# Remedial Writing Courses: A Critique and a Proposal

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Many of our attempts to help college remedial[1] writers, attempts that are often well-intentioned and seemingly commonsensical, may, in fact, be ineffective, even counterproductive, for these attempts reduce, fragment, and possibly misrepresent the composing process. I believe we may be limiting growth in writing in five not unrelated ways. (1) Our remedial courses are self-contained; that is, they have little conceptual or practical connection to the larger academic writing environment in which our students find themselves. (2) The writing topics assigned in these courses—while meant to be personally relevant and motivating and, in their simplicity, to assist in the removal of error—in fact might not motivate and might not contribute to the production of a correct academic prose. (3) The writing teacher's vigilance for error most likely conveys to students a very restricted model of the composing process. (4) Our notion of "basic skills" has become so narrow that we attempt to separate the intimately related processes of reading and thinking from writing. (5) In some of our attempts to reform staid curricula we have inadvertently undercut the expressive and exploratory possibilities of academic writing and have perceived fundamental discourse strategies and structures as restricting rather than enhancing the production and comprehension of prose.

At various places in my speculations I will offer potential solutions to the problems I pose. For the most part, these solutions come from programs I run at UCLA, though I should mention that some of these solutions were spawned during my days as a teacher of "developmental" writers in special programs for returning Vietnam veterans, parole aids, and newly released convicts. So, though this paper is primarily addressed to teachers of traditional college "remedial" writers vs. truly "basic" writers of the sort we saw and continue to see during periods of open admissions, many of the ideas I will present grew out of my work with students from both camps. I strongly believe, therefore, that what I am about to say has, with appropriate modification, broad applicability to that large, complex stratum of writers who have been labeled "substandard."

### *REMEDIAL COURSES ARE SELF-CONTAINED*

Many remedial courses do not fit conceptually and practically into the larger writing environment in which students find themselves. Much of the writing we have our students do

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is distressingly like that Arthur Applebee found in his survey of secondary education—phrase to paragraph length fill-ins or brief responses, often in workbooks or on worksheets (*Writing in the Secondary School* [Urbana, Ill.: National Council of Teachers of English, 1981]). When fuller assignments are given, the topics are most often personal and simple. They are meant to be relevant and accessible but in fact are usually old-hat and unacademic—a unique artifact of the composition classroom. Furthermore, though some courses and programs give the student more than a class period to work on a paper, a number of others (shades of Applebee's report again) limit writing to twenty to fifty-minute in-class sprints.[2] The end result, of course, is that our students' papers are flawed, not only by the writers' current compositional inadequacies but also by the writers' very composing situations. These papers are then returned to their source: composition teachers. But how can we teachers honestly provide an engaged response to spurts of writing on topics like "Describe a favorite place or event" or "Give your opinion of X"—X being some broad, complex social issue about which students are usually ill-informed? Clearly these topics and these situations are not preparing students for their university lives. In all too many cases we have created a writing course that does not lead outward toward the intellectual community that contains it. And that's a pity, for a remedial writing curriculum must fit into the overall context of a university education: students must, early on, begin wrestling with academically oriented topics that help them develop into more critical thinkers, that provide them with some of the tools of the examined life, and that, practically, will assist them in the courses they take. I am sure that many of my colleagues would agree, but establishing such a context is easier said than done.

Let me suggest one way to lay groundwork for a meaningful context, and this is, in fact, the procedure we used in developing UCLA's Freshman Preparatory Program. (I should add that we thought it important to explain our procedure to our students. Freshman writers should know the origins of their curriculum.) Here is what we did: we wanted to find out what our students were being asked to do when they wrote for university classes, so we collected 445 essay and take-home examination questions as well as paper topics from seventeen departments and performed some relatively simple analyses. (We hope eventually to collect more assignments—and the essays resulting from them—from more campuses and conduct a more sophisticated analysis.) Our (rather predictable) findings:

1. We determined what discourse mode the questions and topics seemed to require. Most called for exposition-transaction in James Britton's scheme, reference in James Kinneavy's (*Language and Learning* [Harmondsworth: Penguin, 1970]; *A Theory of Discourse* [New York: Norton, 1980]). The balance required argument (Britton's conative mode, Kinneavy's persuasive), but a special kind of argument I will label academic argument, that is, not a series of emotionally charged appeals and exhortations, as one often finds in oratorical persuasion, but a calculated marshalling of information, a sort of exposition aimed at persuading.[3]
2. It was also obvious that, in their writing, students had to work with large bodies of information garnered from lectures and readings and often had to write from texts. There were simply no assignments calling for the student to narrate or describe personal experiences, to observe relatively immediate objects or events like the architecture of campus buildings, to express a general opinion on something not studied closely, to reflect on self.

3. While in-class essay examinations clearly required a quick, nearly regurgitative—albeit structured—response, the students' other assignments assumed the ability to reflect on a broad range of complex material, to select and order information, and to see and re-see data and events in various contexts.
4. Our surveys also suggested that various academic audiences write and read with an elaborate and-unfortunately for our students-often subtle, even tacit set of philosophical and methodological assumptions that determine what they will consider acceptable or unacceptable reasoning, presenting of evidence, and inferring.[4] For example, an individual's reflections on personal events are considered legitimate evidence in many areas of sociology and anthropology, but are considered much less legitimate by behavioristic psychologists. Developing a sensitivity to the plurality of these assumptive foundations and the conventions that arise from them is crucial, for they shape the complex rhetorical relationship between writer and reader in the academy.
5. In another, related, survey (Mike Rose, "When Faculty Talk About Writing," *College English*, 41 [1979-80], 272-279), we found that some of the stylistic information we had been giving students in English composition simply did not reflect any sort of broad consensus among even as limited an audience as academics. Now, while it was no big surprise to find out that our concerns about, say, writing in the first person and avoiding passive constructions were not fervently shared by other disciplines, it was sobering to hear remarks like the following—this one from a professor of management:

   Students come to us writing over-academic, highly embroidered prose. We, in turn, have to retrain them to write simple, direct reports for companies, reports that someone will feel like reading. ("When Faculty Talk About Writing," p. 273)

   Felicitous techniques like the Christensen cumulative sentence (which Christensen primarily derived from studying fiction) or the topic sentence seductively placed at the end rather than the beginning of a paragraph, for some readers in some contexts, hampered rather than enhanced or enlivened communication.

