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Writing as a Mode of Learning

JANET EMIG

WRITING represents a unique mode of learning—not merely valuable, not merely special, but unique. That will be my contention in this paper. The thesis is straightforward. Writing serves learning uniquely because writing as process-and-product possesses a cluster of attributes that correspond uniquely to certain powerful learning strategies.

Although the notion is clearly debatable, it is scarcely a private belief. Some of the most distinguished contemporary psychologists have at least implied such a role for writing as heuristic. Lev Vygotsky, A. R. Luria, and Jerome Bruner, for example, have all pointed out that higher cognitive functions, such as analysis and synthesis, seem to develop most fully only with the support system of verbal language—particularly, it seems, of written language.¹ Some of their arguments and evidence will be incorporated here.

Here I have a prior purpose: to describe as tellingly as possible *how* writing uniquely corresponds to certain powerful learning strategies. Making such a case for the uniqueness of writing should logically and theoretically involve establishing many contrasts, distinctions between (1) writing and all other verbal languaging processes—listening, reading, and especially talking; (2) writing and all other forms of composing, such as

composing a painting, a symphony, a dance, a film, a building; and (3) composing in words and composing in the two other major graphic symbol systems of mathematical equations and scientific formulae. For the purposes of this paper, the task is simpler, since most students are not permitted by most curricula to discover the values of composing, say, in dance, or even in film; and most students are not sophisticated enough to create, to originate formulations, using the highly abstruse symbol system of equations and formulae. Verbal language represents the most *available* medium for composing; in fact, the significance of sheer availability in its selection as a mode for learning can probably not be overstressed. But the uniqueness of writing among the verbal languaging processes does need to be established and supported if only because so many curricula and courses in English still consist almost exclusively of reading and listening.

Writing as a Unique Languaging Process

Traditionally, the four languaging processes of listening, talking, reading, and writing are paired in either of two ways. The more informative seems to be the division many linguists make between first-order and second-order processes, with talking and listening characterized as first-order processes; reading and writing, as second-order. First-order processes are acquired without formal or systematic instruction; the second-order processes of reading and writing tend to be learned initially only with the aid of formal and systematic instruction.

¹Lev S. Vygotsky, *Thought and Language*, trans. Eugenia Hanfmann and Gertrude Vakar (Cambridge: The M.I.T. Press, 1962); A. R. Luria and F. Ia. Yudovich, *Speech and the Development of Mental Processes in the Child*, ed. Joan Simon (Baltimore: Penguin, 1971); Jerome S. Bruner, *The Relevance of Education* (New York: W. W. Norton and Co., 1971).

The less useful distinction is that between listening and reading as receptive functions and talking and writing as productive functions. Critics of these terms like Louise Rosenblatt rightfully point out that the connotation of passivity too often accompanies the notion of receptivity when reading, like listening, is a vital, construing act.

An additional distinction, so simple it may have been previously overlooked, resides in two criteria: the matters of origination and of graphic recording. Writing is originating and creating a unique verbal construct that is graphically recorded. Reading is creating or re-creating *but not* originating a verbal construct that is graphically recorded. Listening is creating or re-creating but *not* originating a verbal construct that is *not* graphically recorded. Talking is creating *and* originating a verbal construct that is *not* graphically recorded (except for the circuitous routing of a transcribed tape). Note that a distinction is being made between creating and originating, separable processes.

For talking, the nearest languaging process, additional distinctions should probably be made. (What follows is not a denigration of talk as a valuable mode of learning.) A silent classroom or one filled only with the teacher's voice is anathema to learning. For evidence of the cognitive value of talk, one can look to some of the persuasive monographs coming from the London Schools Council project on writing: *From Information to Understanding* by Nancy Martin or *From Talking to Writing* by Peter Medway.² We also know that for some of us, talking is a valuable, even necessary, form of pre-writing. In his curriculum, James Moffett makes the value of such talk quite explicit.

But to say that talking is a valuable

form of pre-writing is not to say that writing is talk recorded, an inaccuracy appearing in far too many composition texts. Rather, a number of contemporary trans-disciplinary sources suggest that talking and writing may emanate from different organic sources and represent quite different, possibly distinct, language functions. In *Thought and Language*, Vygotsky notes that "written speech is a separate linguistic function, differing from oral speech in both structure and mode of functioning."³ The sociolinguist Dell Hymes, in a valuable issue of *Daedalus*, "Language as a Human Problem," makes a comparable point: "That speech and writing are not simply interchangeable, and have developed historically in ways at least partly autonomous, is obvious."⁴ At the first session of the Buffalo Conference on Researching Composition (4-5 October 1975), the first point of unanimity among the participant-speakers with interests in developmental psychology, media, dreams and aphasia was that talking and writing were markedly different functions.⁵ Some of us who work rather steadily with writing research agree. We also believe that there are hazards, conceptually and pedagogically, in creating too complete an analogy between talking and writing, in blurring the very real differences between the two.

