

Teaching Writing



Writing can be a means of taking intellectual control of a subject, of discovering what it is that one wants or is able to say about something. It can be said to be heuristic, requiring the reformulation or discovery of relationships among ideas and concepts.

In the last decade, there has been a surge of research interest in an intellectual skill that had been overlooked for perhaps a century—writing. This is not to say that children have not been putting the pencil to paper in class or that teachers have not assigned essays and reports. For a long time, however, writing has lain somewhere behind other kinds of instruction—handwriting and grammar, the book report and the term paper, lessons on the geography of Chile or the



Now that research is showing us how complex the writing process is, we need to help students learn to manage that process.

as Learning and Process

poems of Robert Frost. The act of writing itself (whatever it is that occurs when a student uses written language to create or represent something that he knows) was hidden from teachers and researchers who turned instead to the traces that writing left behind, building their lessons from what they saw there. Writing as an act of thought or imagination was beyond instruction. A student either had it or he didn't. It was a gift, a privilege of class, the result of a proper upbringing.

There were things that came before or after writing—a knowledge of the grammar of the language, a knowledge of certain conventional textual forms (like the term paper or the book report)—and these things could be represented in direct instruction. We could not, however, teach writing itself. We couldn't teach it because, in a very real sense, we couldn't find it. We had no rich descriptions of what students did when they wrote, no models of the actual process of composing, no

map of the territory.

The new research interest in composition has been driven by a desire to describe the process of composing—not the products and what they look like (the book report, the business letter) or our language and what it looks like (a grammar), but the activity of using written language to create and record an act of understanding. This research has required methods not used previously to analyze English instruction—methods drawn from the social sciences, literary criticism, and cognitive science. From the beginning, researchers realized that they needed to see a highly textured picture of the writer at work. They needed to understand writing as an activity that takes place in the mind of a writer, that takes place on the page (in the evolution of a piece of work from its first jottings to its finished form), and that takes place in the social milieu of the classroom or the workplace. After ten years, these new procedures have begun to produce some interesting information about how writers write and how writers learn, about writing as a complex behavior and writing as a complex intellectual process.

In many ways, the most dramatic discoveries of the new research have yielded the most obvious truths: writing is difficult; it requires a writer to think about and to do many different things at once; the better a writer is at generally managing the complex demands of writing, the better able she is to write. Students encountering these difficulties can, people believe, be helped by instruction. That is, they can be taught to be more conscious and efficient writers. But such instruction does not necessarily make other aspects of writing any easier, since learning to manage writing is not the same as learning to use writing to manage a subject (like history) or to manage an advanced procedure for thinking.



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about a subject (like the procedures that distinguish analytical history from narrative history) or to manage an audience (teachers, readers of a journal, friends, or family). In other words, there are two ways of representing the difficulties writers face: they have to manage a complex behavior, and they have to manage a complex intellectual process. We can speak with reasonable confidence about the complex behavior, about how writers write; we are just beginning to understand how writers learn.

Writing as a Complex Behavior

When researchers began to look at writing as a behavior (i.e., Flower and Hayes 1980, Sommers 1980, Perl 1979), they saw that it did not follow a straight and orderly line from beginning to end. Rather than occurring linearly, with one sentence following another, or in sequential stages, with planning leading to composing and composing leading to revision, a writer's process seems most often to turn back upon itself, moving forward—whether to continue text production or to edit or plan—in conjunction with



When researchers began to look at writing as a behavior, they saw that rather than occurring linearly, a writer's process often seems to turn back upon itself, moving forward in conjunction with moving backward.

movement backwards when a writer reads what he has written and reflects upon his text. Or in terms of the problem-solving model that Flower and Hayes (1980) propose, writing consists of three major processes—planning, translating, and reviewing—and once the activity of writing has begun, any of these processes or their subcomponents can be invoked.

Consider, for example, the following set of false starts documented by Mina Shaughnessy (1977) and produced by a young adult writer as he attempted to contrast the ways in which infants and adults see the world.

