Learning to Write Again:
Discipline-Specific Writing at University

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Because of my involvement in a university writing centre, over the years I have been exposed to a wide range of writing elicited in courses across the disciplinary spectrum and have consequently been struck, at an impressionistic level, by two phenomena: the variation in types of writing (depending upon the discipline and sometimes upon the specific course) as well as the general uniformity among the specific student texts within each type. As a consequence of such observations, I have myself become aware of the distinctiveness of the writing that I elicit in the university courses in Linguistics that I teach—and of the degree to which, over the semester, all my students realize this common distinctiveness.

What fascinated me about these observations was not so much that there was variation in type in the writing assigned at the university, but that, even as someone whose research interests focus on written discourse, I had not myself been aware of the differentiating textual features of the writing I was eliciting, while at the same time, my students, almost without exception, were writing pieces that realized this idiosyncratic genre.

These tantalizing notions guided my own formulation of the research questions addressed in the study to be described below. Can academic writing indeed be usefully differentiated into distinct types or genres? If so, how do students go about acquiring such distinct genres?

Theoretic Background

While such questions seemed to me to emerge from my personal obser-
vations and introspection, they were undoubtedly also shaped by the
current intellectual ambience in composition studies. In recent years,
theorists and researchers have begun to reject a purely psychological
analysis of the composing process in favour of a broader focus on its so-
cial contexts.[1] The movement from psychological to social concerns has
been evident in the programs of the most recent 4C's conferences and
is perhaps best dramatized in the change of focus of the annual Uni-
versity of Chicago Institute from higher-order thinking to interpretive
communities and the undergraduate writer.

One consequence of this shift has been a renewed attention to the
disciplinary contraints of academic and professional writing. Several im-
portant studies have investigated disciplinary differences,[2] while others
have analysed the kinds of knowledge entailed in performing appropri-
ately within a discipline or profession.[3] The theoretic base for some of
this discussion comes from diverse disciplinary sources: from literary the-
ory on the one hand—Stanley Fish, (*Is There a Text in this Class? The
Authority of Interpretive Communities*, 1980); and on the other hand,
from sociolinguists such as Hymes ("Models of the Interaction of Lan-
guage and Social Life," 1972) and Gumperz (*Language in Social Groups*,
1971). Fish, Gumperz, and Hymes all argue that members of a commu-
nity (professional, social ethnic) share sets of linguistic conventions and
rules of use, which define them as a community and exclude outsiders.

Heath, in her extensive ethnographic analysis of two Southern com-
munities entitled *Ways with Words* (1983), dramatizes the acquisition
of just such sets of conventions and rules among the children of the two
communities. It was with a considerably modified notion of Heath's
ethnographic model in mind that my research associates and I under-
took a study that would investigate how students at the university level
go about acquiring the rules and conventions of a specific linguistic com-
munity and acquiring, consequently, a discipline-specific genre.

Design

The goal of the research was to understand how students normally ac-
quire the discourse rules required for a new discipline. Consequently, we
chose to observe students as naturalistically as possible, with no inter-
vention except for our observation and collection of data (notes, logs,
drafts). While this meant the loss of some information—for example,
that which might be made possible through more intrusive procedures
such as composing-aloud or videotaping—the gain came from the possi-
bility of observing the natural processes of students as they went about

what was a familiar task to them, the acquisition of discipline-specific writing.

We focused on one course, an introductory undergraduate Law course —selected primarily because students were not likely to have taken Law in high school and because a pilot study had confirmed that the writing in this course could be significantly differentiated along a number of dimensions from other academic writing. The course involved three hours of lectures and one hour of seminar discussion (conducted by teaching assistants) over the course of an entire academic year (September to April). Students were expected to write four 800 word essays, which together comprised 40% of the final grade.

One seminar group was randomly selected for observation over the year, and from the group of twenty students, six paid volunteers were solicited for more focused observation: Brian, Elinor, Janet, Mary Jane, Michael, and Robin. The major criterion for participating in the study was that students should have had no previous exposure to formal discussions about Law—either through high school or undergraduate courses or through contact with parents or siblings who were lawyers or students of Law. Their grades revealed that these six students represented a wide range of performance, without including either the strongest or the weakest students in the class.