What are these differences?

- (1) Writing is learned behavior; talking is natural, even irrepressible, behavior.

Peter Medway, *From Talking to Writing* (London: Schools Council Project Writing Across the Curriculum, 11-13, 1973).

³Vygotsky, p. 98.

⁴Dell Hymes, "On the Origins and Foundations of Inequality Among Speakers," *Daedalus*, 102 (Summer, 1973), 69.

⁵Participant-speakers were Loren Barrett, University of Michigan; Gerald O'Grady, SUNY/Buffalo; Hollis Frampton, SUNY/Buffalo; and Janet Emig, Rutgers.

²Nancy Martin, *From Information to Understanding* (London: Schools Council Project Writing Across the Curriculum, 11-13, 1973);

- (2) Writing then is an artificial process; talking is not.
- (3) Writing is a technological device—not the wheel, but early enough to qualify as primary technology; talking is organic, natural, earlier.
- (4) Most writing is slower than most talking.
- (5) Writing is stark, barren, even naked as a medium; talking is rich, luxuriant, inherently redundant.
- (6) Talk leans on the environment; writing must provide its own context.
- (7) With writing, the audience is usually absent; with talking, the listener is usually present.
- (8) Writing usually results in a visible graphic product; talking usually does not.
- (9) Perhaps because there is a product involved, writing tends to be a more responsible and committed act than talking.
- (10) It can even be said that throughout history, an aura, an ambience, a mystique has usually encircled the written word; the spoken word has for the most part proved ephemeral and treated mundanely (ignore, please, our recent national history).
- (11) Because writing is often our representation of the world made visible, embodying both process and product, writing is more readily a form and source of learning than talking.

Unique Correspondences between Learning and Writing

What then are some *unique* correspondences between learning and writing? To begin with some definitions: Learning can be defined in many ways, according to one's predilections and training, with all statements about learning of course hypothetical. Definitions range from the chemo-physiological ("Learning is changed patterns of protein syn-

thesis in relevant portions of the cortex")⁶ to transactive views drawn from both philosophy and psychology (John Dewey, Jean Piaget) that learning is the re-organization or confirmation of a cognitive scheme in light of an experience.⁷ What the speculations seem to share is consensus about certain features and strategies that characterize successful learning. These include the importance of the classic attributes of re-inforcement and feedback. In most hypotheses, successful learning is also connective and selective. Additionally, it makes use of propositions, hypotheses, and other elegant summarizers. Finally, it is active, engaged, personal—more specifically, self-rhythmed—in nature.

Jerome Bruner, like Jean Piaget, through a comparable set of categories, posits three major ways in which we represent and deal with actuality: (1) enactive—we learn "by doing"; (2) iconic—we learn "by depiction in an image"; and (3) representational or symbolic—we learn "by restatement in words."⁸ To overstate the matter, in enactive learning, the hand predominates; in iconic, the eye; and in symbolic, the brain.

What is striking about writing as a process is that, by its very nature, all three ways of dealing with actuality are simultaneously or almost simultaneously deployed. That is, the symbolic transformation of experience through the specific symbol system of verbal language is shaped into an icon (the graphic product) by the enactive hand. If the most efficacious learning occurs when learning is re-inforced, then writing through its inherent re-inforcing cycle involving

⁶George Steiner, *After Babel: Aspects of Language and Translation* (New York: Oxford University Press, 1975), p. 287.

⁷John Dewey, *Experience and Education* (New York: Macmillan, 1938); Jean Piaget, *Biology and Knowledge: An Essay on the Relations between Organic Regulations and Cognitive Processes* (Chicago: University of Chicago Press, 1971).

⁸Bruner, pp. 7-8.

hand, eye, and brain marks a uniquely powerful multi-representational mode for learning.

Writing is also integrative in perhaps the most basic possible sense: the organic, the functional. Writing involves the fullest possible functioning of the brain, which entails the active participation in the process of both the left and the right hemispheres. Writing is markedly bispherical, although in some popular accounts, writing is inaccurately presented as a chiefly left-hemisphere activity, perhaps because the linear written product is somehow regarded as analogue for the process that created it; and the left hemisphere seems to process material linearly.