Start 1:

Seeing and hearing is something beautiful and strange to infant.

Start 2:

To a infant seeing and hearing is something beautiful and strange to infl

Start 3:

I agree that seeing and hearing is something beautiful and strange to a infants. A infants heres a strange sound such as work mother, he than acc

Start 5:

The main point is that a child is more sensitive to beauty than there parents, because its the child a infant can only express it feeling with reactions,

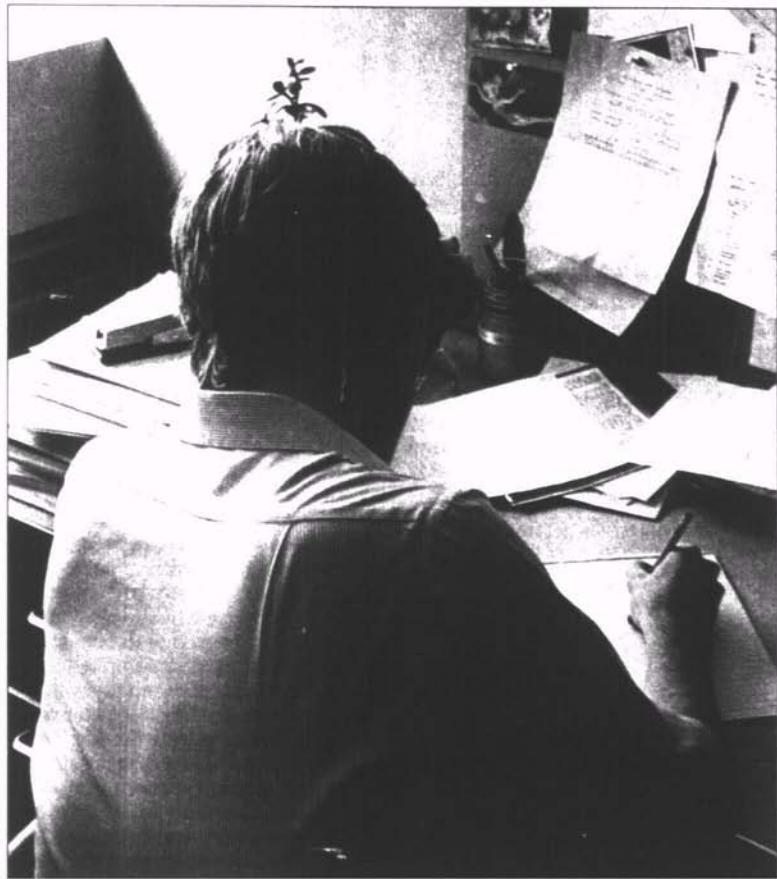
Start 8:

I agree and disagree that seeing and hearing have a different quality for infants than for grownups, because to see and hear for infants its all so new and mor appreciate, but I also feel that a child parent appreciate the sharing

Start 10:

I disagree I fell that seeig and hearing has the same quality to both infants and parents. Hearing and seeing is such a great quality to infants and parents, and they both appreciate, just because there aren't that many panters and musicians around doesn't mean that infants are more sensitive to beautiful than there parents (pp. 7-8).

Shaughnessy used this set of abandoned beginnings to illustrate how debilitating a concern for correctness can be to a writer early on in the writing process. Trying desperately hard to get the spelling and wording right, the writer is able, Shaughnessy would argue, to think of little else. We might also understand this writer's difficulty as he attempts to figure out what he wants to say, to say it, and to say it well (or to plan, translate, and review) all at the same time (while



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assuming that such control and purposefulness are what writing is normally about). It's interesting to notice how his approach to his topic seems to change and develop with each false start, beginning as it does with the notion that infants see the world in a strange and beautiful way and proceeding finally to the position that infants and adults see and hear similarly. In another form (notes, for example, or musings to himself), this development in the student writer's thinking would be encouraging, offering evidence perhaps of a thoughtful consideration of his topic. As it stands here, the headnote to an aborted attempt to compose a class essay, it suggests instead the frustration of a writer who feels put upon to produce a text and powerless to carry it through.