Considering the complex discourse demands our surveys revealed, our students and our courses fell pitifully short. We needed a remedial program that slowly but steadily and systematically introduced remedial writers to transactional/expositional academic discourse; that relied on texts and bits of texts, preferably from a variety of disciplines so that students would learn how to work with data presented in social science exposition as well as with detail from a short story; that created full, rich assignments which, again slowly and systematically, encouraged the student to develop his or her structural, rhetorical, stylistic facility; that alerted students to stylistic/rhetorical variation within the university.

## *SIMPLE TOPICS, MOTIVATION, AND THE ELIMINATION OF ERROR*

One of the aspects of traditional remedial curricula that I have questioned is the simple, personal topic. But clearly teachers do not assign topics like "Describe your favorite place" because they hold some deep affection for them. They have reasons. One very popular reason is best expressed thus: "I want to make the topic simple so if the student writes poorly, I'll know it had nothing to do with the strain of a complicated topic." Another popular reason

concerns motivation: "If I can give them success experiences, they'll feel better about writing and want to write more." The reasoning behind assigning simple, personal topics, then, often lies in beliefs about cognitive interference and motivation. Let me deal with the issue of motivation first.

Certainly it is a sound motivation and learning principle to begin with the simple-let the student experience success-and then move toward the more complex. No argument. But we should not assume that the successful completion of an assignment the student might well perceive as being simple, even juvenile, is going to make him feel better about himself or his writing. Let me illustrate with a brief anecdote. My colleague at UCLA, George Gadda, is currently attempting to phase into our orientation program a more university oriented set of diagnostic topics. He still gives a typical "Describe your favorite object" topic, but also gives a topic, with a brief academically oriented reading passage, that requires summarizing or analyzing skills. Though it is seemingly more difficult, a number of students reported via questionnaire that they preferred the academic topic because, as one student succinctly put it, "This is the real thing." Motivation to achieve in writing is much more complex than some composition theorists suppose. Personal topics are not necessarily more relevant than academic ones, and some of our students—particularly those from certain minority cultures—might not feel comfortable revealing highly personal experiences. Current work on achievement motivation has shown it to be a highly complex cognitive-affective phenomenon that includes such dimensions as perception of the difficulty of a task and perception of the role of luck or skill in completing the task.[5] Add to these perceptions psychodynamic variables such as the degree of comfort with the content of a task, and it is no longer clear that simple and personal topics are most motivating.

Now to the issue of cognitive overload and the concentration on error. It makes sense to assume that if we reduce the interfering strain of the challenging topic, or, put another way, if we give students a topic for which they already have information (e.g., "Describe an important person in your life"), they and we can more readily focus on grammatical problems. But this might be a case of common sense misleading us, for we have evidence to suggest that while a writer might eventually produce grammatically correct prose for one kind of assignment, that correctness might not hold when she faces other kinds of tasks. Brooke Nielson, for example, found that when her sample of traditional writers shifted registers from the informal (writing to peers) to the formal (writing to an academic audience), their proficiency fell apart ("Writing as a Second Language: Psycholinguistic Processes in Composing," Diss., University of California at San Diego, 1979). I suspect that similar difficulties arise when the student shifts from simpler discourse structures to more complex ones and from simpler to more complex topics. So we might guide a student to the point where she writes with few errors about her dorm room, but when she is asked, say, to compare and contrast two opinions on dormitory housing, not to mention two economic theories, the organizational demands of comparing and contrasting and the more syntactically complicated sentences often attending more complex exposition or argument[6] put such strain on her cognitive resources and linguistic repertoire that error might well reemerge. Error, in short, is not something that, once fixed in a simple and clean environment, will never emerge again. It is not a culture we can isolate and alter in a petri dish. What we must do, therefore, is carefully define and describe the kind of writing demanded of students in the academy (which-lest this suggestion seems mind-shackling-is also the kind of writing students would use to challenge the academy), and then focus on that kind of writing, scaling our assignments

down and building slowly, but scaling and building within the same discourse domain. For we cannot assume a simple transfer of skills across broadly different discourse demands.

There is a related issue here. When we think that simple topics coupled with concentration on error will lead to the correction of error, we might be misleading ourselves. As any one who has read large numbers of remedial-level exams knows, there is a nagging doubt that one reason one sees, say, fewer comma splices or misspelled words in post-tests is that the students have simply stopped writing complex sentences or using tricky words. I don't know if the following study has ever been attempted, but I would wager that a careful examination of remedial students' pre- and post-tests would show that pretests evince more ambitious lexical to sentential attempts gone awry than would cleaner post-tests. We may be training students to be simple and safe rather than urging them toward the ambitious experimentation that will enhance their linguistic repertoire.

Creating simple topics to aid in the correction of error, then, might be a less successful strategy than we think—error cannot be isolated and removed; it can reemerge whenever a student moves onto a task that challenges him or her in new ways. Furthermore, we might be demoralizing our students by giving them the same kind of topic they have been writing on for so many years. I would suggest that we develop curriculums that offer academically oriented topics, the difficulty of each being systematically gradated so that the student is continually challenged in ways that don't overwhelm. (I will give examples of such assignments later.) Until students begin to develop some familiarity with such topics, we will not be able to help them in their attempts to write a relatively correct university prose.

## *ERROR VIGILANCE AND REDUCTIONISTIC MODELS OF COMPOSING*

Our concern for error leads us to create overly simple topics, but I suspect it also results in something even more counterproductive. We might be unwittingly passing on an extremely constricted notion of what composing is. This occurs on three broad levels: the process, the conceptual, the rhetorical. Many of our students come to see the writing process itself as a matter of framing a thought in correct language. The results of such perception are disastrous. Sondra Perl, for example, noted that the basic writers she studied wrote in halting spurts and produced extremely truncated products. They were, she discovered, so vigilant for error, so concerned with placing every bit of language in its correct place, that their writing processes were stymied-they could not get the flow of their thoughts onto paper ("Five Writers Writing: Case Studies of the Composing Processes of Unskilled College Writers," Diss., New York University, 1978). The possibilities in writing—even "incorrect" writing—for discovering, connecting, playing were lost. Conceptually, our students come to believe that what counts is not the thought they give to a topic but how correctly that thought is conveyed. The results? Clean but empty papers. Barbara Tomlinson (personal communication, 1982) reports that even though the remedial writers' papers she studied for her doctoral dissertation were relatively error-free, her independent evaluators were "stunned" by the vapidity of the contents of the essays. The papers said nothing. On the rhetorical level students may not grow beyond their limited notions of connecting thought to reader, not because they are—to cite one current misapplication of the Piagetian developmental framework—egocentric, but rather because the local to global semantic and syntactic devices that establish that connection have not been opened up to them and, perhaps worse, the social base of making meaning and conveying it has not been established in their writing classroom. Just about the only rhetorical

connection the correctness model establishes is the negative sociolinguistic one: don't err lest ye be judged. That is sound advice, but not when it becomes the only rhetorical advice students get.

