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College Composition and Communication, Vol. 33, No. 1 (Feb., 1982), 76-88.

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The Winds of Change: Thomas Kuhn and the Revolution in the Teaching of Writing

Maxine Hairston

In 1963, the University of Chicago Press published a book titled *The Structure of Scientific Revolutions*, written by Thomas Kuhn, a University of California professor of the history of science. In the book Kuhn hypothesizes about the process by which major changes come about in scientific fields, and conjectures that they probably do not evolve gradually from patient and orderly inquiry by established investigators in the field. Rather, he suggests, revolutions in science come about as the result of breakdowns in intellectual systems, breakdowns that occur when old methods won't solve new problems. He calls the change in theory that underlies this kind of revolution a *paradigm shift*. I believe we are currently at the point of such a paradigm shift in the teaching of writing, and that it has been brought about by a variety of developments that have taken place in the last 25 years.

Briefly, Kuhn's thesis in *The Structure of Scientific Revolutions* is this.

When a scientific field is going through a stable period, most of the practitioners in the discipline hold a common body of beliefs and assumptions; they agree on the problems that need to be solved, the rules that govern research, and on the standards by which performance is to be measured. They share a conceptual model that Kuhn calls a paradigm, and that paradigm governs activity in their profession. Students who enter the discipline prepare for membership in its intellectual community by studying that paradigm.

But paradigms are not necessarily immutable. When several people working in a field begin to encounter anomalies or phenomena that cannot be explained by the established model, the paradigm begins to show signs of instability. For a while, those who subscribe to the paradigm try to ignore the contradictions and inconsistencies that they find, or they make improvised, *ad hoc* changes to cope with immediate crises. Eventually, however, when enough anomalies accumulate to make a substantial number of scientists in the field question whether the traditional paradigm can solve many of the serious problems that face them, a few innovative thinkers will devise a new model. And if enough scientists become convinced that the new paradigm works better than the old one, they will accept it as the new norm.

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This replacement of one conceptual model by another one is Kuhn's *paradigm shift*. He cites as classic examples the astronomers' substitution of the Copernican model of the solar system for the Ptolemaic model and the development of Newtonian physics. Such shifts are usually disorderly and often controversial, and the period in which they occur is apt to be marked by insecurity and conflict within the discipline.

Kuhn believes that because these shifts are so disruptive, they will occur only when the number of unsolved problems in a discipline reaches crisis proportions and some major figures in the field begin to focus on those unsolved problems. But even with mounting evidence that their conceptual model doesn't work, supporters of the traditional paradigm resist change because they have an intellectual and sometimes emotional investment in the accepted view. They particularly resist abandoning the conventional textbooks that set forth the precepts of their discipline in clear and unqualified terms. Those texts, as Richard Young points out in his essay, "Paradigms and Problems: Needed Research in Rhetorical Theory," are usually so similar that one way to discover the traditional paradigm of a field is to examine its textbooks.¹

Finally, however, most of the resistance to the new paradigm will dissipate when its advocates can demonstrate that it will solve problems that the traditional paradigm could not solve. Most of the new generation of scholars working in the field will adopt the new model, and the older practitioners will gradually come around to it. Those who cling to the old paradigm lose their influence in the field because the leaders in the profession simply ignore their work. When that happens, the paradigm shift is complete, and the theory that was revolutionary becomes conventional.

This summary of Kuhn's book is sketchy and too simple, but I think it accurately reflects the key points in his theory. When he developed the theory, he considered only the so-called hard sciences, particularly chemistry, astronomy, and physics. He did not claim or even suggest that his model for scientific revolution could or should apply to social sciences or the humanities, where research is not done in laboratories and usually does not involve measurements or formulas. Nevertheless, I believe that composition theorists and writing teachers can learn from Thomas Kuhn if they see his theory of scientific revolutions as an analogy that can illuminate developments that are taking place in our profession. Those developments, the most prominent of which is the move to a process-centered theory of teaching writing, indicates that our profession is probably in the first stages of a paradigm shift.