Writing, by its nature, takes time and requires a conscious strategy for man-

aging that time. Because writing tempts one and, to a degree, requires one to do many things at once—to transcribe words on the page, to plan what to say next, to worry about the assignment, to conjure up an audience, to fret about the sound of a sentence or the spelling of a word, to drift away to thoughts of a Friday evening—there's a need for procedures that can order and focus the writer's energy and postpone some problems until later, all in the name of managing time and balancing constraints.

Experienced writers do this in a number of ways. Flower and Hayes (1980), using their "think-aloud" research on writers as a touchstone, have suggested that better writers value flexible plans that allow them to set priorities and to define and redefine high-level goals. Thus, instead of committing herself to text right away, a

writer gives some time to sorting through possible approaches, ideas, arguments. Planning, as conceived here, can precede putting pen to page, but most certainly occurs afterward as well, as a writer refines her intentions in concert with the development of her text, true to the recursive nature of composing. In addition to robust planning skills, experienced writers depend on revision, on the opportunity to go back and work over papers they have already begun (Sommers 1980). Such a separation frees a writer from the constant need to be careful or orderly while writing and gives her the chance to see where her material or the writing will lead her. It also liberates her from worrying about putting a finish on a construction while she is constructing it. But most significantly, it allows a writer to go back to her draft to see, as though for the first time, what it is she is trying to say and what she must do next if she is going to speak of it with authority. Of all the moments in the work of a writer, this re-seeing or revision has received the most attention from researchers and seems to carry the most power pedagogically.

Helping Students Manage the Writing Process

The implications for teaching are fairly obvious, even though they may be difficult to put into practice. Students need to be given time to write every week, and they need to have writing staged out for them so that they can learn not to try to do everything at once—so they can learn, that is, to manage the process of writing. Instead of letting a student's process of writing take whatever shape and order, *laissez faire*, the teacher can profitably order and distinguish its stages. One way to accomplish this staging is to set aside time in class for planning or prewriting activities so that students are encouraged to mull over their ideas instead of writing about the first thing that comes to mind. They need to learn that planning can be many things, from group brainstorming, to reading a book, to making a flow chart, to sketching an outline.

Students need, in addition, the op-

portunity to go back and work on papers that they have already begun, to conceive of revision not just as copying-over-again-more-neatly or correcting spelling mistakes or rearranging sentences, but as the chance to see, as though for the first time, what it is they are trying to say. Again, one way to accomplish this staging is to separate writing into parts and to make sure that writers focus their energies on one part at a time, to the extent that this sort of separation is

possible. So, teachers might ask students to write a draft of a paper and to submit that draft for comments and suggestions, and then, on the basis of the reader's response, to revise it, to re-see it. After this revision (or perhaps after several), and not until then, would they return to the text in order to edit it or correct its mistakes.

It is important for inexperienced writers to separate editing and revision. Buried behind the distinction between these two activities is one of

the most powerful lessons of writing: there is a difference between choice and necessity. When a writer revises, he can experiment with the sound of sentences, with his style, with the way his own personal use of the language can vary from other uses. When a writer edits, he looks for mistakes, for those moments when his language breaks rules that may not be broken without consequence.

Our own research has centered on the study of error (Bartholomae 1980, Hull in press). We have looked at the logic behind those mistakes that students make when they are doing their best (when the mistakes can't be satisfactorily dismissed as "carelessness"). In our most recent work (Hull 1984), this interest in error and editing has led to the design of a computer tutor to teach editing. It is unlikely that a machine will be much good at responding to the style, order, or inventiveness of a discourse or at teaching a student to do so. It is possible, however, for a machine to teach a student to monitor and correct his own mistakes. This is work that teachers have traditionally disliked, and there are strong pedagogical reasons why instruction in editing should be separate from instruction in drafting or revising.

