

1 Cross-Disciplinary Writing Programs: Beginnings

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A number of high schools and universities in this country are experimenting with writing-across-the-curriculum programs for their faculties. For example, at Michigan Technological University, we have been offering writing workshops since 1977 to explore with faculty from all disciplines how they might use writing more often in their classes. At times these workshops have been controversial because they tap hidden reservoirs of interdisciplinary resentment and frustration. To many of my colleagues outside English, two points seem obvious: the responsibility for teaching students to write belongs exclusively to English teachers, and these teachers have generally failed miserably in meeting this responsibility. (One also senses a growing mistrust of writing teachers whose values and pedagogies transcend the basics.) Writing-across-the-curriculum programs challenge these traditionalist attitudes. To be effective, the workshop staff must know and be sympathetic with the concerns of their colleagues from other fields; they must operate from a solid, carefully researched theoretical foundation which appeals to other disciplines as well as to the humanities.

Writing-across-the-curriculum programs are appearing in reaction against the dominant view of language in schools, namely, that language has only one function—to inform—and that the only language activity useful to education is the finished report or essay. To counter this view, Michigan Tech's writing-across-the-curriculum project builds its cross-disciplinary workshops around these premises: (1) writing promotes learning; (2) writing is a complex developmental process; and (3) the universe of discourse includes a broad range of writing functions and audiences. Although these premises draw from work in rhetoric, reading, and psychology, they have been most strongly influenced by the conclusions of James Britton and his colleagues at the University of London. Their research¹, published in 1975, constitutes the center of gravity for our project, as this and many of the following chapters will show.

Writing and Learning

Our program assumes that *language for learning is different from language for informing*.² Britton acknowledges these different kinds of language use by distinguishing the expressive, transactional, and poetic functions of language. Expressive language, he says, is language close to the self; it reveals as much about the speaker as it does about the topic. It is the language the writer uses first to draft important ideas. Transactional language, on the other hand, is language for an audience. Its primary aim is to convey information clearly to other people; it is the language of newspapers, law courts, and technical reports. It is also the language of schools. The third mode, poetic language, is the language of art. It is used to create verbal objects, and as such it is as much an aesthetic medium for a writer as clay or paint would be for a sculptor or painter. In our program we are mainly concerned with the first two modes.

We begin by examining the contribution expressive writing can make to learning. This exploratory, close-to-the-self language is important because it is the primary means we have of personalizing knowledge. As philosopher/scientist Michael Polanyi claims, all knowledge, if it is to be genuine, must be somehow made personal.³ The Russian psychologist Lev Vygotsky tells us in *Thought and Language* that the connection between language and thinking is vital and organic. "The relation between thought and word," he maintains, "is a living process; thought is born through words. A word devoid of thought is a dead thing, and a thought unembodied in words remains a shadow."⁴ When students are not allowed to work out their ideas *before* they report them to others, they are dealing in "dead things" (moribund words and ideas can be found with distressing ease in almost any batch of student papers). We believe that language must be employed in classrooms as a tool for discovery, an aid to learning, not merely as an instrument for reporting.

In our project, writing is particularly critical to idea formation. We reject the Think/Write model that reduces writing to the status of stenography, of simple transcription of the mind's fully formed concepts. We join with Janet Emig in her assertion that writing "represents a unique mode of learning - not merely valuable, not merely special, but unique."⁵ Expressive writing gets students in touch with themselves; informative writing connects them to others. Genuine communication requires an organic interaction between the two functions. If we teachers, regardless of disciplines, expect our students to write

well, we must acknowledge both functions of language and provide opportunities in our assignments for students to operate in both spheres.

If we ignore the organic interdependence of the two functions and attend only to the surface structure, to the product, in so doing we encourage the deep structure function of writing to atrophy. When writing is used exclusively to test students or to solicit information from them, we imply (a) that the students are little more than memory banks for our information, and (b) that writing is something we do after we have learned. A not-so-mad analogy occurs to me here: Our students are like the soldier in white in Joseph Heller's *Catch-22*; we pump the clear fluid of "objective knowledge" into them and judge their success according to how clear the fluid is when it comes back out. As the artillery captain said to Yossarian, "Why can't they hook the two jars up to each other and eliminate the middleman? What the hell do they need him for?"