In closing this section, let me cite a chilling—though admittedly preliminary—study conducted by Patrick Hartwell ("Writers as Readers," paper presented at the Conference on College Composition and Communication, March, 1981). He asked elementary, secondary, and college students labeled by their teachers as weaker readers/writers and better readers/writers to respond to the question, "What do people do when they write?" Notice the model of writing implied in the typical responses of weaker elementary readers/writers (I corrected the few misspellings in their responses): "They hold the pencil tightly." "Move their fingers. And write neat." Of weaker secondary readers/writers: "They put the point of the pencil to the paper and start making words and letters." Of weaker college readers/writers: "People write through English grammar, punctuation, etc." "First you pick your topic, then you make sure that you have enough information. Then you rewrite and check the spelling and copy it down." The responses of better readers/writers were qualitatively different. A few examples. The primary level: "They think of what they are going to write. They ask a person if it sounds good." The secondary level: "They get stuff across to other people." The college level: "People explain their ideas, theories, stories and imagination to each other." Because these data are preliminary and because Hartwell has not yet shown whether these self-reports are linked to actual writing behaviors, I do not want to make too much of this. Though I must admit that because my own investigations of stymied writers revealed the power of rigid rules and inaccurate assumptions ("The Cognitive Dimension of Writer's Block: An Examination of University Students," Diss., UCLA, 1981), I find it hard to take these self-reports lightly. It seems safe to say that the impressions of these selected weaker student writers implies a very limited notion of what composing is, a notion based on simple behaviors, narrow linear steps, and shriveled rhetorical possibilities. This notion might reflect their limited skills (i.e., writers fixate on error because they keep erring), but it also stands as a barrier to their improving. If they continue to conceive of writing as holding a pencil tightly and using correct grammar, how will they grow beyond those constraints?

But let me be quick to point out that I am not trying to lay blame on the remedial writing teacher alone, if at all. For there are powerful reasons to explain why some teachers reduce the process, conceptual, and rhetorical possibilities of composing. The public, spurred by an often misconceived "back to basics" movement and the misinformed, but profitable, arrogance of "pop grammarians" like John Simon and Edwin Newman, make a teacher feel negligent and vulnerable if he or she does not attempt to clear up error. Furthermore, as Patricia Laurence points out in "Error's Endless Train: Why Students Don't Perceive Errors" (*Journal of Basic Writing* [Spring, 1975], 23-42), our scholars have not provided us with a comprehensive theory of error-a rich perceptual/cognitive/linguistic framework that will enable us to study error, see patterns in our students' errors, and provide guidelines on how to assist most effectively the student in understanding and remedying them. (And, I suspect, such a theory would also tell us when to ignore error.) Thus there is little for the conscientious teacher to do but keep marking. To do less in the absence of any other guidelines seems like shirking responsibility.

And there is a third reason for excusing us teachers. It seems to me that, in general, we have been offered pretty limited definitions of "writing skills." The reasons for the emergence of these narrow definitions are historically and sociologically complex. But one powerful

reason lies in the energetic movement of the 1920s and 30s to insure mass education by reducing all learning to discrete steps, stages, bits of information and then holding teachers accountable for imparting fixed numbers of these steps, stages, bits during a given period of time. This "cult of efficiency," as Raymond Callahan called it (*Education and the Cult of Efficiency* [Chicago: University of Chicago Press, 1962]), found its theoretical constructs and evaluative devices in the storehouse of a burgeoning educational psychology that was rapidly devising methods and models for quantifying and structuring knowledge. In this milieu writing was reduced to text production and text to its most salient constituent parts. And though we currently hold to more advanced notions about composing and don't expect, for example, teachers to teach x number of grammar rules per week, we still are partially entrapped by reductionistic models and measures. Look, for example, at current evaluation procedures—for evaluation schemes reveal powerful assumptions about the object of evaluation.

Many of our evaluation schemes focus on product alone, do not incorporate issues of writer's intention and the actual playing out of that intention in the process of composing the essay, nor do they take account of a writer's relation to audience in any full way.[7] Furthermore, in all too many cases, crucial dimensions of any meaningful communication-like the accuracy of information and the legitimacy of the writer's reasoning with it-are put aside so that the felicity of the writing itself can be evaluated.[8] (Such separation, of course, only communicates to the student that cleanliness and charm matter. Accuracy and sense do not.) These procedures, for the most part, suggest that what counts most is a fixed and final and fairly limited product, a product containing or lacking certain countable features or broad structural relationships or specific connections to the writing task. Now this sounds like a limited and fragmented notion of writing skills to me-perhaps *conceptually* not far removed from earlier rigid product notions, the kinds of seriously limited and perhaps limiting notions that emerged in Hartwell's pilot study.

Clearly we need to rethink our definitions of writing skills and make special efforts to change the models of composing our students have internalized. It is possible, for example, that our remedial classes—at least some significant portion of them—should be very process-oriented. This does not simply mean that we would have our students freewrite daily, though there is certainly value in that. It also means that we would help our students experience the rich possibilities of the writing process. We could lead them to see the value of writing as an ordering and storing aid by making them amateur ethnographers and turning them loose on a campus event with pad and pencil in hand. We could break them of conceiving of their written texts as static by introducing exercises like our Preparatory Program's "Revision Scramble." In this exercise students are given a five to ten-minute lecture on an academic topic, must take notes, and then must write either a summary or a critical reaction. In the next class they are given a further brief lecture on the same topic but with new information included. They must revise their summary or reaction in ways that account for the new. Thus they come to see that texts can—even must—evolve. We get them to experience writing as making meaning for self and others by engineering group projects that necessitate collaborative research, composing, and editing, thus moving them through process to product. A nice illustration of this is provided by my Preparatory Program colleague Bill Creasy. He gives his entire class the task of preparing a brief guidebook for incoming Preparatory Program students. Teams of two to three students are each assigned aspects of campus life: dormitories, athletics, ethnic study centers. Throughout the quarter the class collects and

selects information (by interviewing officials, reading pamphlets and brochures, distributing questionnaires to seniors), writes it up, puts it on a word processor, and edits it. Professor Creasy provides assistance as it is needed at each point along the way.

