Decisions and Revisions: The Planning Strategies of a Publishing Writer

Carol Berkenkotter

The clearest memory I have of Donald M. Murray is watching him writing at a long white wooden table in his study, which looks out on the New Hampshire woods. Beside his desk is a large framed poster of a small boy sitting on a bed staring at a huge dragon leaning over the railing glowering at him. The poster is captioned, "Donald imagined things." And so he did, as he addressed the problems writers face each time they confront a new assignment. During the summer of 1981, as I listened to him daily recording his thoughts aloud as he worked on two articles, a short story, and an editorial, I came to understand in what ways each writer's processes are unique and why it is important that we pay close attention to the setting in which the writer composes, the kind of task the writer confronts, and what the writer can tell us of his own processes. If we are to understand how writers revise, we must pay close attention to the context in which revision occurs.

Janet Emig, citing Eliot Mishler, has recently described the tendency of writing research toward "context stripping."1 When researchers remove writers from their natural settings (the study, the classroom, the office, the dormitory room, the library) to examine their thinking processes in the laboratory, they create "a context of a powerful sort, often deeply affecting what is being observed and assessed."2 Emig's essay points to the need to examine critically the effects of these practices.

The subject of the present study is not anonymous, as are most subjects, nor will he remain silent. I began the investigation with a critical eye regarding what he has said about revision, he with an equally critical attitude toward methods of research on cognitive processes. To some extent our original positions have been confirmed—yet I think each of us, researcher and writer, has been forced to question our assumptions and examine our dogmas. More important, this project stirs the dust a bit and suggests a new direction for research on composing processes.

Carol Berkenkotter is Assistant Professor of Rhetoric at Michigan Technological University. She is currently studying the effects of peers' responses on students' revising processes. Donald M. Murray, Professor of English at the University of New Hampshire and a frequent contributor to CCC as well as to other NCTE publications, is completing a textbook on writing. Professor Murray's comments on Professor Berkenkotter's essay appear after the notes on her essay.
I met Mr. Murray at the Conference on College Composition and Communication meeting in Dallas, 1981. He appeared at the speaker’s rostrum after my session and introduced himself, and we began to talk about the limitations of taking protocols in an experimental situation. On the spur of the moment I asked him if he would be willing to be the subject of a naturalistic study. He hesitated, took a deep breath, then said he was very interested in understanding his own composing processes, and would like to learn more. Out of that brief exchange a unique collaborative research venture was conceived.

To date there are no reported studies of writers composing in natural (as opposed to laboratory) settings that combine thinking-aloud protocols with the writers’ own introspective accounts. Recently, researchers have been observing young children as they write in the classroom. In particular, we have seen the promising research of Donald Graves, Lucy Calkins, and Susan Sowers, who have worked intimately with children and their teachers in the Atkinson Schools Project. By using video tapes and by actively working in the classroom as teachers and interviewers, these researchers were able to track the revising processes of individual children over a two year period. Studies such as these suggest that there may be other ways of looking at writers’ composing processes than in conventional research settings.

There remains, however, the question: to what extent can a writer’s subjective testimony be trusted? I have shared the common distrust of such accounts. There is considerable cognitive activity that writers cannot report because they are unable to compose and monitor their processes simultaneously. Researchers have responded to this problem by taking retrospective accounts from writers immediately after they have composed, or have studied writers’ cognitive activity through the use of thinking-aloud protocols. These protocols have been examined to locate the thoughts verbalized by the subjects while composing, rather than for the subjects’ analysis of what they said. Typically, subjects were instructed to “say everything that comes to mind no matter how random or crazy it seems. Do not analyze your thoughts, just say them aloud.” The effect of these procedures, however, has been to separate the dancer from the dance, the subject from the process. Introspective accounts made in medias res have not been possible thus far because no one has developed techniques that would allow a subject to write and comment on his or her processes between composing episodes. For this reason I had begun to entertain the idea of asking a professional writer to engage in a lengthy naturalistic study. When Donald Murray introduced himself, I knew I wanted him to be the subject.

Methodology

The objectives that I began with are modifications of those Sondra Perl identified in her study of five unskilled writers. I wanted to learn more about the
planning and revising strategies of a highly skilled and verbal writer, to discover how these strategies could be most usefully analyzed, and to determine how an understanding of this writer’s processes would contribute to what we have already discovered about how skilled writers plan and revise.

