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ABSTRACT

A study explored the constructive, collaborative process of a group of writers under circumstances which throw light on dimensions of meaning making. The writers were college freshmen receiving "process instruction" and working collaboratively in a writing course. Collaborative planning is a loosely structured planning process in which the writer or "planner" explains a plan to a "supporter." The supporter listens, asks questions, and encourages the writer to develop the plan, aided by rhetorical prompts. The partners may then switch roles. In the study, scores were assigned to partners for constructive planning and generative quality. Results showed that collaborative planning drew students' attention beyond context and correctness to other matters such as purpose. As neither novices nor experts, students tried to adapt the knowledge and strategies they had to new problems. A picture emerged that resisted fitting into a simple pattern. Collaboration with reflection opened up an arena in which students could examine their own ways of negotiating issues of authority and the structures of school. (Four tables of data and three figures are included; 73 references and 1 appendix--containing the transcript of a collaborative planning session--are attached.) (SG)

CENTER FOR THE STUDY OF WRITING

Technical Report No. 56

COLLABORATION AND THE CONSTRUCTION OF MEANING

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CENTER FOR THE STUDY OF WRITING

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INTRODUCTION

Nothing is more exclusive than the academic club: its language is highbrow, it has fancy badges, and it worships tradition. It limits itself to a few participants who prefer to talk to each other. What Father Albertson did was bring us inside the circle, nudging us out into the chatter, always just behind us, whispering to try this step, then this one, encouraging us to feel the moves for ourselves.

from Mike Rose, *Lives on the Boundary*

CROSSING BORDERS AND CONSTRUCTING MEANING

Student writing is an act of border crossing--or of standing at a threshold trying to figure how to cross. As writers move from home to school, through kindergarten to college, and from discipline to discipline, they encounter a variety of discourse communities, with their special languages and conventions, with their standards for argument, evidence and successful performance, and with their own histories as a discourse from which has emerged a body of commonplaces, topoi, and "key" issues insiders share (Bazerman, 1985; Heath, 1983; Myers, 1985; Miller, 1984). On a more local level, writers run into other borders each time they encounter a new literate practice, such as writing a college application letter, a loan request, or a art class critique. Literate practices differ not only in the sense of carrying out distinctive social functions, but in the thinking processes they tap and the cognitive capabilities they require a "literate" person" (i.e., literate in that practice) to develop (Scribner & Cole, 1981). Within an academic community, a college freshman may write a personal essay, a history report and an economic analysis all in a month, moving from one quite distinctive literate practice to another with dizzying rapidity. This is not to say that discourse communities and literate practices like these don't have a lot in common, because they do, but when you are asked to cross a border in the early morning, it is not always clear just want to take with you and what will be expected when you arrive.[1]

Within this setting writing is both a social practice and a constructive cognitive process (Freedman, 1987). Consider what construction of this sort can involve: The institution of school and its literate practices frame the act, suggesting goals, constraints and available language (Bartholomae, 1985). The individual writer, however, must "read" this context, interpret its "suggestions," and translate them into action. Writers not only envision what they have "to say" on a topic, they construct a web of intentions, a network of complexly linked goals, plans and constraints, for a given piece of writing. Because this mental network of meaning is represented in the mind's multiple "languages," it must often weave together visual and verbal information: images,

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schemas, abstract propositions (that hover above a specific lexical instantiation), and symbolic (including mathematical) relations, as well as the rich patterns of language itself (Flower & Hayes, 1984). The meaning writers construct is shaped by many forces including their available language and knowledge of the topic and the discourse, and by the task as they represent it to themselves. In fact, task representation, rather than "ability," may be the limiting factor in student writing more often than teachers realize, while students may be unaware that their image of "what's expected" in a given course or discourse differs markedly from what their classmates or instructor assumes (Flower et al., 1990b). The constructive process itself requires writers to select, organize, and connect information (Spivey, 1990). to integrate experience and inference with a reading of other texts Greene, 1990), to entertain dialogues among disparate voices (Bakhtin, 1981), and, in the best of worlds, to transform this network of meanings in response to the writer's own rhetorical purpose Bereiter & Scardamalia, 1987; Flower & Hayes, 1981). The cognition of meaning making is often tacit, until a difficulty--such as entering a new discourse--draws writers into active problem-solving and the process of construction becomes more open to observation.

Rhetoric, since Aristotle, has attempted to describe and influence how writers construct meaning. It has focused attention on both the art of invention-- discovering things to say--and the art of persuasion--adapting to and communicating with a reader (Young, 1974). Rhetorics, whether associated with Aristotle, the Sophists, or modern composition, are theories which map out the essential elements of discourse, overviewing the lay of the land a student border-crosser might encounter. Cognitive rhetoric is not a "rhetoric" in this sense, but a framework for studying how individual writers think their way into rhetorical situations and through rhetorical problems. It has confirmed traditional wisdom that the invention and transformation of ideas *in light of a rhetorical purpose* is not only a necessary but a difficult process. This is a place instruction could make a difference. However, that difference will be limited if instruction does not recognize that cognition is a situated act and that people learn new ways of thinking as part of social, purposeful events (Collins, Brown, & Newman, 1989; Rogoff, 1990). Because cognitive rhetoric lets us track the situated cognition of successful writers, diagnose problems that face learners, and observe the interplay of cognition and context in the writing process, it helps us envision instruction that speaks more directly to thinking process Rose described as "feel[ing] the moves for ourselves." And it can help build a more inclusive theory of this constructive process as both a social and cognitive event (Flower et al., 1990b).