The students who took part in this study are probably typical of those attending Carleton University. The participation rate of the university-age population in post-secondary education in Canada is considerably lower than in the U.S., so that Canadian students generally represent a more select body (as measured by some combination of socio-economic and ability factors) than American undergraduates, but a less select group than British or European undergraduates. Ontario students have normally completed five years of high school. They are consequently older than American freshmen. On the other hand, Carleton has a policy of wider accessibility than many Canadian universities and that fact, coupled with the fact that Canadian students tend to stay home for college more than their American peers, means that Carleton students represent a broad spectrum of ability levels. The students who participated in our study were either in first or second year and ranged in age between 19 and 21.

Research Methods

As suggested above, our underlying approach was ethnographic: we attempted to observe the world these apprentice Law students inhabited to the extent possible within the constraints of a university environment. Our in-class observations were supplemented by textual analyses

as well as lengthy retrospective interviews with the six student volunteers. Specifically, we did the following.

For the textual analyses, we collected all the essays written by our six students as part of their university work in all subjects. (Notes, drafts, and final copies of all essays were gathered.) In order to determine more precisely the distinctiveness of the Law 100 writing, the final copies of the Law papers were analysed and contrasted to all the other academic writing using a variety of measures, which focused on the syntax, the rhetorical and discourse features, and the nature of the argumentation. The various drafts and final copies were also used as evidence defining composing processes and strategies.

In addition, all lectures were observed and taped, as were the seminar sessions, where special attention was directed to the participation and interactions of the six volunteers. Furthermore, each student was assigned to one member of the research team and met with her for one-to-two hour interviews once or twice a week for the duration of the entire academic year. Throughout the year, the students kept logs, cataloguing the date, duration, and specific nature of every activity undertaken that related to law learning (e.g., reading law texts, discussing law with friends, reading about the new constitution in the newspaper, hearing about relevant cases on the radio, thinking in the shower, etc.). The logs sometimes formed the basis for further questioning in the interviews.

The interviews were deliberately far-ranging and open-ended. The students saw as the general focus of these sessions their work in the Law course but freely brought in all other aspects of their inner lives and experience that had a bearing. Throughout these sessions, the interviewers were careful not to intervene in or manipulate the learning and writing processes that the students were reporting on. Their role was to listen and to elicit, never to suggest, guide or direct—either implicitly or explictly.

In addition to the students, the professor was interviewed at the beginning of the year about the course, its design, goals, philosophy, stance, and expectations. The teaching assistant who led the seminar and evaluated the students' work was interviewed regularly—for her sense of her own goals as well as for her perspective on the students' performance and development. For two of the assignments, she was asked to compose aloud her responses to the students' writing.

Cross-Checking and Triangulation

To arm ourselves against the possibilities of subjective distortion by informants and observers, we undertook the following strategies. First, the study involved four researchers (three writing specialists and one

student of Law), who met regularly to discuss the data, each from a different perspective. Generalizations about patterns common to all the students were consequently subjected to rigorous cross-checking. Generalizations about particular students had to be substantiated by evidence from the interviews and were cross-checked by observations of the student's performance in the seminar as well as by analyses of the student's notes, drafts, and written texts. In addition, many of our generalizations were also confirmed through informant statement; that is, the informants themselves were asked whether the patterns we perceived in the data conformed to their own understanding of their performance and processes (recognizing, of course, that not all the students had access to the same degree of meta-awareness).

Throughout then, cross-checking and triangulation were our consistent procedures. No generalizations were made unless evidence came from many sources: student self-analyses, note-taking strategies, textual patterns, discourse strategies, interview behaviours, informant confirmations, etc. To the extent possible, we tried to arm ourselves against the potential distortions implicit in ethnographic research. In this, we were guided especially by the discussion in Goetz and Le Compte, *Ethnography and Qualitative Design in Educational Research* (1984).

The Genre

The research entailed two stages: first determining that the writing elicited did involve a distinct type; second, coming to some understanding of how students acquired this new type or genre of discourse. The first stage has been described elsewhere[4] and will only be summarized briefly here.

The term "genre" has been and continues to be the subject of considerable debate.[5] It is used here to refer to discourse that is differentiated primarily by its social action (as defined in Miller, "Genre as Social Action," 1984) and consequently by recurring linguistic and textual features.

To begin with the textual features, the Law essays written by our six students were compared and contrasted to all their other academic writing. They were found to be syntactically more complex (at a statistically significant level), to involve a distinct lexicon, to be distinguished by specific rhetorical features at the macro and micro levels (for example, a contrapuntal form), and to evince a distinct mode of argumentation, as described by Toulmin, *et al.* in *An Introduction to Reasoning* (1979). What was implied by the textual differences as well as by the entire social context is that through these essays the students had become initiated into the discourse community of students of Law: they had learned to

share the conventions of language use, to approach problems and define issues in the manner of those already socialized into the discipline.

