I-Searching in Context: Thinking Critically about the Research Unit

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For Jason Luther, the I-Search paper alone did not seem to do enough to help students think critically. In this article, he shows how he supplements the I-Search paper with a unit to develop habits and methods of inquiry utilizing documentary films, creative nonfiction, and feature articles discussed through Socratic seminars.

As final exams near, I usually ask students to evaluate our English course and my teaching. When I did this in 2003, my high school juniors were putting the finishing touches on their I-Search papers, and their comments were unequivocal when it came to the third question: "What was the most meaningful assignment all year and why?" Out of sixty-three students who completed the evaluation, fifty-eight of them, or 92 percent, agreed that the I-Search paper was the most meaningful assignment they had had all year (and I had assigned at least one paper a month).

This I-Search was not just meaningful for the students. I genuinely enjoyed reading the papers, even after I got home from a full day in the classroom. I can remember the personal questions students asked and the stories that unfolded in their answers, and I can’t say that about many other papers that I have read since I started teaching five years ago. But this is exactly what Ken Macrorie had in mind when he published The I-Search Paper in the 1980s. In the preface to the 1988 edition, he writes that an I-Search is when “[a] person conducts a search to find out something he needs to know for his own life and writes the story of his adventure" (preface, par. 17). The most important requirement for the I-Search is that students’ searches are genuine. That is, their questions must speak to immediate and important needs in their lives. The goal is to get back to the basics of inquiry: “curiosity, need, rigor in judging one’s findings” (par. 33). By requiring that students ask a genuine question, the I-Search establishes a significant purpose and context for students, encouraging them to enjoy inquiry, not fear it.

Because knowledge is grounded in context, Macrorie insists that the I-Search be written in narrative form. “The most fundamental mode of human communication,” he argues, “is telling stories” (98). Instead of insisting that students write in a voice they do not naturally use, he argues that we should encourage students to explore their curiosity in a voice they are comfortable with. He says, “Students may be beginners in writing, engineering, or mathematics, but they’re not beginners as human beings” (98–99). An important corollary to this version of research is countenancing—encouraging students to converse with sources—which Macrorie cautions is not developed by requiring them to regurgitate “the accepted word” that authorities pass down through lectures and textbooks. Instead, countenancing develops through the genuine, student-initiated conversations that occur between those who know (professionals) and those who want to know (students). Eventually, by encouraging students to use their experiences and searches to synthesize meaning, they become authorities themselves. Even if the
questions students ask have been answered by scholars before them, students must ask these questions in the context of their personal needs and desires to be convinced that research is a worthwhile endeavor.

For all these reasons, the I-Search is an ideal assignment for novice writers. Yet, I am troubled by whether or not this research assignment helps students think more critically. Do they come away from the I-Search cognitively internalizing processes of inquiry? Can they solve a variety of problems after they write about a personal one? The I-Search obviously works well as a culminating research assignment, and I would not change that. There are several benefits that are in line with other pedagogies that engage teachers and students. However, the inquiry process students utilize when writing the I-Search paper—identifying problems, asking questions, hypothesizing and testing answers through summary and synthesis, and formulating conclusions—requires reinforcement within a unit that emphasizes these skills in multiple contexts.

Thinking Critically about the Research Unit

In How We Think, John Dewey argues that “the origin of thinking is some perplexity, confusion, or doubt” (12). Such doubt, Dewey adds, is “troublesome because it involves overcoming the inertia that inclines one to accept suggestions at their face value; it involves willingness to endure a condition of mental unrest and disturbance” (13). Perhaps our curriculum is absent of conflict because we are naturally unwilling to endure this disturbance. At the least, it explains why students might resist our initial attempts to include it. To get them (and ourselves) more comfortable in overcoming this inertia, we must teach a way of coping with it through multiple interactions with conflict.

