CALCULATORS AND QUALITY: A PARADOX FOR WRITING TEACHERS

Ralph F. Voss

"Why assign a full professor of literature to teach composition?" I have heard a colleague somewhat playfully ask. "That's like assigning an IBM computer to do the job of a pocket calculator." Well, fellow pocket calculators, the problem I hope to define and address here would be a challenge to any computer of any size, and is a challenge to any colleague, regardless of stature. There is a pervasive paradox that conscientious writing teachers must deal with, a paradox more enigmatic than the famous one between content and form in literary criticism, because it must be dealt with at an applied, as well as a theoretical, level. It has its effect upon our work not only in our classroom methodology but also in our systems of evaluating our students and their work, and in the ways we report our success—or lack of it—to administrators, legislators, and other well-meaning but ignorant meddlers who want to measure everything quantitatively.

In the broadest sense, this paradox is the discrepancy between the various structural approaches we use in teaching writing and measuring its effectiveness, and the still-mysterious processes of effective writing itself. Recognizing that writing is a process that moves through various stages is of little help when the realization comes that the stages of the composing process are not purely linear and vary from writer to writer. Most of our textbook methodological descriptions of the composing process are structural, simplified into a linear form to make them clear and coherent, and thus they are inaccurate at best and inadequate and misleading at worst. Moreover, many of the methods we now use to measure or evaluate student writing are also structurally quantifiable and therefore compound these inaccuracies and misconceptions. Writing teachers should resist reducing the composing process to more structural formulae, and oppose the growing influence of quantifiable measures in evaluating writing.

I should clarify what I mean by established structures or structural methodologies. A structure, as I use it here, is any identifiable, describable, pattern or form that can be presented as a formula for writing.
students to employ in the composing process. A well-known example of such a structure is the 5-paragraph essay form. The use of forms is well established in overall educational theory, and in some areas, such as mathematics, they can be especially effective. But using a formula in math is simpler, and more adequate to solving the problem, than using a formula in composing. Putting it another way, it is easier to use a formula to find the area of a triangle than it is to use a formula to generate an essay on human rights. I do not mean that such structures as the 5-paragraph essay format are useless. Most of us have seen positive results when students have used the 5-paragraph format. However, positive is relative; too often it can mean only progress, adequate, or competent, in the barest senses. I will return to the 5-paragraph essay form later. What I want to demonstrate now is how thoroughly structural methodologies and formulae have influenced writing instruction and measurement at all levels of focus in written discourse.

At the basic level of the sentence, structural descriptions and formulae have long had pedagogical influence. Structural grammar, for example, has given us such elementary descriptions as the Subject-Transitive Verb-Object sentence: The dog bit the man. This view of the sentence as a structural series of slots that can be filled with certain classes of words is indeed accurate—as far as it goes—and if I present the formula, I can fill the slots innumerable times with perfectly grammatical, perfectly sensible sentences:

The horse ate the hay.
The boy flew the kite.

However illuminating such structural descriptions or definitions are, they become inadequate when we simply switch the places of the nouns:

The hay ate the horse.
The kite flew the boy.

This illustrates the importance of structure, or form, in this grammatical approach to sentences, and how ultimately the formal, structural description is not adequate: these slots cannot be filled with any nouns—or indeed any verbs, or any part of speech that is not somehow semantically appropriate to the sense of the sentence. The structural slots are important, but what fills those slots is at least equally important. And the same is true of other structural approaches to understanding and
composing sentences.

Take, for another example, the "generative" approach to developing stylistically mature, diverse sentence structures. This method, pioneered by Francis Christensen, has been used by many composition teachers who appreciate the way it encourages students to practice sentences with different levels of complexity. Few will deny that such cumbersome stylistic nomenclature as participial phrase, nominative absolute, appositive and the like are rendered more descriptive and understandable by such terminology as openers, interrupters, and closers. Still, this method is based upon the structure, or form, of the sentences. And consequently, writers may produce forms that are both precise and structurally grammatical, but not finally sensible because of semantic or rhetorical imprecision. "Colorless green ideas slept furiously while the iggle squiggs trazed wombly in the harlish goop." That combination from a couple of popular linguistics textbooks illustrates my point. Familiar textbook cautions against misplaced modifiers also illustrate: "Lying in the gutter, Hannah found her watch." "The meeting will be at the Conference Center located at 10th and Hackberry between 2 and 4 p.m." There is nothing structurally wrong with any of the examples I have just given. But semantically, what is a squigg, besides an apparent noun, and what is trazed, besides an apparent transitive verb? Hannah's reputation is shot if she really was in the gutter when she found her watch, and it is hard to imagine a movable conference center that is located at 10th and Hackberry between the hours of 2 and 4 p.m. only.

