

Do You Believe in Magic? Collaboration and the Demystification of Research

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C oming out of a workshop I'd just run for high school teachers in which we discussed George Hillocks's *The Testing Trap*, taking a coffee break from a summer staff meeting for firstyear writing faculty at my college, or leafing through the *Boston Globe* while on vacation, I lately find myself confronted with the question: What exactly is college-level writing? While clear definitions are hard to come by, what the media bombard us with is that whatever it is, students are not doing it: they can't analyze in depth; they can't synthesize disparate (or even similar) texts; they don't know how to follow an argument in a scholarly source, or maybe even in the *New York Times*, and they certainly don't know how to cite the source according to Modern Language Association (MLA) format in a research paper. The list of complaints goes on and on. We've all heard them, and no doubt in moments of weakness made them ourselves.

While there is obviously no one answer to the question of what college-level writing is, this essay articulates a set of skills with which I think few would disagree as being required for college-level research paper writing. I focus on research because while college-level writing takes many forms, research is often the most challenging for students, and I believe that it is the most undertaught type of writing by teachers. Plagued by plagiarism or the fear of it—the carefully researched essay, which should be central to college-level writing, is often seen by students and faculty alike as something to fear and, if possible, avoid.

Using both the concept of epistemic rhetoric put forth by James Berlin and lately analyzed in depth by George Hillocks, and the notion of *flow*, first developed by psychologist Mihaly Csikszentmihalyi and put into a carefully scrutinized practice by Michael Smith and Jeffrey Wilhelm, this essay describes a pedagogy that can enable first-year students to learn college-level writing skills when writing researched essays and suggests to teachers strategies for teaching these skills. In the classroom setting I discuss, students work collaboratively on the process of research; they discuss and debate perspectives in a carefully structured, student-centered setting; and they genuinely revise their writing. All of these skills are essential for college-level writing, but they are often not explicitly taught stage by stage to students when they are engaged in writing research papers. If students are expected to possess skills that they are often not taught, they regard themselves as incompetent, as unable to write correctly, as already failures at college-level writing. If, however, these skills are enacted in the classroom, students can learn and understand them so that they can move with a fair degree of competency away from the formulaic you've-got-to-pass-the-state-test writing for which they were so frequently rewarded in high school to writing in which they take up positions of their own that actively engage experts in a field. This, in my view, is writing that is appropriate to the college level.

In *The Testing Trap*, George Hillocks reports on his studies that analyze the theories of knowledge employed in teaching writing on the high school level. Not surprisingly, "current traditional" rhetoric, in which teachers report that they tell students that "truth is directly apprehensible," is the most common intellectual approach to writing instruction. The characteristic pedagogical practice Hillocks discovered that accompanies such an approach is to lecture on the forms of writing. There is little need to talk about content since correct answers are "in the book" or "in the lecture" (25).

A small percentage of teachers in Hillocks's investigations teach from an "expressivist" standpoint in which personal insight is valued and students are expected to develop their ideas both through the writing process itself and through discussion with others (25). While Hillocks sees expressivism as "constructivist" and values the emphasis placed on the writing process and on individual thought, he sees the student-centered "workshop mode" of instruction that typifies an expressivist approach as insufficiently coordinated by the teacher to enable students to move beyond merely exchanging ideas and instead develop genuine arguments that interact with texts and ideas beyond the their own experiences (27–28). So while most students come to college having learned standard writing forms—particularly the fiveparagraph essay—and while even fewer come having learned to express their own ideas, neither of these two groups of students arrive at college with a complex conception of how knowledge is developed or with an understanding of its socially constructed nature—assumptions that often seem so *natural* to teachers in college that they are not even discussed.

The intellectual approach valued by Hillocks is one that stems from James Berlin's concept of "epistemic rhetoric," which Hillocks notes "remain[s] very unusual in American schools" (27). From an epistemic approach, students learn that rhetoric is "a means of arriving at the truth" (Berlin 774), that truth is arrived at dialectically through a collaborative process in which the personal subjectivity that is allowed to thrive in an expressivist environment is "ameliorate[d by] . . . allowing others to scrutinize and criticize our ideas" (Hillocks 24). Because the epistemic classroom is so unusual, Hillocks describes its characteristics in detail—and it is these characteristics that I suggest are essential in a college classroom to teach college-level writing. In an epistemic classroom, Hillocks argues:

- Student discussion is maximized.
- Discussion focuses on structured problems that are complex and not subject to simple solutions.
- Discussions often serve as preparation for writing but may also serve to help students learn strategies for critical thinking that they will later use in writing, although not necessarily about a given topic of discussion.
- Discussion takes the form of deliberative thinking about alternatives.

• Ideas and their development are central, with form emerging from them. (27)

A crucial distinction between the epistemic and expressivist classrooms is that while there is a focus on students in each, the epistemic environment is much more highly structured. Teachers do not allow students simply to pursue topics of interest willy-nilly, but rather establish problems for students to work on collaboratively before they work independently (Hillocks 28). Hillocks further notes that in epistemic classes, students learn "sets of fairly specific strategies" and that "learning tasks are scaffolded so that students have support as they encounter new tasks" (28). Thus collaborative work takes precedence over lecturing; it is a prerequisite for independent work because it helps to establish methods of study, critique, and evaluation of student work. Each aspect of the epistemic learning environment is crucial, I believe, for teaching students how to read, think, and write at the college level. Thus, throughout the process I describe below for the teaching of research, I employ an epistemic approach.