In other words, these students entered the course as outsiders to the discourse community. Through their writing, they became initiates. How they did so is the primary question we addressed in our study, and one we hope to answer here.

Negative Information

Before pointing to the patterns that emerged from our observations, it is useful to reflect on the negative information highlighted in the study: the strategies or processes that one might have anticipated which were not used in acquiring the new genre. Above all, learning the new genre was not a conscious process. There was no point at which any of these students said to themselves or to us: "Now, let me see, this is a new kind of writing, a new genre. It differs from the previous writing I've done in the following ways," etc.

This is not to say that they were not "aware"—at some level below the conscious—that the genre was new; most of them said, at different times, that they had never been asked to do this kind of thing before. However, they never formulated or focused on these differences consciously as a way of acquiring the new genre.

That this was the case was all the more surprising given the nature of our research methodology. Students were asked to keep daily logs and were interviewed for one to two hours weekly; this requirement of reporting back weekly, the constant talk about what they were doing, should have made these students far more self-conscious. Yet, despite this pressure, none of the students focused explicitly or consciously on the nature of the new genre or on strategies for its acquisition. Elinor, one of the most verbal and reflective students, made this point explicitly in response to some direct probing about how she learned to write a Law essay. She stopped and said: "I once saw a cartoon which said something to the effect: 'Our bodies know how much we're supposed to eat. Trust them.' It's kind of the same. It's all subconscious."

A second item of negative information is the following: these students did not learn how to write essays for Law by looking at models, either through direct analyses of such models according to the method of traditional composition teaching or through the kind of unanalytic wide reading for meaning that Krashen describes in *Principles and Practice in Second Language Acquisition* (1982). They did no outside reading in Law, and of the two textbooks, one consisted of major documents in the history of Law (like the Magna Carta), and the other was totally inappropriate in its syntax, rhetorical stance, structure, and discourse

strategies. Most significantly, none of the six students looked either at student writing from past years or at better papers in their own year after the first assignment had been returned.

Use of Consciousness

Although, as suggested above, these students did not acquire the new genre through conscious explicit attempts to formulate their goal or strategies, this is not to say that their conscious attention was not engaged. On the contrary. Their consciousness was fully engaged—and focused intensely on the specific content or meaning of the particular text they were composing. As in early language learning and as in the model of second language learning put forward in Krashen (1982), "focal awareness," to use Polanyi's terms, or conscious attention, was always on the specific meaning or message of each text.

Focusing on the meaning of specific texts, however, was a necessary, but not a sufficient condition for enabling the students to acquire a new genre. The question remains, then: how did those students who succeeded master a new genre in their writing?

How Students Acquire a New Genre: A Model

The model for their learning that emerged from our observations is the following. Learners approach the task with a "dimly felt sense" of the new genre they are attempting. They begin composing by focusing on the specific content to be embodied in this genre. In the course of the composing this "dimly felt sense" of the genre is both given form and reshaped as a) this "sense," b) the composing processes, and c) the unfolding text interrelate and modify one another. Then, on the basis of external feedback (the grade assigned), the learners either confirm or modify their map of the genre.

This model is based on notions that need to be elaborated. The first, is the implicit analogy of learning a new genre to learning a new skill—like a new stroke in swimming or bicycle riding. In *The Composing Processes of Twelfth Graders* (1971), Emig quotes the poet John Ciardi's comments: "Let me put it this way. The least a poem can be is an act of skill. An act of skill is one in which you have to do more things at one time than you have time to think about. Riding a bike is an act of skill. If you stop to think of what you're doing at each of the balances, you'd fall off the bike" (10).

Table 1

Model for Acquiring New Genre

1. The learners approach the task with a "dimly felt sense" of the new genre they are attempting.
2. They begin composing by focusing on the specific content to be embodied in this genre.
3. In the course of the composing, this "dimly felt sense" of the genre is both formulated and modified as
   (a) this "sense,"
   (b) the composing processes, and
   (c) the unfolding text interrelate and modify each other.
4. On the basis of external feedback (the grade assigned), the learners either confirm or modify their map of the genre.

Writing, like most skills, involves the co-ordination of an extraordinary number of sub-processes, all organized and orchestrated towards one end. In writing as in other skills, primary attention is focused on a goal, not on the co-ordination itself. Focal attention is not, cannot, and must not be on learning the skill itself; during the act, you don't focus on the swing but on where you want the ball to go. Most important, skill is acquired by performing, making mistakes, and self correcting. As we shall see later, in a far more profound sense than usually intended, one "learns to write by writing," by performing the act, failing (going too far in one direction), and readjusting internally.