To get us talking about conflict, problem solving, and inquiry on the first day of the research unit, I make students walk a mental maze. I rearrange the desks so that they face the wall, play some ambient music (Brian Eno works well), and set up as many distractions as I can, making the start of class “weird.” The more nonsense, the better. As students shuffle in before the bell, I ask them to immediately take a seat and write down thoughts in their journals. If they ask me questions (and they certainly do), I simply smile and repeat the directions. After ten minutes of writing, the students turn the desks inward and share their entries. Inevitably, as they share reflections, they realize their minds are racing. This leads to a larger discussion on inquiry wherein we talk about what got their attention, why they were confused by the experience, and how it made them feel. Usually, if they are being honest, they admit these disruptions made them a little uncomfortable, or at least that “they were just plain weird.” At this point we talk more about the process of inquiry and participate in other activities to get us warmed up.

Eavesdropping, playing card games, and solving difficult riddles are just a few of the lessons Larry Weinstein suggests using in his book, Writing at the Threshold: Featuring 56 Ways to Prepare High School and College Students to Think and Write at the College Level. In addition to participating in these activities, students keep a reflective journal, which they write in for ten minutes at the beginning of every class period. Students can choose to write about whatever they want or, if they’re stuck, they can choose to write from daily prompts that I give them: “I’ve always wanted to know . . .”; “If I had a week off and $1,000, I’d . . .”; “In ten years . . .”; “The best story I can remember is . . .” The purpose of this journal writing is to brainstorm ideas for the I-Search, something that isn’t revealed to them until later. But it is also helpful to “catch a student in the act of thinking,” as Weinstein says (4; italics in original). As one student wrote in her end-of-the-year reflection:

I thoroughly enjoyed the free writing we accomplished before completing the large task of the I-Search paper. The reason I feel this way is because I was able to get inside my head and write whatever I was feeling at the moment whether it was how great the day had been going, my favorite journey, something about my life, morals, or beliefs. It was actually for me, not something I had to do for a grade. I appreciated it because it got into my heart and soul,

Think tanks usually take no more than ten or fifteen minutes of class time and work well as a warm-up activity. After a while, students begin to associate inquiry with problem solving and question posing in a variety of disciplines—literature, art, math, science, business, and beyond.
and I was writing for me... not for English class. This also helped me to adopt an idea for my I-Search paper, which made it much easier for me to be so passionate about the topic finally chosen.

When this student says journaling helped her "get inside my head," she was thinking metacognitively, a challenging skill for eleventh graders. While freewriting isn't necessarily an exercise in critical thinking, reflective journals do ask students to record situations that might raise questions.

After a few days of this, I introduce them to the core of the unit, a heuristic Weinstein calls a basic process of human inquiry, which can be applied to a variety of situations. Picking up where Dewey left off in How We Think, and adapting other educational theories from Jean Piaget and Robert Thorndike, Weinstein outlines this basic process early in Writing at the Threshold:

1. The thinker is confronted with a situation that raises a question.

2. The thinker's mind goes to memory for relevant ideas or experiences and, sensing it has found some, poses a possible answer to the question before it.

3. The mind takes that first possible answer and tests it.

4. If the mind's first answer fails the bill, inquiry ends. If, however, the mind's initial hypothesis fails to survive this test—or if it survives, but other plausible hypotheses have yet to be tested—the mind plunges on.

5. The mind poses and tests alternative possible answers.

6. When the mind cannot come up with answers that satisfy it based on facts it already possesses, it devises ways to gather additional facts. (3–4; italics added)

While "situations" may be specific to certain contexts—the terms under which problems are defined, the assumptions that raise questions, how hypotheses are formed, what kinds of data are acceptable as proof—the cognitive process stays the same (Bean 3). For example, the "situation" in Step One can be interpreted as any number of problems or conflicts: personal, cultural, social, economic, academic, and so on. Losing car keys, approaching a fork in the road, finding yourself unemployed, confronting a math equation, and so forth—all these situations raise questions: "Where are my car keys?" "Should I go right or left?" "Where can I find a job?" "How do I solve this equation?" In Step Two of the process, we reflect on any prior or similar experiences we have had with the same problem. So, if I lost my car keys, for example, I would think back to the last two times I lost them—and how I found them in my backpack. In Step Three, we propose and test hypotheses in hopes of answering the question(s) posed. Using the same example, I would look in my backpack. If the keys are not there, however, I move on to Step Four and propose and test other hypotheses. If I exhaust my experiences and still come up short, then I conduct "research" by gathering additional facts: I might ask my wife if she has seen them. After I introduce students to this heuristic on the overhead—and we share a few other mundane examples—we move on to applying it to a variety of specific rhetorical situations.