If instruction in editing takes place outside the classroom on a machine in sessions that follow drafting and revising, students can learn to manage their writing processes by differentiating those textual changes that have to do with editing or correctness—how to spell *heroes* and whether to put a comma after *however* and if *Because I want to* can be counted as a whole sentence—from those that have to do with revision or re-seeing—what kind of examples to use when one's audience is naive and one's topic is artificial intelligence applications in medicine, how to rework a sentence that sounds too long or too awkward, how to speak convincingly against apartheid without seeming to pound on the kitchen table.

Given the documented complexity of the writing process and an almost universal intuitive consensus that writing is difficult, it is perhaps not so surprising that there is a striking bias



Working with a computer tutor, a student can learn to monitor and correct his own mistakes—work that clearly separates editing from drafting or revising.

against writing instruction built into the traditional class. It is easier to teach other things. While there may be plenty of time to set aside for grammar review or for the analysis of literature, little time is actually left in the curriculum for student writing.

Arthur Applebee (1981) reports in his national survey of *Writing in the Secondary School* that it is rare for students to write more than a sentence or a phrase on a short-answer exam. Longer assignments are seldom treated as occasions for writing. In a typical case, three minutes elapse from the time a teacher introduces a writing assignment to the moment that students begin to write in response to it; in other words, teachers don't usually discuss the topic or simulate planning techniques like brainstorming. Indeed, Applebee reports, writing assignments generally begin as if the student already knew what to say and how to start. The actual time devoted to writing and revision, like that devoted to prewriting, is short. High school students aren't often asked to write more than a paragraph or a page, and they aren't often asked to write more than one draft of anything or to revise for anything other than the sake of neatness. Information on elementary schools suggests similar patterns. Graves (1978) found little writing in elementary school instruction. The National Assessment of Educational Progress (1980) showed children less likely to engage in writing than 17-year-olds. Thus, it is important for teachers and administrators to look at classroom instruction and to ask, "How is the activity of writing represented here?"

Writing as a Means of Learning

One of the implications of current research is that writers learn to write by being allowed to work like writers. This work can be imagined in terms of a writer's behavior. The writing process can be shaped and modeled by providing instruction that allows students to work on a project in stages. But a writer's work can also be imagined in terms of her intellectual process. Writing can be a means of taking

intellectual control of a subject, of discovering what it is that one wants or is able to say about something. In such instances, the process can be said to be heuristic in nature, requiring, then, the reformulation or discovery of relationships among ideas and concepts (Polanyi 1958, Berthoff 1982).

To be clearer about this notion that writing is a means of learning, let us look first at a piece of student writing that doesn't indicate such learning. This piece was written by a 12-year-old in Britain (Martin et al. 1976, p. 64).

How Lights Developed

For hundreds of years, fires in 'chauffers' were the main beacons of Northern Europe. There was one at Tynemouth Castle as early as 1540 and there was one still in use at St Bees, Cumberland in 1822.

Open fires gave a good blaze to penetrate the gloom of murky nights, but they used enormous amounts of wood and coal.

Candles, long popular in the clearer air in Italy, were used in the first three Eddystone lighthouses. Smeaton arranged twenty-four huge candles in two circles, but in 1810 the light was converted to oil. White-side used oil for his smalls (?) light. Candles and oil lamps had to be screened from wind and rain, but windows quickly became black with soot. In 1784 the problem was solved. Ami Argaud, A Swiss, invented a smokeless lamp made of two thin, brass tubes, one inside the other, with a circular wick between. He accidentally improved it when he found that the neck of a broken flask placed on top would draw up the flame and make it burn brilliantly. After this glass chimneys were always added. Argaud lamps are widely used for lighting homes, and made possible great developments in lighthouse lights.