A separate notion that underlies the model is one derived from the work of the psychologist, therapist and philosopher, Eugene Gendlin, a notion that has already been applied in research on composing by Sondra Perl and Arthur Egendorf in "The Process of Creative Discovery" (1979). Perl and Egendorf use Gendlin's work as a basis for their model for *composing specific texts*. They argue that a writer begins with a dimly felt sense of what he is intending to say in a particular piece and that, in the course of composing, there is a shuttling back and forth between this felt sense and the unfolding text, each modifying the other as the text unfolds.

In the same way, we would argue, writers begin with a "dimly felt sense" of the particular genre they are attempting to realize, that is, a "sense" of its shape, structure, rhetorical stance, thinking strategies. This "sense" is typically unformulated in language, considerably less so than the "felt sense" of the meaning of a particular text that Perl and Egendorf refer to; yet it is clearly felt. Students know when they have it and they know when they don't. Mary Jane, for example, attributed her D in the second paper to being forced to write (because of the pressure of the looming deadline and the stiff penalties for exceeding it) before

she "really knew where I was going or what I was supposed to be doing." "I didn't have a sense of what they wanted."

In contrast, for her third assignment, her "sense" of where she had to go was clear although she could not formulate it; she could only say that the task was going to be a very difficult one for her. In other words, she not only had a felt sense, but recognized that the cognitive strategies it implied would be slightly beyond her normal range. Elinor, in contrast, felt the task would be easy. And both their predictions were borne out. Mary Jane did struggle in the composing although her higher grade confirmed that her felt sense of what was required was accurate; similarly Elinor was confirmed in her intuitions in the actual composing and by her grade. Both students, without being able to formulate their maps, felt sure they knew what to do.

Some readers will point to the apparent logical problem in this discussion. The students begin to write with a sense of the genre they are creating and yet the genre is in fact only created as a result of their writing. It is precisely such paradoxes, however, which have been seen to underlie both the composing of specific texts as well as the process of learning to write. In "The Process of Creative Discovery," Perl and Egendorf (1979) describe how one begins to compose specific texts with a sense of what the final text will say even though what that text will say will only be realized through the composing itself. Similarly Britton (1985) points to just this kind of paradox in his discussion of learning to write. "We have said . . . you learn to read by reading, to write by writing, but then someone asks—and understandably—how in heaven's name do you learn to read by reading if you *can't read*! . . . . You may not be able to . . . but you make as though to do so: both the mind and body must tacitly trot with the horse. [The metaphor is derived from Henderson's analogy between reading and horse-riding.]" In the same way, our students made as though to write Law texts.

The Basis of This Felt Sense

Since this initial "felt sense" determines so much of the outcome, one would like to understand how it is derived, on what it is based. Given the nature of our research methods, however, we can only surmise and speculate as to the answers to such questions on the basis of the students' drafts, texts, and especially retrospective accounts.

First, however, the term "felt sense" needs some further explanation. What such a notion derives from is the conviction that we, as human beings, are constantly ordering our experience (that is, creating shape and meaning out of the experiential data which bombard us from the outside and from within)—at all levels of our being. Our organs of

perception are shaping agents, just as our intellect is; and so too are those less-understood and ill-defined creative faculties, such as intuition and the imagination.[6]

What we are suggesting in this model describing the acquisition of new genres is that these students have created or developed a "sense" of the new genre, at levels below the conscious and are using shaping or creative powers that were neither verbal nor rational. The data on which such creative shaping operate include the following.

1) All their past and current reading, which provide them with a sense of what the written word sounds like—its rhythms, syntax, discourse strategies, etc.

2) Their own previous student essays. Their own writing, especially in the context of its evaluation by preceding instructors, served as a frame of reference for student academic discourse in general, within which writing for Law is a variant.

3) The explicit statements made by the professor and the teaching assistant concerning the assignment. These turned out to be the least useful partly because they were skimpy and elliptical but mainly because the students chose not to pay them any attention. Most could not remember such comments in interviews even a day or two later.

4) The language (the lexicon, not the syntax) used and the persuasive strategies presented in the professor's, the teaching assistant's, and the textbook's treatment of Law in general and the topic to be discussed in particular.

