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Writing: An Act of Cognition

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Writing is central to teaching and learning in American schools. Teachers assign it, and students spend about 44 percent of their classroom time doing it (Applebee, Lehr, and Auten, 1981). What kind of writing occupies so much instructional time? Only 3 percent is actual composing, where writers put together a sufficient number of sentences to form paragraphs. The rest is largely mechanical, involving such response activities as taking notes, filling in blanks, performing calculations, and writing brief phrases or simple sentences. And, almost all such writing is done so that students can demonstrate to teachers that they know something.

Students take written notes as teachers talk, then review and sometimes recopy the notes when preparing for examinations. Students also take notes from books—and in book margins—in order to remember what they read or to quote what they read in a term paper. Another kind of writing is usually called homework, where students write brief answers to text or teacher questions. Some homework questions require one-word answers (What is the chief cash crop of Mexico?) while others demand a few sentences (“List three causes of the Civil War”). The purpose of much homework writing is to help students remember and understand textbook information about a particular subject, such as geography or history. Teachers sometimes collect and check this writing, although they seldom look for more than approximately correct answers; teachers and students both consider this work as busyness, not as a serious act of composition. We might call such forms of writing mechanical, since they demand little actual composition on the part of the writer.

Essay examinations comprise a second, high-pressure kind of writing. Students write essay exams based largely on information studies from class notes and homework. Here, students write on command and generate quick prose answers that often analyze or synthesize fragmented information (“Compare and contrast the industrial revolution in England and America”). Sometimes, students are asked to evaluate or to give a personal opinion about a situation (“Explain why you would vote or not vote for the Equal Rights Amendment”). The resulting prose must present ideas coherently and sensibly so that the student can demonstrate to the teacher that a certain amount of learning has taken place. Such writing evaluates the learner and only incidentally aids his or her learning.

A third category of school writing can be called formal composition; this category includes research papers, essays, book reviews, and laboratory reports. All forms require deliberate composing activity from students, who are often asked to formulate topics and locate and organize evidence in order to create coherent whole texts in clear, conventional language. Teachers are the audience that evaluates students according to the completeness and correctness of the final written product.

Exams, papers, and reports are meant to convince teachers that learning has occurred, while note taking, homework, and the like are chiefly copying or recall activities that indirectly serve the same end. The learning model that I have just described provides students with stimuli (texts and teachers) and expects responses (answers and papers). However, we all know that learning is more complicated than that. In particular, we might ask how the information is presented: in what mode, medium, or style? in what context, situation, or circumstance? and for what purpose? We can also look at how students receive information, including their background, maturity, interest, motivation, cognitive ability, and physical well-being. Finally, after students have received the information, they can accept, question, debate, ignore, or reject it by writing, thinking, or talking about it. In other words, between the presentation and the response, a variety of psychological and physical activities takes place that affects whether insight, learning, or understanding occurs.

Languages and Learning

Language is the key to what does occur. Not only is language the symbol through which human beings receive and transmit most information, it is the medium in which they process most information. We see and hear language, we think in language, and we communicate with language to others. According to Langer (1960, p. 42), sense data are “constantly wrought into symbols, which are our elementary ideas.” Indeed, we need to create and manipulate symbols—visual, musical, mathematical, and linguistic—in order to think at all. These symbol systems are the languages through which we represent, study, and understand the world. We use languages in order to learn. Another way of saying the same thing is this: Language makes learning, as we know it, possible.

We think things through by talking to ourselves, carrying on “inner” conversations in which we consider, debate, and rationalize. The key to knowing and understanding lies in our ability to manipulate internally information and ideas received piecemeal from external sources and to give them coherent verbal shape. We learn by processing, and we process by talking—to ourselves and to others. For our concerns in this chapter, the process by which we learn is most important: What happens to sense data, information, and ideas once we receive them? Vygotsky (1962, p. 149) describes “inner speech” as the mediator between thought and language, portraying it as a “dynamic, shifting, unstable thing fluctuating between word and thought” (p. 153) that “thought is born through words...thought unembodied in words remains a shadow.”