The project took place in three stages. From June 15th until August 15th, 1981 (a period of 62 days), Mr. Murray turned on the tape recorder when he entered his study in the morning and left it running during the day wherever he happened to be working: in his car waiting in parking lots, his university office, restaurants, the doctor’s office, etc. This kind of thinking-aloud protocol differs from those taken by Linda Flower and John R. Hayes since the subject’s composing time is not limited to a single hour; in fact, during the period of time that Mr. Murray was recording his thoughts, I accumulated over one hundred and twenty hours of tape. The writer also submitted photocopies of all text, including notes and drafts made prior to the study. Thus I was able to study a history of each draft.

In the second stage, during a visit to my university, I gave the writer a task which specified audience, subject, and purpose. I asked him to think aloud on tape as he had previously, but this time for only one hour. Between the second and third stages, Mr. Murray and I maintained a dialogue on audio-tapes which we mailed back and forth. On these tapes he compared his thoughts on his composing in his own environment over time to those on giving a one-hour protocol in a laboratory setting.

During the third stage of the study, I visited the writer at his home for two days. At this time I observed him thinking aloud as he performed a writing task which involved revising an article for a professional journal. After two sessions of thinking aloud on tape for two and one-half hours, Mr. Murray answered questions concerning the decisions he had made. Over the two-day period we taped an additional four hours of questions and answers regarding the writer’s perceptions of his activities.

Another coder and I independently coded the transcripts of the protocols made in the naturalistic and laboratory settings. Using the same procedure I employed in my study of how writers considered their audience (i.e., first classifying and then counting all audience-related activities I could find in each protocol), my coder and I tallied all planning, revising, and editing activities, as well as global and local evaluations of text that we agreed upon. I was particularly interested in Murray’s editing activities. Having listened to the tapes I was aware that editing (i.e., reading the text aloud and making word- and sentence-level changes) sometimes led to major planning episodes, and I wanted to keep track of that sequence.

The study was not conducted without problems. The greatest of these arose from how the writer’s particular work habits affected the gathering of the data and how he responded to making a one-hour protocol. Unlike most writers who hand draft or type, Mr. Murray spends much time making copi-
ous notes in a daybook, then dictates his drafts and partial drafts to his wife, who is an accomplished typist and partner in his work. Later, he reads aloud and edits the drafts. If he determines that copy-editing (i.e., making stylistic changes in the text) is insufficient, he returns to the daybook, makes further notes, and prepares for the next dictation. The revision of one of the articles he was working on went through eight drafts before he sent it off. Two days later he sent the editor an insert.

Murray's distinctive work habits meant that all of the cognitive activity occurring during the dictation that might ordinarily be captured in a protocol was lost since he processed information at a high speed. During these periods I could not keep track of the content of his thoughts, and became concerned instead with the problem of why he frequently would find himself unable to continue dictating and end the session. There turned out to be considerable value in following the breakdowns of these dictations. I was able to distinguish between those occasions when Murray's composing was, in Janet Emig's terms, "extensive," and when it was "reflexive," by comparing the relative ease with which he developed an article from well-rehearsed material presented at workshops with the slow evolution of a conceptual piece he had not rehearsed. According to Emig, "The extensive mode . . . focuses upon the writer's conveying a message or communication to another. . . . the style is assured, impersonal, and often reportorial." In contrast, reflexive composing ". . . focuses on the writer's thoughts and feelings. . . . the style is tentative, personal, and exploratory." In the latter case the writer is generating, testing, and evaluating new ideas, rather than reformulating old ones. I could observe the differences between the two modes of composing Emig describes, given Murray's response to the task in which he was engaged. When the writer was thoroughly familiar with his subject, he dictated with great fluency and ease. However, when he was breaking new ground conceptually, his pace slowed and his voice became halting; often the drafts broke down, forcing him to return to his daybook before attempting to dictate again.