The Current-Traditional Paradigm and Its Proponents

In order to understand the nature of that shift, we need to look at the principal features of the paradigm that has been the basis of composition

teaching for several decades. In "Paradigms and Patterns" Richard Young describes it this way:

The overt features . . . are obvious enough: the emphasis on the composed product rather than the composing process; the analysis of discourse into description, narration, exposition, and argument; the strong concern with usage . . . and with style; the preoccupation with the informal essay and research paper; and so on.²

Young adds that underlying the traditional paradigm is what he calls the "vitalist" attitude toward composing: that is, the assumption that no one can really teach anyone else how to write because writing is a mysterious creative activity that cannot be categorized or analyzed.

In an article in the Winter, 1980, *Freshman English News* James Berlin and Robert Inkster ascribe other features to the conventional paradigm. Basing their conclusions on an analysis of repeated patterns in four well-known and commercially successful rhetoric texts, they add that the traditional paradigm stresses expository writing to the virtual exclusion of all other forms, that it posits an unchanging reality which is independent of the writer and which all writers are expected to describe in the same way regardless of the rhetorical situation, that it neglects invention almost entirely, and that it makes style the most important element in writing.³

I would make three other points about the traditional paradigm. First, its adherents believe that competent writers know what they are going to say before they begin to write; thus their most important task when they are preparing to write is finding a form into which to organize their content. They also believe that the composing process is linear, that it proceeds systematically from prewriting to writing to rewriting. Finally, they believe that teaching editing is teaching writing.

It is important to note that the traditional paradigm did not grow out of research or experimentation. It derives partly from the classical rhetorical model that organizes the production of discourse into invention, arrangement, and style, but mostly it seems to be based on some idealized and orderly vision of what literature scholars, whose professional focus is on the written product, seem to imagine is an efficient method of writing. It is a prescriptive and orderly view of the creative act, a view that defines the successful writer as one who can systematically produce a 500-word theme of five paragraphs, each with a topic sentence. Its proponents hold it *a priori*; they have not tested it against the composing processes of actual writers.

At this point some of my readers may want to protest that I am belaboring a dead issue—that the admonition to "teach process, not product" is now conventional wisdom. I disagree. Although those in the vanguard of the profession have by and large adopted the process model for teaching composition and are now attentively watching the research on the composing process in order to extract some pedagogical principles from it, the overwhelming majority of college writing teachers in the United States are not professional

writing teachers. They do not do research or publish on rhetoric or composition, and they do not know the scholarship in the field; they do not read the professional journals and they do not attend professional meetings such as the annual Conference on College Communication and Composition; they do not participate in faculty development workshops for writing teachers. They are trained as literary critics first and as teachers of literature second, yet out of necessity most of them are doing half or more of their teaching in composition. And they teach it by the traditional paradigm, just as they did when they were untrained teaching assistants ten or twenty or forty years ago. Often they use a newer edition of the same book they used as teaching assistants.

Out of necessity, apathy, and what I see as a benighted and patronizing view of the essential nature of composition courses, English department administrators encourage this unprofessional approach to the teaching of writing. In the first place, they may believe that they have so many writing classes to staff that they could not possibly hire well-qualified professionals to teach them; only a comparatively few such specialists exist. Second, most departmental chairpersons don't believe that an English instructor needs special qualifications to teach writing. As one of my colleagues says, our department wouldn't think of letting her teach Chaucer courses because she is not qualified; yet the chairman is delighted for her to teach advanced composition, for which she is far more unqualified. The assumption is that anyone with a Ph.D. in English is an expert writing teacher.

I think, however, that the people who do most to promote a static and unexamined approach to teaching writing are those who define writing courses as service courses and skills courses; that group probably includes most administrators and teachers of writing. Such a view, which denies that writing requires intellectual activity and ignores the importance of writing as a basic method of learning, takes away any incentive for the writing teacher to grow professionally. People who teach skills and provide services are traditionally less respected and rewarded than those who teach theory, and hiring hordes of adjuncts and temporary instructors and assigning them to composition courses reinforces this value system. Consequently there is no external pressure to find a better way to teach writing.