Michael Smith and Jeffrey Wilhelm adapt the concept of flow described, first by Mihaly Csikszentmihalvi, to create a pedagogy that, they argue, is essential for student engagement in the classroom. Flow, according to Csikszentmihalyi, is what we experience as "joy, creativity, the process of total involvement with life" (Smith and Wilhelm xi). Translating this psychological concept into the classroom, Smith and Wilhelm isolate four characteristics that they argue are central to the creation of such a spirit in the classroom: "a sense of control and competence; a challenge that requires an appropriate level of skill; clear goals and feedback; a focus on the immediate experience" (28, 30). They discovered in their study of middle and high school boys-and argue that it can be easily generalized to girls as well--that many students will resist trying something new for fear that they will not be competent at it (31). This happens particularly in school settings in which students tend to feel that all of the control resides in the teacher (33). The classrooms in which students feel the least control and therefore will take the fewest risks and likely learn the least are those that are "monologic," focused around teachers' lecturing (129). Smith and Wilhelm, in an argument that is similar to Hillocks's, suggest that frontloading information (83–84), giving students genuine choices in collaborative projects, and creating workshop settings (111–13) increase students' feelings of competence and likelihood of learning.

When students are asked, say, at the end of a term in a lecture class, to write a research paper, they often feel overwhelmed. Such assignments, I frequently argue in workshops for high school and college teachers, are invitations to plagiarize because students do not feel that the assignment matches the environment of the class. If they have been required to sit passively in class, to regurgitate information from their textbooks or from lectures on exams, being suddenly asked to take on one of the most potentially active kinds of writing—a researched essay—seems inappropriate. Smith and Wilhelm point out that if students feel "overmatched" in school, many will just "give up" (37). They argue for the importance of carefully sequencing assignments so that students move gradually from one level of difficulty to another in a setting in which skills build upon each other.

Students also reported disliking "the ambiguity of tasks in English" (Smith and Wilhelm 115), which makes it difficult for them to know if they have the skills or even the right sense of a particular assignment to succeed. Clear goals and feedback, the third classroom characteristic required for success, is frequently something that teachers at all levels can see as potentially constraining to students. I have spoken to so many high school and college teachers who feel that assignments like "Analyze Aristotle" are liberating to students because they allow students the freedom to focus on both the task and its content themselves. But from the perspective of the students Smith and Wilhelm worked with, such assignments are frightening and discourage the very creativity teachers expect them to spawn in students.

The fourth characteristic advocated by Smith and Wilhelm is a "focus on immediate experience." They argue, following Csikszentmihalyi, that "healthy work" is immediate and "largely unconscious" (67), and they contrast it with "instrumental" work, which is done for a future gain, such as getting into a good college, but which is not presented by teachers or experienced by students as having any immediate reward. Smith and Wilhelm make clear that in advocating such a goal, they are not talking about pandering to students, but rather about presenting schoolwork in such ways that students will find themselves engaged. Quite surprisingly, students argued that in-depth work seemed more immediately purposeful to them, and they provided powerful critiques of superficial work (104).

All four of the aspects of flow, interwoven with epistemic rhetoric, form the basis of the classroom environment I describe below: it is the one in which I have seen students learn to read, think, and write best at the college level. And it is one in which they have taken the most pride in their work and experienced the greatest degree of competency.

Part I: The Unsilencing of Teaching: Teaching as a Scholarly Activity

Much contemporary pedagogical analysis attempts to bridge the gap between theory and practice. This involves neither simply teaching theory in the canonical and uncritical way in which literary texts have been and still are often taught, nor simply reporting on "what I did in my classroom" yesterday. Rather, it requires making our pedagogies visible-to ourselves so that as faculty we can all discover ways to create enriched and more productive learning environments, and to our students so that they can learn how to enact the theories that underlie our teaching practices-whether they are theories of reading literature, theories of writing, or various disciplinary perspectives. When given the opportunity to develop theoretical knowledge by enacting it, students become more than good students, simply able to mouth the latest ideas of the profession (or the professor); rather, they become capable of actively engaging in the current practices of the discipline. This can happen most successfully in a collaborative, epistemic environment in which students are challenged at an appropriate level of difficulty. In such a context, they feel competent and thus take on increasingly complex tasks over which they feel ownership. For it is only in enacting that one can develop, critique, and grow, and eventually generalize one's reading, writing, and interpreting abilities beyond literature and beyond the classroom.

As undergraduates, many of us were taught in ways that deeply conflict with the pedagogies I am advocating. We were taught by a *silent model* in which teaching and learning occurred behind closed doors and were not really thought about or talked about. New Criticism, which suggested that focused staring at a text would somehow bring insight to students, suited this silent method quite well. One did not theorize or enact how one read, taught, or wrote. It all supposedly "just happened," rather in the spirit of Allan Bloom's notion that one should "just read the text" (344). Except, of course, that it didn't just happen for many students.

While I functioned pretty effectively under this method as an undergraduate, I also discovered that teachers not thinking consciously about the theories underlying their teaching could force students into a variety of unproductive roles. The classroomone of my favorite places then as now--could all too easily become a scene of deception. Students did not just magically develop deep insights by carefully looking at a poem. Their insights were frequently based on extratextual knowledge that the student had picked up somewhere along the way and seemed to just know (and therefore felt like a privileged insider, "to the classroom born") or that was consciously sought out by reading such guides as Twentieth Century Interpretations. These books, however, were not discussed in class by students or teachers because acknowledging that one read them took away the magic, the illusion of spontaneity and genius. Students lacking strategies for gaining what was supposed to be *innate* knowledge became painfully aware of their status as incompetent outsiders. And because of the lack of clearly articulated goals, group discussions, or collaborative projects, these students were usually not helped by the teacher or their fellow classmates. Students' feelings of control and competence in the classroom were not thought to be, as Smith and Wilhelm argue, something that teachers could be a part of by "shar[ing their] . . . secrets with students" (132); rather, these feelings were something students had to create on their own.

Increasingly over the last twenty-five years, a variety of factors have come into play that have called into question the silent model of teaching. Some of these are very material details of professional and institutional life. For instance, with budget shortages, faculty are required to teach more courses outside their specialty, even while, paradoxically, specialties in graduate schools are narrowing. The requirement of teaching a wider variety of courses for which one is not prepared by graduate study has created a need for learning about teaching. English faculty have also had to teach an increased number of composition courses—which are difficult to teach effectively (let alone enjoyably) without some degree of theorizing about pedagogy. Some of this thinking necessarily spills over into the teaching of literature. Greater connections have developed between college faculty in English and high school teachers, leading college faculty to think more explicitly about how they teach.