A more critical problem arose during the giving of the one-hour protocol. At the time he came to my university, the writer had been working on tasks he had selected, talking into a tape recorder for two months in a familiar setting. Now he found himself in a strange room, with a specific writing task to perform in one short hour. This task was not simple; nor was it familiar. He was asked to "explain the concept of death to the ten- to twelve-year-old readers of Jack and Jill magazine." Under these circumstances, Murray clutched, producing two lines of text: "Dear 11 year old. You're going to die. Sorry. Be seeing you. P. Maglump, Local Funeral Director." Both the transcript and later retrospective testimony of the writer indicated that he did not have pets as a child and his memories of death were not of the kind that could be described to an audience of ten- to twelve-year-old children. He also had difficulty forming a picture of his audience, since he suspected the actual audience was grandparents in Florida who send their children subscriptions.
to *Jack and Jill*. Toward the end of the hour, he was able to imagine a reader when he remembered the daughter of a man he had met the previous evening. The protocol, however, is rich with his efforts to create rhetorical context—he plotted repeated scenarios in which he would be asked to write such an article. Nevertheless, it seems reasonable to conclude that Mr. Murray was constrained by what Lester Faigley and Stephen Witte call "situational variables": the knowledge that he had only one hour in which to complete a draft, his lack of familiarity with the format of *Jack and Jill* (he had never seen the magazine), his doubts that an audience actually existed, and finally, the wash of unhappy memories that the task gave rise to. "So important are these variables," Faigley and Witte contend, "that writing skill might be defined as the ability to respond to them."13

One final problem is intrinsic to the case study approach. Although the tapes are rich in data regarding the affective conditions under which the writer composed (he was distracted by university problems, had to contend with numerous interruptions, encountered family difficulties that he had to resolve, not to mention experiencing his own anxiety about his writing), as Murray reported, the further away he was in time from what he had done, the less able he was to reconstruct decisions he had made.

**Results**

**Planning and Revising**

In this study I was primarily concerned with the writer's planning, revising, and editing activities. I had to develop a separate code category for the evaluation of text or content, since the writer frequently stopped to evaluate what he had written. Figure 1 indicates the percentage of coded activities devoted to planning, revising, and editing for three pieces of discourse.14 These three

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<th>Journal of Basic Writing</th>
<th>College Composition and Communication</th>
<th>Editorial for Concord Monitor</th>
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</thead>
<tbody>
<tr>
<td>Planning</td>
<td>45%</td>
<td>56%</td>
<td>35%</td>
</tr>
<tr>
<td>Evaluating</td>
<td>28%</td>
<td>21%</td>
<td>18%</td>
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<tr>
<td>Revising</td>
<td>3.0%</td>
<td>3.0%</td>
<td>.0%</td>
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<tr>
<td>Editing</td>
<td>24%</td>
<td>20%</td>
<td>47%</td>
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Figure 1. Percentage of Coded Activities Devoted to Planning, Evaluating, Revising, and Editing for Three Pieces of Discourse.
pieces were among the projects Murray worked on over the two-month period when he was making the protocols.

The coded data (taken from the transcripts of the tapes he made during this time) showed that up to 45%, 56%, and 35% of the writer's activities were concerned with planning, 28%, 21%, and 18% with either global or local evaluation, 3.0%, 3.0%, and .0% with revising (a finding which surprised me greatly, and to which I shall return), and 24%, 20%, and 47% with editing.

Murray's planning activities were of two kinds: the first were the stating of "process goals"—mentioning procedures, that is, that he developed in order to write (e.g., "I'm going to make a list of titles and see where that gets me," or "I'm going to try a different lead.")15 Frequently, these procedures (or "thinking plans" as they are also called)16 led the writer to generate a series of sub-plans for carrying out the larger plan. The following excerpt is from the first draft of an article on revision that Murray was writing for The Journal of Basic Writing. He had been reading the manuscript aloud to himself and was nearly ready to dictate a second draft. Suddenly he stopped, took his daybook and began making copious notes for a list of examples he could use to make the point that the wise editor or teacher should at first ignore sentence level editing problems to deal with more substantive issues of revision (this excerpt as well as those which follow are taken from the transcript of the tape and the photocopied text of the daybook):

Let me take another piece of paper here. Questions, ah . . . examples, and ah set up . . . situation . . . frustration of writer. Cooks a five course dinner and gets response only to the table setting . . . or to the way the napkins are folded or to the . . . order of the forks. All right. I can see from the material I have how that'll go. I'll weave in. Okay. Distance in focus. Stand back. Read fast. Question writer. Then order doubles advocate. Then voice. Close in. Read aloud. Okay, I got a number of different things I can see here that I'm getting to. I'm putting different order because that may be, try to emphasize this one. May want to put the techniques of editing and teaching first and the techniques of the writer second. So I got a one and a two to indicate that. [Italics identify words written down.]

In this instance we can see how a writing plan (taking a piece of paper and developing examples) leads to a number of sub-plans: "I'll weave in," I'm putting in different order because that may be, try to emphasize this one," "May want to put the techniques of editing and teaching first and the techniques of the writer second," etc.