5) The talk elicited in the discussion groups. The students gained different things from this talk: Janet, for example, felt she sometimes gained facts and information ("the truth"); Mary Jane felt she learned a great deal from hearing other people discuss, and seemed to be able to intuit appropriate approaches from other students' talk; Elinor gained from talking herself (being forced to formulate her own views in response to specific questions), then from having these views subjected to criticism, as well as from hearing others articulate their views.

Creation of the Felt Sense

To look at the process another way, the felt sense was created on the basis of a complex interaction. The students began with a broad schema for academic discourse—a schema that had itself been inferred in the course of their previous performances, their previous creations of such discourse. (Remember that they never read examples of other students' writing.) Accompanying this broad schema was a recognition that this schema had to be modified further for particular disciplines and/or assignments.

An incident involving Mary Jane is illustrative. Recognizing that the third assignment would be particularly challenging, she had approached a tutor from the university's writing clinic for help. Since Mary Jane had not yet begun writing, the tutor spent the session discussing the general features of academic prose, in the usual composition handbook terms: the funnel shaped introduction, the single thesis, the sequence of arguments and/or illustrations to be ordered on the basis of importance, the restatement of the thesis in the conclusion. Mary Jane's comments after that session were revealing. Although she had never been exposed to such a discussion of rhetorical form before, she felt the session had been useless: "She [the tutor] just told me what I already knew, and anyway it didn't really apply [to the particular piece she was working on]. I mean, it didn't tell me what was *special* about it." Mary Jane seemed to be displaying an awareness both of the general form of argumentative discourse as well as a sense that the writing she was being asked to do was a distinctly specialized instance.

The genre aimed at, then, was sensed as a variant of academic discourse in general. The question remains, however, as to how a felt sense of this more specific sub-genre was created. One source of the variations on the general pattern of academic discourse was the set of constraints imposed by the question posed in the assignment. The assignments all specified both the central question to be addressed as well as at least some of the data to be explored. In their research into examination questions, John Dixon and Leslie Stratta (1985) have shown the ways in which a question can constrain the form as well as the focus of students' writing. Clearly the questions posed in the Law assignments established both directions and boundaries, and consequently further specified and elaborated the felt sense of the genre attempted.

The question, however, only shaped the form of the essays: it did not determine them in an inevitable algorithmic way. Such questions could have been answered by very different patterns of textual ordering and using different kinds of evidence and appeals. The question only set up certain kinds of parameters within which the students could range.

The felt sense, then, was created as a result of the interplay between the students' generalized sense of academic discourse as modified by the question. However, other forces were at play in this dynamic. For example, the lines of reasoning by which the questions were to be answered clearly affected the shape of the genre. Such lines of reasoning (an emphasis on warrants as well as a contrapuntal approach) were inferred from the lectures and seminars. Of course, it is important to remember that the instructor and teaching assistant used different kinds of reasoning in different contexts; the students all seemed to be able to

select the appropriate persuasive strategies to the task at hand.

Similarly, the specialized lexicon of Law, as appropriate to the specific pieces, was surmised on the basis of the texts and lectures—as were undoubtedly a host of other features of the genre that our analysis has not captured. The main point is this. The felt sense was created on the basis of active inferences based on a wide range of data—written, oral, and experiential. Beginning with a generalized sense of academic discourse, the students modified this sense on the basis of inferences drawn from their lectures, seminars, readings, and class experiences as constrained by the questions posed in the assignments themselves.

This may account for the felt sense. It should be noted that it could not account for all the distinctive features of the genre that is finally realized. The syntax, for example, was not modelled anywhere and could not have been so inferred. Instead, as we shall see, the characteristically complex syntax of the Law essays came into being as a result of the interplay between the kinds of thinking necessitated by the question and the discipline, on the one hand, and the persuasive strategies and formal structures appropriate for communicating the insights so derived, on the other. In other words, some features of the genre are created in the actual process of composing.

To sum up, on the basis of a wide range of evidence, the students are able to infer certain features which modify their sense of the genre of academic discourse. They begin to write then with a felt sense of some of these specific characteristics of the Law genre; however, the precise way in which these features will interact with each other and modify the schema of academic discourse is only vaguely surmised at the outset. The sense of the genre continues to be modified as the text unfolds and as the various forces continue to interact.

Modification of Initial Felt Sense

The degree to which the initial felt sense is modified by the process of composing is made clear by Robin, the student who was most conscious, articulate and reflective about her composing. Towards the end of the first term, she was able to give her interviewer a fairly perceptive description of the differences between writing for Law and writing for the other disciplines she was studying (English, Journalism, Philosophy). Before composing her first pieces for Law, she was unable to articulate these differences, although she did insist that she "felt" that the tasks were distinct. When her interviewer asked her what had enabled her to see what she had only sensed before, she replied that it was the writing itself, and the difficulties she encountered in the process, that made her aware of these differences. Rather than making her simply aware, however, the

composing gave shape to these differences, in fact created them.