In spite of this often discouraging situation, many teachers who cling to the traditional paradigm work very hard at teaching writing. They devote far more time than they can professionally afford to working with their students, but because they haven't read Elbow or Bruffee they have no way of knowing that their students might benefit far more from small group meetings with each other than from the exhausting one-to-one conferences that the teachers hold. They both complain and brag about how much time they spend meticulously marking each paper, but because they haven't read Diederich or Irmischer they don't know that an hour spent meticulously marking every error in a paper is probably doing more harm than good. They are exhausting

themselves trying to teach writing from an outmoded model, and they come to despise the job more and more because many of their students improve so little despite their time and effort.

But the writing teacher's frustration and disenchantment may be less important than the fact that if they teach from the traditional paradigm, they are frequently emphasizing techniques that the research has largely discredited. As Kuhn points out, the paradigm that a group of professionals accepts will govern the kinds of problems they decide to work on, and that very paradigm keeps them from recognizing important problems that cannot be discussed in the terminology of their model. Thus teachers who concentrate their efforts on teaching style, organization, and correctness are not likely to recognize that their students need work in invention. And if they stress that proofreading and editing are the chief skills one uses to revise a paper, they won't realize that their students have no concept of what it means to make substantive revisions in a paper. The traditional paradigm hides these problems.

Textbooks complicate the problem further. As Kuhn repeatedly points out, the standard texts in any discipline constitute a major block to a paradigm shift because they represent accepted authority. Many, though certainly not all, of the standard textbooks in rhetoric and composition for the past two decades have been product-centered books that focus on style, usage, and argumentation; Sheridan Baker's *The Practical Stylist* and Brooks and Warren's *Modern Rhetoric* are typical examples. When Donald Stewart made an analysis of rhetoric texts three years ago, he found that only seven out of the thirty-four he examined showed any awareness of current research in rhetoric. The others were, as he put it, "strictly current-traditional in their discussions of invention, arrangement, and style."⁴ And textbooks change slowly. Publishers want to keep what sells, and they tend to direct the appeals of their books to what they believe the average composition teacher wants, not to what those in the vanguard of the profession would like to have.

Signs of Change

Nevertheless, changes are under way, and I see in the current state of our profession enough evidence of insecurity and instability to suggest that the traditional prescriptive and product-centered paradigm that underlies writing instruction is beginning to crumble. I think that the forces contributing to its demise are both theoretical and concrete and come from both inside and outside of the profession. Changes in theory probably started, in the middle 1950's, from intellectual inquiry and speculation about language and language learning that was going on in several fields, notably linguistics, anthropology, and clinical and cognitive psychology. To identify and trace all these complex developments would go far beyond the scope of this article and beyond my current state of enlightenment. I can only touch on some of them here.

Probably one of the most important developments to affect writing theory was the publication of Noam Chomsky's *Syntactic Structures* in 1957. His theory of transformational grammar, with its insistent look at the rules by which language is generated, caused a new focus on the process by which language comes into being.* The publication of Francis Christensen's essays on the generative rhetoric of the sentence and the paragraph in the early 1960's also stimulated new interest in the processes by which writers produce texts. Certainly the tagmemicists also provoked a fresh look at the act of writing when they urged writers to generate ideas by thinking about subjects from a dynamic, three-faceted perspective. And when the humanistic psychologist Carl Rogers began to criticize behaviorist psychology just as Chomsky had criticized behaviorist theories of language, he probably hastened the shift away from product-response evaluation of writing.

A major event that encouraged the shift of attention to the process of writing was the famous Anglo-American Seminar on the Teaching of English, held at Dartmouth College in the summer of 1966. In the final report of this gathering of eminent educators from Britain and the United States, the participants de-emphasized the formal teaching of grammar and usage in the classroom and emphasized having children engage directly in the writing process in a non-prescriptive atmosphere.

So the intellectual climate conducive to this change has been developing for more than two decades. Of course, if these shifts in theory and attitudes were the only forces that were putting pressure on the traditional approach to teaching writing, revolution in the profession would probably be long in coming. But other concrete and external forces have also been putting pressure on writing teachers. These teachers are plagued by embarrassing stories about college graduates who can't pass teacher competency tests, and by angry complaints about employees who can't write reports. And the professors agree. Their students come to them writing badly and they leave writing badly. Handbooks won't solve their problems, and having them revise papers does no good.