A second kind of planning activity was the stating of rhetorical goals, i.e., planning how to reach an audience: "I'm making a note here, job not to explore the complexities of revision, but simply to show the reader how to do revision." Like many skilled writers, Murray had readers for his longer pieces. These readers were colleagues and friends whose judgment he trusted. Much of his planning activity as he revised his article for College Composition and Communication grew out of reading their responses to his
initial draft and incorporating his summary of their comments directly onto
the text. He then put away the text, and for the next several days made lists
of titles, practiced leads, and made many outlines and diagrams in his day-
book before dictating a draft. Through subsequent drafts he moved back and
forth between the daybook and his edited dictations. He referred back to his
readers’ comments twice more between the first and last revised drafts, again
summarizing their remarks in his notes in the daybook.

To say that Mr. Murray is an extensive planner does not really explain the
nature or scope of his revisions. I had initially developed code categories for
revising activities; however, my coder and I discovered that we were for the
most part double-coding for revising and planning, a sign the two activities
were virtually inseparable. When the writer saw that major revision (as op-
posed to copy-editing) was necessary, he collapsed planning and revising into
an activity that is best described as reconceiving. To “reconceive” is to scan
and rescan one’s text from the perspective of an external reader and to continue
re-drafting until all rhetorical, formal, and stylistic concerns have been re-
solved, or until the writer decides to let go of the text. This process, which
Nancy Sommers has described as the resolution of the dissonance the writer
senses between his intention and the developing text, can be seen in the
following episode. The writer had been editing what he thought was a final
draft when he saw that more substantive changes were in order. The flurry of
editing activity was replaced by reading aloud and scanning the text as the
writer realized that his language was inadequate for expressing a goal which
he began to formulate as he read:

(reading from previous page) It was E. B. White who reminded us, “Don’t
write about Man. Write about a man.” O.K. I’m going to cut that paragraph
there . . . I’ve already said it. The conferences when the teacher listens to the
student can be short. When the teacher listens to the student in conference . . .
when the teacher listens to the student . . . the conference is, well, the confer-
ence can be short. The student learns to speak first of what is most important to
the student at the point. To mention first what is most important . . . what
most concerns . . . the student about the draft or the process that produced it.
The teacher listens . . . listens, reads the draft through the student’s eyes then
reads the draft, reads or rereads . . . reads or . . . scans or re-scans the draft to
confirm, adjust, or compromise the student’s concerns. The range of student
response includes the affective and the cognitive . . . It is the affective that
usually controls the cognitive, and the affective responses usually have to be dealt
with first . . . (continues reading down the page) Once the feelings of inade-
quacy, overconfidence, despair or elation are dealt with, then the conference
teacher will find the other self speaking in more cognitive terms. And usually
these comments . . . O.K. that would now get the monitor into, into the
phrase. All right. Put this crisscross cause clearly that page is going to be
retyped . . . I’ll be dictating so that’s just a note. (continues reading on
next page) Listening to students allows the teacher to discover if the student’s
concerns were appropriate to where the student is in the writing process. The
student, for example, is often excessively interested in language at the beginning
of the process. Fragmentary language is normal before there is a text. Make a
comment on the text. (writes intervention) Now on page ten scanning . . .
my God, I don't . . . I don't think I want to make this too much a conference
piece. I'm going to echo back to that . . . monitor and also to the things I've said on page two and three. O.K. Let's see what I can do . . .
The biggest question that I have is how much detail needs to be on conferences. I don't think they're, I don't think I can afford too much. Maybe
some stronger sense of the response that ah . . . students make, how the other self speaks. They've got to get a sense of the other self speaking.

The next draft was totally rewritten following the sentence in the draft:
"When the teacher listens to the student, the conference can be short." The
revision included previously unmentioned anecdotal reports of comments
students had made in conferences, a discussion of the relevant implications of
the research of Graves, Calkins, and Sowers, and a section on how the writing
workshop can draw out the student's "other self" as other students model
the idealized reader. This draft was nearly three pages longer than the preceeding one. The only passage that remained was the final paragraph.

Granted that Mr. Murray's dictation frees him from the scribal constraints
that most writers face, how can we account for such global (i.e., whole text) revision? One answer lies in the simple, yet elegant, principle formulated by
Linda Flower and John R. Hayes. In the act of composing, writers move
back and forth between planning, translating (putting thoughts into words),
and reviewing their work. And as they do, they frequently "discover" major
rhetorical goals. In the episode just cited we have seen the writer shifting
gears from editing to planning to reconceiving as he recognized something
missing from the text and identified a major rhetorical goal—that he had to
make the concept of the other self still more concrete for his audience:
"They've got to get a sense of the other self speaking." In this same episode
we can also see the cognitive basis for alterations in the macrostructure, or
"gist," of a text, alterations Faigley and Witte report having found in examinating the revised drafts of advanced student and expert adult writers.