The right hemisphere, however, seems to make at least three, perhaps four, major contributions to the writing process—probably, to the creative process generically. First, several researchers, such as Geschwind and Snyder of Harvard and Zaidal of Cal Tech, through markedly different experiments, have very tentatively suggested that the right hemisphere is the sphere, even the *seat*, of emotions.⁹ Second—or perhaps as an illustration of the first—Howard Gardner, in his important study of the brain-damaged, notes that our sense of emotional appropriateness in discourse may reside in the right sphere:

Emotional appropriateness, in sum—being related not only to *what* is said, but to how it is said and to what is *not* said, as well—is crucially dependent on right hemisphere intactness.¹⁰

Third, the right hemisphere seems to be the source of intuition, of sudden gestalts, of flashes of images, of abstractions occurring as visual or spatial wholes, as

the initiating metaphors in the creative process. A familiar example: William Faulkner noted in his *Paris Review* interview that *The Sound and the Fury* began as the image of a little girl's muddy drawers as she sat in a tree watching her grandmother's funeral.¹¹

Also, a unique form of feedback, as well as reinforcement, exists with writing, because information from the *process* is immediately and visibly available as that portion of the *product* already written. The importance for learning of a product in a familiar and available medium for immediate, literal (that is, visual) re-scanning and review cannot perhaps be overstated. In his remarkable study of purportedly blind sculptors, Géza Révész found that without sight, persons cannot move beyond a literal transcription of elements into any manner of symbolic transformation—by definition, the central requirement for reformulation and re-interpretation, i.e., revision, that most aptly named process.¹²

As noted in the second paragraph, Vygotsky and Luria, like Bruner, have written importantly about the connections between learning and writing. In his essay "The Psychobiology of Psychology," Bruner lists as one of six axioms regarding learning: "We are connective."¹³ Another correspondence then between learning and writing: in *Thought and Language*, Vygotsky notes that writing makes a unique demand in that the writer must engage in "deliberate semantics"—in Vygotsky's elegant phrase, "deliberate structuring of the web of meaning."¹⁴ Such structuring is required because, for Vygotsky, writing centrally represents an expansion of in-

⁹Boyce Rensberger, "Language Ability Found in Right Side of Brain," *New York Times*, 1 August 1975, p. 14.

¹⁰Howard Gardner, *The Shattered Mind: The Person After Brain Damage* (New York: Alfred A. Knopf, 1975), p. 372.

¹¹William Faulkner, *Writers at Work: The Paris Review Interviews*, ed. Malcolm Cowley (New York: The Viking Press, 1959), p. 130.

¹²Géza Révész, *Psychology and Art of the Blind*, trans. H. A. Wolff (London: Longmans-Green, 1950).

¹³Bruner, p. 126.

¹⁴Vygotsky, p. 100.

ner speech, that mode whereby we talk to ourselves, which is "maximally compact" and "almost entirely predicative"; written speech is a mode which is "maximally detailed" and which requires explicitly supplied subjects and topics. The medium then of written verbal language requires the establishment of systematic connections and relationships. Clear writing by definition is that writing which signals without ambiguity the nature of conceptual relationships, whether they be coordinate, subordinate, superordinate, causal, or something other.

Successful learning is also engaged, committed, personal learning. Indeed, impersonal learning may be an anomalous concept, like the very notion of objectivism itself. As Michael Polanyi states simply at the beginning of *Personal Knowledge*: "the ideal of strict objectivism is absurd." (How many courses and curricula in English, science, and all else does that one sentence reduce to rubble?) Indeed, the theme of *Personal Knowledge* is that

into every act of knowing there enters a passionate contribution of the person knowing what is being known, . . . this coefficient is no mere imperfection but a vital component of his knowledge.¹⁵

In *Zen and the Art of Motorcycle Maintenance*, Robert Pirsig states a comparable theme:

The Quality which creates the world emerges as a *relationship* between man and his experience. He is a *participant* in the creation of all things.¹⁶

Finally, the psychologist George Kelly has as the central notion in his subtle and compelling theory of personal constructs man as a scientist steadily and actively engaged in making and re-mak-

¹⁵Michael Polanyi, *Personal Knowledge: Toward a Post-Critical Philosophy* (Chicago: University of Chicago Press, 1958), p. viii.

¹⁶Robert Pirsig, *Zen and the Art of Motorcycle Maintenance* (New York: William Morrow and Co., Inc., 1974), p. 212.

ing his hypotheses about the nature of the universe.¹⁷

We are acquiring as well some empirical confirmation about the importance of engagement in, as well as self-selection of, a subject for the student learning to write and writing to learn. The recent Sanders and Littlefield study, reported in *Research in the Teaching of English*, is persuasive evidence on this point, as well as being a model for a certain type of research.¹⁸

As Luria implies in the quotation above, writing is self-rhythmed. One writes best as one learns best, at one's own pace. Or to connect the two processes, writing can sponsor learning because it can match its pace. Support for the importance of self-pacing to learning can be found in Benjamin Bloom's important study "Time and Learning."¹⁹ Evidence for the significance of self-pacing to writing can be found in the reason Jean-Paul Sartre gave last summer for not using the tape-recorder when he announced that blindness in his second eye had forced him to give up writing:

I think there is an enormous difference between speaking and writing. One re-reads what one rewrites. But one can read slowly or quickly: in other words, you do not know how long you will have to take deliberating over a sentence. . . . If I listen to a tape recorder, the listening speed is determined by the speed at which the tape turns and not by my own needs. Therefore I will always be either lagging behind or running ahead of the machine.²⁰

¹⁷George Kelly, *A Theory of Personality: The Psychology of Personal Constructs* (New York: W. W. Norton and Co., 1963).