Sure, these assignments must be carefully structured, scaled down, and built upon, and, yes, for a while our students will struggle, and some will produce very flawed papers. But we will have to train ourselves to wait, to live with uncertainty and comma splices. Some students may leave our classes writing papers that aren't as clean as some of us would like them to be, but at least these students will hold conceptions of composing that will foster rather than limit growth in writing.[9]

### *THE SEPARATION OF WRITING FROM READING AND THINKING*

In our attempts to isolate and thereby more effectively treat "basic skills" we have not only reduced discourse complexity, we have separated writing from reading and thinking.

When I bring up "thinking skills" I sometimes get responses like the following: "Yes, we used to teach the syllogism, but it didn't carry over to the students' writing." Presenting students with intellectually worthwhile problems, assisting them as they work through them, offering them strategies with which to explore them, showing them how to represent and, when necessary, reduce them, seems to have been equated with formal Aristotelian logic and relegated to the philosophy department. What a disservice. We should help remedial writers become familiar with heuristic routines, too often saved for standard composition, that will enhance their interpretive powers. (Stripped of its theoretical baggage, the tagmemist's particle/wave/field heuristic comes to mind as a particularly useful technique.) And if certain of us question heuristics as being too gimmicky, there is good old-fashioned patient and careful guidance with assignments requiring classifying, comparing, analyzing. In any case-and this is why formal logic always failed in the composition classroom—"thinking skills" must not be taught as a set of abstract exercises (which, of course, they will be if they are not conceived of as being part of writing), but must be intimately connected to composition instruction. Otherwise students hear one more lecture on isolated mental arabesques.

When I bring up the need to incorporate reading into our basic courses, and particularly when I suggest we have our students work from a simple passage in writing their diagnostics (thereby making their diagnostics more equivalent to the academic writing tasks they will face), here is what I hear: "If you do that, you'll confound reading skills and writing skills. You'll never know why they make the mistakes they do. Is it because they can't read or they can't write?"[10] Yes, reading and writing are different processes, but it is simply not true that they are unconnected. Anthony Petrosky explains how current theories present reading as a kind of "composing process"; people construct meaning from text rather than passively internalize it. Teun Van Dijk points out that while we need to know the conventions, structures, and intentions of particular discourses to produce them, we likewise need such knowledge to comprehend them. And Stephen Krashen suggests that one's repertoire of discourse skills is built slowly and comprehensively through reading.[11] Reading and writing are intimately connected in ways we are only beginning to understand. Furthermore, even if they weren't, a major skill in academic writing is the complex ability to write from other texts—to summarize, to disambiguate key notions and useful facts and incorporate them in one's own writing, to react critically to prose. Few academic assignments (outside of

composition) require a student to produce material ex nihilo; she is almost always writing about, from, or through others' materials.

It seems to me that we have no choice but to begin—and to urge the scholars who have sequestered themselves in segmented disciplines to begin—conceiving of composition as a highly complex thinking/learning/reading/writing skill that demands holistic, not neatly segmented and encapsulated, pedagogies.[12]

## *THE NARROWING OF EXPLORATORY DISCOURSE AND THE MISPERCEPTION OF DISCOURSE STRUCTURES*

But not all causes of a narrowed model of and curriculum for composing stem from an overzealous vigilance for error or from limited conceptualizations of writing skill. Ironically, one cause might inadvertently have come from some of the most serious critics of standard composition fare, for in their eagerness to torpedo staid and wrong-headed notions about composing, they sometimes polarize issues that in fact lie along a continuum. I suspect that when Ken Macrorie inveighs against "Engfish" and William Coles against "theme-writing," when politically conscious critics like John Rouse complain that teaching standard patterns of discourse socializes and thus regiments minds, when Stephen Judy says "the best student writing is motivated by personal feelings and experience," when Janet Emig distinguishes between extensive and reflexive writing[13]—when all these critics express their observations, they establish in the minds of some of their readers an essentially false set of dichotomies: to write in a voice other than one's most natural is to write inauthentically, to master and use strategies like comparing and contrasting is to sacrifice freedom, to write on academic topics that don't have deep personal associations is to be doomed to mechanical, lifeless composing, and to write expositional, extensive academic prose is to sabotage the possibility of reflexive exploration. Again, let me restate that Coles, Judy, et al. do not necessarily make distinctions this rigidly. Many folks who cite them do.

What does this polarization do to the remedial writer's curriculum? At least two things: The reflexive, exploratory possibilities of engaging in academic (vs. personal) topics are not exploited, and instruction in more complex patterns of discourse is delayed or soft-pedaled.

Reflexive, exploratory discourse has been too exclusively linked to "personal" writing, writing that deals with making sense of one's own feelings and experiences. In fact, making meaning for the self, ordering experience, establishing one's own relation to it is what informs any serious writing. A student writing a paper on Rousseau or on operant conditioning could, and should be encouraged to, engage in a good deal of self-referenced writing to make sense of difficult notions and, possibly, to weigh these notions against other readings, personal experience, and values. If we don't see all the possibilities for exploration inherent in academic writing, we won't encourage our writers to talk to each other and to us, to plumb their own thoughts, to freely explore the conceptual intricacies of a topic. Again, it is not Emig who would disagree. But in my experience many teachers who read—or misread—her would.

When we delay or insufficiently emphasize the writing of complex discourse, we deprive writers of a chance to learn what coherent, extended texts should look like, what shape or structure they will take. And until they possess a sense of the form of such texts, they cannot write them. Textlinguists like Van Dijk and Robert de Beaugrande have begun to demonstrate the reality of global discourse structures. Margaret Atwell has shown the central role

discourse structures can play in the production of coherent text. Frank D'Angelo has recently suggested that these structures, or "paradigms" as he calls them, could well be related to Aristotelian topoi, the classical orator's repository of generating and structuring aids.[14]

The sad truth is that many of our students, particularly remedial students, do not get that much opportunity to read or write extended academic discourse before reaching us[15] and thus are not afforded the chance to develop a wide repertoire of discourse structures or schemata, as they are called by cognitive psychologists. (Lately there has been a proliferation of labels for these discourse representations: superstructures, paradigms, frames, plans, schemata. For consistency's sake, I will stick to schemata, but because I am interested both in the investigative, interpretive capability of schemata as cognitive strategies as well as the role of schemata in the production of written discourse, in certain contexts I will interchange "strategies" with "structures" or "patterns.") The lack of appropriate schemata, of course, will have disastrous results as remedial writers are asked to produce structurally complex prose by readers who, according to Sarah Freedman in "Why Do Teachers Give the Grades They Do?" (*CCC*, 30 [1979], 161-164), evaluate student writing with a good deal of emphasis on organization, a product feature resulting from appropriate discourse schemata.[16] We have little choice, then, but to teach these schemata. And I should stress here that we have no reason to believe that a student has to have every pronoun and antecedent correctly in place before he can learn discourse structures. Sentence level mechanics and discourse structures are not developmentally lockstepped.