Clearly, this is competent student writing. There are almost no errors in syntax, punctuation, or grammar, and the information on lighting is trotted out clearly and dutifully. The research team who collected this writing sample commented that it read as if it were taken in large part from someone else's language. That is, the student possibly read about lighting from an encyclopedia and paraphrased what she read, or she might have copied some of it directly. Perhaps she learned some facts about lighting by doing this assignment, but it's not the sort of learning that is likely to stick. We wouldn't, in other words, call her essay an example of how writers learn through writing, but rather, a dem-

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onstration of a writer's ability to record information "acquired" prior to writing.

Let us consider next a very different piece of student writing, different in its purpose, certainly, as well as in its author's engagement with his topic. The author is a 15-year-old, and his topic the final page of a project on making alcohol from waste paper (Martin et al. 1976, p. 28).

My project worked very well and I'm pleased because 1) I got alcohol from paper which I thought was never possible, 2) because I used some new equipment which I've never heard of let alone worked with. Another thing, I was pleased

about was there was lots of experiments and if there was anything I wanted to know there was book's at my finger tips so there weren't any time lost. If I had a lot more time what I would like to make is a lot more alcohol and do lots of flame tests because I only made about 1 cm of pure alcohol. So I could not do much, I would also like to find how much yeast is necessary to ferment it properly yet let the alcohol burn properly. I would also like to know if it was the yeast that stopped it burning. I would also like to learn how to control the heat when distilling because that's a mistake I made.

The research team who collected this writing sample categorized it as "speculative," going beyond reporting

or recording events or information to exploring questions independently. This student assesses what he's learned and generates questions he'd like to explore. The writing he produces is not error free, but neither is it voiceless; it does not give evidence of conventional attention to discourse coherence, but neither does it depend for its intellectual shape upon the ideas and language of others.

Some theorists would want to claim a special role for writing in the thinking exhibited in this student's piece. They would want to argue that, if the act of writing did not result in this turn of mind, it at least fostered it, providing the student an occasion to make his ideas explicit. And they would further argue that, if the student were given a chance to return to his account of making alcohol from paper, to revise it for inspection by others, he would be likely to generate more questions for further inquiry as well as to deepen his understanding of what he achieved through his experiment. And some theorists would argue, finally, that if the student were also introduced to the special conventions that scientists use for reporting and discussing their data and results, he would learn something of what it means to work within the discourse of a discipline, to write and to think, in this case, like a scientist.

We suspect all of our readers have felt the truth of this argument. If you sat down, for example, to write the history of your family or your school, you would learn something about how historians work and understand events. If you sat down to write about your family or your school as a psychologist, however, you would write about it differently. And in both cases you would learn something about a "way of knowing" that you would not learn if you read a history textbook or a psychology textbook and took a machine-scored exam in response to it. The recognition that writing differs from discipline to discipline, and that it is intimately joined to discipline-specific ways of representing knowledge, drives the recent pedagogical movement called Writing Across the Curriculum (Fulwiler and Young 1982,

Thaiss 1983). This movement urges teachers in various subject matter areas to teach writing as it's done in science or history or psychology.

Writing is a powerful way to help students to learn about a topic, by stating and developing their ideas, and to learn how to know about a topic, by employing the discourse conventions—the ways of arguing, of using examples, of citing and selecting evidence, of setting forth documentation—that are characteristic of various disciplines. It follows that, if students are to experience this kind of writing in the classroom, it won't be enough for teachers to ask students to write reports on information they have been told or that they have found in books. Such assignments can demonstrate to teachers that students can remember what they've been told, but they can't teach students about the power of writing to connect new knowledge and old, or to stimulate independent thinking about a topic, or to teach about the special ways of arguing and knowing that belong to chemists or historians or literary critics. Traditional writing assignments, not only in English classes, but in classes on history, science, psychology, and health—assignments that prompt students only to look up Nicaragua in the *Encyclopedia Britannica* in order to describe its rainfall, or to read *The Scarlet Letter* in order to write a book report as proof of having read the whole book—won't be sufficient if students are to experience writing as a means of learning.