Worse, just at this time when they are most disheartened about teaching writing, large numbers of English professors are beginning to realize that most of them are going to be teaching a lot of writing to a lot of students from now on. The prospect is grim, so grim that the English departments at Harvard and the University of Michigan have given up and turned the bulk of their composition teaching over to specialists outside the departments. But most professors can't do that, and instead they feel insecure and angry because they know they are teaching badly. In Kuhn's terminology, their methods have become anomalous; the system that they have always depended on no longer seems to work.

But why should the paradigm begin to break down just now? After all, as

*I am indebted to my colleague Stephen Witte for bringing this development to my attention.

Richard Young points out, thousands of people have learned to write by the trial-and-error method of producing a text and having it criticized. Why shouldn't that slow, but often effective, method continue to work most of the time? Once more, I think, Kuhn has the answer. He says, "One need look no further than Copernicus and the calendar to discover that external conditions may help to transform a mere anomaly into a source of acute crisis."⁵ I believe that the external conditions which have hastened the crisis in the teaching of writing are open admissions policies, the return to school of veterans and other groups of older students who are less docile and rule-bound than traditional freshmen, the national decline in conventional verbal skills, and the ever larger number of high school graduates going on to college as our society demands more and more credentials for economic citizenship. Any instructional system would come close to collapse under such a strain, and our system for teaching writing has been particularly vulnerable because it has been staffed largely by untrained teachers who have had little scholarly interest in this kind of teaching.

Following the pattern that Kuhn describes in his book, our first response to crisis has been to improvise *ad hoc* measures to try to patch the cracks and keep the system running. Among the first responses were the writing labs that sprang up about ten years ago to give first aid to students who seemed unable to function within the traditional paradigm. Those labs are still with us, but they're still giving only first aid and treating symptoms. They have not solved the problem. Another *ad hoc* remedy took the form of individualized instruction, but it has faded from the scene along with computer-assisted instruction. The first was too costly and too isolated, the second one proved too limited and impersonal. And the experiments with expressive writing also turned out to be *ad hoc* measures, although for a while they seemed to have enough strength to foreshadow a paradigm shift. Sentence combining, I predict, will prove to be another *ad hoc* measure that serves as only a temporary palliative for serious writing problems.

All these remedies have proved temporarily or partially useful; none, however, has answered the crucial question: what is the basic flaw in the traditional paradigm for teaching writing? Why doesn't it work?

The Transition Period

Someone who cares has to ask that question before the revolution can start because, as Kuhn points out, "novelty ordinarily emerges only for the man who, knowing *with precision* what he should expect, is able to recognize that something has gone wrong."⁶ In the teaching of composition, the essential person who asked that question may not have been a man, but a woman, Mina Shaughnessy. In her book *Errors and Expectations*, Shaughnessy describes the educational experience that made her, a professor at a prestigious university, stop to ask, "What went wrong?"

In the spring of 1970, the City University of New York adopted an admissions policy that guaranteed to every city resident with a high school diploma a place in one of its eighteen tuition-free colleges, thereby opening its doors not only to a larger population of students than it had ever had before . . . but to a wider range of students than any college had probably ever admitted or thought of admitting to its campus. . . .

One of the first tasks these students faced when they arrived at college was to write a placement essay. . . . Judged by the results of these tests, the young men and women who were to be known as open admissions students fell into one of three groups: 1. Those who met the traditional requirements for college work, who appeared from their tests . . . to be able to begin at the traditional starting points; 2. those who had survived their secondary schooling . . . and whose writing reflected a flat competence; 3. [those] who had been left so far behind the others in their formal education that they appeared to have little chance of catching up, students whose difficulties with the written language seemed of a different order from those of other groups, as if they had come, you might say, from a different country.

. . . The third group contained true outsiders, . . . strangers in academia, unacquainted with the rules and rituals of college life, unprepared for the sorts of tasks their teachers were about to assign them. . . .