Planning and Incubation

This discussion of planning would be incomplete without some attention to
the role of incubation. Michael Polanyi describes incubation as "that persist-
ence of heuristic tension through . . . periods of time in which problems are
not consciously entertained." Graham Wallas and Alex Osborn agree that incubation involves unconscious activity that takes place after periods of intensive preparation.

Given the chance to observe a writer's processes over time, we can see incubation at work. The flashes of discovery that follow periods of incubation (even brief ones) are unexpected, powerful, and catalytic, as the following episode demonstrates. Mr. Murray was revising an article on revision for the Journal of Basic Writing. He had begun to review his work by editing copy, moving to more global issues as he evaluated the draft:
The second paragraph may be . . . Seems to me I've got an awful lot of stuff before I get into it. (Counting paragraphs) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, ten paragraphs till I really get into the text. Maybe twelve or thirteen. I'm not going to try to hustle it too much. That might be all right.

The writer then reread the first two paragraphs, making small editorial changes and considering stylistic choices. At that point he broke off and noted on the text three questions, "What is the principle? What are the acts? How can it be taught?" He reminded himself to keep his audience in mind. "The first audience has got to be the journal, and therefore, teachers." He took a five-minute break and returned to report,

But, that's when I realized . . . the word hierarchy ah, came to me and that's when I realized that in a sense I was making this too complicated for myself and simply what I have to do is show the reader . . . I'm making a note here . . . Job not to explore complexities of revision, but simply to show the reader how to do revision.

From a revision of his goals for his audience, Murray moved quickly into planning activity, noting on his text,

Hierarchy of problems. O.K. What I'm dealing with is a hierarchy of problems. First, focus/content, second, order/structure, third, language/voice . . . O.K. Now, let's see. I need to ah, need to put that word, hierarchy in here somewhere. Well, that may get into the second paragraph so put an arrow down there (draws arrow from hierarchy to second paragraph), then see what we can do about the title if we need to. Think of things like 'first problems first' (a mini-plan which he immediately rejects). It won't make sense that title, unless you've read the piece. Ah well, come up with a new title.

Here we can observe the anatomy of a planning episode with a number of goals and sub-goals generated, considered, and consolidated at lightning speed: "O.K. What I'm dealing with is a hierarchy of problems." . . . "I need to ah, need to put that word, hierarchy in here somewhere." . . . . . so put an arrow down there, then see what we can do about the title . . . " . . . 'first problems first.' It won't make sense that title . . . Ah well, come up with a new title." We can also see the writer's process of discovery at work as he left his draft for a brief period and returned having identified a single meaning-laden word. This word gave Murray an inkling of the structure he wanted for the article—a listing of the problems writers face before they can accomplish clear, effective revision. In this case, a short period of incubation was followed by a period of intense and highly concentrated planning when Murray realized the direction he wanted the article to take.

**Introspection**

One of the most helpful sources in this project was the testimony of the writer as he paused between or during composing episodes. Instead of falling silent, he analyzed his processes, providing information I might have other-
wise missed. The following segments from the protocols will demonstrate the kinds of insights subjects can give when not constrained by time. At the time of the first, Mr. Murray had completed the tenth list of titles he had made between June 26th and July 23rd while working on the revision of his article for College Composition and Communication. Frequently, these lists were made recursively, the writer flipping back in his daybook to previous lists he had composed:

I think I have to go back to titles. Hearing the student’s other self. Hold my place and go back and see if I have any that hit me in the past. Teaching the reader and the writer. Teaching the reader in the writer. Encouraging the internal dialogue. I skipped something in my mind that I did not put down. Make your students talk to themselves. Teaching the writer to read.

At this point he stopped to evaluate his process:

All that I’m doing is compressing, ah, compressing is, ah, why I do a title . . . it compresses a draft for the whole thing. Title gives me a point of view, gets the tone, the difference between teaching and teach. A lot of time on that, that’s all right.

The following morning the writer reported, “While I was shaving, I thought of another title. Teaching the other self: the writer’s first reader. I started to think of it as soon as I got up.” This became the final title for the article and led to the planning of a new lead.

