

Huntington Lyman

# I-Search in the Age of Information

Middle school teacher Huntington Lyman takes a fresh look at the I-Search research method and shows how it can be modified to provide an effective project for middle school students. By focusing their research on potential careers, students critically evaluated sources, made human connections through interviews, and learned something about themselves in the process.

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s a teacher of middle school students, I have found any number of reasons to avoid research projects. I have long told myself that English teachers have far too much to do already. Teaching students to read literature and write compositions takes up most class time, leaving little room for the study of language, the building of vocabulary, and the work in Standard English that many students need. Students in the seventh grade demonstrate a particularly wide range of abilities; while some have not mastered basic spelling and punctuation, others are ready for complex literary analysis. Research, yet another obligation, always seemed more suited to projects for history or science; why should I take this on as well?

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Consequently, I have long been grateful to teacher educators who discourage research in the English classroom. The authors of *Bridging English* begin their discussion of the research paper by asking, "Should it have any place at all? It requires careful research, in fact, to locate articles in *English Journal* advocating traditional research papers" (Milner and Milner 292). More forcefully, the authors of *Teaching Writing in the Content Areas: Middle School/Junior High* claim, "We believe that the formal 'research paper' or 'term paper' should not be taught in middle schools

and junior highs because such a project often forces students to write in a stuffy manner (if it does not encourage them to become encyclopedia cribbers)" (Tchudi and Huerta 29). This point crystallizes my most serious objection: Research assignments, particularly when directed toward younger students, produce poorly written, semi-plagiarized versions of encyclopedia entries. Watching students surf the Internet in recent years has made me even more doubtful that a research project would develop real understanding; I suspected that it would instead represent superficial cuttings and pastings from dubious sources.

Many teachers have responded to these objections by embracing the I-Search paper, a research project designed by Ken Macrorie that differs from traditional research assignments in several significant ways. As suggested by the name of the project, the I-Search paper requires the student to do independent, personal research, not merely to re-search a topic that has probably been investigated by students and adults many times before. The student takes responsibility for both discovering a topic of investigation and narrowing the area of inquiry to a compelling, manageable question of genuine interest. In the main body of the paper, the student then tells the story of the search in a first-person narrative, explaining the route taken to find information and answer important questions, recording the way the central question evolves and changes. The final stage of an I-Search project challenges the student to reflect on what he or she learned in this process and how he or she might continue to investigate this question in the future.

The objectives of an I-Search paper thus emphasize the process as well as the product of research. Perhaps most significantly, an I-Search paper is inquiry-driven, emerging from an area of genuine interest instead of an assignment by a teacher that may have little relevance or interest for a particular student. An I-Search paper should have a clear structure, but a successful paper must also show evidence of critical thought, not simply the completion of a writing recipe. The assignment should encourage students to include a wide variety of potential resources and critically investigate the validity of sources. For example, a student who relies on an Internet site would be expected to discuss the trustworthiness of that resource, just as he or she might discuss the potential bias of the author of a print resource from the school library. In these ways, I-Searching requires the student to mimic the work of an adult writer producing an article or monograph for publication. The student, like the adult writer, is challenged to evaluate published material, build on what has been written, and formulate an original topic.

Unlike traditional research assignments, the I-Search paper encourages every student to communicate through writing. One reason students become writing-phobic is that they never experience the power that is the natural prerogative of the writer. In the adult world, a writer has an idea to communicate, which puts him or her in a position of power in relation to the reader, who is ignorant. The reader's power, of course, lies in the choice to stop reading if the writing is not engaging. With school writing, in contrast, the writer is often writing about a subject in which the teacher is already the expert. What is a student going to say about the life of Edgar Allan Poe that the teacher does not already know? For many students, then, the goal of school writing shifts from communication to the avoidance of mistakes—getting out without getting hurt.

The primary reason I regularly assign personal narrative compositions to middle school students is that this form gives them real writing power. If I do not understand how many people are on the scuba diving trip, I can honestly say so. In contrast, when I respond to an essay of literary analysis, the student and I both know I am posing when I claim not to understand an analysis of a novel I have been teaching for twenty years. In a

similar way, while traditional research assignments require students to superficially cover material that a teacher has already mastered, I-Search papers put the students in charge of communicating content that the teacher does not know and doing so in a way that is comprehensible and engaging.