There has also been some response to repeated calls from the MLA for teacher training to be included in graduate curricula. Increasingly, as a profession, we have had to acknowledge that most jobs are in non-PhD-granting, primarily teaching-oriented undergraduate colleges. The rise of cultural studies has given significant credibility to the study of specifically educational practices and institutions. Further, over the last half century, more students have been going to college. This increase in the college student population necessarily means that a number of students may well be less prepared for college-level work. Teaching underprepared students is more difficult, and it highlights what should have always been acknowledged about college-level teaching: that teachers not only impart a body of content knowledge, but also a set of practices and pedagogies that enable or disenable learning as much as the content itself. While all of these changes can be seen and have been represented at times as negative, together they functioned positively to legitimate the analysis of teaching as a scholarly activity and to help break the silences surrounding teaching and make pedagogy visible.¹

When teachers show how theories can be enacted and how even apparently commonsensical practices are rooted in complex theories of knowledge, they and their students cannot easily sustain the idea that deep thoughts or good papers just happen. If teachers theorize the very material ways in which genuine learning occurs for different types of students in different contexts and if they give students the opportunity to enact these theories in a collaborative, epistemic classroom—they can enable many more students to become actively engaged and productive learners.

Some may ask whether demystifying assignments for students in ways I am about to suggest doesn't in some way do the work for them or "dumb down" a course. Such a question results from a confusion between *telling* students *what to say* in a paper and instructing students explicitly in the processes of how to engage in an assignment, a practice that helps to level the playing field for students who may come to college less versed in academic conventions. While it may seem paradoxical, as Smith and Wilhelm demonstrated (115), students do not work as hard when their assignments are mystified because romantic notions then take over-they wait for inspiration that doesn't come, or they feel defeated from the start. When teachers make the practical and theoretical underpinnings of their pedagogies visible to students, they give students concrete opportunities and specific strategies for working productively, and they can more easily set rigorous standards that students can achieve. As a practical example, I will focus on a teaching process that many of my colleagues and I use by which research can be theorized and demystified (and more effectively learned) in an undergraduate classroom.

A great deal of guidance exists in textbooks telling students how to engage productively in college-level research, and no doubt on occasion, this guidance is helpful for students who are already sufficiently trained in research techniques to be able to follow it. Students are told repeatedly, for example, to be sure that their research question is broad enough so that they can find material, but narrow enough to make the project doable and to enable them to develop a focused thesis statement (Rosa and Eschholz 302-3; Lynn 207-10; Fulwiler and Biddle 916-18; Trimbur 528-29; Behrens and Rosen 178-79; Ballenger 77-79, 81-82). They are encouraged to find "patterns" among source texts (Rosa and Eschholz 309), to "make one source speak to another" (Rosenwasser and Stephen 229), thinking of them as a "collaborative chain of thinking" (Rosenwasser and Stephen 221), and to realize that research is a "recursive process" where "backtracking and looping [are] essential" (Behrens and Rosen 177).

This is all good advice and describes processes that most would probably agree should occur in college-level writing; however, many students do not seem to end up learning from it. I believe that students are unable to translate such practical, but fundamentally abstract, lessons about research to their own work for two reasons. First, in all of the textbooks and in most conventional classes, students do their research alone. At most, they work with a librarian and their teacher. Despite all of our advances in peer review and collaborative work in the writing process, when it comes to writing a research paper, where students usually need the most help in all of the areas listed above-narrowing a topic, finding patterns among source texts, rereading, developing thesis statements, redrafting, thinking recursivelystudents are left alone. This student isolation in writing a research paper is a key factor in keeping research writing at a fairly static level, in lowering students' enthusiasm for doing research. and in encouraging plagiarism.

Second, despite the detailed practical advice given by these books, there is a point at which each of them mystifies part of the research process. Crucial strategies on how one moves from one stage to another are silenced in a romantic leap of faith-a moment of magic--suggesting that if one waits and works hard enough, a coherent, well-argued paper will eventually emerge. At some point, most authors actually do begin to hint that the whole process of engaging in research at the college level is not quite so straightforward as it sounds. They acknowledge that students may feel "overwhelmed and lost" (Lynn 205), "pretty frustrated" (Fulwiler and Biddle 916), or find themselves "facing an impossible deadline at the last moment" (Rosa and Eschholz 301). Students are told to anticipate problems and are given various pieces of advice. Repeatedly, they are told to be "flexible" (Lvnn 205: Behrens and Rosen 103; Trimbur 544), "patient" (Lynn 205), and to be willing to "modify" their "thinking" (Rosa and Eschholz 309; Trimbur 544-45).

It is at this stage in many of the textbooks that what I term *magic*—or at least a romantic ideology of the individual writer's mind—appears to take over. Things are supposed to happen that are not really explained, so that we see the mystifying of the research process and of writing on the college level begin again.

Students are told to wait, and that somehow their papers will all fall into place. What they should actually do at these stages is not quite clear. Fulwiler and Biddle discuss a student, Jessica, at the early stages of her research. Just when she is getting frustrated at the library because she is finding too much information that is not quite relevant, a librarian shows up to ask if he can help (916). A bit later, after she had "been in the history library for an hour" and "wasn't feeling very encouraged" (917), Bill the librarian shows up again and helps her find more relevant material. So within just an hour or so of frustrated waiting, Jessica is well on her way to finding good sources.

Rosa and Eschholz similarly assure students who cannot seem to make their sources fit together that "by looking at evidence on both sides, you will refine your topic and begin to see possible organizational plans" (309). Behrens and Rosen advise students to "be comforted that through back tracking and reformulating you will eventually produce a coherent, well-crafted essay" (103). Lynn is perhaps the most explicitly magical: even though he has told students that they don't have to rely on "luck" (206), he recognizes that there will be a point at which students will be "waiting for the facts to fit together" (204) and advises them to "start writing anywhere" (222), assuring them that if they have done enough research, they will find that they, like the student Anna in his book, will be "ready to put it all together" (234).