Later that day, after he had dictated three pages of the fourth of eight drafts, he analyzed what he had accomplished:

Well, I’m going to comment on what’s happened here . . . this is a very complicated text. One of the things I’m considering, of course, is incorporating what I did in Dallas in here . . . ah, the text is breaking down in a constructive way, um, it’s complex material and I’m having trouble with it . . . very much aware of pace of proportion; how much can you give to the reader in one part, and still keep them moving on to the next part. I have to give a little bit of head to teaching. . . . As a theatrical thing I am going to have to put some phrases in that indicate that I’m proposing or speculating, speculating as I revise this . . .

This last summation gave us important information on the writer’s global and local evaluation of text as well as on his rhetorical and stylistic plans. It is unique because it shows Murray engaged in composing and introspecting at the same time. Generally speaking, subjects giving protocols are not asked to add the demands of introspection to the task of writing. But, in fact, as Murray demonstrated, writers do monitor and introspect about their writing simultaneously.

Summary

Some of the more provocative findings of this study concern the subprocesses of planning and revising that have not been observed in conven-
tional protocols (such as those taken by Flower and Hayes) because of the
time limitations under which they have been given. When coding the pro-
tocols, we noted that Mr. Murray developed intricate style goals:

It worries me a little bit that the title is too imperative. When I first
wrote, most of my articles were like this; they pound on the table, do
this, do that. I want this to be a little more reflective.

He also evaluated his thinking plans (i.e., his procedures in planning): “Ah,
reading through, ah, hmm . . . I’m just scanning it so I really can’t read it. If I
read it, it will be an entirely different thing.”

Most important, the writer’s protocols shed new light on the great and
small decisions and revisions that form planning. These decisions and revi-
sions form an elaborate network of steps as the writer moves back and forth
between planning, drafting, editing, and reviewing. This recursive process
was demonstrated time after time as the writer worked on the two articles
and the editorial, often discarding his drafts as he reconceived a major rhetor-
cical goal, and returned to the daybook to plan again. Further, given his
characteristic habit of working from daybook to dictation, then back to day-
book, we were able to observe that Donald Murray composes at the reflexive
and extensive poles described by Janet Emig. When working from material
he had “rehearsed” in recent workshops, material with which he was
thoroughly familiar, he was able to dictate virtually off the top of his head. At
other times he was unable to continue dictating as he attempted to hold too
much in suspension in short-term memory. On these occasions the writer
returned to the daybook and spent considerable time planning before dictat-
ing another draft.

One final observation: although it may be impolitic for the researcher to
contradict the writer, Mr. Murray’s activity over the summer while he was
thinking aloud suggests that he is wrong in his assertion that writers only
consider their audiences when doing external revision, i.e., editing and
polishing. To the contrary, his most substantive changes, what he calls “inter-
unal revision,” occurred as he turned his thoughts toward his audience. Ac-
cording to Murray, internal revision includes

everything writers do to discover and develop what they have to say,
beginning with the reading of a completed first draft. They read to dis-
cover where their content, form, language, and voice have led them. They
use language, structure, and information to find out what they have to say
or hope to say. The audience is one person: the writer. (p. 91)

The writer, however, does not speak in a vacuum. Only when he begins to
discern what his readers do not yet know can he shape his language, structure
and information to fit the needs of those readers. It is also natural that a
writer like Murray would not be aware of how significant a role his sense of
audience played in his thoughts. After years of journalistic writing, his con-
sideration of audience had become more automatic than deliberate. The
value of thinking-aloud protocols is that they allow the researcher to eavesdrop at the workplace of the writer, catching the flow of thought that would remain otherwise unarticulated.

However, how the writer functions when working in the setting to which he or she is accustomed differs considerably from how that writer will function in an unfamiliar setting, given an unfamiliar task, and constrained by a time period over which he or she has no control. For this reason, I sought to combine the methodology of protocol analysis with the techniques of naturalistic inquiry.

This project has been a first venture in what may be a new direction. Research on single subjects is new in our discipline; we need to bear in mind that each writer has his or her own idiosyncrasies. The researcher must make a trade-off, foregoing generalizability for the richness of the data and the qualitative insights to be gained from it. We need to replicate naturalistic studies of skilled and unskilled writers before we can begin to infer patterns that will allow us to understand the writing process in all of its complexity.

