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ABSTRACT

The theory behind curriculum branching (course options extending from the core curriculum) shows how such extensions can aid the writing curriculum by fruitfully integrating branching into the sequencing of writing courses. The theory first reminds educators of the complex mix of developmental factors and individual differences--of step-by-step procedures and intuitive leaps within specified frameworks. Second, it shows that the nontraditional workshop approach is hardly at odds with branching, for self-pacing and the use of adjunct courses fit into the larger view of sequence and hence sequential branching. This revitalized concept of branching can support both sequencing and individualized instruction by strengthening the ideal behind each concept and by uncovering individual sequences. The mere fact of pluralism does not guarantee that individual differences will be acknowledged and worked with, but branching built into an overall sequential writing program encourages an increased degree of self-awareness and individual growth. Based on this theory, three steps for integrating branching into writing sequences arise. Speaking to the issues of informed alternatives, individualized learning, and the goals of writing sequences, these recommendations are as follows: writing teachers need (1) to clarify the structure underlying the writing program and communicate it to the students, (2) to consult process as a guide to overall sequence, and (3) to build toward a final writing course that unites maturation and motivation with cumulative skill. (RL)

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Sequencing and Branching: Implications for Theory and Practice

Carol Hanbery MacKay

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## Sequencing and Branching: Implications for Theory and Practice

Although learning theory doesn't pretend to have all the answers about how we learn, it can recognize and stipulate certain sequential patterns. In the words of Jerome Bruner, "There are certain orders of presentation of materials and ideas in any subject that are more likely than others to lead the student to the main idea." At the same time, learning theorists realize that individual differences may not fit neatly into those patterns. To quote Bruner again: "The fact of individual differences argues for pluralism." Working with this understanding--and the constraints of mass education--curriculum planners have often created their own compromise: they have overlaid sequences with options, apparently establishing a system of branching. But how sound is this branching when new courses are added to those that happen to survive the quirks of faculty specialization, and neither students nor faculty are particularly aware of program goals?

I propose that we reexamine branching in light of its organic metaphor and that we try to integrate it into sequencing--since true branching implies sequencing in the first place. Branching produces offshoots from a main limb (or core curriculum); these offshoots (or options) can both branch off and diverge (reflecting individual interests and differences of teachers and students alike) and branch out and expand (extending sequential learning). The metaphor as model posits branching from a common base, which is not so

easy to establish when we are faced with a diverse student population. But even tracking can recognize a unitary source and just approach the subject matter in terms of different levels of complexity. We already have one curriculum model in the programmed text, which illustrates the productive use of sequencing as branching. Here branching reflects individual differences in terms of divergent paths to common points from which new branching can occur. For curricular purposes, this model recommends a periodic regrouping and return to common goals as a way of guaranteeing a solid sequence that can nonetheless be reached by several different means.

Into what kind of sequencing should we try to integrate this notion of branching? After all, the term "sequence" can apply to any series of ordered occurrences; succession doesn't necessarily imply development. If development is our goal, then I believe learning theory is our key. In the American educational system, sequence took on the added weight of theory in 1959 when the Woods Hole Conference gathered together scientists and psychologists who were interested in applying learning theory to curriculum design. Consolidating the findings of that conference and drawing specifically on the work of Jean Piaget and L.S. Vygotsky, Bruner articulated how linear and spiral curricula (both ultimately sequential) can reflect language skills acquisition. During the Sixties, English departments and organizations raised the allied issue of cumulative programs but made only sporadic inroads at the college level. Then, in 1968, came the student-centered language arts

curriculum proposed by James Moffett, with its reverberations into college composition programs--where "process" has linked up with "sequence" within courses as well as across writing programs.

What is our practical inheritance at the outset of the 1980's? At first glance, the multiplicity of our college composition programs seems the most salient factor. But in the words of Jasper Neel, who introduces eighteen representative "options" in the recent MLA book so entitled, this diversity can be conveniently divided into "traditional" and "non-traditional" programs. What makes this breakdown convenient for my purposes is that it emphasizes the split between 1) trying to work with traditional sequences (e.g., starting with basic English, moving on to exposition, and concluding with writing about literature) and 2) treating sequence as an entirely individual matter in writing workshops. Interestingly enough, it is the traditional approach that most often employs a form of branching (admittedly to shore up a sinking program much of the time), while the nontraditional one frequently gets tied to an external sequence in another field (itself usually ordered along traditional lines). More than anything else, however, this interplay between sequence and individualization suggests that they are the two elements we are all trying to accommodate.