How widespread is this preference for writing as informing in our schools today? Britton has demonstrated the overwhelming partiality in British schools to transactional writing. Working with a sample of approximately 2,000 student papers drawn from four grade levels across the curriculum, his team reached several conclusions: (1) By far the most dominant of the modes was the transactional, constituting nearly 64 percent of the sample; (2) Poetic writing occurred in about 18 percent of the papers; (3) Expressive writing is found in less than 6 percent of the sample. The farther along in school children go, the less expressive writing they are asked to perform. They are asked to do an increasing amount of transactional writing, most of which requires them to inform rather than to speculate or persuade. Britton sees serious implications in these figures: "The small amount of speculative writing certainly suggests that, for whatever reason, curricular aims did not include the fostering of writing that reflects independent thinking.⁶ Students appear to be performing informative writing tasks "without engaging in the thinking processes required to give full meaning to what is learnt."⁷

No comparable study has yet been made of American schools, but Janet Emig found in her research on the composing behavior of twelfth graders that, at least in composition classes, the chief school-sponsored mode is extensive (i.e., transactional). She concludes:

The teaching of composition at this level is essentially unimodal, with only extensive writing given sanction in many schools. Almost by definition, this mode is other-directed-in fact it is other-centered, The concern is with sending a message, a com-

munication out into the world for the edification, the enlightenment, and ultimately the evaluation of another. Too often, the other is a teacher, interested chiefly in a product he can criticize rather than in a process he can help initiate through imagination and sustain through empathy and support.⁸

This reliance on extensive (i.e., transactional) writing in our schools reflects our educational system's neglect of the discovery function of language.

The Composing Process

The second of our program premises addresses the failure of our schools to appreciate the complex, developmental nature of the composing process. Almost all serious writing tasks, excepting mere copying, normally involve a process, no matter how implicit and telescoped that process might be. For mature writers working on a simple writing task, the process may be mostly unconscious and compressed. But if the writer's task is complex or if the writer lacks the confidence and fluency of a mature writer, the process becomes more explicit and protracted.

We approach the composing process from two perspectives. One focuses on the behavior a writer exhibits in completing a writing task. Sophisticated work is presently going on in this area.⁹ An important influence on our program has been Janet Emig's *The Composing Processes of Twelfth Graders*. The most obvious consequence of her work is that many teachers now give special attention to the writing process in their classes and are developing strategies to nurture it. This shift in consciousness from product to process is the single most significant change in composition pedagogy in the last decade.

Our concern with the composing process is even more indebted to Britton's stress on the relationship between the expressive and transactional modes, particularly his claim that success with the latter grows out of involvement with the former. Britton says that expressive language stays close to the speaker or writer and is fully comprehensible only to someone who shares the context—that is, the speaker's or writer's experience, attitudes, and assumptions. Expressive language is “utterance at its most relaxed and intimate, as free as possible from outside demands, whether those of a task or of an audience.”¹⁰ Because it usually serves the unfettered flow of ideas and feelings, expressive language is the matrix of language use. In other words, transactional or poetic writing processes should begin in an expressive phase, then move either toward full, explicit communication for an audience outside the writer's context (transactional) or toward perfection of a verbal object (poetic). The closer the writer comes to either objective,

the closer the writer is to the finished product. But the journey (i.e., the process) should begin with an expressive phase.

Why? The answer lies in Britton's view of the composing process, a view which is, admittedly, in conflict with more recent and empirically-based theories of composing behavior, but which, despite its oversimplification, serves to illustrate the important contribution of expressive writing to the final product. Britton divides the process into three stages: conception, incubation, and production. Once the writer knows *that* writing must be done, *what* is expected, and *how* to proceed, the conception stage is completed. It is at this point-while the project incubates- that expressive language, both oral and written, plays a major role. Two factors now exert considerable influence: the writer's desire to get the facts straight and the need to get the information "right with the self." "An essential part of the writing process is," Britton claims, "explaining the matter to oneself."¹¹ Without this stage, he concludes, "all the careful note-making and selection and arrangement of data can do very little."¹²

The production stage, the actual committing of ideas to paper for an audience, cannot occur in any meaningful way unless the writer has first understood the task that has been given and why the materials are being assembled. Britton concludes that "in the emergence of any original thinking (including under 'original' ideas which are new to the writer but may be familiar to the teacher-reader) there is an expressive stage in that thinking whether the writing is ultimately informative, poetic, or persuasive. It is what the writer makes of these expressive beginnings that determines his thought processes as the written text is produced."¹³ These expressive beginnings include classroom talk, interpretive note-taking, journal writing about the problems the writing task has posed, and early drafts. Expressive writing and talking are most useful to the writer as exploratory tools at the beginning of a demanding writing task. The writer works outward from an expressive phase toward transactional writing, the terminal point of a complex, messy process. If this expressive phase is as yet empirically undocumented, it remains as real for writers as the unconscious before Freud, natural selection before Darwin, and the benzene ring before Kekule.