The present study explores the constructive and collaborative process of a group of writers under some special circumstances, circumstances which we believe throw light on some interesting dimensions of meaning making:

1) As freshmen in a college writing course, the writers we study are crossing a number of borders, grappling with a new literate practice (doing a "problem analysis") and the the rhetorical challenge of adapting information from both experience and a source text to meet the needs of readers. How do these writers manage the problem of entering a discourse?

2) The writers are also actively interpreting the "process instruction" received in this course, a body of strategies for building a more purposeful, rhetorical plan and transforming knowledge for a reader. Interpretation matters here because this instruction is likely to come in conflict with knowledge-driven writing strategies students typically bring to school writing. What, then, do these students do with their instruction in rhetorical planning?

3) the writers are working collaboratively, each writer exploring and developing his or her individual plan with the support of a partner. This situation not only reveals some of the dynamics of meaning making in collaboration, it provides an interesting window for research in which certain normally tacit social pressures become more explicit and personal interactions become focused and direct. How do these writers use collaboration?

The major conclusions of this study are discussed in four sources: The first is a study of how these students represented the notion of "purpose" (and how it differed from the instructors') (Petraglia, Flower, & Higgins, in preparation). The second is a paper on the role reflection played in these collaborations, how it functioned and why it was related to the quality of the sessions (Higgins, Flower, & Petraglia, 1991). The third is the present paper in which we examine collaborative planning in light of its instructional goals. However, this analysis suggests that the standard measures of performance with which we started misread what some students do and fail to capture critical individual differences and patterns of difference. We will argue that to understand the logic of the writer as learner we need a broader framework of inquiry that can account for students' strategic knowledge, that is, for their goals, including their reading of the context, their strategies, and their awareness of their own knowledge and process.

Finally, a more extended discussion (Flower, in preparation) uses this research to develop a theoretical account of how writers construct *negotiated meaning*. In situations where goals, plans, language, stances, expectations, or knowledge come in conflict, meaning making becomes even more problematic. As it rises to conscious attention, the interplay of cognition and context becomes even more clearly observable. The construction of negotiated meanings (which we will examine in the present paper) is a special case of meaning making, but it may describe the strategic process students and border-crossers commonly undertake. The extended discussion, that builds on this paper, proposes a framework for understanding the construction of negotiated meaning, focused on the processes of interpretation, negotiation and reflection. It also considers the role reflection can play in instruction, drawing on two classroom studies in which students used collaborative planning as a window on their own strategic knowledge. Their observation-based reflections highlight the interplay between cognition, context and affect in writing; they reveal some of the assumptions and competing schemas students brought to new tasks, and they show students as strategic thinkers and active negotiators of meaning.

The present paper is organized into three parts: Part I discusses the theoretical roots of collaborative planning. Part II looks at students' planning as acts of construction and negotiation. Part III raises questions about the role students' strategic knowledge plays in this social/cognitive process.

PART I. CONSTRUCTIVE PROCESSES IN PLANNING: A THEORETICAL FRAMEWORK

Looking for a Window on the Construction of Meaning

Meaning making is hard to see. The multi-faceted mental representation a writer creates is formed not only during planning but in the act of shaping pre-text and crafting sentences (Britton, Burgess, Martin, & Rosen, 1975; Witte, 1987) and in the process of evaluation and revision as well (Hayes, Flower, Schriver, Stratman, & Carey, 1987). It goes on while students are daydreaming in class discussion, recalling feedback from previous papers, or talking with a roommate. Most of this process is private and internal;

hard to track from behavior or infer from texts. And like other mental representations it may also be hard for the writer to recall or report after the fact. Given the elusive and extended nature of both the writer's representation and the process of constructing one, research on planning is a little like a Muybridge photographic study of a running tiger, with its series of rapid stop action frames. There are significant dimensions of this process the data does not record (the soft footfalls, the tiger's reason for running), but from the sequence of images we can capture, we may be able to infer a repertoire of moves that tiger possesses, to distinguish a slow lope from the preparation for a leap. Although each pass before the camera will be unique, just as each act of making meaning will adapt to an endless variety of local conditions, process tracing helps us infer larger patterns that can give meaning to local events.

Planning data (the combination of the notes, drafts, interviews and concurrent records of writers planning aloud) are useful for certain purposes. One is to track representations that are in flux. For instance, discourse interviews are especially suited to eliciting writers' tacit knowledge about conventions (Odell & Goswami, 1985), whereas planning data tend to foreground goals, conflicts, and real-time decisions. Compared to written text, the fragmentary, elliptical language of planning talk may also give us some indication of schematic, episodic or "I know what I mean, but can't say it" representations that exist in the mind's eye but resist being turned into text. It may also reveal some mismatches between the current structure of a writer's knowledge and the structure the task calls for. Planning, then, is good place to look for transformations of meaning.

Planning is also a place to observe how writers negotiate a social and rhetorical situation. When writers make a plan, or talk about their plans to a partner, they are choosing to work with a representation of meaning that is at points more abstract and simplified than either their own network of meaning or a fully elaborated text. By suppressing detail, this step toward abstraction throws the priorities writers are setting into sharper relief and reveals the issues that capture their attention. In this data, the issues that come into this spotlight include teachers' expectations, students' attitudes, the meaning of an assignment, and the problematic or expected features of a genre. Planning talk provides a window on the strategic way writers interpret, are cued by, and negotiate their rhetorical context.