I-Search papers also emphasize a sort of writing often banned from traditional research. The first-person point of view is encouraged, and findings are presented as the story of the search, not as objective, final truth. As William K. Zinsser argues in his classic *On Writing Well: An Informal Guide to Writing Non-fiction*, “A writer is obviously at his most natural and relaxed when he writes in the first person. Writing is, after all, a personal transaction between two people, even if it is conducted

on paper, and the transaction will go well to the extent that it retains its humanity” (21). Forcing students to adopt an objective third-person stance, in contrast, often results in stilted, awkward expression. In *The I-Search Paper*, Macrorie uses the term *Engfish*, defined as “the say-nothing, feel-nothing, word-wasting, pretentious language of the schools,” to describe the writing he wants students to banish (22). According to Macrorie, Engfish inevitably results when students feel they have to pose in their writing by imitating the third-person, objective writing of school textbooks and essays. The solution is to root student writing in personal experience, which develops a genuine voice, and to permit them to use *I* to narrate their I-Search.

Finally, I-Search papers encourage the inclusion of a wide variety of traditional and nontraditional resources. In particular, students are urged to interview adults in the process of discovery and to then incorporate these interviews into their final papers. Macrorie dedicates a chapter of *The I-Search Paper* to interviewing techniques, showing students how to ask open-ended questions and gather information in a fair, objective, and productive manner. Again, the research process is grounded in personal experience by putting the student in charge of finding an expert,

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designing questions, and then using the notes or transcription of the interview as a text for the final paper.

I have known about I-Search papers for many years, and they have always appealed to me philosophically. I never assigned one to middle school students, though, because I was not confident that the seventh graders would respond well to the complete freedom of choosing an I-Search topic. Although I regularly give students free choice on personal compositions, I did not feel comfortable with a wide-open choice of topic for a major project. I felt that, for me as well as for the students, a focus that could provide more structure would be essential.

The impetus to action was reading Melvin D. Levine's *Ready or Not, Here Life Comes*. Levine, best known as the author of *A Mind at a Time* and the founder of Schools Attuned, argues throughout his work that a primary function of education should be to educate students about how their minds work—their individual strengths and weaknesses. Levine promotes an approach to education based on eight

neurodevelopmental constructs: attention, temporal-sequential ordering, spatial ordering, memory, language, neuromotor functions, social cognition, and higher-order cognition. He argues that schools should manage students according to individual learning profiles based on these constructs and that

instead of labeling children as “gifted” or “learning disabled,” we should help students recognize how to exploit their strengths and develop strategies for coping with weak areas. The first step toward helping all students succeed is to give them the tools to understand their minds.

In *Ready or Not, Here Life Comes*, Levine applies his central thesis to the experience of young adults who graduate but flounder as they try to move from school to the world of work. He argues that many graduates have trouble making this transition because students experience no connection between school and work. Levine's primary audience is the parent whose child is in trouble, but he also addresses educators, emphasizing the need to examine the formal curriculum and build bridges between what students do in school and what they

might do as adults. He writes, “Schools should offer courses, minicourses, or units that teach kids about the growth processes and help them think about the pathways that lead from where they are to where they will need to be over the next decade and then some. Such course work I call mind studies” (219).

Levine argues persuasively that schools should be helping students identify their strengths as well as future careers in which they might reap the benefits of their talents and interests. I agree, and this seemed to me a ripe potential area for real research that would provide some structure while tapping the benefits of writing an I-Search paper. Faced with the perennial English teacher's dilemma of how to support and shape an assignment while leaving students free to make real and significant choices, I hypothesized that focusing on a future profession might enable me to provide structure while inviting students to choose areas of personal interest.

## The Process

As I prepared this assignment, one priority was to avoid the trap of assigning a large project to be due all at once. I had no interest in providing weeks of vacation from homework and then reading long papers written in desperate haste the night before. Following Macrorie's suggestions, I divided the project into three sections. First, students were assigned to identify professions and what they already knew about them; second, they were to tell the first-person narrative story of the search; in the final section, they were to articulate the conclusions they had reached, whether or not they were still interested, what questions remained, and what they would do next if they were going to continue. Students had to submit each section of the paper by a deadline, but they were then strongly encouraged to revise these sections for the final draft. I found that there are many good resources on writing I-Search papers on the Web, so I created a jump page for students with my assignment sheet and links to these other pages (<http://www.thehillsschool.org/Students/I-Search.htm>).