To return to our model, then, what we can see happening in Robin's words is the interaction described at the second stage. The new genre is learned (in fact created) through the interaction of a) the original "felt sense" the students began with, b) the various cognitive, rhetorical, affective processes necessarily entailed in the composing (in responding to the question posed by the assignment), and c) the unfolding text.

To put it another way, the students acquire the new genre, at least in part, in the course of writing—in the performance itself. They are learning to write by writing, that is, writing in the sense of the entire composing process, not just the formulation of the various drafts. The stages that are particularly relevant involve the initial exploration and generation. The question posed by the assignment itself implies certain kinds of thinking, certain ways of circling about the topic. This initial thinking not only determines the kind of material generated but also suggests (and limits) the range of possible rhetorical strategies, patterns of organization, and stylistic options.

To be more specific in the context of the current study, students acquired, or rather created, that idiosyncratic genre, writing for Law, in the course of struggling to solve the problem set for them in the assignment posed by the instructor. Evidently, such assignments elicit a kind of thinking that is necessarily expressed in a prose that is more syntactically complex than both the prose the students were reading and that which they had previously been writing. However, while the thinking necessitated the syntax, the thinking itself was shaped, initially, at least in part by the syntactic categories of its language. The larger discourse features specific to the genre were similarly negotiated in the course of the writing—in the interaction between the pressure of forms that were already familiar (through their reading, writing, and their exposure to oral modelling) and the pressure of the particular meanings that were being created in these specific texts—meanings which, because of the distinctiveness of the discipline, necessarily implied modifications to and revisions of the old forms.

Feedback

Implicit in the discussion so far is the fact that the acquisition of the new genre was achieved collaboratively. The instructor set the assignments (and consequently the issues to be addressed and some of the parameters of the inquiry) and modeled some of the approaches and persuasive strategies which the students responded to and drew on in their writing. The final stage points to a different dimension of collaboration: the students all needed some formal feedback. They all experienced the

[handwritten note in margin: grade more valuable than feedback!]

same sense of uncertainty and tentativeness when handing in their early papers—as though closure would only be achieved after the paper was returned. This was as true of those who were relatively unconcerned about marks as of the grade-obsessed. They all needed a grade not just as a step towards a certificate but rather as feedback in their learning process. Interestingly, the feedback they found invaluable was generally not the commentary of the teaching assistant on the paper (which was often extensive) but rather the grade itself. So, for example, although the teaching assistant had composed aloud her responses to their papers on a cassette and although this tape was made available to the students at any time, none bothered to listen. Furthermore, when specifically asked about the teaching assistant's comments, they frequently misremembered them—and generally in significant ways.

It was the grade itself, then, that indicated to them whether they were on course or whether they had erred in some direction. The analogy of skill learning is useful here. Just as, in learning to ride a bike, tilting over too far in one direction indicates that one's balance is off, so here the grade is the relevant feedback, suggesting that their internal execution should be altered for the next attempt. All seemed to know without guidance how to make such alterations.

For example, after a poor grade, Robin, Elinor, and Mary Jane each simply invested more energy in the next task—more energy during all parts of the composing process but especially during the initial preparatory period, the exploratory and idea generating phase.

There were also more specific adjustments that were made that related to the particular misjudgements in an earlier paper. Once again, such adjustments were not discovered in the course of conscious post-mortems. The students did not reread their papers; most barely looked at the teaching assistant's comments, and typically did not remember them when questioned a day or two later. Mary Jane was quite explicit: "To tell you the truth, I put it out of my mind." Instead of consciously thinking about the paper and analysing the low grade, they all seemed to leave the bad mark as a problem to be solved, sitting on the back burner of their academic agenda, so to speak, something that flickered in and out of their consciousness from time to time. Four months after a poor grade on a book report, Elinor said: "Every once in a while, I think about how I'd handle a book report if I got assigned one again. Maybe it's all a question of getting the right angle."

Often, when it came time to approach the next such paper, some inner adjustment of their map for the genre seems to have been made. In beginning her second history term paper, after a painful C+ in the first, Elinor said: "What I have to do for this one is to go to some general

texts first, to get an overall sense, the bigger picture, and some kind of angle on the whole thing too. Then I'll go to the specifics. That was my problem in the first one. I just read the texts with the specific details first and was overwhelmed with details. There was no general picture."