Now some would agree that students must master these complex schemata and add that a sensible remedial approach would be to begin with "simpler" patterns like narration and then eventually shift to higher order discourse. But, as I suggested earlier, we have reason to doubt that work on narration or on description will build in students a repertoire of more abstract and complex schemata, schemata, that is, that are not based on chronological sequences or spatial arrangements.[17] Academic expositional discourse seems to be more cognitively demanding than simple narration or description;[18] it seems to embody global syntactic and semantic structures that are different from those found in narration and description[19] and it requires kinds of sentences that, on the average, tend to be syntactically different from those found in narration and description.[20] The studies that support the aforementioned propositions only represent beginnings in the exploration of the cognitive demands and structural features of different kinds of discourse, but though beginnings they should make us wary of assuming that mastering, say, narrative structure will enable students to construct analytic essays.

I suggest, therefore, that we determine the organizational patterns required of our students in academic discourse, and slowly and systematically teach these patterns. They should not be conceived of or taught as "modes" of discourse or as rigid frameworks but, simultaneously, as strategies by which one explores information and structures by which one organizes it. It would not restrict students' freedom to learn these strategies/structures; in fact, such learning would enhance their freedom, afford them more discourse options. Without these options much academic discourse (the very kind of discourse written by critics like Rouse) will be beyond these writers. For that fact they are essential to the making and conveying of meaning in our culture. The question is, how should they be taught? The two most natural ways to assimilate or learn these patterns are by reading a good deal of discourse containing them (see Krashen's essay cited in footnote 11, and Mellon's cited in footnote 15), and experiencing the need for them as one encounters barriers while writing. The trouble is, of course, that our remedial writers don't have much time. They are enrolled in other classes, some of which

demand structurally complex written responses to complex assignments. And while we can suspend concern about, say, comma splices, we can't wait for students to assimilate these global structures-they are essential to reader comprehension. Students need them now. Yet we don't want to put our students through one more lifeless and disembodied drill on the "compare/contrast mode." What to do? I propose a four-tiered plan:

A. *Make sure that the patterns/strategies are real*. That is, that they are derived not from the theorist's speculations on how discourse ought to be taxonomized, but from writing situations the students face daily. In the aforementioned surveys of university assignments, I found calls or cues for a number of global discourse strategies or patterns. These were either explicitly requested or seemed to be the best approaches to apply to purposely ambiguous or to simply poorly written questions. I will list the most salient of them now and illustrate the teaching of several of them momentarily: definition, seriation, classification, summary, compare/contrast, analysis, academic argument. With the exception of analysis and academic argument—which I define in special ways—these patterns are too familiar for comfort. We see some combination of them in our rhetorics and readers, and they have, in all too many hands, come to represent much that stifles our pedagogy. But—and here I'll look for support to D'Angelo's speculation about the connection of schemata to topoi—the problem is not that these patterns are inherently rigid or unuseful, but that they have not been taught as thinking strategies as well as discourse structures. (I am tempted, therefore, to write out definition, classification, etc., with participial endings to stress their actively strategic nature.) I would speculate—and at this stage, it is speculation—that the reason these strategies/ structures appeared so frequently in our surveys of academic writing situations (and, my colleague Ruth Mitchell tells me, in her surveys of business and professional writing as well) is that they are so central to the way we explore, order, and present information when we are engaged in transactional/referential discourse.[21]

B. *Create a meaningful context for their use*. Here I would like to raise again the issues of the context of writing and the motivation to write. It is usually assumed that for writing to be meaningful, it must generate from issues and experiences that centrally involve the student. This assumption, as I suggested earlier, can result in some pretty superficial curricula, but can also lead to challenging pedagogies like Coles', that leads students to examine their own writing as ways of knowing and becoming (see footnote 13), or like David Bartholomae's, that weaves academic writing into students' reflections on, for example, their coming of age and requires them to turn an analytic eye onto their own and others' autobiographies ("Teaching Basic Writing: An Alternative to Basic Skills," *Journal of Basic Writing* [Spring/Summer 1979], pp. 85-109). I believe, though, that another meaningful context for student writing is the very academic environment in which students find themselves; it is a strange, complicated place, at times feared in its newness, at others, appreciated, a place of promise and a place of limitation, sometimes cynically apprehended, sometimes enjoyed. If the discourse schemata I have listed are, on one hand, pragmatically offered as being central to success in the university and, on the other, offered as investigative tools necessary for examining reality, for examining the academic environment itself, then it seems to me we have established a motivating and meaningful context for their use.

C. *Teach the schemata as strategies as well as structures*. Classifying or comparing/contrasting can be taught in cookbook formulaic fashion, and with writers who hold few complex schemata in their repertoire, this patterned instruction might be necessary. At first. We would then want to show students other uses, other shapes, to wean them from learning an inflexible discourse pattern. But we also want to teach comparing and contrasting as a cognitive strategy, as a way to explore things, events, phenomena as well as a way to organize what we discover about them. Note the difference from usual textbook treatment-no static modes, but, borrowing Linda Flower's words, "ways to think systematically about complex topics" (*Problem-Solving Strategies for Writers* [New York: Harcourt Brace Jovanovich, 1981], p. 74).

D. *Sequence the schemata appropriately*. In teaching these structures/strategies, we need to keep the importance of proper sequencing in mind. Educational theorists like Benjamin Bloom and Robert Gagné[22] repeatedly show the benefits of arranging tasks in ways that allow subsequent tasks to build on previously learned ones, and in our own field Britton and his colleagues have noted:

> Our experience suggests that there is likely to be a hierarchy of kinds of writing which is shaped by the thinking problems with which the writer is confronted. (James Britton, Tony Burgess, Nancy Martin, Alex McLeod, Harold Rosen, *The Development of Writing Abilities* (11-18) [London: Macmillan, 1975], p. 52)

Considering the schemata I presented, this discussion of sequencing suggests that we offer students tasks that require, for example, the presenting of steps in a series before confronting them with tasks requiring summarizing before assigning tasks involving argument. And, as frequently as possible, a previously learned structure/strategy should be incorporated into the preliminary stages of a new assignment (e.g., have the student summarize a theory that she will need for an assignment requiring analysis) or should become part of the assignment itself. It is possible to sequence assignments and the schemata they embody so that they lead to highly complex discourse like analyzing and arguing.