Going back to the learning theory that underlies our current emphasis on sequencing demonstrates that practice has not always consulted accepted theory or has misapplied it. On the

other hand, some of the theory and sound wanting--generally in terms of the mass education and specifically with respect. skill like writing. Pragmatic discrepancies need asserting, however; they primarily point the way form by reminding us of ideal ways of teaching and. But if some of the theory conflicts with how we students learn to write, then we do indeed have a problem--and a mandate to revise and refine our theory. Recently, for example, Mike Rose of UCLA has argued that rigid adherence to a specified sequence of composing can cause blocking and confusion for student writers. To be fair to learning theory, though, I must acknowledge that it has never abstracted theories about sequence without admitting individual differences, nor has its occasional emphasis on conceptual learning precluded acquisition of skills.

But what happens if a sequence like Moffett's gets interrupted or doesn't start soon enough? College writing programs simply can't count on their students having proceeded through the same sequential writing stages, nor would it be practicable or desirable to cram the entire Moffett sequence into the first college writing course. Moffett himself rejects sequence as the panacea within single courses or for the short range of college programs. Does this then spell doom for sequence at the college level?

Nondevelopmental factors, individual differences, and conflicting curricula may undermine and complicate the notion of sequence, but they don't dispose of it altogether. At this

point, I find it useful to recognize sequence in the microcosm as well as in the macrocosm: not only can we find and establish sequences across writing programs and within specific courses, but we can derive and postulate a general sequence for any writing task. Drawing from the examples of scientists and creative artists, writing specialists have started to treat writing as a kind of problem-solving--one that runs the gamut from preparation and experimentation, through incubation and discovery, to execution and revision. Quite simply, this range reflects the process approach to teaching and learning writing, although it does not necessarily neglect the product. And process is fundamentally an individual matter. So for any given student, working on a given writing task, that sequence may be intuitive or consciously drawn out, a smooth road or a convoluted path that twists and returns upon itself. Directly addressing these stages yet acknowledging individual differences, the writing teacher can thus posit a general notion of sequence at the core of each discrete writing assignment. In a sense, then, every act of writing contributes to a student's growing expertise and helps that student to draw more effectively upon a productive sequence.

Sometimes sequence within and among courses seems to be more important to teachers than it is to students, however. In negative terms, this state of affairs reflects a love of theory for its own sake--with the concomitant reward of a convenient organization of course content or ordering of several courses. More positively, such emphasis indicates an active

interplay between theory and practice that ultimately benefits the students. Recognizing the potential of a sequential curriculum operating at either the positive or negative extreme, Bruner declares, "If it cannot change, move, perturb, inform teachers, it will have no effect on those whom they teach." For the sake of both teachers and students, therefore, we should uncover and support at all stages those sequences that foster the element of discovery. Given the heuristic nature of writing, this element should in fact exist at the core of any of our overall sequences--it's finally just a matter of acknowledging and exploiting it. And if both teachers and students write, then they can together dispel the doing/understanding dichotomy that Bruner asserts is false. By writing frequently and becoming more self-aware writers, students can understand that their own thinking proceeds both analytically and intuitively--confirming and stretching the bounds of sequence.

As long as those who set up sequences know something about learning theory and plan to teach in the programs they devise, we can expect an intelligent application of theory to practice. Bruner provides yet another crucial element: include scholars whose research puts them at the forefront of their field among the curriculum planners. The most advanced scholars of English should know its structure and interrelationships well enough to endorse Bruner's notion of a spiral curriculum, one that can find a way to communicate even the most complex concept at any point in a developmental sequence. Here we have an argument for involving more professors in the teaching of Freshman English.



Perhaps Bruner's theory should be issued as a challenge to professors who want to teach at the end of sequences, not their beginning. Our best teachers are those who meet students where they are and take them furthest along a sequence that is individualized and becomes internalized; so that eventually the student assumes the role of self-teacher.