When Elinor was asked immediately after that first assignment was returned, why she thought the grade was low, she just rambled on about "grammar." After her own re-appraisal several months later (which came, incidentally, without rereading the text or discussing it with anyone—professor, teaching assistant, or friend), she was asked how she had come to this new realization. She looked somewhat puzzled and said rather hesitantly that she thought perhaps the teaching assistant had indicated this weakness in his comments on the paper. But the truth was that nothing of the sort had been written there.

Similarly, in her Law work Robin felt she knew exactly what she would need to do for her next assignment on the basis of the response to the previous one, although the grader's comments provided no such clue whatsoever to any of the researchers. The self-correcting seems to be performed on the basis of some internal model. It is as though the students carry a larger map for the genre in their head in which the particular realization that formed their first assignment was only one of a series of options. The feedback provided by the grade then either confirms the initial direction or suggests a different choice.

Discussion

Any discussion of possible implications must begin with a recognition that our study was based primarily on the performance of six students in one undergraduate course. Although these students were typical in ability and educational background of the larger population at Carleton University, in the end it was only six students who were observed, and the patterns that emerged from our data will need to be tested and verified in other settings, and by designs which employ more instrusive experimental methodologies.

Nevertheless, for the six students we observed, certain things were true which are inconsistent with much current thinking about and especially teaching of writing, and it is these that should give us pause. First, what was achieved by the students in our study was extraordinary—the acquisition of a complex and subtly differentiated genre of academic writing; equally important, all this was accomplished collaboratively— through the interaction of the instructor, teaching assistants, and students. Second, acquisition took place at a level below, or above, consciousness: there was no explicit or conscious attention paid to the features of the new genre or to strategies for its acquisition. Finally, stu-

dents used and needed no models.

First, then, our recognition of the extraordinary complexity of the students' achievement and especially of the collaborative nature of the enterprise leads us to urge caution and respect in the introduction and design of writing-across-the-curriculum projects. As the powerful notions animating such projects have become watered down through their dissemination, there has developed a tendency for composition specialists to take on the attitude of missionaries, attempting to convert the disciplinary natives. Before suggesting new or different writing tasks or pedagogic strategies, it behooves composition specialists as a profession to observe very carefully precisely what is being achieved in such classes—and how. Only in the context of respect for the internal dynamics of such disciplinary classes can we usefully point to ancillary programs or alternate strategies.

Our second observation has to do with the role of consciousness in acquisition and instruction. Much composition teaching has traditionally been based on the notion that explicit teaching about forms or strategies will lead to successful performance. For the students we observed, this kind of explicit teaching and conscious attention was unnecessary. Both instructors and students operated largely on a level below (or above) that of consciousness. All that we saw seemed to confirm Polanyi's statement in *Personal Knowledge* (1964): "the aim of a skillful performance is achieved by a set of rules which are not known as such to the person following them" (49).

At first glance, our findings may seem inconsistent with those of other studies which have shown that expert writers are able to articulate and formulate various goals and strategies (although certainly not the kinds of genre specification uncovered in our analysis). Researchers using composing-aloud protocols, for example, have presented us with performances that seem highly conscious. There are two points to be made. First, surely no-one claims that these protocols reflect what normally goes on consciously in the heads of writers; composing-aloud represents rather an attempt to externalize what is normally non-conscious. Secondly, the ability to articulate and formulate may only *succeed* proficiency. It may be that knowledge is first acquired tacitly, and only after it is so acquired can it be made explicit. "This is what I do do and have done," rather than "This is what I will attempt." The "aha!" that accompanies explicit formulation may indicate a discovery of something already known at another level of being.

Teachers who focus on explicit methods of teaching composition, and for a long time they were in the majority, reverse the process, and assume that conscious knowledge can lead to performance, that know-

ing *that* will lead to knowing *how*. Certainly, for the students in our study, knowing *that* was unnecessary even for the most sophisticated performance. And it is this pattern that is consistent with everything else that is known about language learning. Children have no conscious knowledge of either the syntax or discourse rules of their language before they become capable performers. Perhaps it is time to begin thinking of writing as a more specialized form of language use, and to view its acquisition in the same light.

