcher’s Notebook*

Numerous researchers have looked at ways to incorporate IL into research papers, but most focus on the issue of source credibility rather than process. But Wojahn and colleagues (2016) explore various ways to integrate information literacy into classroom teaching with strong metacognitive and reflective elements using “Research Diaries.” The researchers assert that Research Diaries allow for reflection, which they report enhanced their students’ research practices (p. 199).

A modified version offered here is the Researcher’s Notebook, which asks for a paced, inquiry-heavy process and includes an end-of-semester self-reflection. The notebook is composed of process activities to be completed over six weeks, but they may be altered as appropriate for any FYC class.

**Researcher’s Notebook**

Part 1 Question Creation Handout

__________/5

Part 2 Essay Proposal with new research question, research plan

__________/10

Part 3 Research Question Map and revised research question

__________/10

Part 4 Revised Proposal including draft thesis and revised research plan

__________/10

Part 5 First 3–4 annotated works cited

__________/10
Part 6 Finished annotated works cited sheet __________/10
Part 7 Outline of argument including anticipated sources __________/15
Part 8 Abstract of your argument; first three essay pages __________/10
Part 9 Peer draft of your paper __________/10
Part 10 Research Reflection: Your Research Theory __________/10
Your points total: __________/100

WHY INCLUDE INQUIRY?

In 2010, journalism professor Clay Shirky compared the advent of the Internet to that of the printing press and suggested that, much as society has created a literate culture by investing in teaching children to read, we must now “figure out what response we need to shape our use of digital tools.” Composition instructors, Head (2016) notes, have the power to begin to address students’ ability to question texts and multimedia in just this way. As it is the responsibility of instructors to teach reading skills, it is also the responsibility of FYC instructors to “assist students [to] learn to approach these texts as informed critical thinkers” (Schoenbach, Greenleaf, & Murphy, 2012, p. 11). Even if FYC instructors collaborate with librarians for enhanced IL instruction (Gregory & McCall, 2016), if students lack the ability to frame Research as Inquiry, they will be challenged in their ability to sort through the world of information. The research of Head and colleagues illustrates a clear lack of transfer of inquiry skills, and it’s been shown that there’s a “vital link between higher education, information literacy, and lifelong learning” (Head, Van Hoeck, Eschler, & Fullerton, 2013, p. 75). This leaves FYC instructors with an opportunity to teach Research as Inquiry as more than an IL skill. Let us teach inquiry as a transferable skill that can create a foundation of curiosity that will serve students in their discipline and beyond.

REFERENCES