Collaborative planning, as a source of data on the construction of meaning, clearly changes the local features of planning; it alters the path of the tiger in ways we may not realize. It also shapes the process in some useful ways we can predict. Although the sessions record naturalistic, student-controlled events, they telescope a number of planning problems into a short period of time. Unlike extended think-aloud protocols of individual writers, collaboration condenses the attempt to create, rehearse and elaborate a plan into shorter periods of focused effort (10 to 20 minutes in these sessions). The presence of a partner forces writers to explain, elaborate, or in some cases simply try to articulate thoughts, doubts, fragments, assumptions and ambiguities that are often left unsaid in thinking to one's self. And of special interest to us, collaborative data gives us some insight into how writers handle the social and interpersonal negotiation of meaning. There are, of course, trade offs. The path of the planning process we observe here is the path of a collaborative act--there is no way to separate the contributions of the Planner from his or her Supporter since their process is the product of an interaction. Although some students say that their normal "solo" process in fact includes collaborative sessions not unlike this, this data is not about individual writers but about the repertoire of strategies this collaborative process calls out and the sorts of meaning these collaborators construct.

EXECUTIVE LEVEL PLANNING STRATEGIES: THE WRITER'S REPERTOIRE

Our starting point in this inquiry was research on the the repertoire of planning strategies writers have been observed to use in a variety of rhetorical situations (Ackerman, 1990; Applebee, 1986; Bereiter & Scardamalia, 1987; Berkenkotter, 1984; Blyler, 1989; Bracewell, Frederiksen, & Frederiksen, 1982; Bransford & McCarrell, 1974; Burtis, Bereiter, Scardamalia, & Tetroe, 1983; Emig, 1977; Flower & Hayes, 1981; Flower, Schriver, Carey, Haas, & Hayes, 1989; Greene, 1990; Hayes-Roth & Hayes-Roth, 1978; Herrington, 1985; Kantz, 1987; Langer, 1984; Myers, 1985; Nelson & Hayes, 1988; Selzer, 1983; Voss, Tyler, & Yengo, 1983; Witte, 1987). This growing body of close, systematic studies of writers' planning has begun to sketch some alternative paths writers take to building a representation.

Planners are opportunists. An intriguing idea or a *bon mot* floats into view and the writer goes running after it, happily revamping her plan to embrace this unexpected possibility. The presence of opportunism and serendipity reminds us that planning rarely seems to follow the tidy, top-down procedure promised by some textbooks (e.g., choose a subject, limit your topic, select relevant ideas. However, this does not mean that the planning process is unstructured--even if the writer does not consciously control that structure.

One important source of structure comes from three planning strategies that appear to operate as executive level strategies; that is, they give a distinctive overall character or structure to the process of setting goals, generating ideas, and testing the plan (Flower, et al., 1989). Executive-level strategies describe a global plan or approach which can call up an array of more local moves and strategies into play. In comparing these three executive strategies--knowledge-driven, schema-driven, and constructive planning--the question to ask is: who (or what) is providing the goals and the structure for the plan?

Schema-driven Planning

Imagine the scene: a distinguished colleague is coming to lecture. Composing on the run, a writer is drafting an announcement that says *who, what, where* and *when*. His schema for lecture announcements has not only prompted him to fill in the 4Ws, it told him to add an academic title and affiliation to the speaker's name and to fill in the *what* slot with the title of her paper. As he approaches the desk of the departmental typist, his announcement schema conjours up an image of the finished text--the familiar bare, dittoed announcement--and he feels the mismatch between that text and the scholarly context he had projected for this lecture. In searching for a better fit to his "distinguished lecture" schema, he now envisions an eyecatching poster done up on the Macintosh in 24 point type but eventually decides to go with the more personal touch of another schema--a memo addressed to "Faculty and Graduate Students."

In this example of schema-driven planning, the writer's social knowledge about the care of visiting dignitaries suggested the need to write an announcement; his knowledge of discourse conventions took over from there. I am using the term "schema" here in the restricted sense to refer to a well-structured body of information that can be shown to be shared in some meaningful way within a community, as in our a schemas for eating in restaurants or going to birthday parties (Schank & Abelson, 1977), for reading a physics paper (Bazerman, 1985), or for writing an English placement essay (Bartholomae, 1985). Of course, these special purpose schemas will embed within them a host of more generic schemas. Some of the most important for writers are the discourse frames of the

sort proposed by Meyer and Bracewell et al. which include narrative, descriptive, conversational and problem frames (Bracewell, Frederiksen, & Frederiksen, 1982; Meyer, 1982). Although schemas like these represent socially shared knowledge, we must remember that they are constructed by individuals who abstract them piece by piece from experience. These networks of information contain many specific instances (such as the memory of a particular memo or a store of appropriate words and phrases), but they operate primarily as abstract or prototypical representations (Fiske & Linville, 1980). When it comes to writing, this is both the strength and limitation of a schema.