This, then, is the problem: All too often teachers across the curriculum have limited their conception of language to the communicative or transactional function, thereby ignoring a significant part of the composing process, as well as the contribution of the expressive function to both learning and the final written product. The first two premises upon which cross-disciplinary programs might be founded attempt to solve this problem by demonstrating the learning function

of language and by illustrating the role of expressive writing in the composing process.

Our second perspective on the composing process focuses on the developmental nature of writing ability. Long-term acquisition of writing ability depends to a great extent on cognitive growth. This is an especially important point for elementary and secondary teachers, but college teachers should also have some sense of the longitudinal process by which a writer acquires fluency in a language from childhood to early adulthood. James Moffett and James Britton both adopt this sequential approach, and both are influenced by the writings of Jean Piaget, who posits that all humans pass through a series of discrete intellectual stages on their way to cognitive maturity. Piaget outlines four stages of cognitive development: (1) sensorimotor period -birth to two years, (2) preoperational period-two to seven years, (3) concrete operations-seven to eleven years, and (4) formal operations-eleven years through adolescence. The basic direction of this sequence is from physical interaction with the material world to abstract hypotheses about that world, the latter occurring with any sophistication only in the final stage.¹⁴

High school and college teachers need to be particularly concerned with the transition from concrete operations to formal operations because this last stage represents the flowering of mature, logical thought, and it is the final destination of the education process. At this fourth stage the child acquires the capability to reason, to formulate hypotheses, to deduce, to solve problems and make meanings in the abstract, without dependence on physical manipulation of concrete objects. The adolescent must make this transition in order to perform meaningfully the intellectual tasks expected at the late secondary and college levels. It makes excellent sense, of course, for teachers at those levels to design courses which make demands consonant with the cognitive stage of their students.

In the last ten years, we have seen evidence that as many as half of our students from junior high on into adulthood are apparently unable to think abstractly or to process and produce logical propositions.¹⁵ Many of us know the frustration caused by our students' difficulty in making the transition from summarizing to synthesizing, from retelling to drawing original conclusions. Students seem to lack the ability to find meaning and make structure once they are cut off from chronology. Teachers in other disciplines report comparable experiences. In workshops with biology and social sciences faculty, Michigan Tech's staff has heard the same complaint over and over: the most serious problem in student papers is an inability to think critically, to synthesize, to structure logically.

Excessive reliance on the transactional function of language may be substantially responsible for our students' inability to think critically and independently. We know that if students are provided regular opportunities to work in the expressive mode with new and challenging subject matter, they can improve their critical abilities significantly. In fact, researchers in the sciences have found that a pedagogy which encourages exploration and personal inquiry is more effective than the traditional lecture/product environment in helping students achieve the stage of formal operations.¹⁶

In the inquiry method, the expressive function of language assumes a crucial role. The goal of this method, quite compatible with Piaget's view of the learning process, is to allow students to expand their image of the world—their “cognitive structure”—by connecting their existing picture to new experiences. As they encounter new materials, they must either assimilate the materials into their image or they must accommodate them—that is, restructure their image to make it compatible with the new information. The key point is this: *These connections must be personal*. They can occur meaningfully in no other way. Expressive language, both oral and written, promotes open-ended exploration of new experiences. Product-oriented, transactional language promotes closure. Its function is to report mastered fact, not to assist learning.

Exploration with expressive language of new materials allows students to achieve what Britton calls “getting it right with the self.” Students are afforded the chance to move from confusion to clarity. Such opportunities for personal grasp of new material will, we believe, facilitate the transition from concrete to formal operations. Moreover, students will write more confident, more logical, and more conceptually sophisticated transactional papers.

Our treatment of the composing process is, then, two-dimensional. We seek to demonstrate the importance of expressive language to a single writing task, believing that students must get new subject matter “right with the self” before they attempt to report or argue their conclusions in public discourse. At the same time we see crucial developmental implications underlying the regular practice of expressive writing.