While all of this advice is salutary, it does not address the reality that many students do not achieve success as easily as happens in the textbooks. Sources can be harder to find than they were for Jessica. Librarians don't always turn up. When students have collected a number of sources, they do not necessarily fall onto two sides. A number of students do spend time reviewing their sources on their own and still never find coherence among them and do not write well-crafted essays. Finally, the idea of starting to write anywhere is frightening to many students who do not feel as ready as Anna to "put it all together."

This remystification of the research process will not affect students who know what to do while waiting. But for everyone else, these stories can be defeating, suggesting that if students wait and nothing happens, they have somehow personally failed to be able to write on the college level. Further, success stories like Jessica's and Anna's may suggest to some students that research is actually much simpler than the textbooks have been letting on and that a quick throwing of something together, after one has done sufficient research and a lot of staring and waiting, isn't so bad after all.

As in my own undergraduate experience and as a teacherand like most faculty-I find that there are always a few "good students" who do whatever is assigned to them quite well and apparently naturally, and who would easily be able to follow the advice of textbooks like these. But there are many more students who cannot. I think that we have to face the fact that large numbers of students come to college not having been taught how to do the intellectual work of research effectively, and as a consequence, the processes of research need to become public, not private, and actively enacted in the classroom in multiple sites of a student's college career. Research, like reading in the days of New Criticism, cannot be regarded as simply a private experience. Clearly, teachers and the textbooks I have cited do not mystify stages of research for reasons of perversity, but rather because the processes in which they want students to engage seem so commonsensical to them that they have often remained untheorized, even in the face of weak student research papers.

In her important work on task representation in Reading-to-Write: Exploring a Cognitive and Social Process, Linda Flower argues that one of the reasons students frequently perform poorly on written assignments is that their task definition does not match the teacher's (37-43). Students, for example, do a summary rather than a synthesis; they write a "gist and list" paper rather than develop an argument (44-53). In the very act of theorizing the kinds of writing students have engaged in, Flower helps teachers and students to understand the vast array of writing choices students have when they begin an assignment, the contexts in which one choice may be more appropriate than another, and the series of complex tasks that are nested in each of our writing assignments. These tasks are underpinned by theoretical assumptions about the nature of writing and thinking of which teachers are frequently not fully cognizant and often do not articulate to their students. This silence decreases students' possibilities of understanding the assignments themselves, let alone completing them successfully. While Flower's work on task definition does not address research writing per se, it has obvious implications because of the myriad tasks that are imbedded and never articulated in a research assignment.

The suggestions that I offer in this chapter for breaking the silence that surrounds the research process are not meant to be definitive articulations; rather, they provide some ways of making the theoretical assumptions behind particular pedagogies visible. They are, further, meant to encourage readers to think about how their assumptions about research may differ from as well as overlap with mine, and to then explore how they make their particular assumptions explicit to their students.

Part II: Demystifying Research Processes in the Classroom

Many students come to college with negative views of research, at least in part because they have been asked to write research reports, which are basically summaries, rather than researched essays-that is, carefully integrated arguments in which student writers enter into genuine conversation with a group of experts (Ballenger 6-7). While this report task definition of research usually leads to a disengaged process for students, it is relatively easy to accomplish. So, although students frequently complain about it, they often hold tenaciously to it because it has worked in the past, because it is not all that demanding, and because, for many, it is the only way they know how to write a research paper. A number of students, therefore, come to college needing faculty to help make visible to them the excitement of research, not because they are lazy or cognitively deficient, but because they literally do not have a conception of research as something engaging, exciting, and potentially empowering, a conception of research that is the essence of college-level work. Many textbooks cited above acknowledge this (Ballenger xix-xxii, 4; Lynn 205; Rosa and Eschholz 302; Fulwiler and Biddle 919).

Theorizing the ideological underpinnings of most college students' attitudes toward research can lead to productive changes in how we teach. If Hillocks is right that over 80 percent of high school students are taught from a right/wrong current traditional rhetoric perspective, we can assume that little of such theorizing has occurred in high school. Thus, we need to acknowledge that, for particular social and historical reasons, students come to us not only with a fear of or disdain for research, but also with a genuine lack of understanding of how to engage in effective research processes and of why they are important. Rather than giving them—and ourselves—yet further experiences of failed opportunities, we can create contexts in which we dramatically reposition research so that students can learn to enjoy it, despite all that militates against such an attitude.

I am proposing that, especially at the beginning of students' college education, we abandon notions of research as primarily an individual endeavor and create a research environment in which students work collaboratively to learn what the textbooks say are the major goals of research-to do research in stages; to narrow one's research questions; to analyze sources critically; to develop multiple options for thesis statements; to use sources effectively, putting them in conversation with one another; to organize and synthesize; to build effective arguments; and to read and write recursively. After they have learned all of these skills collaboratively, students can still, in the end, write individual research papers. Collaborative work in class can make visible the processes by which one does research, processes that tend for many students to seem abstract and difficult until they actually witness them come alive in the classroom. Because research capacifies are so vital to academic work, it is well worth the time to have students themselves actively develop and then display these skills in class.

I have found that research becomes most engaging and productive for students when they are required to find and analyze sources as members of a research team rather than individually. This makes the process of doing research more "immediate" and gives them a sense of "control and competence," two crucial aspects for flow and engagement (Smith and Wilhelm). Subsequently, students use these collaboratively developed sources in their individual research papers. So, from an epistemic approach, students' collaborative work is highly structured by the teacher and it is meant to provide scaffolding prior to independent work (Hillocks 28). During the research process in this type of assignment, the class functions together, in the words of one of my students, "as one great mind," and the insights they develop can be startling both to the students and to the teacher.

The collaborative research process I am proposing can be best explained in seven stages, which I will elaborate and justify below.