The answer to what will be sufficient has to do with encouraging students to write by giving them compelling reasons to work through written language or, to quote Applebee's recommendation, to provide a classroom context "where the writing is motivated by a need to communicate and valued as an expression of something the writer wants to say" (1981, p. 104). Students need to see that the writing they do serves some end, and they need to hear from a reader—a person or a roomfull of people willing to be interested, surprised, pleased, or in some way engaged—how far afield or close to the mark they've come.

"Writing can be a means of taking intellectual control of a subject, of discovering in some way what it is that one wants or is able to say about something."



If the classroom is going to become a place for writers, students must be given time to write, they must be given good reasons to write, and they must have readers—conditions that require a reallocation of time in the English class.

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This could mean devising assignments that are based on firsthand experience: we've seen a wonderful observational diary on the habits of blackbirds that was written by a 14-year-old boy for a biology class (Martin et al. 1976). It could mean weaving a sequence of assignments around a topic that students can claim some authority and interest in, but that they can also investigate and learn about through reading and writing; at the college level, we've taught such sequences based on topics like "work and play" and "growth and change in adolescence" (Bartholomae and Petrosky in press, Coles 1974). It most certainly means teachers serving as readers who respond as colleagues, consultants, or cohorts by asking questions and making suggestions. We particularly admire the elementary teachers Graves (1983) described, who teach writing through conferences in which they do their respectful best "to help the child realize his intentions" (p. 6).

Again, it may be surprising, given the bounty that comes from using writing to learn, that there's so little evidence of it in schools. Applebee (1982) reports that, in all the subject areas he surveyed, teachers used writing primarily as a means of assessing students' mastery of familiar material. For English teachers, having students write was a way to test their "ability to express themselves clearly" (p. 374), in other words, to test the proper and correct use of language. For science teachers, having students write was a way to test their retention of concepts. Here, for example, is a writing topic given to 9th grade science students: "Write a one-page report on one of the following topics... (1) the diesel engine, (2) the gas engine, (3) supersonic flight, (4) sound" (p. 374). Entire books could be written about such topics; the only reason they are possible assignments for school writing, states Applebee, is that they call up information that was previously presented or could be conveniently found in an encyclopedia or textbook. In keeping with this interest in using writing as a test of familiar material, the teachers in Applebee's survey responded to students' writing by assessing its accuracy—not by encouraging students to re-see.

Thus, it is important for teachers and administrators to look at school assignments and to ask, "What kind of intellectual activity is represented here?"

The structure of an English classroom is an expression of a tradition of cultural values as well as a tradition of classroom procedures. In order for writing to be taught as writing, there will need to be some fundamental changes in English classes.

If the classroom is going to become a place for writers, students must be given time to write; they must be given good reasons to write; and they must have readers. All of this will require a reallocation of time in the English class, time that will have to come from somewhere: from grammar instruction, from library exercises, from reading. And it will require new methods for evaluating teachers, since a good writing teacher is often a teacher who

assists students while they are writing and who is not, in other words, offering direct instruction. Furthermore, if students and their teachers are going to learn to value writing, the English class will have to become a place where it is as natural and right to read a student's story or report as it is to read *Silas Marner* or *The Diary of Anne Frank*. It will have to become the place where students are invited to pay attention to their own writing and the writing of other students and where those texts aren't seen as fundamentally different or fundamentally less important than literary works.

What we are calling for is a recognition of the centrality of the activity of writing in the curriculum—a centrality that cannot be completely represented by book reports and topic sentences and handwriting and verb conjugations or many of the things educators have traditionally believed to be at the center of the English classroom. If writing is at the center, then students will spend their time practicing and observing the ways written language creates and records acts of understanding. The challenge for those who share this concern will be to find ways to give teachers the time and the training to represent writing to students as a complex behavior and a complex intellectual process, to represent ways of writing that can also be ways of learning. □

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