Notes

8. Evaluations of text were either global or local. An example of global evaluation is when the writer says, "There's a lack of fullness in the piece." When the writer was evaluating locally he would comment, "... and the ending seems weak."
10. Ibid. See also "Eye, Hand, and Brain," in *Research on Composing: Points of Departure*, ed. Charles R. Cooper and Lee Odell (Urbana, IL: National Council of Teachers of English), p. 70. Emig raises the question, "What if it is the case that classical and contemporary rhetorical terms such as ... extensive and reflexive may represent centuries old understandings that the mind deals differentially with different speaking and writing tasks. To put the matter definitively, if hypothetically, modes of discourse may represent measurably different profiles of brain activity."
11. Janet Emig, observing her subject's writing processes, noted that "the nature of the stimulus" did not necessarily determine the response. Emig's students gave extensive responses to a reflexive task (*The Composing Processes of Twelfth-Graders*, pp. 30-31, 33). Similarly, Murray gave a reflexive response to an extensive task. Such a response is not unusual when we consider what the writer himself has observed: "The deeper we get into the writing process the more we may discover how affective concerns govern the cognitive, for writing is an intellectual activity carried on in an emotional environment, a precisely engineered sailboat trying to hold course in a vast and stormy Atlantic" ("Teaching the Other Self: The Writer's First Reader," *College Composition and Communication*, 33 [May, 1982], p. 142). For a writer as deeply engaged in his work as Murray, drafting a conceptual piece was as personal and subjective as describing a closely felt experience.
14. These three pieces of discourse were chosen because their results are representative of the writer's activities.
16. Flower and Hayes use these terms interchangeably, as have I. "Thinking plans" are plans for text that precede drafting and occur during drafting. Thinking plans occur before the movements of a writer's hand. Because of the complexity of the composing process, it is difficult to separate thinking plans from "process goals." It is possible, however, to distinguish between rhetorical goals and rhetorical plans. Murray was setting a goal when he remarked, "The biggest thing is to ... what I've got to get to satisfy the reader ... is that point of what do we hear the other self saying and how does it help? He followed this goal with a plan to "Probe into the other self. What is the other self? How does it function?"
17. Sommers, "Revision Strategies," pp. 385, 387. (See note 5, above.)
18. The material italicized in the excerpts from these transcripts is text the subject is writing. The material italicized and underlined is text the subject is reading that has already been written.
24. For a description of the development of a writer’s goal structure, see Flower and Hayes, “A Cognitive Process Theory of Writing.”


Response of a Laboratory Rat—or, Being Protooled

Donald M. Murray

1.

First a note on self-exposure, a misdemeanor in most communities. I have long felt the academic world is too closed. We have an ethical obligation to write and to reveal our writing to our students if we are asking them to share their writing with us. I have felt writers should, instead of public readings, give public workshops in which they write in public, allowing the search for meaning to be seen. I’ve done this and found the process insightful—and fun.

I have also been fascinated by protocol analysis research. It did seem a fruitful way (a way, there is no one way) to study the writing process. I was, however, critical of the assignments I had seen given, the concentration on inexperienced students as subjects, and the unrealistic laboratory conditions and time limitations.

And, in the absence of more proper academic resources, I have made a career of studying myself while writing. I was already without shame. When Carol Berkenkotter asked me to run in her maze I gulped, but I did not think I could refuse.

2.

The one-hour protocol was far worse than I had expected. If I had done that first there would have been no other protocols. I have rarely felt so completely trapped and so inadequate. I have gone through other research experiences, but in this case I felt stronger than I ever had the need to perform. That was nothing that the researcher did. It was a matter of the conditions. I had a desperate desire to please. I thought of that laboratory experiment where subjects would push a button to cause pain to other people. I would have blown up Manhattan to get out of that room. To find equivalent feelings from my past I would have to go back to combat or to public school. I have developed an enormous compassion and respect for those who have performed for Masters and Johnson.
The process of a naturalistic study we have evolved (Can a rat be a colleague? Since a colleague can be a rat, I don’t see why not.) soon became a natural process. I do not assume, and neither did my researcher, that what I said reflected all that was taking place. It did reflect what I was conscious of doing, and a bit more. My articulation was an accurate reflection of the kind of talking I do to myself while planning to write, while writing, and while revising. At no time did it seem awkward or unnatural. My talking aloud was merely a question of turning up the volume knob on the muttering I do under my breath as I write.

I feel that if there was any self-consciousness in the process it was helpful. I was, after all, practicing a craft, not performing magic. Writing is an intellectual activity, and I do not agree with the romantics who feel that the act of writing and the act of thinking are separate.