The Universe of Discourse

The third theoretical premise of our writing-across-the-curriculum program is that the universe of discourse includes a much broader range of writing functions and audiences than is normally recognized by teachers. We introduce this concept fairly early in our writing workshops. Our perspective on this premise has been shaped by two major figures: James Moffett and, once again, Britton.¹⁷

In *Teaching the Universe of Discourse* Moffett classifies writing into four modes, each mode providing the writer with a different point of view: What is happening (drama); What happened (narration); What happens (exposition); and What should happen (argumentation). Moffett believes that writers should have experience in all four modes. These may be taken up sequentially, in order to encourage the writer to decenter, that is, to move from personal to more impersonal forms of discourse. The good writer, Moffett believes, is able to use the stylistic conventions that each mode dictates and write for a variety of audiences.

The coordinates of Moffett's universe of discourse are (a) distance between writer and audience and (b) level of abstraction at which a writer must operate. In each case there is a spectrum. A writer may, at one extreme, be synonymous with the audience (Britton's expressive writing); at the other extreme the writer may be very remote from the audience (writing for publication to a broad and diverse readership). There are, of course, intermediate kinds of audience-distance relationships. Similarly, a writer may operate at different levels of abstraction, each of which makes different cognitive demands on that writer. To record impressions is different from reporting events; reporting an event differs from generalizing about human and historical tendencies; and all of these differ from theorizing about past or future events. Moffett argues that to develop cognitively and stylistically a writer must have repeated experience in both audience shifts and changes in level of abstraction. Exposure to (and practice with) the full universe of discourse enables a writer to acquire rhetorical versatility.

Britton's work bears strong resemblance to Moffett's, though it divides the universe of discourse differently-into expressive, poetic, and transactional modes. Like Moffett, Britton argues for more student opportunities to write in all three modes, but he emphasizes the expressive because it is in that mode that students have the chance to discover what they think before they try to convey their ideas to others. Britton shares Moffett's concern for the role which experience at different levels of abstraction plays in a writer's development. He, too, sees a developmental sequence in the transactional mode: record, report, generalized narrative-, low-level analogic, analogic, speculative, tautologic, and conative (persuasive). He believes that developing writers should progress through the sequence of levels of abstraction, not work just at the informative level.

Britton also shares Moffett's concern for the relationship between writer and audience. In *The Development of Writing Abilities (11-18)* Britton claims a crucial role for audience awareness:

We want to suggest that one important dimension of development in writing ability is the growth of a sense of audience, the growth

of the ability to make adjustments and choices in writing which take account of the audience for whom the writing is intended. . . . A highly developed sense of audience must be one of the marks of the competent mature writer.¹⁸

Working with a sample of student papers, Britton and his team wanted to determine whether or not young writers were actually being asked to write for a variety of audiences in order to develop confidence and flexibility in a number of “voices.” The main audience categories that the research team identified were self, teacher, wider audience (known), and unknown audience. Within the teacher category there are these sub-categories: child (or adolescent) to trusted adult, pupil to teacher (general), pupil to teacher (particular relationship), and pupil to examiner.¹⁹ The basic results of Britton’s study are both revealing and disturbing. (1) The amount of writing to oneself as audience (expressive writing) was negligible, constituting only 0.5 percent. (2) The highest percentage of writing—nearly 95 percent—fell within the teacher category, most of it to teacher as examiner or teacher (general). (3) In subjects other than English and Religious Education, the percentage of teacher-as-examiner writing was very high (History, 69 percent; Geography, 81 percent; Science, 87 percent). There was, in other words, across the curriculum, little variety in audience.

Britton’s hypothesis is that such a narrow range of audience options inhibits the development of student writers, particularly their ability to adapt style and content to a large and unknown audience, the most difficult and mature form of discourse. Britton’s findings regarding writing function and audience are ultimately intertwined. As he observes, “It would appear . . . that the pressures to write at an analogic level of the informative—and in the main for an audience of the teacher as examiner—were great enough both to inhibit early expressive writing and to prevent any but minimal development into the more abstract levels of the informative.”²⁰

It follows that teachers in all disciplines should increase student opportunities for expressive writing and expand the range of target audiences for which they have their students write. These changes must not be left exclusively to English teachers, nor are these changes the responsibility only of elementary and secondary staffs. The development of writing ability is the responsibility of *all teachers in all disciplines at all educational levels*.