Drawing on the work of Langer and Vygotsky, Britton (Britton and others, 1970, p. 20) argues that the “primary task for speech is to symbolize reality: We symbolize reality in order to handle it.” Considered in this way, speech serves the needs of the speaker, not of the listener. Britton argues that human beings use expressive speech more to shape their own experience than to communicate to others: The words give concrete form to thought and so make it more real. This “shaping at the point of utterance” (Britton and others, 1972, p. 53) helps to translate everyday information and experience into understanding and action. We carry on conversations with friends in order to explain things to ourselves. We discuss the theme of Hamlet with a colleague to remind ourselves of what the play is about.
We analyze the symbolism of *The Seventh Seal* orally in order to understand the movie better. We share our impressions of a Saturday night dinner party. We learn what party shape and identity for ourselves. In short, the intersection between articulate speech and internal symbolization produces shaped thought. This same intersection helps to explain the role of writing in learning.

**Composing**

Many teachers—and whole school systems—have identified writing as a basic communication skill, which is taught as spelling, punctuation, and penmanship in the early grades. In the later grades, it is still taught as a technical skill, necessary for the clear transmission of knowledge. This limited understanding of writing takes no account of the process that we call composing, the mental activity that can be said to characterize our very speech and that R. W. B. Lewis (1978, p. 12) describes as the essence of thinking: "The work of the active mind is seeing relationships, finding forms, making meanings: When we write, we are doing in a particular way what we are already doing when we make sense of the world. We are composers by virtue of being human."

Emig (1977) has earned an international reputation studying the composing processes of student writers. She believes that writing "represents a unique mode of learning—not merely valuable, not merely special, but unique" (Emig, 1977, p. 122). According to Emig, the act of writing allows us to manipulate thought in unique ways, because writing makes our thoughts visible and concrete and allows us to interact with and modify them. Writing one word, one sentence, one paragraph suggests still other words, other sentences, and other paragraphs. Emig points out that writing progresses as an act of discovery and, furthermore, that no other thinking process helps us to develop a given train of thought as thoroughly. Scientists, artists, mathematicians, lawyers, engineers—all "think" with pen on paper, chalk on blackboard, hands on terminal keys. Emig argues that developed thinking is not really possible, for most of us, in any other way. Like Langer and Britton, she agrees that speech is important in processing ideas. However, she also points out that we can hold only so many thoughts in our heads at one time; when we talk out loud and have dialogues with friends—or with ourselves in the bathtub—we lose much of what we say because it is not written down. More important, we cannot extend our thinking casually because we cannot see them. Sartre quit writing when he lost his sight because he could not see words, the symbols of his thought; he needed to visualize his thought in order to compose, manipulate, and develop it (Emig, 1977).

When we speak we compose. When we write we compose even better—usually—because, as Emig describes, we can manipulate our compositions on paper in addition to holding them in our heads. We can review them, revise them, and rewrite them, because they are now visible and concrete. Both speaking and writing are important, because they generate understanding and communication. Only in particular circumstances, however, such as English and speech classrooms, is the precision, shape, and correctness of the speech or writing act itself viewed as more important than the thought engendered by the act. In other words, we usually speak or write to understand or communicate, not to evaluate our language medium. Some of us do communicate well because our pronunciation and articulation are careful or because our spelling, punctuation, and penmanship are fine. Most often, however, the power of our language and thought depends on more profound skills, which are much harder to identify and teach than the mechanical skills. Sometimes these composing skills are called logical or rhetorical; always they involve complex activities that we do not fully understand and that are hard to teach.