Not surprisingly, the essays these students wrote during their first weeks of class stunned the teachers who read them. Nothing, it seemed, short of a miracle was going to turn such students into writers. . . . To make matters worse, there were no studies nor guides, nor even suitable textbooks to turn to. Here were teachers trained to analyze the belletristic achievements of the ages marooned in basic writing classrooms with adult student writers who appeared by college standards to be illiterate.⁷

Relying on their previous experience with selectively-admitted students at the City University, Shaughnessy and her colleagues thought they knew what to expect from "college writers." The shock of facing a kind of writing that fit no familiar category, that met no traditional standards, forced Shaughnessy, at least, to recognize an anomaly. If these students had come through schools in which writing had been taught with standard textbooks and standard methods, then one had to conclude that the method and the textbooks did not work, at least not for a substantial and important group of students. The question was, "Why?"

To find the answer, Shaughnessy analyzed the placement essays of 4000 students and over a period of five years worked at trying to get at the roots of their problems and devise a way to overcome them. Eventually she became persuaded

. . . that basic writers write the way they do, not because they are slow or non-verbal, indifferent to or incapable of academic excellence, but because they are beginners and must, like all beginners, learn by making mistakes. . . . And the keys to their development as writers often lie in the very features of their writing that English teachers have been trained to brush aside with a marginal code letter or a scribbled injunction to "Proofread!" Such strategies ram at the doors of their incompetence

while the keys that would open them lie in view. . . . The work [of teaching these students to write] must be informed by an understanding not only of what is missing or awry, but of *why this is so*.⁸ (italics added)

Shaughnessy's insight is utterly simple and vitally important: we cannot teach students to write by looking only at what they have written. We must also understand *how* that product came into being, and *why* it assumed the form that it did. We have to try to understand what goes on during the internal act of writing and we have to intervene during the act of writing if we want to affect its outcome. We have to do the hard thing, examine the intangible process, rather than the easy thing, evaluate the tangible product.

Although Shaughnessy was not the first investigator to try to move behind students' written products and find out how those products came into being—Janet Emig and Charles Stallard had both done limited studies at about the same time as Shaughnessy, and James Britton and his colleagues in Great Britain were working on a very ambitious study of the development of writing abilities—she was the first to undertake a large-scale research project whose goal was to find practical ways to teach the new students of the seventies to write. Her example, her book, and her repeated calls for new research in composition have undoubtedly been important stimuli in spurring the profession's search for a new paradigm.

Others in the profession have also given impetus to the search. In 1968 a journalist and professor named Donald Murray published a book called *A Writer Teaches Writing*, in which he suggests that if we want to teach students to write, we have to initiate them into the process that writers go through, not give them a set of rules. He insists that writers find their real topics only through the act of writing. In fact, Murray may have originated the admonition, "Teach Writing as Process, Not Product" in a 1972 article by that title.⁹ A resurgence of interest in classical rhetoric in the seventies also sparked interest in a new approach to the teaching of writing. The books by rhetoricians Richard Weaver and Edward P. J. Corbett provided the theoretical foundations for the view that writing can not be separated from its context, that audience and intention should affect every stage of the creative process. When this premise became widely accepted at major universities—for example, the University of Iowa and the University of Texas—it inevitably put strains on the old product-centered paradigm.

Another major influence on the teaching of writing across the nation has come from California's Bay Area Writing Project, initiated in 1975. A cardinal principle of that project has been the revolutionary thesis that all writing teachers should write in order to understand the writing process first-hand. When teachers began to do so, the traditional textbook model for writing inevitably came into question. And as spin-offs of the Bay Area Writing Project have proliferated across the country, largely funded by grant money donated by agencies and foundations alarmed about the writing crisis, a growing number of teachers are changing to process-centered writing instruction.

The Emerging Paradigm

But the most promising indication that we are poised for a paradigm shift is that for the first time in the history of teaching writing we have specialists who are doing controlled and directed research on writers' composing processes. Sondra Perl of Herbert Lehman College of the City University of New York and Linda Flower and John Hayes of Carnegie-Mellon University are tape recording students' oral reports of the thoughts that come to them as they write and of the choices they make. They call their investigative strategy "protocol analysis," and they supplement it with interviews and questionnaires to put together composite pictures of the processes followed by working writers. Sharon Pianko of Rutgers University has done a study in which she matched groups of traditional and remedial writers, men and women writers, and 18-year-old and adult writers and compared their composing habits. Nancy Sommers of New York University has done a study comparing the revising practices of college freshmen and experienced professional writers, and Lester Faigley and Stephen Witte of the University of Texas now have a federal grant to do a more comprehensive study on revising. (An article based on this study appeared in the December, 1981, issue of *CCC*.) Lee Odell of Rensselaer Polytechnic Institute and Dixie Goswami are currently involved in a federally-funded study of the practices of writers in business.