When we talk of the problem of literacy, we are speaking of a problem whose boundaries remain as yet uncharted and whose causes are controversial and elusive. But, despite the difficulties, we must make a beginning. Sweeping educational reforms may be required in curriculum design and teacher training. Yet we need not wait for such reforms in order to begin what amounts, metaphorically, to reclama-

tion or urban renewal. If we teachers, at all levels and in all disciplines, will use language to promote learning as well as informing; if we will approach writing as a complex developmental process; and if we will encourage students to travel extensively in the universe of discourse, then we can become both enablers and ennoblers, and we can help students discover the power of language to which, naturally or not, they are heirs.

Notes

1. James Britton, Tony Burgess, Nancy Martin, Alex McLeod, and Harold Rosen, *The Development of Writing Abilities (11-18)* (London: Macmillan Education, 1975).

2. Some pairs of distinctions that parallel this formulation of the dual function of language appear regularly in the literature of language theory. See for example Janet Emig's reflexive and extensive modes in *The Composing Processes of Twelfth Graders* (Champaign, Ill.: NCTE, 1971); James Moffett's I-It and I-You language in *Teaching the Universe of Discourse* (Boston: Houghton Mifflin, 1968); Linda S. Flower's and John R. Hayes' writer-based and reader-based prose in "Problem Solving Strategies and the Writing Process," *College English* 39 (December 1977): 449-461; Martin Nystrand's heuristic and explicative language processes in "Language as Discovery and Exploration: Heuristic and Explicative Uses of Language," *Language as a Way of Knowing*, ed. Martin Nystrand (Toronto: The Ontario Institute for Studies in Education, 1977).

3. *Personal Knowledge* (London: Routledge and Kegan Paul, 1958).

4. Trans E. Haufmann and G. Vakar (Cambridge, Mass.: The MIT Press, 1962), p. 153.

5. Emig, "Writing as a Mode of Learning," *College Composition and Communication* 28 (May 1977): 122-127.

6. Britton, p. 197.

7. Britton, p. 198.

8. *The Composing Processes of Twelfth Graders* (Urbana, Ill.: NCTE, 1971) p. 97.

9. E.g., Sondra Perl's research and that of Linda Flower and John Hayes. For a summary of research on the composing process see Emig's review of the literature in *The Composing Processes of Twelfth Graders*, pp. 7-28.

10. Britton, p. 82.

11. Britton, p. 28.

12. Britton, p. 29.

13. Britton, pp. 30-31.

14. For a more complete explanation see J. Piaget and B. Inhelder, *The Psychology of One Child* (New York: Basic Books, 1969).

15. See Arnold B. Arons and Robert Karplus, "Implications of Accumulating Data on Levels of Intellectual Development," *American Journal of Physics* 44 (April 1976): 396; Elaine Cohen and David A. Smith-Gold, "Your

Students' Cognitive Functioning: An Important Factor in Readiness to Learn," *Proceedings of the Eleventh Annual Conference of the Western College Reading Association* 11 (March 1978): 31-34; Joe W. McKinnon and John W. Renner, "Are Colleges Concerned with Intellectual Development?" *American Journal of Physics* 39 (September 1971): 1047-1052.

36. See for examples John W. Renner and Anton E. Lawson, "Piagetian Theory and Instruction in Physics," *Physics Teacher* 11 (March 1973): 165-169; Renner and Lawson, "Promoting Intellectual Development through Science Teaching," *Physics Teacher* 11 (May 1973): 273-276; David P. Ausubel, "The Transition from Concrete to Abstract Functioning: Theoretical Issues and Implications for Education," *Journal of Research in Science Teaching* 2 (1964): 261-266. A good working bibliography can be found at the conclusion of Anton Lawson and Warren Wollman, "Encouraging the Transition from Concrete to Formal Cognitive Functioning-An Experiment," *Journal of Research in Science Teaching* 13 (1976): 413-430.

17. A third book which has influenced our project's concern for a broader view of writing is James Kinneavy's *A Theory of Discourse* (Englewood Cliffs, NJ.: Prentice-Hall, 1971). Using the communications triangle as a starting point, Kinneavy finds implicit in it four kinds of discourse: expressive, referential, literary, and persuasive. There are obvious parallels here to Britton and Moffett. All three writers demonstrate the variety of functions and audiences which writing serves, and they encourage development of assignments which require students to write in different modes and for different audiences.

18. Britton, p. 58.

19. For additional sub-categories, see Britton, p. 66. Detailed explanations of each of these audiences are found in pp. 66-73.

20. Britton, p. 197.