In fairness, I should state my awareness that neither Francis Christensen, nor his many adherents who have written textbooks, ever intended to suggest that manipulation of structural sentence elements alone is the key to greater stylistic effectiveness in composing sentences. Their texts urge that ambiguity must be revised out of sentences. But it is at this point that the paradox I'm discussing hampers instruction: How is the ambiguity to be recognized? How edited out? Even more problematically, how do we evaluate, or measure, successful writing beyond purely structural considerations? These questions involve matters that range far beyond structures or forms.

The latest structural approach to composing sentences, sentence combining, offers an improvement of Christensen's techniques. Essentially the process involves providing students with a series of short sentences, or kernals, and having them combine the kernals into one more
complex, single sentence, using whatever deletions, connections, or other transformations that are necessary. The method stresses that several different combinations can by syntactically "correct," and several studies have claimed a high degree of success from classroom practice of sentence combining. Most textbooks which include sentence combining offer exercises for "free" combinations, wherein no suggestions for combination are given, and "signalled" combinations, where combining suggestions or instructions are given beside one or more of the kernals in the series. Here, for example, is a "signalled" series taken from a textbook I have used in a basic writing class:

| Kernal 1 | John complained constantly. (ing) |
| Kernal 2 | John prepared dinner. |
| Kernal 3 | His wife was too busy. (because) |

Students are to incorporate the (ing) and (because) signals into the combination. Clearly, some "correct" results could be:

John, complaining constantly, prepared dinner because his wife was busy.
Complaining constantly, John prepared dinner because his wife was too busy.

Because his wife was too busy, John, complaining constantly, prepared dinner.

And so on. But consider what one of my students wrote:

John complaining constantly while he prepared dinner because his wife was too busy.

Another student wrote:

John complaining constantly about prepared dinner because his wife was too busy.

These were exercises done as part of a post-test at the end of a semester in a basic writing course in which sentence combining technique was a regular, integral part of instruction.

Admitting that most of my students came up with structurally correct combinations (although few of them were punctuated correctly), and admitting that I may not be a very effective teacher (which I permit
myself to doubt), these two errant combinations help point out the inadequacies of the method. Ignoring for a moment the word choice glitches in the two combinations that make them not actually sentences, structural, quantitative measurement by t-units would show both combinations to be more syntactically complex than the individual kernal sentences. But neither combination could really be considered correct, and neither combination could be considered a good combination—only, at most, a good attempt—because the students did not get the right words in the right places. There is no structural, quantifiable measure for the semantic and rhetorical business of getting the right words in the right places, nor can there be; but who would deny that getting the right words in the right places is of vital importance?

The following exercise was on the same post-test:

Kernal 1 It angered Frank.
Kernal 2 The crowd hissed. *(of the + ing)*
Kernal 3 It was unfair. *(because)*

Two of my students produced these combinations:

First student Frank was angry because of the hiss.
Second student It angered Frank of the crowd hissing, because it was unfair.

There is nothing structurally wrong with the first student's combination, nor is there any error of any kind in the sentence: Frank was angry because of the hiss. But the student deleted the crowd that made the hiss, and the notion that the hiss was unfair. The signal to include *(ing)* was ignored, and the *(of the)* and *(because)* signals were placed where they were not intended to be. The net result is an entirely different sentence, with different meaning, and that was not the intent of the exercise. The second student incorporated the signals in the combination, and did not delete elements: It angered Frank of the crowd hissing because it was unfair. But the second student did not get the right words in the right places.

This is not to claim that sentence-combining is an ineffective, bubble-brained enterprise. My point is the paradox: sentence combining is a structural, formulaic method that, by itself, is inadequate for its already limited instructional purpose. Unless a student brings to it knowledge of and concern for the right words in the right places, it is little different from Christensen's method, or even those feeble efforts from
years ago which described compound, complex, and compound-complex sentences as combinations of clauses joined by assorted conjunctions.

And there is more to the paradox at this level than concern for right words in the right places, or concern for semantic maturity, let's call it. In generating more complex sentences, there is a need for rhetorical choices; e.g., subordinating a clause in a sentence is a rhetorical act, a choice based upon the effect that the writer wishes to convey, or the emphasis that the writer wishes to place. In reviewing *Sentence Combining and the Teaching of Writing*, Stephen Witte cites James Kinneavy's observation about some of Donald Daiker's sentence combining demonstrations:

Mr. Daiker made evaluative judgements about the superiority of one [solution to a sentence-combining problem] over others and gave such reasons as "putting the main idea at the end," "building up to a climax," "supports the thesis better," "the word choice is better," etc. Now these criteria are semantic and discourse criteria—not syntactic. And it may be that the most important part of the sentence-combining lessons was not the sentence-combining but the functional teaching of rhetorical principles connected with the sentence exercises. 5

Here, Kinneavy has pinpointed not only a possible flaw in the interpretation of Daiker's information, but also the paradox between structural formulae and the writing process that I am addressing. We have no reliable formulae for cases like this; the writers make those rhetorical choices to suit their purposes. Writing teachers supply seasoned, subjective suggestions, but they do not depend upon prior instruction or practice in sentence combining. Rather, the suggestions have more to do with the revision stage of the composing process.