To use a schema, *as an executive-level plan*, a writer may have to instantiate or flesh out an abstract structure with new specifics. However, at some point such re-creation can become so effortful, can require so much generative work, it is hard to distinguish from "creation." To say that the writer, in such a case, is drawing on something as underspecified as a "schema for academic papers" has little explanatory power--the claim seems true at some level but useless. Used in this broad, hand-waving sense, all knowledge fits into some schema (some structure) and the notion becomes, as Fiske and Lineville put it, "mush" (Fiske & Linville, 1980). To pin down the significance a given schema may have for a writer, the question to ask is: How well does it *function* as a set of instructions for interpreting a new situation (by recognizing it as an instance of the schema) and for generating schema-supplied information to fill the gaps in what is given? How much of the constructive work can it do?

The distinguishing feature of schema-driven planning is that a schema, such as the discourse conventions for announcements, is doing the lion's share of the planning work. It is setting the *appropriate goals*, suggesting plans or subgoals and even appropriate *language*. During composing, it *prompts* the writer for what to generate next, and it suggests a *structure* for the text itself. If a problem crops up--that is a recognized part of the schema--it can provide a pre-packaged *solution*. When schema-driven plans operate at the executive level to guide composing, the planning process can be fast, efficient, and assured. The writer is reaping the rewards of learning--all those years of reading and writing department memos have not gone to waste. On the other hand, schema-driven planning leads to trouble when the task is more complex than a writer's available schemas. Even a well-developed schema for "academic papers" or "well-structured arguments" would quickly run out of advice if we tried to turn it into a computer program for producing our next journal article. Schema-driven planning works when the writer has a schema that fits the rhetorical occasion and when the schema in the writer's mind is specified in adequate detail to guide the drafting of text--when instantiating a schema can be distinguished from creating a plan.

Knowledge-driven planning

Imagine a later scene: Writing notes for today's seminar, our exemplary writer realizes that more students might show up at the lecture if in class he briefly discussed his distinguished colleague and her work with the new genre of "interactive" computer fiction. Although his schemas for writing lecture notes, reviewing a research design, and so on, come into play, this planning process is guided at the executive level by his knowledge of the topic. If we could enter the labyrinth of his memory, we might see that a part of this network is organized around the general topic of computers and writing (he will need to start his comments there); another part is organized around the narrative theory behind these texts and the continuing controversy over story grammars (that should be mentioned); and finally a smaller and more recent cluster concerns interactive fiction and the speaker's latest computer "text"--a murder mystery. In planning comments to make in class, this richly specified, well-organized body of knowledge

essentially drives the planning process, setting goals for what to cover, prompting the planner's "what next" moves, and supplying both content and organization.

Knowledge-driven planning can produce sophisticated and complex texts, if the writer's knowledge is adequately developed and already structured to meet the needs of the rhetorical situation. It lets writers breeze through essay exams, reel off "how-to" explanations, and spin out letters to the folks back home. At the same time it accounts for "writer-based" prose with its narrative or descriptive structure and focus on the writer thinking out loud to herself. For difficult tasks, knowledge-driven planning and a writer-based first draft may be a first step toward a reader-based text revised in the afterlight of a more rhetorical plan.

However, Scardamalia and Bereiter have argued that a special form of knowledge-driven planning they call "knowledge-telling" may be a dead-end strategy that in fact precludes "knowledge-transformation" (Bereiter & Scardamalia, 1987). Based on their extensive research with young writers, they have proposed a model of knowledge-telling that operates with a very simple "what next" process of selecting the topic (usually from a prompt given by the teacher), locating relevant topic knowledge, filtering it through genre constraints (e.g., opinion paper, description, etc.), and writing it down, pretty much in the order generated. This limited yet highly productive process lets youngsters write school essays without resorting to goal setting, goal-directed knowledge search, or reorganization. They argue that the strict efficiency of knowledge-telling makes it an alternative rather than a stepping stone to more complex planning, and its record of success for so much school writing makes students reluctant to give it up--even when the occasion does demand more. The knowledge-driven planning strategy we have described in adults is more sophisticated, in that it allows serious encounters with one's knowledge as writers try to come to terms with what they think or try to synthesize their reading with an intelligent organizing idea (Flower et al., 1990b). Nevertheless, it can pose the same problems as schema-driven planning--it works if the writer possesses the appropriate topic knowledge and the structure of that knowledge already fits the demands of the task or the needs of the reader.

Constructive Planning

Sometimes a rhetorical situation asks for more. Instead of presenting knowledge, the writer must transform it, and instead of instantiating a pre-packaged schema, the writer must actually construct a plan tailored to this unique rhetorical situation and devise a way to carry it out in text. When, as it turns out, our announcement writer is also asked to write a letter of recommendation for his colleague who is being considered for a position at a nearby university, he comes to the task with well-organized topic knowledge and a fairly well-developed schema for student recommendations. But for this letter, he will be forced to go beyond those schema- and topic-based plans and rise to constructive planning in response to problems and facts like these: What is his task in this context anyway: to reassure a conservative department that interactive fiction is still fiction or to confirm his colleague's place on the cutting edge of forming a new canon? If he decides the task is "to reassure," how does he turn that daunting intention into more specific rhetorical goals, into "how-to" plans that help select and organize information, that help set tone and language? And what about the conflict he suddenly sees between using reassuringly familiar language and concepts while wanting to praise some unique but unintelligible concepts in interactive software design--concepts with such patently frivolous names as "random punts"--for which his colleague's work is known?