- Teachers develop a collaborative research paper assignment that is similar in kind to other work students have done in the course.
- The collaborative research paper assignment has a number of facets that are defined by the teacher; students choose which facet they will focus on in collaborative research teams.
- The teacher specifies the types of sources that best suit the needs of each research team, including both preliminary and more focused research.
- Students work collaboratively to select appropriate sources; each team makes four or five sources available to the class to read in advance of their team presentation.
- Each research team formally analyzes its source texts with the class, suggesting research questions, thesis statements, and points of dialogue among the texts of the team.
- Between team presentations, the class engages in *synthesis days* in which students develop short written statements that develop relationships among source texts from *different* teams. On these days, students analyze and evaluate source texts recursively to develop new and more complex ideas, to debate alternative perspectives, and finally to determine potential thesis statements for their research papers.
- Students draft and redraft papers, peer review, and analyze the papers in and out of class; synthesizing sources across teams, students begin to think in new and original ways about the research topic.

The whole process takes about five weeks. It is a structure that is adaptable to all disciplinary content. By creating contexts for radically redefining students' conventional notions of research and for encouraging genuine engagement and productive writing, it has the potential to break the silence surrounding the research process. In what follows, I spell out in some detail what is likely to happen at each of these stages, not because I expect any of my readers to be unfamiliar with the skills addressed in each stage, but because I expect that they may not be used to explicitly providing a space in which students can *enact* them.

1. Teachers develop a collaborative research paper assignment that is similar in kind to other work students have done in the course.

Teachers often feel that students will engage in research more actively if they are free to choose their own topic, but the possible pleasure of researching something in which one is individually interested-particularly for students just entering college-is often quickly erased by the sense of isolation and confusion experienced in the research process. We need to recall Smith and Wilhelm's powerful evidence that in the absence of clear goals, students lose motivation, that the idea of "giving students freedom" is often perceived by the students as a failure to provide them guidance (50). While research assignments generally ask students to read their sources critically, often such evaluation is made impossible when faculty encourage-or at least allowstudents to do research on topics about which they know virtually nothing. If, in contrast, students are asked to collaboratively research a topic with which they and their classmates feel somewhat familiar, they are likely to choose sources more critically because they will have a knowledge base from which to evaluate these sources and opportunities to negotiate their choices publicly. Students, as Smith and Wilhelm have demonstrated, feel a greater sense of control and competence when they are actively working collaboratively. And they feel greater motivation if they believe that they are being challenged at an appropriate level.

A teacher, for example, might assign a research paper on particular aspects of the production and reception of Arthur Miller's *The Crucible* in a course in which the class has read other American plays, read critical texts provided by the teacher about those plays, and already written at least a short paper or two. The research paper, therefore, is similar in its task definition to other papers students have written, but probably larger in scope, and requires students to provide most, if not all, of the critical material. It will be easier for students to approach their research if the fundamental task of the paper is one with which they are familiar. Students already understand the fundamentals of the assignment: it has clear goals and they have already received clear feedback if they have written similar papers earlier in the term.

If students, in contrast, have not been asked to read any critical texts before a research paper is assigned, too many variables can change in the research assignment. In such an instance, students are likely to be overwhelmed, not only because research is difficult but also because they may not understand how to integrate criticism into a paper or even how to read it. The task definition has changed too much and students may feel *overmatched* and possibly defeated before they begin. This kind of confusion about the task that often results in frustration for students and teachers alike can be avoided if the only new task students are asked to perform in a research paper is the research itself. Further, if the research assignment is seen by the class as extending an inquiry already begun in the course, its significance and validity becomes clearer and more immediately understood to students.

As they become more knowledgeable in a particular subject area, usually their major, in their junior and senior years, students can begin to extrapolate from course material and do projects that move further afield. I would still argue, however, that in most courses in the major, students need far more support for their research—from teachers and peers—than they usually receive in conventional assignments and conventional classrooms where they are often expected to be carrying out their research on their own while other material is required to be read for class lectures and discussions. The need for an inquiry-based epistemic approach to teaching research does not end in the first year if students are to learn to read, think, and write from the critical perspectives expected in college.

2. The collaborative research paper assignment has a number of facets that are defined by the teacher; students choose which facet they will focus on in collaborative research teams.

A team approach to research works particularly well with a group of approximately twenty to twenty-five students and with four or five research areas so that there can be approximately five to six students in each team. The system of organization teachers choose for dividing the research teams will work best if it makes sense to students in terms of the overall theory and method of the class, again increasing students' sense that they are competent to perform the assignment. In this way, students can see their research as an integral part of the course, not something added on that is fundamentally disconnected. They will also see that earlier work is helping to scaffold later work. So for example, if a teacher's approach has been historical, she or he might divide students chronologically (group one: 1900-1925; group two: 1926–1950; group three: 1951–1975; group four: 1976–present), and each group would research the same set of issues in different time periods.

Thus, in one class that focused on banned books, each group chose as the focus of their research a banned book from their assigned time period that the class had not studied. They felt a clear sense of control, not only because they chose the focus of their research themselves, but also because they already had experience working in groups and reading published responses to banned books earlier in the term. Or teachers might have groups organized by competing issues in a single time period. Students might look at issues in the contemporary family: one group would focus on single-parent versus two-parent families, another on religion and the family, another on socioeconomic status and the family, etc. Whatever the topics, teachers oversee them to be certain that students will be working in areas sufficiently different to make the topic complex, but that can also be integrated enough so that students will be able to think deliberatively and critically about alternative perspectives.