Good teachers teach composing without worrying about how difficult or mysterious it is. For example, Elbow (1973, p. 15) tells students that "meaning is not what you start with, but what you end up with." Writing is an act of making meaning—making thought—not the other way around. Moffet (1982, p. 235) describes the same process as "hanging in a long line from the depths to find out what things are strung on it." It is not important for writers to know exactly where they are going when they start; it is important that they trust the process of composing to take them somewhere. McCrimmon (1976, p. 5) sees writing as an act of continual choice making: "Often the writer does not know at the beginning what choices he will make, or even what his choices are, but each choice tends to dictate those that follow, and gradually a pattern begins to emerge, and constellation fragments fall into place."

**The Function of Writing**

A research team headed by Britton (Britton and others, 1975) investigated the relationship between writing and learning. Britton's team collected 2,000 pieces of writing from British school children between the ages of eleven and eighteen, then classified each piece of writing according to the function that it served: transactional, expressive, or expository. The researchers defined transactional writing as writing "to perform a transaction which seeks outcomes in the real world" (Britton and others, 1975, p. 160). Transactional writing aims to inform, persuade, or instruct an audience in clear, conventional, concise prose. Most school writing—term papers, laboratory reports, essay examinations, book reviews—and the like—is transactional; such writing accounted for 63 percent of the total sample collected.

Poetic writing, the second category, is akin to what we call *creative writing* in this country—language that functions as art, shaped as "as independent verbal construct" (Britton and others, 1975, p. 161). Readers do not expect poetic writing to be true in the way that they expect transactional writing to be true: Fiction, poetry, drama, and song are works of the imagination, which, of course, deals with "larger," not "literal," kinds of truth. Poetic writing is not governed by any particular rules of usage, as the work of Joyce, Faulkner, and e. e. cummings attests. Poetic writing accounted for 18 percent of the total sample collected by Britton's team; there was little evidence that this kind of writing was used outside English classes.

Britton calls his third category of writing *expressive*, after Sapir's (1961) term *expressive speech*. Expressive writing is "self-expressive" or "close to the self": that is, it "reveals the speaker, verbalizing his consciousness" (Britton and others, 1975, p. 90). Writing in this category is essentially written to oneself, as in diaries, journals, and first-draft papers, or to trusted people who are very close to the writer, as in personal letters. Since it is not intended for external audiences, it has few conventional constraints of form, usage, or style. Expressive writing often looks like speech written down; usually, it is characterized by first-person pronouns, informal style, and colloquial diction. It accounted for 3.5 percent of the total sample collected by Britton's team; there was no evidence of its use outside English classes.

The complete neglect of expressive writing across the curriculum is a clue to the value of writing in schools. According to Britton's classification, expressive writing is the most personal, the closest to "inner speech" and the thinking process itself. The absence of expressive writing from school curricula suggests a limited understanding of the way in which language works. As Britton's co-researcher Nancy Martin has explained (Martin and others, 1976, p. 26), "The expressive is basic. Expressive speech is how we communicate with each other most of the time, and expressive writing, being the form of writing nearest speech, is crucial for trying out and coming to terms with new ideas." According to the Britton team, personal or expressive writing is the matrix from which both transactional and poetic writing evolve. This chapter is concerned primarily with the expressive transactional continuum. There is some evidence, however, that poetic writing, which is also neglected across the curriculum, promotes significant learning (Young, 1982). Serious writers who undertake writing tasks almost naturally put their writing through expressive stages as they go about finding out exactly what they believe and what they want to write. Murray, talking both of his poetic and transactional work, explains (1978, p. 91), "I believe increasingly that the process of discovery, of using language to find out what you are going to say, is a key part of the writing process."

Teachers need to understand how writing promotes thought. If school assignments collected by the Britton team showed no evidence that teachers had encouraged exploratory writing, researchers concluded that students were not being taught to use all the learning tools at their disposal. As the Britton team put it (Britton and others, 1975, p. 197), "The small
amount of speculative writing certainly suggests that, for whatever reason, curricular aims did not include the fostering of writing that reflects independent thought. Therefore, attention was directed toward class/curriculum writing which reflects information in the form in which both teacher and textbook traditionally present it." Freisanger (1982, p. 9) insists that "Expressive reliance on the transactional function of language may be substantially responsible for our students' inability to think critically and independently... Product-oriented, transactional language promotes closure."