Constructive planning is a response to tasks that knowledge- and schema-driven planning can't handle. It operates at the executive level to construct, elaborate, and

monitor progress on a rhetorical plan of the writer's own making and to transform knowledge and adapt schemas to meet the writer's goals. Like a jazz musician who uses a musical scale (as opposed to playing scales), constructive planning frequently embeds both knowledge-driven and schema-driven planning within itself, fitting them within this constructed plan. In making a useful distinction among these three strategies, the questions to ask is still: who or what is doing the lion's share of the executive-level planning; where are the goals, process prompts, "how-to" plans, and tests coming from--a schema, a knowledge network, or an adaptive, problem-solving process? It should be apparent that all of these planning strategies draw on what we might call knowledge that is at some level "socially constructed" or shared, and that in all three instances our writer was participating in a social process of making meaning. However, because the first two strategies are designed for efficiency more than flexibility, only constructive planning is likely to prompt our writer to a critical examination or reflection on this social process and shared knowledge.

Like the other two strategies constructive planning poses its own problems, and they are significant ones. Its greater flexibility and rhetorical power means the writer must juggle even more constraints and decisions. To make a constructive planning strategy work, the writer must often leap five intellectual hurdles associated with the processes of representation, development, integration, instantiation, and conflict resolution (cf. Flower et al., 1989).

1. The writer must read the context and build an *initial representation* attuned to multiple features of the rhetorical and social situation. The writer's task can not be taken as a "given."

2. Based on this initial representation, the writer must generate a body of *supporting goals*, sub-goals, and plans to deal with the situation and the problem as he or she has defined it. The appropriate response is not a "given."

3. In elaborating goals and ideas and in taking advantage of opportunistic planning, writers are giving themselves a more fully realized rhetorical problem. But this expanding universe of information comes at a price when writers must then *connect, integrate, and even re-configure* the disparate pieces of a developing plan.

4. Elaborating, integrating, and testing meaning at the whole text level is possible because abstract plans and goals offer a more manageable representation for thinking with than a text does. However, such goals must still be *instantiated* with a workable plan at more concrete levels, e.g., in the choice among alternative discourse conventions or in the generation of specific language. And the more abstract the plan, the less likely it is to suggest or supply these concrete instantiations of itself.

5. Finally, the processes of construction, elaboration , integration and instantiation all create added occasions for *conflict*, which can occur at all levels of the plan. To manage this process the writer must be able to resolve the conflicts it produces.

Knowledge-driven Planning: The Default Strategy for School

Constructive planning appears to be a high-effort strategy that is worth the effort when a situation demands adaptive planning and when a knowledge- or schema-driven strategy can not do the job. It often makes use of sophisticated kinds of thinking, such as simulating a reader's response, and of the discourse knowledge that lets writers play out alternative moves. It is not surprising that constructive planning often appears to be an expert strategy, an option the expert writer is more likely to take. But the picture is not

that simple. Observations of writers styled as younger, inexperienced, student, or novice convince us that these individual can rise to sophisticated, inventive, rhetorical planning. And yet, the bulk of research clearly suggests that what is *possible* is not the norm.

Consider some cases where investigators hoped to see more constructive effort. Bereiter and Scardamalia have documented the way knowledge-telling dominates the writing of young children. When they compared ten, twelve, and fourteen year olds, the amount of planning activity per se more than doubled for the older students, but the preoccupation with content planning remained at nearly 90% in contrast to the 10% devoted to conceptual planning (Bereiter & Scardamalia, 1987). Emig, who hoped to see a reflexive engagement with writing, saw in her case study of Lynn a polished and efficient student whose fluency with the five-paragraph theme and whose smooth knowledge-driven production could turn out effective student papers with little reflective effort. Langer found that 10th grade students differed in how their knowledge of a given topic was organized. If that prior organization fit an assignment, they did well. For instance, a diffusely organized knowledge network can lead to success on thesis and support assignments that encouraged free elaboration, but not on an assignment that posed a question or problem. A mismatch between task and Langer's measure of knowledge structure was a good predictor of lower paper scores (Langer, 1984). Langer used these findings to emphasize the role of prior knowledge. But they also suggest that the students were not using writing as an occasion to restructure what they knew. Although the rhetorical situation (the assignment) asked for a comparison or a response to a problem, the texts reflected the writer's current structure, not the sort of new, adaptive construction we expect of writers. Likewise, Durst's high school juniors, who were asked to do analytical writing, did engage in more generalizing and global planning than students with a summary assignment, but the texts were hard to tell apart (Durst, 1987). When Beach asked high school revisers to describe their strategies, they summarized content. But perhaps they didn't understand the question. On a new form that asked for comments about the content, the function, and audience for each paragraph, "the students gave content summaries in response to all three questions" (Beach & Eaton, 1984, p. 163). In all these studies requests for adaptive, interpretive, reflective thinking seem to be met (by a statistically significant group of students) with some form of knowledge-driven response.

In college, sixty-eight percent of the freshman in Flower et al.'s reading-to-write study responded to an open-ended assignment with either a summary or a form of review and comment (Flower et al., 1990b). The freshmen later predicted that Master's students (to whom they attributed greater freedom and sense of personal authority) would have represented the assignment differently as an invitation to interpretation. Although the writing protocols showed students making their own elaborations and applying the readings in personal ways, little of this information made its way into the text. In interviews, the culture of recitation figured strongly in the way these freshmen represented writing to themselves, echoing Applebee's description of secondary schools in which only 3% of class time was devoted to writing that involved at least a paragraph, and most of that for purposes of examination (Applebee, 1981). College juniors and seniors got a more challenging reading-to-write task in Kantz's study, which asked them to apply articles on creativity to the problems of a particular group of freshmen students. While some students took a synthesizing stance, approaching the sources and task as a "explicator" or a "builder," others still saw their role to be a "paraphrase-and-commenter" or a "summarizer" (Kantz, 1987).