For two months, as we continued with reading and short writing projects in class, students worked on I-Search papers, with approximately one class a week dedicated to tracking progress and providing instruction. Two characteristics of the assignment soon emerged. First, when students had accepted the

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storytelling context of this project, they found this form of researching and writing relatively easy and natural. Second, while I had required that students consider three types of resources (print, Internet, and interviews), it quickly became clear that interviews were going to be the most important resource for many. Interviewing a veterinarian or a basketball coach gave students a way to make sense of thousands of Internet sites and flesh out the relative paucity of information on some topics in our school library.

## Findings

For many students in the class, the I-Search project represented their best work of the year. Students generally chose professions in which they were genuinely interested, and even when their choices were clearly unrealistic, they learned a lot about why careers such as playing for the NBA were so astoundingly competitive. Students learned about careers by interviewing a wide variety of professionals, including veterinarians, sports agents, financial managers, doctors, and writers. One seventh-grade girl, interested in fashion design, contacted and interviewed one of the three finalists on Bravo's reality show *Project Runway*, who happens to live near the school, and her final project included meticulously sketched designs as well as text.

Students who conducted interviews were often pleasantly surprised by the openness of adults, many of whom were eager to discuss their professions and career paths. Adults readily identified school subjects necessary for success in a particular field as well as necessary talents, abilities, and attitudes. Adults also often suggested other materials, including books, magazines, and Internet sites, which provided useful information. For some students, what they discovered in interviews contradicted what they discovered in print. One student, for example, was told that a particular college major was not significant for success in design, while a prominent Web site strongly recommended this major as a key element of professional preparation. These conflicts challenged students to make real judgments; in this case, the girl concluded that her interviewee's experience was an exception to the typical career path.

Students learned lessons in this project that I would not have been able to teach them directly. One

student, investigating becoming a writer for *Rolling Stone*, reflected on how a recent punishment in which he was required to sit out of music class and write a paper was actually an experience that he enjoyed because it introduced him to writing about music. He was fortunate enough to establish an email correspondence with a *Rolling Stone* columnist who was tremendously generous with his time and energy. This student learned about the importance of passionate dedication to writing and concluded, "Hard work constitutes success with this job, as with any other career you choose to take." Several other students learned similar lessons, as the adults they interviewed insisted on the importance of, in the words of another student, "choosing what you love, so you never have to 'work' a day in your life." In fact, what was most important to the middle school students was learning how hard many adults work—the value of perseverance.

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## Reflections

This project also underlined an important shift in the value of information in contemporary American society. Historically, schools have been important centers of information, and for many generations the quality of an educational institution has been reliably indicated by the quality and quantity of information provided to students. In the last ten years, information has become infinitely more accessible through the Internet; anyone with a computer has access to far more information than any single library could possibly provide. The essential mission of school is thus changing from providing students with access to information to providing ways of making sense of what would otherwise be an overwhelming amount of information.

It is ironic, then, that one effect of the information revolution has been to emphasize the importance of personal connections. A Google search on "doctors" will produce millions of hits, so the novice is better-off interviewing an actual doctor, particularly at the start. In this age of information, human experts provide the ultimate search

engines, because experts have made qualitative decisions about their fields that no software is qualified to make. It is for this reason that the art of teaching has become more, not less, important in this era of rapid technological change. It was once assumed that with a large enough fund of correct information and a software system that could measure what a student knows in order to pick out an appropriate lesson, soon computers would provide individualized instruction that would ultimately make the teacher obsolete.

It has not happened that way, and not only because the technology is not yet sufficiently advanced. Learning is essentially a social act, particularly for younger students who crave connections more than raw information. A computer will never replace a teacher until it can provide care and direction in a human manner, and children are experts at spotting hypocrisy. For the foreseeable future, it is humans, not computers, who will continue to educate the next generation, although computers will continue to serve as important tools.

The situation is much the same when it comes to helping students plan for their professional lives. For this I-Search project, it would surely have been much more difficult to generate resources on many professions even ten years ago, before the explosion of the World Wide Web, but the Web sites alone are not meaningful to many students. To complete the I-Search assignment, students needed to organize and conduct purposeful conversations as well as read diverse print sources, and I believe this combination of information and context will be increasingly important in the future. While we are teaching students to make sense of the increasingly accessible and varied amount of information at their fingertips, we need to pay equal attention to developing meaningful human connections and helping students understand the relevance of this information to their lives.