The final point of note in our findings is that the students used no models in their process of acquiring the new genre. Not only is this inconsistent with much pedagogic practice which focuses on the detailed and explicit analysis of elicited genres, this finding also suggests the need for at least some qualification to the very attractive model for acquiring written discourse put forward by Krashen in his paper, "The Role of Input (Reading) and Instruction in Developing Writing Ability," (n.d.), a model which is itself consistent with a great deal of thinking in linguistics about first and second language acquisition. In the Krashen model, briefly, learners acquire a second language, or dialect, or written discourse after sufficient exposure to (or immersion in) the kind of language or discourse aimed at—either by listening or reading. On the basis of this data, learners unconsciously intuit the system and begin to perform, with their performance at each stage reflecting their as yet imperfect understanding of the target language.

What we have seen, however, is that the students have acquired the new genre—not through intuiting its rules receptively, on the basis of reading and exposure to appropriate models but rather actively by performing—in fact creating the genre incidentally in their struggle for meaning (a struggle which, we must remember, is in part shaped by and waged against the pressure of already familiar forms of the language).

Recent research performed by Hillocks, et al ("Teaching Defining Strategies as a Mode of Inquiry," 1983), points in the same direction. Hillocks bases his research on the assumption that "while knowledge of form may be useful, it alone does not imply ability to use the strategies which result in the successful generation of original instances of the form." He proves this point by designing a successful pedagogy based on eliciting appropriate thinking strategies rather than on reading appropriate models.

Our observations have moved one step beyond Hillocks' assumption: what we have been seeing is that knowledge of form (in the sense of exposure to models of the aimed-at genre) has not been necessary at all. The genre has been generated by these students on the basis of no previous discussion of or exposure to this particular form; it was created

entirely in the performance of certain kinds of thinking in and through language.

This is not to say that reading models might not have helped, might not have made the acquisition easier, quicker, more efficient. The point is, however, that in nearly every instance, exposure to the form was not necessary.

In his paper, "Process, Form and Social Reality," Richard Coe (1986) distinguishes two opposing attitudes to form:[7] the traditional view in which content is poured into pre-existing fixed forms; and the expressionist in which "form grows organically to fit the shape of the subject matter." The notion of form suggested here is more complex. Specific forms (in this case, the genre called Writing For Law) are indeed created during and as a result of the authors' struggles for meaning, but only in the context of the pressure exerted by forms already so created—by the writers themselves in their preceding pieces and by the rhetoricians whose discourse they have read and heard.

In the end, the patterns emerging from our data suggest the need for rethinking some traditional pedagogic practice. More significantly, this study points to the need for far more research, research directed towards understanding how successful writers go about the task of acquiring new genres and learning to write again. The students we observed were successful, not in the sense of achieving the top grades, but in that they were all able to create a new genre in the context of the social exigencies entailed in entering a new discourse community. The more we, as researchers, analysed what this meant, the more we felt awed at their accomplishment. The students themselves, however, were nonchalant: they had done this before, and they would do it again. The fact that this is a customary act, and that it is achieved at levels below the conscious, has blinded us to the reality of its extraordinary complexity and daring. As teachers and researchers, such acts deserve our respect and renewed attention.

NOTES

1 The most influential figures behind this shift are Charles Bazerman (e.g., "Difficulties in Characterizing Social Phenomena of Writing," 1987) and Kenneth Bruffee (e.g., "Social Construction, Language, and the Authority of Knowledge: A Bibliographic Essay," 1986).

2 See, for example, Bazerman, "What Written Knowledge Does: Three Examples of Academic Discourse," (1981); MacDonald, "Problem Definition in Academic Writing," (1987); and Maimon, "Maps and Genres: Exploring Connections in the Arts and Sciences," (1983).

3 Examples include the pieces in Odell and Goswami (eds.), *Writing in Nonacademic Settings*, (1985); Herrington, "Writing in Academic Set-

tings," (1985); and MacCarthy, "A Stranger in Strange Lands," (1987).

4 See, for example, Aviva Freedman, "Looking at Writing for Law," paper delivered at Chicago Conference on Interpretive Communities and Undergraduate Writing, May 1988.

5 For a review of the debate as well as some proposed redefinitions, see Carolyn Miller, "Genre as Social Action," (1984), as well as Ian Reid (ed.), *The Place of Genre in Learning: Current Debates*, (1987)

6 Such notions, which echo Langer, *Philosophy in a New Key* (1970), and Kelly, *A Theory of Personality* (1963), in different ways, are, in fact, part of the "tacit tradition" that Emig, in her article of the same name (1980), described as underlying the current rhetorical tradition.

7 Coe himself argues for a more complex view of form, similar to but not identical with the one put forward here.

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