Reading and thinking, listening and thinking, speaking and thinking, writing and thinking—these processes are the essential activities of educated people. In this context, Friere (1970) contends that "liberating education" only occurs when people develop their critical thinking skills, including self-knowledge and self-awareness. The ability to think critically is a necessary and independent condition, capable of making free choices, from more passive receivers of information. Friere (1970, p. 67) describes liberating education as "acts of cognition, not transfers of information." Writing is the specific activity that best promotes independent thought. Both the decision to write and the process of writing are actions; one cannot be passive and at the same time generate words, sentences, and paragraphs—let alone thoughts.

However, as we have seen, it is clear that some writing activities promote independent thought more than others do. Expressive or self-sponsored writing, for example, seems to advance thought further than note copying. Writing to people who care about us or about what we have to say engages us more as writers than writing to people who read our work in order to grade us. As we come to understand the role of writing in generating and formulating ideas, we must also examine the traditional role assigned to writing in schools. If writing promotes independent thinking, how can teachers across the curriculum promote writing in their classes?

Writing Across the Curriculum

The value of teaching as a learning tool may be familiar to a handful of secondary and college teachers. However, many of their colleagues across the curriculum, in history, biology, business, and even English, are not aware of this value. On the one hand, many teachers understand the language process, because they write articles, reports, proposals, and lesson plans as drafts in order to get them right; on the other hand, they seldom transfer that first-hand knowledge to their own pedagogy, at least on the evidence of the assignments they make. At the beginning of this chapter, I surveyed three common types of writing in school: mechanical writing, essay tests, and formal papers. Expressive forms of writing were conspicuously absent.

In taking notes, students copy to aid their memory. In doing homework, they answer other people's questions. In essay examinations, they demonstrate how much they know. In composing formal papers, they write to a teacher, who grades them on the perfection of their final draft.

While students do learn and process information in performing these assignments, none of these school writing assignments promotes writing primarily for the sake of the learner, and none of them encourages students to make school knowledge personally their own. "The demand for impersonal, unexpressive writing can actively inhibit learning because it isolates what is to be learned from the vital learning process—that of making links between what is already known and the new information" (Martin and others, 1976, p. 26).

What are the implications? Teachers across the curriculum can provide more classroom opportunities for students to know and understand all subjects through writing. Such writing can be personal and promote self-awareness within the context of a specific discipline, or it can be speculative and exploratory regarding a certain subject matter ("What am I learning by dissecting this frog in biology class?"). Such writing can be done daily in journals, on learning logs or as occasionally in class notebooks or on paper to be handed in. Because such writing is meant to be speculative and because it is written for the benefit of the student, it is not important for the teacher to see it. Indeed, it could damage free speculation if the teacher were to grade it.

Expressive writing can also be used for five minutes at the beginning of an English class to elicit discussion ("What is your definition of romanticism?") or at the end of a science class to allow digestion ("Write one thing that you learned about chemistry.") Unlike homework questions or notes copied in class, this informal writing encourages students to engage personally with the course subject matter. Teaching students to think through writing has unlimited possibilities both across and up and down the curriculum. "Instead of using writing to test other subjects, we can elevate writing to where it is extended to both elements in making sure the writer is making knowledge" (Moffett, 1982, p. 235). In like manner, the Applebee research group recommends that the "first step in improving the writing of secondary school students calls for more situations in which writing serves as a tool for learning, rather than as a means to display acquired knowledge" (Applebee, Lehr, and Auken, 1981, p. 81). This recommendation can be extended to both elementary and college students.

Expressive writing can also generate better transversal discourse. Students who learn to put their writing through personal, exploratory stages before writing a final draft develop more thoughtful papers than students who attempt to compose finished wisdom in one sitting. Teachers can promote thoughtful papers by encouraging students to explore ideas and concepts in writing on the way toward finished formal papers. The paragraphs following describe language activities that teachers can use to help students both to learn and to learn ad to learn to write.