**Think Tanks**

During what Weinstein calls in-class "think tanks," students are presented with a text or rhetorical situation—poem, painting, set of data, graph, chart, and so on—and are asked to think on paper, using the heuristic as their guide. The more practice they get with this heuristic, the more they begin to "see" their thoughts. For example, when teaching a unit on American iconography, I present Grant Wood's famous pastoral painting, American Gothic, to students on an overhead and ask them to respond, following the basic model of inquiry we have discussed. See Figure 1 for a particularly strong response.

Although this basic process of inquiry is supposedly "natural" (a term I use cautiously), students need to practice using the heuristic repeatedly when they write. Therefore, I usually ask students to participate in these think tanks for several weeks during inquiry units, responding to other texts such as the poem "The Red Wheelbarrow" by William Carlos Williams (as Weinstein suggests), Harper's "Index," contemporary advertisements from the Ad Council and Diesel Clothing and, my personal favorite, a receipt from the grocery store. Think tanks usually take no more than ten or fifteen minutes of class time and work well as a warm-up activity. After a while, students begin to associate inquiry with problem
FIGURE 1. Example of American Gothic Think-Tank Exercise

1. The thinker is confronted with a situation that raises a question. The transparency is of a famous painting that I’ve seen several times before on PBS and A&E. It features two older white people (perhaps in their 50s)—a man and a woman—staring strangely into the viewer. They are on a farm, and the man is holding a pitchfork. It looks like they are in Iowa or Nebraska or something because the background looks flat. I can see a barn, too. I wonder why this painting is so famous?

2. The thinker’s mind goes to memory for relevant ideas and experiences and, sensing it has found some, poses a possible answer to the question before it. I mean, it’s sooo creepy. Maybe it’s famous because it captures America’s heartland so well. Maybe because Wood was the first person to capture America in this way?

3. The mind takes that first possible answer and tests it. I know Andy Warhol is famous mostly because he was the first to do what he did. Same with Jackson Pollock and Frida Kahlo. In fact, it seems like a lot of artists are famous just because they were the first to do something.

4. If the mind’s first answer fills the bill, inquiry ends. If, however, the mind’s initial hypothesis fails to survive this test—or if it survives, but other plausible hypotheses have yet to be tested—the mind plunges on. It might also be famous because it communicates such a surreal feeling. It’s not a happy America here. I see from the caption that it was painted in 1930—I think this is during the Great Depression—when the plains were known as the dustbowl. No wonder they’re so sad!

5. The mind poses and tests alternative possible answers. It could also be famous because it’s so vivid. Perhaps people appreciate this painting because it’s just a good painting, like Cézanne or Michelangelo.

6. When the mind cannot come up with answers that satisfy it based on facts it already possesses, it devises ways to gather additional facts. I guess I’ll just have to look it up when I get home.

solving and question posing in a variety of disciplines—literature, art, math, science, business, and beyond. In engaging with the heuristic in this way, they begin to see that inquiry can be applied to a variety of school contexts and start cognitively internalizing the process in their writing.

Research without Footnotes

After students have had some experience with the think tanks, we apply the heuristic to more complex texts. While Weinstein’s heuristic might work well with canonical literature, I prefer to start with a familiar, popular medium: film. Documentary films work particularly well because, as Louis Menand commented in a 2004 New Yorker article, “[m]ovies do not have footnotes” (90). The genre of documentary film gets us talking about a key tension in inquiry: the sliding scale of subjectivity. Evidence is rhetorically presented at breakneck speed; this absence of neutrality encourages students to question sources and emphasizes the importance of cited work. In other words, the documentary film highlights research as argument instead of as truth.