From these and other studies we are beginning to find out something about how people's minds work as they write, to chart the rhythm of their writing, to find out what constraints they are aware of as they write, and to see what physical behaviors are involved in writing and how they vary among different groups of writers. So far only a small amount of data have been collected, and the inferences we can draw from the studies are necessarily tentative. As Linda Flower puts it, because we are trying to chart and analyze an activity that goes on largely out of sight, the process is rather like trying to trace the path of a dolphin by catching glimpses of it when it leaps out of the water. We are seeing only a tiny part of the whole process, but from it we can infer much about what is going on beneath the surface.¹⁰

What are we finding out? One point that is becoming clear is that writing is an act of discovery for both skilled and unskilled writers; most writers have only a partial notion of what they want to say when they begin to write, and their ideas develop in the process of writing. They develop their topics intuitively, not methodically. Another truth is that usually the writing process is not linear, moving smoothly in one direction from start to finish. It is messy, recursive, convoluted, and uneven. Writers write, plan, revise, anticipate, and review throughout the writing process, moving back and forth among the different operations involved in writing without any apparent plan. No practicing writer will be surprised at these findings: nevertheless, they seriously contradict the traditional paradigm that has dominated writing textbooks for years.

But for me the most interesting data emerging from these studies are those that show us profound differences between the writing behaviors of skilled and unskilled writers and the behaviors of student and professional writers. Those differences involve the amount of time spent on writing, the amount of time preparing to write, the number of drafts written, the concern for audience, the number of changes made and the stages at which they are made, the frequency and length of pauses during writing, the way in which those pauses are used, the amount of time spent rereading and reformulating, and the kind and number of constraints that the writers are aware of as they work. This kind of information enables us to construct a tentative profile of the writing behaviors of effective writers; I have sketched such a profile in another paper, not yet published.

From all this activity in the field, the new paradigm for teaching writing is emerging. Its principal features are these:

1. It focuses on the writing process; instructors intervene in students' writing during the process.
2. It teaches strategies for invention and discovery; instructors help students to generate content and discover purpose.
3. It is rhetorically based; audience, purpose, and occasion figure prominently in the assignment of writing tasks.
4. Instructors evaluate the written product by how well it fulfills the writer's intention and meets the audience's needs.
5. It views writing as a recursive rather than a linear process; pre-writing, writing, and revision are activities that overlap and intertwine.
6. It is holistic, viewing writing as an activity that involves the intuitive and non-rational as well as the rational faculties.
7. It emphasizes that writing is a way of learning and developing as well as a communication skill.
8. It includes a variety of writing modes, expressive as well as expository.
9. It is informed by other disciplines, especially cognitive psychology and linguistics.
10. It views writing as a disciplined creative activity that can be analyzed and described; its practitioners believe that writing can be taught.
11. It is based on linguistic research and research into the composing process.
12. It stresses the principle that writing teachers should be people who write.

Portents for the Future

I believe that important events of the recent past are going to speed the revolution and help to establish this new paradigm in the nation's classrooms.

First, the University of Iowa's Writing Institute, which received a \$680,000 grant from the National Endowment for the Humanities to train freshman composition directors, has this year completed its work and sent out forty administrators for writing programs who will almost certainly base those programs on the new model. They are bound to have a profound influence on their institutions.

Second, graduate programs in rhetoric are rapidly increasing across the country. The last count in the Spring, 1980, *Freshman English News* showed that fifty-three institutions have added graduate rhetoric courses since 1974, and that was not a complete list. Enrollment in these programs is climbing because students realize that English departments now offer more jobs in rhetoric and composition than in any other specialization. Most of these programs are going to produce young professionals who have been taught by scholars who know recent research and are committed to the new paradigm: Richard Young, Ross Winterowd, Joseph Comprone, James Kinneavy, Andrea Lunsford, Elizabeth Cowan, Linda Flower, to name just a few. When these new graduates go into English departments where the traditional paradigm prevails, they are certain to start working for change.