Talking.

Teachers should encourage students to engage in talk before, during, and after they write. Talking refines, shapes, and generates thought. Hawkins (1976) asks students to talk among themselves in small groups to promote critical inquiry. Murray (1979) argues that the conference method is the single most effective way of teaching writing; teacher questions guide student responses to provide both direction and provocation. Martin and other (1976) pose problems to teachers and listen to their talk as they seek solutions; in this way, they are able to demonstrate firsthand to teachers the variety of learning strategies embodied in even the most casual conversation.

Problem Posing, Problem Solving.

Students in technical disciplines learn to be problem solvers. Friere (1970) argues that liberating education begins only when all students learn to pose for themselves the problems that need to be solved. Both posing and solving problems ought to go across the curriculum; writing facilitates both. Osborne (1963) combines group oral discussions with rapid writing and calls this technique brainstorming—a useful technique for generating ideas in any corporate or academic setting. Adams (1979) advocates all sorts of physical, oral, and scribal activities to get problem solvers to see the world anew. Flower (1981) and Berkenkotter (1982) teach students to view each writing assignment as a problem to be solved and to use certain heuristics (strategies) to solve those problems. Elbow (1973) advocates freewriting (free association writing) to find out what is on the writer's mind and, in effect, to solve the problem of starting a piece of writing.

Keeping a Journal.

Students and teachers who keep journals have discovered a powerful means of monitoring both academic progress and personal growth. Journals record and develop both thinking (single entries) and patterns of thought (sequential entries); they are unique educational documents that have a role in virtually every classroom setting. Macrorie (1970) describes journals as ideal interdisciplinary learning tools, suitable to all subjects both up and down and across the curriculum.

Understanding the Audience.

Students can learn to write for a variety of real audiences other than teachers while they are still in school. Such writing will, of course, be essential once real work is found in the world (Faigley and others, 1981). Moffett (1981) suggests sequencing of assignments so as to make the audiences for whom students write progressively more external. Such a sequence could include "dialogues and monologues" and "narrative and essays" to encourage cognitive growth. Brinton and others (1975) urge teachers to assign other "real" audiences, including peers and public, to student writers. Field and Weiss (1979) suggest that case studies of real-world writing tasks make the best school writing assignments.

Reading Writing.

Students who share their writing with one another learn to value it more and, at the same time, become sensitive critics of other people's writing. Macrorie (1970) suggests that classrooms can become "helping circles," where student writers take turns reading their work aloud to each other. Elbow (1973) argues that "teacherless" writing classes can help people to improve their writing dramatically if they read and respond orally to each other's work. The National Writing Project (Gray and Myers, 1978), a teacher retraining program with approximately one hundred sites across the country, asks teachers to share their writing with each other in small and other writing communities.
of the summer experience, which includes teacher presentations, guest appearances by writing scholars, and discussion of important research in composition.

**Collaborative Research.** Teachers interested in the conceptual demands placed on writer who must write in diverse fields of knowledge and occupations can initiate collaborative writing projects with colleagues across the disciplines. Recent studies shed light on the variety of writing tasks required (Faigley and others, 1981) and also on the different demands that different subjects place on writers (Oedell, 1980). Here, the flexibility of language as a tool for thought development is emphasized. Goswami and others (1981) have developed a research-based writing text to teach the composing process to professionals in the field as well as to train professionals in college. Teachers interested in making their writing assignments and evaluative comments even more effective may wish to investigate what exactly goes on in disciplines and work situations that differ from their own.

**Summary**

This brief survey of ideas suggest that a rich variety of literature, which is based on common assumptions about the role of writing in both learning and communication, already exists. Teachers from across the disciplines who review this literature can find numerous suggestions for ways of including writing in their own disciplines. They can also look more closely at their own composing processes to discover what exactly they do when they write. Or, they can extrapolate freely from Britton's notion that "What is important is that children in school should write about what matters to them to someone who matters to them" (Britton and others, 1972, p. 53).


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