In the past I have used Michael Moore’s Bowling for Columbine, since it confronts tense issues such as American violence and fear in the context of students’ lives. It also demonstrates what is at stake when we talk about “facts”; Moore seems noble but manipulative in how he uses the so-called documentary genre to persuade viewers. Because Moore’s reputation has shifted since Fahrenheit 9/11, I’ve recently shown Super Size Me, a 2004 film chronicling director Morgan Spurlock’s attempt to eat McDonald’s food for an entire month to find out what happens on a fast-food diet. Although not as serious as Bowling for Columbine, Super Size Me allows students to trace Weinstein’s basic process of inquiry as they watch the documentary.
After students take notes on the film, we conduct a Socratic seminar to describe the film as research-in-action; they talk about the problems Spurlock lays out, the questions he asks, the hypotheses and (insane) tests he carries out, and the conclusions he comes to. Ultimately, students debate Spurlock’s directorial choices, asking several important questions: Are his conclusions solid? Was his audience persuaded? Did he make the necessary connections throughout the film? Were his questions answered? What prejudices might have biased his answers?

Research with Footnotes

While students are watching and discussing the documentary in class, I contrast that inquiry with a different genre of research: creative nonfiction that uses both first- and secondhand research. When I have taught this unit to first-year writing students at University of Nevada, Reno, for example, I’ve used Barbara Ehrenreich’s book *Nickel and Dimed: On (Not) Getting By in America*. In *Nickel and Dimed*, Ehrenreich tries to work three different minimum-wage jobs: as a waitress in Florida, a maid in Maine, and a Wal-Mart associate in Minnesota. Though her experience is mostly told in first-person, she footnotes additional print sources that help illustrate her points. I have not tried using *Nickel and Dimed* with high school students, but any creative nonfiction that uses research could be acceptable. Eric Schlosser’s *Fast Food Nation: The Dark Side of the All-American Meal*, for example, is another interesting text that combines research and narrative. While these books are undoubtedly politically charged, as Michael W. Apple and many others have pointed out, teaching is a political act because the presentation of “facts” is indeed political. This is another reason that it is important to present knowledge as construction instead of as truth; if we treat knowledge as truth, the texts we choose appear to reinforce our ideology. However, if we are to demystify knowledge by treating it as argument, classroom discussion is critical since it engages students in constructivist learning, where meaning is negotiated with their peers. We hold at least three Socratic seminars when we read *Nickel and Dimed* and talk about many of the issues Ehrenreich raises—minimum wage, the nature of labor, class systems, racism—as well as her presentation of truth and fact. Some students are convinced by Ehrenreich’s conclusion—the rich exploit the poor—but many others are not. What ensues are fruitful discussions on the use of inquiry as rhetoric.

The point of getting students to interact with both *Super Size Me* and *Nickel and Dimed* is to illustrate that research can be humanizing. As the late educational theorist Paulo Freire notes in *Pedagogy of the Oppressed*: “People, as beings ‘in a situation,’ find themselves rooted in temporal-spatial conditions which mark them and which they also mark. They will tend to reflect on their own ‘situationality’ to the extent that they are challenged by it to act upon it. Human beings are because they are in a situation. And they will be more the more they not only critically reflect upon their existence but critically act upon it” (90; italics in original).

*Super Size Me* and *Nickel and Dimed* illustrate different “temporal-spatial conditions” and chronicle how people mark and are marked by the conditions in their situations, but in both pieces the writers also “critically act upon” their situations. In *Super Size Me*, Spurlock challenges the fast-food industry by showing the harmful effects of its food on his body. In *Nickel and Dimed*, Ehrenreich challenges American achievement ideologies by trying to get by working menial jobs. In discussing these texts through Socratic seminars, students come away with a more fully developed critical consciousness because they confront important social, political, and economic contradictions in America.