For the present I want to shift my focus from the paradox at the sentence level to larger units of written discourse. Almost any textbook or teacher can present structural formulae for producing paragraphs and essays. The classic expository paragraph is often described structurally as consisting of a topic sentence, followed by several sentences that particularize about the topic sentence, ending in a kind of summative sentence. I recall a formula for topic sentences in such paragraphs: S-A-P-T. Every topic sentence (or so the formula held), has S and A, i.e., a Subject (S) and an Attitude (A) expressed about the subject. This combination guarantees that something will be said about something. And sure enough: "Indiana should win this year's NCAA tournament in
That topic sentence not only offers a subject and an attitude, but also a Place (P) and Time (T), the two optional parts of the formula, both of which further guarantee particular details. This formula is similar to the “Commitment-Response” formula for expository paragraphs popularized by Robert Gorrell and Charlton Laird.6

If all expository paragraphs could be reliably described as having such identifiable characteristics as these, such structural formulae would be less perplexing for students and teachers than they are. But the only paragraphs which seem to fit such descriptions are those written by students assigned to write single paragraphs in such form, or textbook writers who promulgate the forms. In fact, very few paragraphs written by published writers fit the formulaic description. Even the textbooks occasionally acknowledge that a topic sentence might come anywhere in the paragraph. And in essays, some paragraphs might not even have what could arguably be called a topic sentence—let alone a concluding, summative one. In such cases, the product and the process of writing do not reflect popular, given structural formulae for composition.7 Even granting that such formulae, when used for practice, can give useful form to student writing—organizational coherence that all their writing should strive for—the inadequacies cannot be denied. Therefore, insistence on their use can severely limit the possibilities that students might otherwise discover for arranging their writing. The truncating of possibilities also occurs at the essay level of written discourse when the 5-paragraph essay format is over-emphasized.

No teacher can teach composition for long without encountering the 5-paragraph essay format. Structurally, it is similar to the classic expository paragraph formula, with thesis or control sentence supplanting topic sentence; and three points given in support or elaboration of the thesis/control sentence, each point becoming the topic sentence of three internal paragraphs; and a concluding, usually summative, paragraph. “Tell them what you're going to say, say it, then tell them what you said,” as an old speech class formula has it. Such a minimum approach does a disservice to the composing process, the students, and to us as writing teachers.

Naturally, the approach has some benefits. For students who can’t find an organizational “handle,” and who have trouble thinking about their subject, the structural model forces them to think, either first of all about a thesis or control sentence, or about reasons, or characteristics, that would support a thesis or offer particulars about a control sentence.
But here the form can begin to cause problems. What if a student can think of more than three points? Just add a fourth internal paragraph? Perhaps, but what if the point can be covered with one sentence? Or what if the new point is not as significant as the others? These can be complex questions, not easily accommodated by the tyranny of the structure. It is good if students push for answers to such questions, for such pushing can result in invention. But if the 5-paragraph essay format does have heuristic value, it is clearly—and severely—limited. It simply will not suffice. The material of content can quickly become too complex for the form.

I have a student this term whose work demonstrates the limitations of the 5-paragraph essay structure, which he apparently learned as a completely reliable formula. All three of his papers so far have doggedly followed the structure, even though I cautioned him about relying upon it. I do not intend ridicule of my student here; he is a hard worker who struggles a bit in this second semester freshman course in which I must, alas, also introduce study of the literary genres. He writes with few of the more confounding problems of many basic writers. But his most recent paper, a character analysis of Sganarelle in Molière’s The Physician in Spite of Himself, shows the extent to which the 5-paragraph formula limits his approach to and development of the subject. After a direct statement that Sganarelle is a completely selfish, unprincipled person, he offers this sentence which maps the territory ahead: “The three incidents which best illustrate Sganarelle’s personality are when he is quarrelling with his wife, when he decides to become a doctor, and when he meets Jacqueline, the nurse.” What follows is a generally well controlled essay with comparatively few technical errors, all elaborating these three scenes. But nowhere does he discuss the comic elements of Sganarelle’s character. He does not even explore what he admitted to me in conference—that despite some of Sganarelle’s actions and apparent motives, he isn’t really all that detestable a character. When I suggested that humor dominates the characterization, and moreover cited scenes and actions which show Sganarelle in a much less severe light, the student said, “Yes, but I couldn’t work that in.” He couldn’t work it in because his formula took precedence over everything else, including what he himself knew about the play. My student is still reluctant to abandon the formula, but I have hopes for his next paper.