3. The teacher specifies the types of sources that best suit the needs of each research team.

Many teachers-and textbooks-are concerned that students will use *unreliable* sources when doing research. Such problems can be solved, however, if students are given clear guidelines on the types of sources they should use, and if they work collaboratively to help each other find and analyze sources. Rather than hoping that a librarian will happen upon a lost student who doesn't know where to turn first in the library, teachers can build guidelines into a team's research requirements that help them do their research systematically and relatively successfully. For example, teachers can specify that students doing historical research are required to find a certain number of academic and popular articles, and they can specify the time periods from which those texts must come, and they can explain to students the rationale for finding such types of sources. Teachers can also give students criteria for evaluating sources that resemble those in the textbooks, and they will find that students heed these criteria to a much greater extent when they are working collaboratively than when they are working alone. The clear goals of the assignment enable students to feel that they are competent to complete the task. The structure of the assignment will help students set up problems that are bound to have multiple perspectives. The collaborative nature of the work-both that students are trying to find good sources together and that they will eventually share their best sources with the entire class-lends an immediacy to the assignment that motivates students. Finally, the clarity of the assignment begins to take the magic away from the process of beginning to do research. Students will see, through the various stages of their work, that research is comprised of a set of skills that can actually be specified by the teacher and enacted by the student. The playing field is being leveled because research secrets are being revealed.

4. Students work collaboratively to select appropriate sources; each team makes four or five sources available to the class to read in advance of their team presentation.

While, as teachers, we tell our students about the importance of carefully selecting source texts, because we usually give them no practical way of moving these choices from the individual to the collective, we do not publicly validate a practice we supposedly endorse. Consequently, we send students mixed messages: choosing your source texts is important, but it's not important enough for the teacher or the class to actually get involved. When given such a message, most students will opt for the easier course of action and simply choose the first books or articles they find. If students work in research teams to find texts to share with the entire class, however, the dynamic of selecting sources can change dramatically. The research process is not so daunting when students work collaboratively. They feel freer to ask questions of the teacher and of librarians when these questions are shared by the whole team; moreover, students are much more likely to critique the books and articles they are considering for their research if they can talk about them with other students, both inside and outside the classroom.

Students develop a more critical attitude toward their source texts in such a context primarily because of the collaborative nature of both the source selection and dissemination process. When members of a team read each other's texts, their sense of the immediacy of the task is so strong that they begin to do audience analysis. They can no longer simply decide to use the first texts they find. Rather, because every team knows that the rest of the class will use some of their texts in the final research paper, students tend to reject a number of sources after they have read them if they do not meet fairly stringent criteria. Most groups try to select articles that are readable, interesting, and informative, criteria that students largely maintained for themselves as a result of the productive peer pressure and sense of flow that comes from collaboration. Students want positive responses to their texts from the rest of the class. They want other students to be able to find patterns and connections among them. They want their texts to suggest answers to certain research questions. I have found that when students do not have to share their source texts with anyone in the class, they are much less discerning: they are less concerned about interest level, points of connection, and even about whether they meet particular criteria I have established.

The number of sources that each research team is responsible for finding can vary with the level of the class and with whether the class is a general education class or a course in the major. My own preference in a first-year or general education class is to keep the number of total articles for a team approximately equal to the number of students on the team. For example, if there are five students on the team, they could be responsible for providing the class with five good source texts, though their bibliography can be more extensive. In upper-level classes, I might require a team to find more sources, but I will still ask them to give only a subset of these to the entire class. Since much of the research process at the undergraduate level is about teaching students the practice of reading, analyzing, and synthesizing texts, it is important that the number of texts that the entire class shares not become too high. If this happens, students will simply be too overwhelmed to do the work.

5. Each research team formally analyzes its source texts with the class, suggesting research questions, thesis statements, and points of dialogue among the texts of the team.

Once all of the teams have decided on what their source texts will be, the next stage is to make visible more of the skills that are at the heart of good research—analyzing source texts, developing and choosing among research questions, determining thesis statements, and putting texts in dialogue with each other. These skills are often mystified because they are usually required to be performed by students alone. They can be demystified by having each research team, on different days, share their sources with the entire class and formally analyze them in a presentation and discussion. This process works most effectively when teams give their source texts to the class in advance of their presentation and when class members are required to read and write about the texts before discussing them with the research team. I ask students to read other teams' research actively, looking for points of connection or areas of tension among the viewpoints presented in the texts, and to write a page or two about what they imagine the research question and thesis of the research team will be. Students complete these assignments before they hear each presentation, using specific quotations, paraphrases, and summaries to support their speculation. This scaffolding enables students' presentations of their research to result in genuine epistemic work.

Knowing that their sources will be scrutinized in an ongoing way encourages each team to become increasingly responsible not only about the particular sources they select, but also about the ways in which they present their material to the class. Similarly, because all class members realize that they must use the texts provided by other teams in their final research paper, they become significantly more attentive to each others' work, come to value each group's contributions, and want to engage actively in discussing each team's research. When students build hypotheses about the relationships among a team's source texts before coming to class, they are prepared for informed and animated discussions. In these discussions, students engage in and make visible the kinds of epistemic thinking that underlies good research, in which researchers try to develop research questions and discussions of complex problems, link disparate sources, speculate-often many times-on how they might form a chain of thinking, try out and scrap a lot of ideas, think consciously about alternative perspectives, and debate the relative merits of particular positions.

These are all the kinds of processes advocated by the textbooks discussed above and that most faculty expect, on some level, that their students will do on their own. Most students, however, would not engage in this recursive and ongoing analysis of sources on their own both because this process is usually not part of research as they knew it in high school, and because and we might as well face facts—it is too hard to do, at least initially by oneself. However, these tasks are easily made visible and become quite doable when students work together in class, in a low-stakes environment, well before they begin to write their papers. Class discussions help prepare students for writing, but, as Hillocks notes of the epistemic class, they also help students practice critical thinking skills that they will use later, in other contexts.

6. Between team presentations, the class engages in synthesis days in which students develop short written statements that develop relationships among source texts from different teams. On these days, students analyze and evaluate source texts recursively to develop new and more complex ideas, to debate alternative perspectives, and finally to determine potential thesis statements for their research papers.