What light does this discussion about the theory behind sequencing shed on branching, and how can it aid us in fruitfully integrating branching into sequencing? First of all, the theory reminds us of the complex mix of developmental factors and individual differences, of step-by-step procedures and intuitive leaps within specified frameworks. So when some traditional sequences have tried to introduce branching as their answer to the call for individualization, they were responding to a complex issue with more complexity--but often merely adding on another layer of complexity, in effect creating a smokescreen. Secondly, the nontraditional workshop approach is hardly at odds with branching; for example, self-pacing and the use of adjunct courses fit into the larger view of sequence and hence sequential branching. A revitalized concept of branching can support sequencing and individualized instruction by strengthening the ideal behind each and uncovering individual sequences. The mere fact of pluralism does not guarantee that individual differences will be acknowledged and worked with, but branching built into an overall sequential program encourages an increased degree of self-awareness and individual growth.

At this point, I recommend three steps that should integrate branching into sequencing by speaking to the issues of 1) informed alternatives, 2) individualized learning, and 3) the goals of writing sequences. Followed in whole or in part, such steps should enhance the interrelationships among optional, individualized, and sequential writing programs and decrease the threat of their working at cross-purposes.

1) Clarify the structure underlying the writing program and communicate it to the students. This step demands that teachers reexamine their writing programs and realign practice with theory. (Note: it can be disconcerting to clarify a structure, and then discover that it's indefensible--this is likely for those programs offering options without any sense of how they fit into sequential learning.) Unless repetition and practice are sufficient learning tools, such programs will call for revision--adding, deleting, and reordering courses. Once teachers have a defensible program, it needs to be spelled out to students, preferably at the outset of their college career. If students can perceive that their writing program has an overall structure, then they are more likely to recognize its purpose and identify their progress at each stage. And as branching within that sequence becomes available to them, they will be able to make intelligent choices among their options. Ideally, an overall program description and rationale should be distributed to students before they first register for classes. A well-written, sufficiently detailed pamphlet or catalog entry could thus be reconsulted throughout their

four-year period. Of course, such revisions and descriptions should not represent the final word in any curriculum. Regular reviews that reaffirm what is working and reconsider what seems less successful can keep a program healthy. An insightful resource might well be Bruner's "institutes for curriculum studies," which could draw from an interdisciplinary perspective.

2) Consult process as a guide to overall sequence. No matter how incomplete or uncertain a curriculum may be, the individual classroom can provide the model that fills in or extrapolates to the overall run. The sense of skills as sequential is underscored when single papers are ungraded, for instance, and the goal is achieved at the end of the sequence of writing assignments with the awarding of course grades. Meanwhile, on the scale of the specific assignment, awareness of the cumulative stages that a paper moves through points to both the general pattern and individual variation. The inherent individuality in sequence thus emerges concomitantly with a view of its overall structure. To help students internalize their own sequential patterning, writing teachers do well to ask them to write frequently and freely, while to increase students' understanding of what strengths they can build on, teachers need to encourage them to be self-critical, to analyze stages and note intuitive leaps. In this context, neither teachers nor students would be so likely to undermine sequential development by emphasizing the differences branching allows at the expense of cumulative learning.

3) Build toward a final course that unites maturation

and motivation with cumulative skills. To the cumulative expertise that sequence promises, we can add two other factors that time and experience provide: maturation and increased motivation. Maturation is difficult to measure or account for, but working with an upper-division writing class is clearly different, from teaching one at the freshman level, even if they both constitute the "basic" college writing requirement. Increased motivation, especially as it relates to career plans, affects this maturation, but it also creates a separate influx of interest. In Bruner's terms, this is an opportunity to recognize the "readiness" in motivation. That readiness seems to emerge in the junior or senior year, when most students realize they would benefit from another writing course, particularly if it could help them in their academic major and prepare them for the writing in their expected career. This, then, is the appropriate place to regroup--to establish a set of courses that concludes the writing sequence begun when a student enters college. Course content is already partly defined by present and future field of study, and the previous sequence insures a certain continuity and cumulative skills. But course content will differ with field, in effect branching off and reflecting increasingly narrow, more pragmatic applications. Nonetheless, to the degree that this sequential goal is still viewed in light of its full sequence, it will incorporate reverberations from its broader, humanistic base. In this respect, the upper-division writing course that caps a full sequence truly branches out and opens up the full spectrum of past and future learning experiences.

Between sequencing and branching--and within each one as we look more closely--lie several sets of dichotomies: the institution and the individual, regimentation and freedom, theory and practice. But by drawing on these apparent opposites, by encouraging a fluidity between them, I believe we have the grounds for a creative critique of sequencing and branching that is both on-going and constructive.

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