Teaching these schemata allows students to begin writing academic discourse early on. They are able, even crudely, to construct a complicated essay into which they can weave their reading. They are participating in an academic context .[23]

Let me illustrate the above discussion by providing three kinds of assignments from our Freshman Preparatory Program.

*Seriation*. For one seriation assignment the teacher reads a brief account of a burn patient's daily routine of hydrotherapy, medication, meals, etc. Late in the day the patient experiences chills, nausea, and dizziness. The students take notes and then, in groups, write a brief paper retelling the day's events. In a somewhat related assignment students take notes while the teacher reads a description of the reduplication process of an intestinal virus. Then they are given a list of the steps in the reduplication process, but the steps are scrambled. In groups, students have to order the steps correctly and write a brief paper detailing the accurate sequence of process steps. Another seriation assignment has the teacher and a colleague extemporaneously act out five minutes of a psychotherapy

session. Students become clinical observers and take notes on the interaction. Again, in groups, the students write an essay presenting the stages of the interaction. For all assignments students must underline and orally or in footnotes explain the function of each connective and transition they use. In this way they become sensitive to the differences among simple concatenation vs. correlation vs. causality. For example, can they say the medication "caused" the patient's reaction, or must they be cautious and say the reaction "followed" the medication, physical therapy, and meals?

*Classification*. One classification assignment calls for students to view twenty slides of the human form—Raphael to Rivera. They are shown the slides two or three times and are told to observe as keenly as possible, jotting down notes on whatever characteristics of each painting strike them. They are not told anything about era, school, or painter. Then they are told to decide, with the aid of their notes, whether or not any two or more paintings could be grouped under the same characteristic. (For teachers so inclined, this can be done in small groups.) At first, students tend to offer very general observations: "Paintings #1, 3, 10, 19 are all very bright." "2, 8, 20 don't look like human beings." The teacher does not criticize and puts all characteristics on the board. What she does begin doing is asking questions to point out similarity or generality in the categories. Students are led to refine, collapse, subdivide categories. What the students finally arrive at is their own classificational system. They are then asked to write a brief essay that proposes the system and illustrates it with specific paintings. In subsequent exercises they work with items from a personality inventory, a list of definitions of genius, and a collection of first paragraphs from novels, textbooks, and articles. In this way students actually experience the process of classification as well as learn how to present its results.

*Analysis*. Textbook authors usually define analysis as a careful exploration that breaks an artifact, event, or phenomenon down to its constituent parts. What they don't mention is that no analyzer operates without some belief or value system, without some exploratory framework.[24] Toward the end of our program we introduce students to this complex nature of analysis. We give them a list of raw data, or a description of an event, or a scene or story, or we show them a film. To enhance pedagogical effect, the data, descriptions, or episodes are in some way puzzling or incomplete. We encourage discussion about them. Then we provide a theoretical framework of some sort and ask them to assume it and analyze and explain the data, event, film, etc. Thus their analysis is informed by another's perspective. Finally, we ask them to criticize the perspective, to consider ways it might be lacking in accuracy, explanatory power, or comprehensibility. In these ways we introduce students to the fact that analyses are always founded on assumptions and orientations-from personal analyses of moral issues to statistical analyses of biological data-and that any given analysis is open to investigation once its informing framework is made specific. Some examples: Students are given a newspaper account of a suicide. They discuss it, providing their own interpretations. They are then offered an explanation of depression and "learned helplessness." They investigate the suicide with the aid of the latter clinical theory, noting how it illuminates and how it comes up short. Students are given a list of U.S. immigration statistics from 1820 to 1977. This is followed by a quotation from *Das Kapital* on exploitation of labor. They are shown *An Andalusian Dog*, and it is followed by a definition of surrealism. They are given the Barthelme short story "Game" (a story of

two deranged soldiers locked indefinitely in a missile bunker) and then given a series of quotations on the environmental etiology of insanity. And so on. Thus it is that students are shown the power and limitation of an explanatory framework, the crucial role some such framework plays in analysis (and that no analysis takes place atheoretically), how to assume—and question—an analytic framework, and how to present the result of that analysis in writing. In writing up their analysis they usually have to rely on previously learned strategies: serializing, summarizing, comparing, etc.

Our institutions create deplorable conditions for our remedial writing programs and our students—labeled intellectually substandard, placed in the conceptual basements of English departments, if placed n the department at all, ghettoized. No need to polemicize further; we all know the complaints. But what we teachers must remember is that the very nature of many remedial writing courses contributes to institutional insularity, to second-class citizenship and fragmented education, to a limiting of our students' abilities to grow toward intellectual autonomy. Oddly enough, the nature of our programs is nearly synchronized with the narrow reality created for them by our institutions.

Clearly we must work to change our institutions, but we must also question our assumptions about our students' abilities and the pedagogies we have built on these assumptions. All too often these days we hear that remedial writers are "cognitively deficient," locked, for example, at the Piagetian level of concrete (vs. formal) operations. These judgments are unwarranted extrapolations from a misuse (or overuse) of the developmental psychologist's diagnostic instruments, for as Jean Piaget himself reminded us in one of his final articles, if we are not seeing evidence of formal operations in young adults, then we should either better acquaint them with our diagnostics or find more appropriate ones ("Intellectual Evolution from Adolescence to Adulthood," *Human Development*, 15 [1972], 1-12). The problem might well lie with our tools rather than with our students' minds. We must assume, Piaget warns, that in their daily lives our students can generalize and analyze, can operate formally.[25] What they can't do-applying this to the writing teacher's domainis successfully operate within the unfamiliar web of reasoning/reading/writing conventions that are fundamental to academic inquiry. Our students are not cognitively "deficient" in the clinical sense of the term; if they were, they wouldn't be able to make the progress they do. Our students are not deficient; they are raw. Our job, then, is to create carefully thought-out, appropriate, undemeaning pedagogies that introduce them to the conventions of academic inquiry. Bartholomae presents one such pedagogy. The foundations for another can be found in Shaughnessy's seventh chapter of *Errors and Expectations* (see footnote 21). At various points in the present essay, I have suggested a third approach;[26] let me summarize it here.