By now I hope I have shown that many structural formulae for learning to write, from the sentence level to the level of whole discourse,
are inadequate for the total task, and misleading when they are adopted as a primary or exclusive means of instruction or practice. Structures, finally, are only structures, forms into which content must be filled. What fills these structures are intangible parts of the composing process, matters of prior knowledge, understanding, and memory; matters of reason and logic, of rhetorical choice and arrangement; matters of creativity, that no structural formula for composing can deliver by itself. Students must be able to read, and read well. They must know what they intend to say, or discover it in processes of thought and/or drafting.

The recent interest in and emphasis upon the invention stage of composing stems from the tacit recognition of this paradox. Since structures aren't enough, there's more concern about discovering how to fill the structures, or how to invent other structures. Heuristics can help students generate more information and decide how to use it. Ironically, a heuristic is another formula, usually a set of probing questions, but heuristic formulae are direct assists to thought, not to literal pen-to-paper composing. Sentence combining, expository paragraph models, and the 5-paragraph essay form are structural techniques that derive from looking at compositions as finished products—arranging or rearranging with some notion of what the completed writing should look like. But invention derives from knowledge that is already possessed by the writer, or knowledge that can be found by the writer. It does not depend upon a particular notion of form or structure; it can tap a student's creative abilities. Writing teachers at all levels, then, should stress invention more and formulaic, quantifiable structures less. More writing classes should operate as workshops, where students write almost constantly, with both peer and instructor feedback. Writing teachers should be reading teachers, too, with their students reading widely, inquisitively, and critically. Students will not develop semantic maturity and rhetorical efficiency in their writing unless they are good readers. These suggestions are easier to make than carry out, but they should be implemented at all levels.

Most important, I urge that we should not retreat into emphasizing our structures despite gathering outside pressure to do just that. The kinds of structures I have been criticizing have quantifiable, measurable characteristics because they are structure-based and not content-based. We can measure t-units, and thereby measure a gain or growth in apparent complexity in our student's sentences. The gain could be spurious, of course, because we cannot quantify quality; but such a reported gain can make our students—and us—look better in the eyes of administrators,
legislators, parents, and other inexpert critics. Our culture is plagued with a quantitative mentality. If we can produce more of whatever we’re measuring, we fancy that we’re getting better. More words per t-unit means better writing by such a yardstick. But writing and its instruction cannot really be reduced to quantifiable measure without reducing everything else; when minimum, measurable competencies become the goals of our efforts, all instruction is reduced; all possibilities of writing for our students are reduced.

I can illustrate this potential reduction in more ways than counting words per t-unit. Probably the most serious difficulty with the 5-paragraph essay format stems from its widespread use in basic writing classes and programs where success, i.e., exit from the program, depends upon passing a holistically evaluated written essay. Not only is the 5-paragraph essay format a limited, and limiting, form which must be filled; it is also too often seen as the end, the goal, of the instructional effort and student writing practice. I have taught in the University of Georgia system, where students have to pass a written essay before their junior year, regardless of their major, in order to continue working on their degrees. These essays are critically important in the careers of the students, and predictably, the exam is controversial.8 Virtually every school in the system offers a special course in preparation for the exam, and many of the 2-year colleges in the system include preparation for the exam as a basic part of their regular freshman composition courses. The 5-paragraph essay form is the principal organizational structure taught. And taught. Drilled, one might even say. Unfortunately, writing programs in institutions tend to be evaluated within the system according to how many of their students pass this essay, and so minimum, measurable quantity again clobbers quality, not only on the level of instruction, but also on the level of program evaluation. Teachers teach the simplest, most limited forms, and hope significant numbers of their students will pass the essay. Scores of students try to master the one form only, and seek not to become better writers but simply to pass the exam. Reduction. Counting t-units. Rapid scanning of piles of essays for thesis sentences, three supporting points, smooth endings. Such is work for a pocket computer, sure enough—but the real work and challenge of the writing teacher have precious little to do with what can be measured by computers of any size.

University of Alabama
University, Alabama
NOTES


2For a thorough look at sentence combining and the claims made for it by various researchers, see Donald A. Daiker, Andrew Kerek and Max Morenberg, eds., Sentence Combining and the Teaching of Writing, (Akron, Ohio: University of Akron, 1979).


4 A t-unit is “one main clause plus any subordinate clause or nonclausal structure that is attached or embedded in it.” Kellogg W. Hunt, Syntactic Maturity in School Children and Adults, 35, No. 1, Monographs for the Society for Research in Child Development (Chicago: University of Chicago Press, 1970), p. 4. Professor Hunt’s research indicates that a student’s growth in syntactic maturity is best measured by the growth in length, or number of words, per t-unit, because the t-unit measure incorporates various types of complex subordination or embedding that would not necessarily be reflected in a simple word count per punctuated sentence.