¹⁸Sara E. Sanders and John H. Littlefield, "Perhaps Test Essays Can Reflect Significant Improvement in Freshman Composition: Report on a Successful Attempt," *RTE*, 9 (Fall, 1975), 145-153.

¹⁹Benjamin Bloom, "Time and Learning," *American Psychologist*, 29 (September 1974), 682-688.

²⁰Jean-Paul Sartre, "Sartre at Seventy: An

Writing is connective as a process in a more subtle and perhaps more significant way, as Luria points out in what may be the most powerful paragraph of rationale ever supplied for writing as heuristic:

Written speech is bound up with the inhibition of immediate synpractical connections. It assumes a much slower, repeated mediating process of analysis and synthesis, which makes it possible not only to develop the required thought, but even to revert to its earlier stages, thus transforming the sequential chain of connections in a simultaneous, self-reviewing structure. Written speech thus represents a new and powerful instrument of thought.²¹

But first to explicate: writing inhibits “immediate synpractical connections.” Luria defines *synpraxis* as “concrete-active” situations in which language does not exist independently but as a “fragment” of an ongoing action “outside of which it is incomprehensible.”²² In *Language and Learning*, James Britton defines it succinctly as “speech-cum-action.”²³ Writing, unlike talking, restrains dependence upon the actual situation. Writing as a mode is inherently more self-reliant than speaking. Moreover, as Bruner states in explicating Vygotsky, “Writing virtually forces a remoteness of reference on the language user.”²⁴

Luria notes what has already been noted above: that writing, typically, is a

“much slower” process than talking. But then he points out the relation of this slower pace to learning: this slower pace allows for—indeed, encourages—the shuttling among past, present, and future. Writing, in other words, connects the three major tenses of our experience to make meaning. And the two major modes by which these three aspects are united are the processes of analysis and synthesis: analysis, the breaking of entities into their constituent parts; and synthesis, combining or fusing these, often into fresh arrangements or amalgams.

Finally, writing is epigenetic, with the complex evolutionary development of thought steadily and graphically visible and available throughout as a record of the journey, from jottings and notes to full discursive formulations.

For a summary of the correspondences stressed here between certain learning strategies and certain attributes of writing see Figure 1.

This essay represents a first effort to make a certain kind of case for writing—specifically, to show its unique value for learning. It is at once over-elaborate and under specific. Too much of the formulation is in the off-putting jargon of the learning theorist, when my own predilection would have been to emulate George Kelly and to avoid terms like *reinforcement* and *feedback* since their use implies that I live inside a certain paradigm about learning I don’t truly inhabit. Yet I hope that the essay will start a crucial line of inquiry; for unless the losses to learners of not writing are compellingly described and substantiated by experimental and speculative research, writing itself as a central academic process may not long endure.

Interview,” with Michel Contat, *New York Review of Books*, 7 August 1975.

²¹Luria, p. 118.

²²Luria, p. 50.

²³James Britton, *Language and Learning* (Baltimore: Penguin, 1971), pp. 10-11.

²⁴Bruner, p. 47.

Figure 1

*Unique Cluster of Correspondences between
Certain Learning Strategies and Certain
Attributes of Writing*

Selected Characteristics of Successful Learning Strategies	Selected Attributes of Writing, Process and Product
(1) Profits from multi-representational and integrative re-inforcement	(1) Represents process uniquely multi-representational and integrative
(2) Seeks self-provided feedback:	(2) Represents powerful instance of self-provided feedback:
(a) immediate	(a) provides product uniquely available for <i>immediate</i> feedback (review and re-evaluation)
(b) long-term	(b) provides record of evolution of thought since writing is epigenetic as process-and-product
(3) Is connective:	(3) Provides connections:
(a) makes generative conceptual groupings, synthetic and analytic	(a) establishes explicit and systematic conceptual groupings through lexical, syntactic, and rhetorical devices
(b) proceeds from propositions, hypotheses, and other elegant summarizers	(b) represents most available means (verbal language) for economic recording of abstract formulations
(4) Is active, engaged, personal—notably, self-rhythmed	(4) Is active, engaged, personal—notably, self-rhythmed

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