In my opinion, a remedial writing curriculum must fit into the intellectual context of the university. Topics should have academic substance and, when possible, should require the student to work from text. The expressive, exploratory dimension of writing ought to be exploited here—academic topics as much as personal ones demand a working through, a talking to and making meaning for the self. The richness of the composing process must be revealed. Too many of our students come to us with narrow, ossified conceptions of writing. Our job is to create opportunities so they can alter those conceptions for themselves. We have to allow our writers to be ambitious and to err. Error vigilance creates safe, not meaningful, prose. We need to integrate thinking and reading and writing, and we must pressure our training institutions to give us fuller, richer definitions of writing competence. Finally, we

should seriously consider the central role discourse schemata play in discovering, organizing, and presenting information. It is these structures/strategies, rather than sentence-level error, which should be the fundament of our courses.

How flat some of our remedial courses feel. And how distant the eyes of too many of our students. We sometimes take this flatness, this distance as signs of intellectual dullness. They are more likely the signs of boredom, humiliation, even anger. But in my experience anyway the flatness dispells and the distant gazes revitalize when students are challenged, engaged, brought fully into the milieu they bargained for. Yes, we teachers will work slowly, scale carefully, provide as much assistance as we can. But we will still be creating an edge to our "remedial" classroom. Our students will grumble about the strain—grumbling is part of the student's drama—but they will know they are participating in the university. And that is a strain that can make one feel worthwhile.

## NOTES

[1] I will use the adjective "remedial" and occasionally the adjective "basic" throughout this essay. I should note, though, that I use them with some reservation, for they are often more pejorative than accurately descriptive.

[2] Many think this fifty-minute limit prepares students for essay exams. But not so. In those situations students already have a wealth of information to spew forth. In the remedial course they are expected to retrieve, give meaning to, and organize information that, in some cases, they simply do not have.

[3] For some additional and informative discussion of argument in the academy, see Charles Kneupper, "Teaching Argument: An Introduction to the Toulmin Model," *College Composition and Communication*, 29 (1978), 237-241; Patricia Bizzell, "The Ethos of Academic Discourse," CCC, 29 (1978), 351-355; and Paul Bator, "Aristotelian and Rogerian Rhetoric," CCC, 31 (1980), 427-432.

[4] A good general introduction to this complex assumptive plurality is Philip Phenix's *Realms of Meaning* (New York: McGraw-Hill, 1964).

[5] Bernard Weiner, "Achievement Motivation, Attribution Theory, and the Educational Process," *Review of Educational Research,* 42 (1972), 203-215; Bernard Weiner, ed., *Achievement Motivation and Attribution Theory* (Morristown, N.J.: General Learning Press, 1974).

[6] Marion Crowhurst, "Syntactic Complexity and Teachers' Quality Ratings of Narrations and Arguments," *Research in the Teaching of English*, 14 (1980), 223-231.

[7] Lee Odeli and Charles R. Cooper, "Procedures for Evaluating Writing: Assumptions and Needed Research," *College English*, 42 (1980), 35-43; Anne Ruggles Gere, "Written Composition: Toward a Theory of Evaluation," CE, 42 (1980), 44-58. See also Ruth Mitchell and Mary Taylor, "The Integrating Perspective: An Audience-Response Model for Writing," CE, 41 (1979), 247-271.

[8] Barbara Gross Davis, Michael Scriven, and Susan Thomas, *The Evaluation of Composition* (Inverness, Cal.: Edgepress, 1981).

[9] I am not suggesting that teachers should completely turn their backs on error. There is little doubt that many academic readers and, as Maxine Hairston reminds us, readers outside the university react strongly to grammatical/mechanical errors ("Not All Errors Are Created Equal: Non-Academic Readers in the Professions Respond to Lapses in Usage," CE, 43(1981), 794-806). We wouldn't want our students to blithely write their ways into the dens of the error-vigilant. What I am suggesting is that we might better serve our students if we free them from dulling and limiting notions of composing and then focus and refocus on correctness as an editing, not generating and producing, concern. If we run out of time-if some of our students still have not mastered points of mechanics and usage when they leave us-they will at least be open to writing as a discovering/ordering/communicating process. And if we taught the editing process well, they will know how to use dictionaries, handbooks, and a friend with a copy-editor's eye to help them clean up their final drafts.

[10] Anthony Petrosky, "From Story to Essay: Reading and Writing," CCC, 33 (1982), 19-36. Petrosky reports similar artificial encapsulation of reading and writing skills. In his case evaluators were telling him that to have students write about their reading would muddy the assessment of their "reading" ability.

[11] Petrosky, "From Story to Essay"; Van Dijk, *Macrostructures* (Hillsdale, N.J.: Eribaum, 1980); Krashen, "The Role of Input (Reading) and Instruction in Developing Writing Ability," unpublished manuscript, Department of Linguistics, University of Southern California, 1981.

[12] Several other writers have recently called for variations of such integrated pedagogies: Charles Bazerman, "A Relationship between Reading and Writing: The Conversational Model," CE, 41 (1980), 656-661; Marilyn S. Sternglass, "Assessing Reading, Writing, and Reasoning," CE, 43 (1981), 269-275.

[13] Macrorie, *Uptaught* (New York: Hayden, 1970); Coles, Composing (Rocheli Park, N.J.: Hayden, 1974); Rouse, "Knowledge, Power and the Teaching of English," CE. 40 (1979), 473491; Judy, "The Experiential Approach: Inner Worlds to Outer Worlds," in *Eight Approaches to Teaching Composition*, ed. Timothy R. Donovan and Ben We. McClelland (Urbana, Ill.: National Council of Teachers of English, 1980), pp. 37-51; Emig, *The Composing Processes of Twelfth Graders* (Urbana, 111.: NCTE, 1971).

[14] Van Dijk, *Macrostructures*; de Beaugrande, *Text, Discourse, and Process* (Norwood, N.J.: Ablex, 1980); Atwell, "The Evolution of Text: The Inter-relationship of Reading and Writing in the Composing Process," Diss., Indiana University, 1981; D'Angelo, "Paradigms as Structural Counterparts of Topo¡," in *Linguistics, Stylistics and the Teaching of Composition*, ed. Donald McQuade (Akron, Ohio: University of Akron, 1979), pp. 41-51; D'Angelo, "Topo¡, Paradigms, and Psychological Schemata," in *Proceedings of the Inaugural Conference of the University of Maryland Junior Writing Program,* University of Maryland, 1981, pp. 9-23.