This mixture of strategies is apparent in graduate students as well. When Ackerman asked Ph.D. students in business and psychology to read and write about an issue within

their discipline, they engaged in a highly context-sensitive rhetorical reading and use of the sources. But faced with a task outside their expertise, these moves disappeared. They continued to exhibit rhetorical awareness, but it was focused on discourse features and conventions rather than context, and writers shifted to more "text-based" images of the task, using the structure of information in the source texts to guide their interpretation in reading and their summary and synthesis strategies in writing (Ackerman, 1990). In the Flower et al. descriptive study of expert and novice writers, it was the experienced writers who as a group created more elaborated complex plans, who integrated those goals at both the high and low levels of their goal networks, and who dealt with conflicts not just by switching goals but by reexamining their plans. The student--and particularly the problem-student writers focused by and large on their knowledge, even when it proved difficult to make it fit the audience and assignment (Flower et al., 1989).

These studies and others point to the way knowledge-driven planning surfaces when writers lack experience or face difficult tasks and to the primary role knowledge-driven planning plays in school, where it is combined with well-learned schemas for theme-writing. Teachers, it seems, read school writing as a display of knowledge, whether the topic is textbook learning or personal experience. Students become adept at planning which is devoted to searching, organizing and reciting what they know or have learned. So adept, in fact, that when tasks call for students to speak the language of a new discourse, they still offer a knowledge-telling, five-paragraph theme. So adept that when the situation calls for rhetorical planning, for a unique plan that adapts information to the needs of a reader or the purpose of a writer, students still rely on knowledge-driven planning. And yet each of these studies and our own experience offers exceptions. Looking for the rationale behind students' performance, it is often hard to separate the way students *represent* a task to themselves, or what they *choose* to do, from what they might or might not be *able* to do. Students' performance may reflect the simple fact that knowledge-driven planning is admirably adapted to most school writing, that it fits the expectations of that social and educational context--it is the smart choice. Or it may arise because constructive planning can be difficult to do and may rely heavily on things a learner would typically lack, such as deep topic knowledge, fluency with a discourse, or experience with a particular rhetorical situation. And yet, when experienced writers face an unfamiliar task, we see them still acting in constructive ways, generating and evaluating their own goals, accepting conflicts, consolidating plans, and rising to a meta-awareness of their own process and how it is working.

We think one reasonable conclusion that can be drawn from this contradictory picture is that students, especially the young adults one sees in high school and college, are capable of doing adaptive, constructive planning in many areas of their life, including writing, and that on certain occasions they do. However, in most school sponsored writing, knowledge-driven planning is the default strategy. It is the strategy that normally works, the strategy students control most fully, and the strategy of choice we might expect writers to use unless instruction or the context of a class leads to an alternative. In contrast to the efficiency and simplicity of this default move, constructive planning asks students not only to set rhetorical goals, but to examine them, and to critically consider the fit between their knowledge, their intentions, and the new discourse they are often trying to learn.

There is evidence that simply prompting students to consider the things knowledge-driven planning ignores can make a difference--if the prompt occurs in the planning process itself (that is, not simply in a textbook, lecture, or classroom activity that encourages but can not intervene). Carey and Flower (in preparation) created a set of prompts designed to address the very processes we saw missing in the Flower et al. study and to answer the question--are these missing processes the result of writers who

can't or simply don't construct and consider a plan? The context was slightly improbable: a computer called the Collaborative Writer would compose a paper, if the writer would develop the plan, thinking and talking out loud in response to the computer's questions and prompts. With surprising willingness students participated in this fiction, even though it involved an hour to an hour and a half dealing with frustrating questions from this computer, such as "'I really appreciated all your plans so far. However, I still need your help because I was programmed not to accept the first plan given me without considering alternative plans. So could you give me some alternative plans to consider for this text?" And later, "I just had a thought. Maybe we can use more than one of your plans after all. Can you think of ways of combining your alternative plans to form a new plan?"

This study had some surprising results. Even with these prompts, it was always possible for writers to resort to talking solely about content, and some did. However, many freshman students exhibited a remarkable degree of constructive thinking about their purpose, their audience, and features of presentation and organization. In fact, half of the freshmen (those who had had a composition course that emphasized planning) resembled the experienced master's students in the study on certain measures, such as the amount of initial rhetorical planning. It seemed clear that prompting could make a meaningful difference in at least the kind of thinking students did. The greater surprise was that our subjects, the students, appeared to value doing what we saw as a demanding sequence of tasks, designed to answer a research question, not to engage a student. Subjects asked if their roommates could participate in the study and wished they had been able to use the program (which of course didn't really write anything, only asked questions) for a final paper just written for a psychology course. In essence, the students were telling us this was a useful instructional process. And the data was telling us that on-line supports and prompts could help students abandon the default strategy of knowledge-driven planning; that constructive planning was a strategic choice students were willing, with help, to make.