Having this researcher, who had earned my trust, waiting to see what I wrote was a motivating factor. While the experiment was going on she was appropriately chilly and doctoral. But I still knew someone was listening, and I suspect that got me to the writing desk some days.

It is certainly true that debriefing by the researcher at some distance from the time of writing was virtually useless. I could not remember why I had done what. In fact, the researcher knows the text better than I do. I am concentrating almost entirely on the daily evolving text, and yesterday’s page seems like last year’s. I intend to try some teaching experiments in the future that make it possible for me to be on the scene when my students are writing. I’m a bit more suspicious now than I had been about the accounts that are reconstructed in a conference days after writing. They are helpful, the best teaching point I know, but I want to find out what happens if we can bring the composing and the teaching closer together.

I certainly agree with what my researcher calls introspection. I am disappointed, however, that she hasn’t included the term that I overheard the coders use. Rats aren’t all that dumb, and I think there should be further research into those moments when I left the desk and came back with a new insight. They called them: “Bathroom epiphanies.”

I was surprised by:

1. The percentage of my time devoted to planning. I had realized the pendulum was swinging in that direction, but I had no idea how far it had
swung. I suspect that when we begin to write in a new genre we have to do a great deal of revision, but that as we become familiar with a genre we can solve more writing problems in advance of a completed text. This varies according to the writer but I have already changed some of my teaching to take this finding into account by allowing my students much more planning time and introducing many more planning techniques.

2. The length of incubation time. I now realize that articles that I thought took a year in fact have taken three, four, or five years.

3. The amount of revision that is essentially planning, what the researcher calls "reconceiving." I was trying to get at that in my chapter, "Internal Revision: A Process of Discovery," published in Research on Composing: Points of Departure, edited by Charles R. Cooper and Lee Odell. I now understand this process far better, and much of my revision is certainly a planning or prewriting activity.

6.

I agree with my researcher (what rat wouldn't?) that affective conditions are important in writing. I do not think the affective often controls the cognitive, and I feel strongly that much more research has to be done, difficult as it may be, into those conditions, internal and external, that make effective writing possible or impossible.

7.

I was far more aware of audience than I thought I was during some of the writing. My sense of audience is so strong that I have to suppress my conscious awareness of audience to hear what the text demands.

Related to this is the fact that I do need a few readers. The important role of my pre-publication readers was clear when my revisions were studied. No surprise here. I think we need more study of the two, or three, or four readers professional writers choose for their work in process. It would be helpful for us as teachers to know the qualities of these people and what they do for the writer. I know I choose people who make me want to write when I leave them.

8.

I worry a bit about the patterns that this research revealed have been laid down in my long-term memory. The more helpful they are the more I worry about them. I fear that what I discover when I write is what I have discovered before and forgotten, and that rather than doing the writing that must be
done I merely follow the stereotypes of the past. In other words, I worry that the experienced writer can become too glib, too slick, too professional, too polished—can, in effect, write too well.

9.

The description of working back and forth from the global to the particular during the subprocesses of planning and revising seems accurate to me.

There is a great deal of interesting research and speculation about this process, but we need much more. I find it very difficult to make my students aware of the layers of concern through which the writing writer must oscillate at such a speed that it appears the concerns are dealt with instantaneously.

Too often in my teaching and my publishing I have given the false impression that we do one thing, then another, when in fact we do many things simultaneously. And the interaction between these things is what we call writing. This project reaffirmed what I had known, that there are many simultaneous levels of concern that bear on every line.

10.

I realize how eccentric my work habits appear. I am aware of how fortunate I am to be able to work with my wife. The process of dictation of non-fiction allows a flow, intensity, and productivity that is quite unusual. It allows me to spend a great deal of time planning, because I know that once the planning is done I can produce copy in short bursts. It is not my problem but the researcher's, however, to put my eccentric habits into context.

If I am the first writer to be naked, then it is up to those other writers who do not think they look the same to take off their clothes. I hope they do not appear as I do; I would be most depressed if I am the model for other writers. I hope, and I believe, that there must be a glorious diversity among writers. What I think we have done, as rat and ratee, is to demonstrate that there is a process through which experienced writers can be studied under normal working conditions on typical writing projects. I think my contribution is not to reveal my own writing habits but to show a way that we can study writers who are far better writers than I.

11.

Finally, I started this process with a researcher and have ended it with a colleague. I am grateful for the humane way the research was conducted. I have learned a great deal about research and about what we have researched. It has helped me in my thinking, my teaching, and my writing. I am grateful to Dr. Carol Berkenkotter for this opportunity.