Hillocks argues that "writing is thinking" (198), and in this stage of the research process, students come to see this for themselves. In the previous stage, students discover that developing multiple and complex relationships among different texts of a single research team is a key part of research. Although new, this task is likely to be manageable for most students because the research team will have worked to create a selection of texts that speak to each other.² Thus, while the previous stage of synthesizing texts from one team is an excellent starting point and helps to make even weaker students feel a sense of control over the material, it must be regarded as scaffolding for the more difficult task that occurs in this stage, which more realistically reflects the challenges of actual research—finding connections among the texts of *different* research teams.

And here is one instance in which the student-centered nature of epistemic methods of instruction is also highly structured. Without adequate intervention by teachers at this stage, many students can become overwhelmed, and the careful sense of flow established thus far can easily evaporate. To help keep the challenge of integrating an increasing number of disparate texts at an appropriate level, teachers can alternate classes in which research teams present their work with classes that focus on developing relationships among texts across teams.

If a course has four research teams, for example, a teacher could schedule a number of "synthesis days" to help the class stay in control of new material and to keep the experience immediate and flowing. These synthesis days can occur after group two's work, in which students would be asked to find patterns among the sources of groups one and two; after group three's work to find relationships among groups one, two, and three; and after group four's work to find patterns among groups one, two, three, and four. To prepare for these synthesis days, each student might be asked to write one page for homework that would consist of three parts: (a) write a one-sentence statement that connects one group's research with another group's research; (b) list quotations from various sources that support this connection (some students will be surprised that this will require rereading source texts with a particular idea in mind—a vital stage of research); (c) write one paragraph expanding the initial statements, with the quotations from the source texts in mind.

The advantages of such synthesis assignments that explore relationships among the texts of different research teams are many. Students are told by textbooks that rereading their sources will eventually help them develop a thesis about these sources. But, as Smith and Wilhelm have argued and as Dewey pointed out nearly ninety years ago, when any aspect of education is presented as preparation or instrumental rather than immediate, students suffer a "loss of impetus" (Dewey 90, as qtd. in Smith and Wilhelm 66). Synthesis assignments keep students engaged and in the immediate: when students write to connect two or more team presentations and when these connections are discussed in class, students actually see the logic of engaging in the kinds of recursive work discussed in the textbooks "where backtracking and looping [are] essential" (Behrens and Rosen 177).

Being asked, in a clear and concrete assignment, to create patterns from the research of different groups—patterns that have not been planned because research teams work independently helps students to reread, reevaluate, and synthesize previously read work. It requires that they develop more complex and comprehensive ideas about the subject, well before having to start writing the paper. When done gradually and systematically, students find themselves developing unanticipated relationships among source texts from different research teams. They begin to see recursive work as a vital stage of research because they are actively enacting it together rather than simply being told to do it on their own. The process most students usually follow in con-

Do You Believe in Magic?

ventional research paper writing of finding one's sources, reading them, and then trying to write a paper about them—often in one or two sittings—is not a successful strategy. But students cannot be told this abstractly by teachers or textbooks; they will learn it, however, if given the chance and support to experience it collaboratively in recursive assignments.

7. Students draft and redraft papers, peer review, and analyze papers in and out of class; synthesizing sources across teams, students begin to think in new and original ways about the research topic.

Before students are required to start drafting their research papers, they have been engaging in complex discussions that they have taken seriously because they were not overmatched. Because they had a chance to develop ideas about relationships among source texts out of class, every student has come to class with something to say. Because rereading was not optional, students have become increasingly expert in the subject matter and have had increasingly nuanced discussions. While these discussions were a preparation for writing the research paper, they also had an immediacy and integrity about them. The teacher has worked to keep the students on track, but because they are, for the most part, comfortable with the task definition at each stage, because the teacher provides clear goals and feedback, because there has been significant scaffolding, students usually need remarkably little guidance once the synthesis class discussions begin to occur. In these discussions and before they have seriously started to write their research paper per se, students have already analyzed their source texts, debated various research questions, explored alternative perspectives, and suggested possible thesis statements in class. They have also tried out a variety of ideas in short pieces of writing, critiqued those together, and developed multiple patterns of connection among their sources.

Engaging in all of this work publicly, with texts provided by one's classmates, makes research come alive for students and aids enormously in the drafting process. Because the work is done incrementally, students do not find themselves facing a blank screen when they have to begin writing their research papers. By the time they have to write a first draft, they feel competent and in control. Although not all students are fluent writers, they all have some ideas and they are familiar enough with the issues and the texts to be able to write a first draft of their papers.

As students share paper drafts, the class as a whole can observe itself using the same materials, but usually coming to very different conclusions. Because they know that the development of their own ideas in dialogue with each other and with their source texts is central to the course, because they know that truth must be argued through a dialectical process, and because they have experienced their own viewpoints being modified by other students' critiquing of their ideas in class discussions (see Hillocks 26), at this stage, students work to support each other's alternative perspectives. While they may not fully agree with the argument a fellow student is developing, they will nonetheless help that student better support it, so long as they feel it is viable.

Rather than simply coming out of their own individual research (or off the Internet), students' final researched essays synthesize a subset of the research from all groups in the class. The essays they produce actually meet the requirements that textbooks and most faculty set for students, but that students rarely achieve on their own: students intellectually negotiate a variety of texts and they work recursively to articulate and then answer a particular research question. They do this with a clear and usually well-developed position, which they actually believe in. They write with strong ideas supported by a well-organized pattern of sources. They take into account alternative viewpoints. Because the processes of research were a part of an epistemic classroom rather than something students were simply expected to do on their own, all stages of the processes of research were demystified, and thus the personal engagement and personal investment in as well as the intellectual level of student papers dramatically increases.

One colleague, who was initially skeptical of this collaborative research process, asked me whether, in a process such as this, all students wouldn't end up writing basically the same paper. He assumed that with all of our discussions, we would come to a class consensus, which students' papers would then merely echo. This seems to be a reasonable question particularly because the research paper in an academic setting is so invested with a sense of privacy, even though collaboration is actually the more common mode of professional research done outside, and increasingly inside, the humanities. A number of my colleagues and I have used this process many times and have never found a class or even a subset of the class using the same thesis statement in their final paper.