Third, in many schools, even graduate assistants who are in traditional literary programs rather than rhetoric programs are getting their in-service training from the rhetoric and composition specialists in their departments. They are being trained in process-centered approaches to the teaching of composition, and when they enter the profession and begin teaching lower-division writing courses along with their literary specialities, they are most likely to follow the new paradigm. And, more and more, the methods courses for high-school teachers are also being taught by the rhetoric specialists; that change will have a profound effect on secondary school teaching.

Fourth, we now have process-based texts on the teaching of writing. Shaughnessy's *Errors and Expectations* is well known and widely used. It has been joined by Irmscher's *Teaching Expository Writing* and Neman's *Teaching Students to Write*. The authors of both these latter books incorporate research findings and recent developments in the profession into their philosophies of and methodologies for teaching writing.

Fifth, college composition textbooks are changing. Along with their traditional books, most publishers are now publishing at least one process-oriented, rhetorically-based writing text. Several are now on the market and more are forthcoming, most of them written by scholars and teachers who are leaders in the profession. Moreover, many major publishing houses now retain well-known composition specialists to advise them on manuscripts. The publishers sense change in the wind and realize that the new crop of well-informed and committed writing program directors who will be taking over are going to insist on up-to-date textbooks. The change will even reach into some high schools because one large company has hired one of the country's leading rhetoricians to supervise and edit their high school composition series. Many others will probably follow their example.

But no revolution brings the millenium nor a guarantee of salvation, and we must remember that the new paradigm is sketchy and leaves many problems about the teaching or writing unresolved. As Kuhn points out, new paradigms are apt to be crude, and they seldom possess all the capabilities of their predecessors. So it is important for us to preserve the best parts of earlier methods for teaching writing: the concern for style and the preservation of high standards for the written product. I believe we also need to continue giving students models of excellence to imitate.

Kuhn contends that "the transition between competing paradigms cannot be made a step at a time, forced by logic. . . . Like the gestalt switch, it must occur all at once (though not necessarily in an instant) or not at all."¹¹ He says, however, that, "if its supporters are competent, they will improve it [the paradigm], explore its possibilities, and show what it would be like to belong to the community guided by it."¹² I see this last opportunity as the challenge to today's community of composition and rhetoric scholars: to refine the new paradigm for teaching composition so that it provides a rewarding, productive, and feasible way of teaching writing for the non-specialists who do most of the composition teaching in our colleges and universities.

Notes

1. Richard Young, "Paradigms and Problems: Needed Research in Rhetorical Invention," *Research in Composing*, ed. Charles Cooper and Lee Odell (Urbana, Illinois: National Council of Teachers of English, 1978), p. 31.

2. Young, p. 31.

3. James A. Berlin and Robert P. Inkster, "Current-Traditional Rhetoric: Paradigm and Practice," *Freshman English News*, 8 (Winter, 1980), 1-4, 13-14.

4. Donald Stewart, "Composition Textbooks and the Assault on Tradition," *College Composition and Communication*, 29 (May, 1978), 174.

5. Thomas Kuhn, *The Structure of Scientific Revolutions*, Second Edition (Chicago: University of Chicago Press, 1970), p. x.

6. Kuhn, p. 65.

7. Mina Shaughnessy, *Errors and Expectations* (New York and London: Oxford University Press, 1977), pp. 1-3.

8. Shaughnessy, p. 5.

9. Donald Murray, "Teach Writing As Process, Not Product," in *Rhetoric and Composition*, ed., Richard L. Graves (Rochelle Park, New Jersey: Hayden Book Company, 1976), pp. 79-82.

10. Linda Flower and John Hayes, "Identifying the Organization of the Writing Processes," *Cognitive Processes in Writing*, ed., Lee W. Gregg and Erwin R. Steinberg (Hillsdale, NJ: Lawrence Erlbaum Associates, 1980), pp. 9-10.

11. Kuhn, p. 150.

12. Kuhn, p. 159.