Feature Stories

As I get closer to introducing students to the I-Search, we read shorter inquiries, this time for a different purpose. Instead of reading for structure, as we did in the think tanks, we read feature stories and other research-based creative nonfiction to examine how the authors use descriptive elements. One of my favorites, “The Pretenders,” is printed in
The Best American Nonrequired Reading 2003. In this piece, Chuck Klosterman follows Paradise City, a rock band that tours the eastern states, playing only covers of songs by the '80s heavy-metal band Guns N' Roses. It's a clever, interesting piece, especially because Klosterman puts people on the page through imagery and dialogue. The story begins with a description of the singer: "Randy Trask's hair is naturally blond. He likes it that color, and it looks just fine. It's what his hair is supposed to look like. But in his line of work, blond hair is a problem, and he knows it" (150). When we discuss these feature stories, we focus on specific narrative elements. Essentially, feature stories are I-Sources with an intended audience; they often use first-person point of view, consist mostly of interviews, and always tell a story.

I-Searching with Structure

At this point I introduce students to the I-Search assignment as Macrorie envisioned it, giving them the requirements so that they can think about topics. Once they workshop topic proposals and settle on a problem, conflict, or concern, they use Weinstein's heuristic to sketch their research plan. While students do not always come up with conflicts that have a large social impact such as the ones we have discussed during the unit, I've found that the egocentric questions that students sometimes ask in the I-Search actually lead to sociologically relevant conclusions. For example, a student who wants to know why he or she has a learning disability might find that classifications are linked to budgets and tests that are controlled by politicians. A student looking for a career in medicine might conclude that there are significant issues in the American health-care system. Often, these searches begin and end with conflict. The world does not lack problems, and new discoveries usually lead to new questions.

I request that students loosely follow Weinstein's heuristic by structuring their papers as shown in Figure 2. After being presented with this model, they begin to see how it all comes together, how the heuristic could help them solve problems and write more-organized papers.

Conclusions

At a particularly potent moment in Pedagogy of the Oppressed, Freire emphasizes the importance of inquiry in combating domesticating forms of education: "[A]part from inquiry, apart from the praxis, individuals cannot be truly human. Knowledge emerges only through intervention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings pursue in the world, with the world, and with each other" (53). The curriculum I have just outlined is not meant to be prescriptive. Often I rearrange, overlap, add, or subtract these activities as classes change and replace the old movies and texts as new problems and questions arise. However, if we expect students to leave a research unit with a critically conscious approach to problems, we must give them multiple opportunities to engage with conflict in a variety of situations. By teaching students to journal, participate in think tanks, analyze documentaries, discuss the work of investigative journalists, and write I-Search papers, we can stop fearing the research unit and foster a more humanizing approach to inquiry.

FIGURE 2. I-Search Paper Structure

Introduction
1. Describing a genuine problem or situation in life (1–2 pages)
2. Asking a question (or several questions) in response to the problem or situation (1 paragraph)

Body
3. Trying to answer the question by reflecting on personal experience and memory (2 pages)
4. Trying to answer the question by gathering four or five sources from the immediate community and from the library (4–5 pages)
   a. Explaining why each source is appropriate
   b. Quoting or paraphrasing each source
   c. Reflecting on the answers each source gave

Conclusion
5. Concluding by looking back and forward, asking "what did I just learn?" and "what will I do next?" (1 page)
Notes

1. The "first draft" of the curriculum was used with high school students in spring 2003, while subsequent drafts were executed in the first-year composition classroom during 2004-05.

2. This constructivist method of discussion engages students in inquiry by having them create and answer authentic, open-ended, and value-free questions in a circle. The purpose of a seminar is not to debate, but it requires a variety of interpretations to be voiced through a text. For further discussion see James Holden and John S. Schmit.

3. While teachers can obviously ask excellent value-free questions during seminar, it is helpful for students to create the discussion questions themselves. Not only does this guarantee that the teacher will not manipulate the conversation, but it also helps students practice an essential skill for inquiry.

Works Cited


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