Although it may initially seem paradoxical, this collaborative model supports individual thinking. When students are doing their own research and sharing it with the class, they have a high degree of ownership that prevents them from reaching a class consensus. Students have worked individually as much as they have worked collaboratively. While they have collaborated to find articles, to present team groupings of research, they have each worked on their own to read, write about, reread, and reconceptualize research questions, theses, alternative perspectives, and patterns of connections among source texts. Perhaps ironically, students have done much more individual processing of their source texts than they would normally do if they were working on their own, because they were responsible to the whole class every day for their individual work. Thus, most students have already determined at least a working thesis before they begin writing their research paper, and they are often highly invested in its difference from other students' theses.

Peer reviewing conventional research papers, in which students have all written on different topics and have no texts in common, is often frustrating for students and teachers alike. The most that peers can do if they have little or no knowledge of the content is to line edit, checking grammar, punctuation, and citation style. While this can be useful, it is intellectually thin. Peer editing of papers written from a collaborative process, in contrast, is exciting and deeply informative. Students enjoy critiquing each others' papers from the point of view of a relative expert. That is, they not only can explain to other students that they should develop or refute or at least take account of a particular point in more detail, but they can also suggest sources by which to do this.

The drafting and redrafting process, therefore, is dynamic, exciting, and rigorous in ways that I have never seen either with conventional research assignments or with assignments in which I have provided all of the readings. Students, as well as teachers, feel the difference, and many students and faculty have reported that they can hardly believe that students are this excited about a research paper. Significant numbers of students-for the first time-have realized that it is actually possible for them to create new knowledge. They see that this originality is not based simply on personal opinion and feeling. Rather, it is the result of understanding a spectrum of expert contemporary and historical ideas on a subject and configuring those ideas to build an argument that exists in dialogue with the research on which they are drawing. This definition of originality (as opposed to the *personal* opinion definition) requires careful scrutiny and an honest use of sources. Students, rather than the teacher, can usually monitor each other on this because they are so close to their source texts.

And the final test of this pedagogy? The papers are better. Much better.

Part III: Conclusion

What strikes me most about breaking down the research process into various stages is that at each stage, students discover many helpful skills. They thereby inadvertently show me the gaps in their strategies, the places where, if left on their own, they would have probably failed or felt frustrated because they would not have known what to do, and I would not have been aware of what they did not know. Yet it is impossible for a teacher ever to predict what all of these gaps will be. They will differ from student to student and class to class. Enacting the research process collaboratively and in stages, however, breaks the silence, as students show the teacher and each other their areas of strength and weakness and learn from each other. Students are particularly receptive to learning from their peers in this setting because their work is so collaborative; nonetheless, they know that they will be writing their own short recursive assignments and their own final paper. Thus, they need to learn as much as they can from each other as well as from the teacher because the supportive environment of our functioning as one great mind will eventually end.

In trying to develop effective strategies for teaching research, my colleagues and I are making our pedagogies more visible not only to our students, but also to ourselves. We are beginning to recognize that assigning research carries with it significant responsibility for the teacher, as well as for the students. We are spending the time to explore with students the complex hidden strategies within processes of research and to give them multiple opportunities to enact these strategies, not just to be told about them. In so doing, we believe that we are helping to level the playing field for students so that they can actually learn what college-level research writing is. Further, we are giving them the opportunity to understand and develop the skills necessary to eventually conduct productive research on their own. We are facing the fact that application is harder than theory, that there is no magic, that good research won't just happen, and that the silent model of teaching doesn't work any more, if it ever did.

So, we have been forced to confront our own assumptions about our assignments, our subject matter, and our students in general. In such a context of demystification, everyone benefits. And when our pedagogies are clearly articulated and out on the table, revising them is also easier—as teachers, we can figure out what we might want to change about an assignment that did not quite work, and we can more fully think through the underlying theoretical or practical reasons for such changes.

Finally, when teachers theorize their teaching practices, they have the potential to engage others to become conscious of the assumptions underlying their own teaching. This occurs because teaching has been changed from a private space that happens behind closed doors to a public, theorized, discursive practice that has consequence, that can be analyzed, and that, like the research our own students are doing, can be altered by the arguments and practices of others.

Notes

1. One of the most recent examples of the rise in the status of teaching as a scholarly activity is in the development of the journal *Pedagogy* in 2001. Studies throughout the country, such as the Boyer Commission's report *Reinventing Undergraduate Education* (1998) and MLA's report *Professional Employment* (Gilbert 1997), increasingly are addressing the need for radical change in the teaching of undergraduates and in the training of university educators.

For scholarly work on teaching over the last twenty-five years and for some discussions of reasons underlying it, see the journals College English, College Composition and Communication, College Literature, and Reader. See also books in the MLA Approaches to Teaching series, which began in 1980 and reflects the discipline's increasing concern with pedagogy. See also such edited volumes as Kecht, Pedagogy Is Politics (1992); Clifford and Schilb, Critical Theory and Writing Theory (1994); Sadoff and Cain, Teaching Contemporary Theory to Undergraduates (1994); Slevin and Young, Critical Theory and the Teaching of Literature (1996); Kent, Post-Process Theory (1999); Shamoon et al., Coming of Age (2000); Helmers, Intertexts: Reading Pedagogy in College Writing Classrooms (2003).

Of the many single-authored volumes on the subject, one can perhaps best look to those books that have won MLA's Mina Shaughnessy Prize, and to the development of this award itself in 1980, which focuses on the teaching of language and literature. Recent books focusing on the history of the discipline also now give teaching practices a much more foregrounded place than they would have had twenty-five years ago. See, for example, Scholes's *The Rise and Fall of English* (1998) and Crowley's *Composition in the University* (1998).

2. By watching the class analyze their texts, members of the research team can also discover that there are multiple ways to read even quite tightly organized texts—for invariably, the class will find points of connection and tension, and will ask research questions that the research team did not anticipate.

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