## Conclusion

Assigning an I-Search paper was a leap of faith. Incorporating any new unit of study always involves additional preparation and the possibility of unanticipated challenges, but when the project relies on student initiative, the potential downside is considerably steeper. Early in the process, I envisaged students blaming me for not providing

resources, parents challenging an assignment that did not impose typical requirements of scholarly objectivity, and myself facing a stack of student writing without a clear rubric for evaluation. In reality, none of these fears materialized. I am confident that, for the students, investigating and writing an I-Search paper on a possible future was appropriate, relevant, educational, and engaging, so I plan to incorporate this project into my curriculum permanently.

The I-Search paper was educational for me as well, because it forced me to critically examine my experiences in research and question commonly accepted assumptions about what mature scholarship entails. Most middle school teachers would agree that constant references to the first person can be distracting and irrelevant, but is this a reason to universally prohibit the "I" in formal research? My doctoral dissertation at the University of Virginia was written in the first person, as is this article. In the opening to *Walden*, Henry David Thoreau wrote, "In most books, the *I*, or first person, is omitted; in this it will be retained. . . . We commonly do not remember that it is, after all, always the first person that is speaking. I should not talk so much about myself if there were anybody else whom I knew as well" (8; italics in original). If one goal of research is to teach the student about a content area, perhaps the personal connection to that content area should receive equal emphasis. How often, as adults, do we write about something entirely removed from ourselves?

This project also helped me focus on developing an approach to the expanding world of information that students encounter every day. While students still need to learn how to gather information and cull what they will require to complete a particular task, it has become increasingly important for them to determine what information is trustworthy and how they can approach a limitless supply of data in a meaningful way. Some traditional research assignments have become anachronisms, not only because of the wealth of Internet resources but also because there are an increasing number of sites explicitly encouraging students to download papers on commonly assigned topics. As students, particularly those in middle school, are learning to navigate this universe of information and temptation, I believe it helps to ground them in a research process originating in a question of

compelling personal interest and tracing that process as a story. I-Searching encourages the development of voice as well as research skills, the critical evaluation of sources as well as the ability to compile them. In my particular adaptation of the I-Search, I hope that the process also taps into the most important psychological task facing every young adult: the renegotiation of identity as the child makes the transition to adulthood. In addition to learning to navigate the universe of information and to communicate findings clearly and directly, students are challenged, not only to know their topic but also, in Thoreau's words, to know themselves well.

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#### Works Cited

- Levine, Melvin D. *A Mind at a Time*. New York: Simon, 2002.
- . *Ready or Not, Here Life Comes*. New York: Simon, 2005.
- Macrorie, Ken. *The I-Search Paper*. Rev. ed. *Searching Writing*. Portsmouth: Boynton/Cook, 1988.
- Milner, Joseph O'Beirne, and Lucy Floyd Morcock Milner. *Bridging English*. New York: Macmillan, 1993.
- Tchudi, Stephen N., and Margie C. Huerta. *Teaching Writing in the Content Areas: Middle School/Junior High*. Washington: NEA, 1983.
- Thoreau, Henry David. *Walden, or Life in the Woods*. 1854. Mount Vernon: Pauper, 1966.
- Zinsser, William K. *On Writing Well: An Informal Guide to Writing Nonfiction*. New York: Harper, 1976.

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## *EJ* 25 Years Ago

### Resistance to Computer Literacy

Why is there a hesitancy, even resistance, among educators to create curriculum and teaching techniques expressly designed for a computerized society when the reality of the need is undeniable? Opportunities for change in the math and science curricula may seem obvious, but what should be the function of the English teacher in this surge for a new "literacy"? Are English faculties now doing anything specifically wrong? Are they currently doing anything right? Can they confidently provide answers to either one of the last two questions? All educators must be able to match present practices with future needs, just as any other profession does. The good news is that they can, perhaps more so in English than in any other discipline, because computer literacy renamed is "computer communication" and English is the discipline of communication.

Kara Gae Wilson. "English Teachers: Keys to Computer Literacy." *EJ* 70.5 (1981): 50–53.