[15] Applebee, *Writing in the Secondary School;* John Mellon, "Language Competence," in *The Nature and Measurement of Competency in English*, ed. Charles Cooper (Urbana, Ill.: NCTE, 1981), pp. 21-64.

[16] Relying on an analysis of variance, Freedman found that her evaluators were most affected by the content of an essay, then its organization. Mechanics ranked third. Interestingly, mechanics were most influential when organization was strong. To my mind, these findings lend further credence to a point I made earlier: clean but empty (or directionless) papers count for little. Correctness begins strongly to affect a reader once he or she has substantial and sensible prose to read. Let me close this note with a quote from Freedman's article:

> if society values content and organization as much as the teachers in this project did, then according to the definition of content and organization I used in this study, a pedagogy for teaching writing should aim first to help students develop their ideas logically .... Then it should focus on teaching students to organize the developed ideas so that they would be easily understood and favorably evaluated . . . . It seems today that many college-level curricula begin with a focus on helping students correct mechanical and syntactic problems rather than with the more fundamental aspects of the discourse. (pp. 163-164)

[17] Writers often resort to narrative frameworks when they are unable to execute more complex or abstract discourse schema. Narration becomes a substitute rather than a building block: see Suzanne E. Jacobs and Adela B. Karliner, "Helping Writers to Think," *CE*, 38 (1976-77), 484-505; Linda Flower, "Writer-based Prose: A Cognitive Basis for Problems in Writing," *CE*, 41(1979-80), 19-37.

[18] Jim Williams and Micky Riggs, "Subvocalization During Writing," unpublished manuscript, Department of English, University of Southern California, 1981; Ann Matsuhashi, "Producing Written Discourse: A Theory-based Description of the Temporal Characteristics of Three Discourse Types from Four Competent Grade 12 Writers," Diss., State University of New York at Buffalo, 1979.

[19] Van Dijk, *Macrostructures*; C. Cooper and A. Matsuhasi, "A Theory of the Writing Process," in Elizabeth Martlew, ed., *The Psychology of Writing* (New York: Wiley, in press).

[20] Crowhurst, "Syntactic Complexity"; Joseph Williams, "Defining Complexity," *CE*, 40 (1978-79), 595-609; Sandra Thompson, "Grammar and Discourse: The English Detached Participial Clause," in Flora Klein, ed., *Discourse Approaches to Syntax* (Norwood, N.J.: Ablex, in press).

[21] For compatible viewpoints presenting somewhat different lists of strategies, see Chapter Seven of Mina Shaughnessy, *Errors and Expectations* (New York: Oxford University Press, 1977) and Anne Ruggles Gere and Eugene Smith, *Writing and Learning* (New York: Macmillan, in press).

[22] Bloom, ed., *Taxonomy of Educational Objectives. Handbook I: Cognitive Domain* (New York: David McKay, 1956); Gagné, *The Conditions of Learning*, 2nd ed. (New York: Holt, Rinehart, and Winston, 1970).

[23] I realize I am asking that we teach discourse structures often assumed to be beyond the grasp of remedial writers. One way to teach such complicated structures has been suggested throughout this fifth section. The approach simply entails a scaling down of potentially complex tasks and a gradual building of skill through carefully sequenced, increasingly complex assignments. But it would also prove helpful to have some idea of the written discourse sophistication students possess when they enter our classes. The following procedure could provide such information: During the first few days of class, the teacher gives an assignment that requires

students to bring into play a discourse structure that will be dealt with at some later point in the course. In reading the students' responses, the teacher would suspend concern with sentence-level error and attempt to estimate the discourse sophistication of each student's essay. If, for example, the task called for comparing and contrasting, did a student attempt to organize the essay in a way that indicates comparison? How adequate was the attempt? Did the student rely on simpler-inadequate—structures like narration? Certainly this procedure will not provide clear entry to the complexities of a student's discourse repertoire, but—especially if repeated with one further assignment—it can offer some suggestions as to the level of particular students' discourse sophistication. Thus the teacher will have an indication of where and how he or she needs to begin instruction on discourse frameworks.

[24] This point is convincingly made by Karl Popper in *Conjectures and Refutations: The Growth of Scientific Knowledge* (New York: Harper and Row, 1968). After working up my analysis exercises, I discovered Marc Belth's *The Process of Thinking* (New York: David McKay, 1977). Belth equates all thinking with the bringing to bear of models, metaphors, analogies onto internal and external events.

[25] I will quote from Piaget's article:

> In our investigation of formal structures we used rather specific types of experimental situations which were of a physical and logical-mathematical nature because these seemed to be understood by the school children we sampled. However, it is possible to question whether these situations are, fundamentally, very general and therefore applicable to any school or professional environment .... It is highly likely that [young adults] will know how to reason in a hypothetical manner in their speciality, that is to say, dissociating the variables involved, relating terms in a combinatorial manner and reasoning with propositions involving negations and reciprocities. They would, therefore, be capable of thinking formally in their particular field, whereas faced with our experimental situations, their lack of knowledge or the fact they have forgotten certain ideas that are particularly familiar to children still in school or college, would hinder them from reasoning in a formal way, and they would give the appearance of being at the concrete level. (p. 10)

For further evidence that many of our young adults are not "deficient"—that is, that once appropriately exposed to Piagetian diagnostic procedures they can evince "formal" operations—see Fred W. Danner and Mary Carol Day, "Eliciting Formal Operations," *Child Development*, 48 (1977), 1600-1606; and Deanna Kuhn, Victoria Ho, and Catherine Adams, "Formal Reasoning Among Pre- and Late-Adolescents," *Child Development*, 50 (1979), 1128-1135. (My thanks to Professor Deborah Stipek, a former post-doctoral fellow at Piaget's Geneva Institute, for her helpful conversations on these issues.)

Since Piagetian tests of formal operations are based on mathematics, formal logic, and physics, I wonder how many of us-being as far removed as we are from our college physics labs-would fumble about with them and be labeled "concrete" thinkers.

[26] This third approach is essentially that embodied in the regular year Freshman Preparatory Program composition courses offered at UCLA. During the summer, however, we employ a variation of this approach in our Freshman Summer Program, an adjunct program in which composition courses are linked to introductory breadth courses. I will be glad to mail a description of the Freshman Summer Program to interested readers. Send requests to Mike Rose, Department of English, 2225 Rolfe Hall, UCLA, 405 Hilgard Avenue, Los Angeles, California 90024.