COLLABORATIVE PLANNING: A SCAFFOLD FOR CONSTRUCTING MEANING

Research of this sort is food for thought. It offers a conceptual structure for understanding some features of planning, for interpreting performance and diagnosing problems we see, and for recognizing patterns of growth. But turning insights into instruction is a different matter. The activity we will call "collaborative planning" is one attempt to do so. As an instantiation of a theory, it is an experiment in translating the implications of process research into a workable plan for teaching. We present it not as the only, or perhaps even the best, way to support constructive planning strategies, but as a useful window on what is possible.

Collaborative planning, as we designed it, is a loosely structured planning process in which the writer or *planner* explains and elaborates his or her plan to a *supporter*. The supporter listens, asks questions, and encourages the writer to develop his or her plan, aided by a set of rhetorical prompts. The two partners may then switch roles so the second writer has the opportunity to talk out a plan for his or her own paper. (In references to "collaborative planning" throughout this paper, we will be referring to this specific set of processes, rather than collaboration in general.)

Collaborative planning is a purposeful social event that engages two people in the use of powerful rhetorical strategies. In teaching, the synergistic combination of social and rhetorical moves may achieve what neither can accomplish alone. Social support alone--unstructured or uninstructed collaboration-- often fails to grapple with important

goals and writing problems (Freedman, 1987). Likewise, instruction in heuristics and text features can settle into inert knowledge, unless a social situation engages that knowledge, calls a process out, and makes rhetorical moves happen. In our hope for a social/cognitive synergy, this technique is closely related to other approaches Collins et al. have described as "cognitive apprenticeship" (Collins, Brown, & Newman, 1989). Collins et al. emphasize six features of learning in this paradigm. Cognitive *modelling*, in-process *coaching*, and *scaffolding* or support based on the learner's current knowledge are the key instructional processes. These are tied to techniques that support students' efforts to *articulate* and to *reflect* on their knowledge, reasoning and problem-solving processes, using this understanding as a springboard to *exploration* on their own.

In the social dynamics of collaborative planning not only the teacher but each partner models constructive planning, in the form of rhetorical, reflective thinking, for the other. The Supporter and prompts provide a scaffold (Applebee, 1984) that helps writers not only attend to parts of the problem, but to persist and elaborate their insights, and to consolidate what emerges. Although Planner and Supporter have social roles to play, the interpersonal atmosphere of talking out one's ideas makes students partners in shared problem solving (Freedman, 1987). This exploratory "talking out" not only creates a climate for reflection, but what may be more unusual, it also allows students to observe and talk about their own ways of approaching a writing problem and/or collaborating. The session itself can become a springboard to observation-based insights and a shared understanding of normally private experiences.

Part of the structure for this process comes from prompts embodied not in a checklist, but in the notion of the Planner's Blackboard. The Blackboard (see Figure 1) is a visual metaphor for a number of ideas. It asks writers to imagine a planning space within their own minds on which ideas are posted whenever they occur as on a mental blackboard (cf. Hayes-Roth, et al., 1978).

The categories or spaces reflect familiar elements in rhetoric, but the blackboard conceit calls attention to how well a writer is actually developing each of these areas in his or her plan. In the background is the large planning area in which writers generate topic information--that is, content information and things to say in the text. The Blackboard places three other areas in the foreground--Purpose and Key Point, Audience (which includes both readers' characteristics and their imagined responses) and Text Conventions (which include matters of organization, format, style and the gamut of discourse-specific conventions). These three blackboards highlight three areas to which experienced writers devote time and attention, but which less experienced writers often ignore (Carey & Flower, 1989). Taken together the four empty blackboards encourage writers to develop a fuller, multi-dimensional plan.

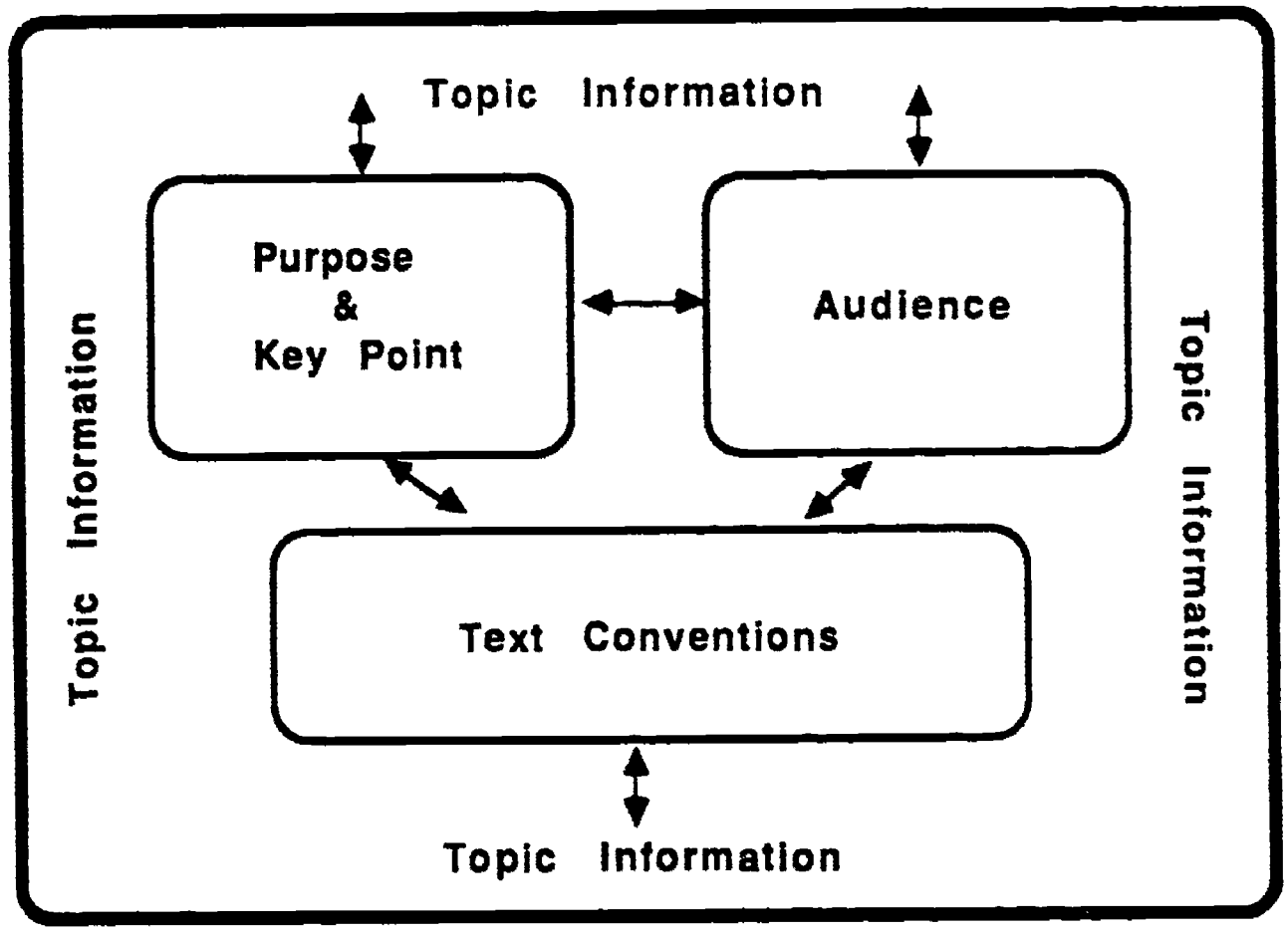

Figure 1. The planner's blackboard.

The Blackboard has a second visual message: its four boards are a reminder that inexperienced writers may do extensive planning, only to find they have been devoting all of their attention to generating things to say--posting information on the metaphoric Topic Blackboard alone. Experienced writers do two things in addition to generating content: First, they think about other elements of their plan (symbolized by the three areas in the foreground). Secondly, they periodically review the state of their plans and ideas and actively attempt to forge links among parts of the plan or consolidate their ideas by looking at the big picture (symbolized by the arrows linking all the boards to one another). For instance, these experienced writers look for ways they might adapt their Key Point to the interests or needs of the Audience, or ask how different ways of organizing the paper (Text Conventions) would help carry out one of their goals or Purpose.

The message of the Blackboard metaphor as we taught it is relatively simple: "Remember those parts of a writer's plan that, in the heat of struggling with content, you might forget to think about. And remember to consolidate these ideas and reflect on the state of your own thinking." The rationale for turning this prompt for planning and metacognition into a visual metaphor is that it could be used by both planner and supporter as a flexible *aide-memoire* and prompt in the midst collaboration, when such advice has the power to actively intervene in the process.

The nature of the planning sessions we have observed in classes and on audio tape range from some rather formal question and answer sessions by students who have yet to

take full control of the process for themselves, to free-wheeling sociable explorations, to sustained discussions about a particular planning problem both writers were facing. Like the tiger, the path of collaborative planning can take many shapes, some obviously more productive than others. We encouraged such flexibility combined with an insistence on three principles we see as fundamental:

- The authority (and the floor) belongs to the Planner who is encouraged to think, talk, elaborate, and explore options and ideas. Unlike peer editing, the spotlight is on the writer's intentions rather than the reader's response to a text.

- The cognitive outcome for the writer should be an elaborated representation of meaning--an expanded and connected network of goals, plans, ideas, alternatives, and possibilities across all the areas represented by the Blackboard.

- The social dynamic of this collaboration is to create a supportive interpersonal context that does two things: it encourages a writer to develop ideas and think critically about purpose and text. Secondly, by making this normally private process more explicit, it also gives both writers a new way to observe and reflect on their own thinking and writing process.

To sum up, collaborative planning is an attempt to engage students in the kind of constructive and reflective processes observed in the research on planning. To help stage this experience, rather than describe it, collaborative planning hands the process, the prompts, and the responsibility to make it useful over to students. Since the project began in 1987-88 (when data for this study were collected), we have learned a lot about how to teach and support this sort of collaborative planning. Although there are other good ways to translate planning research into practice, this route has shown some advantages. One is that the social nature of collaboration can create a supportive and structured invitation to plan and reflect that can intervene in the ongoing process. Second, the concept of collaborative planning has proven easy to adapt to very different kinds of classrooms and kinds of writing. As the basis for an extended classroom inquiry project at the Center for the Study of Writing, it has been adapted by teacher researchers and students from 5th grade through college in the Pittsburgh area. The various publications from the Making Thinking Visible project document ways these teachers shaped collaborative planning to some very different intellectual goals, from sponsoring creativity in 5th graders, to helping high school students incorporate literary conventions from their reading in their own writing (for English class) and (in World Cultures) helping students use their experience as writers to see sacred primary source texts read in history class as writing shaped, like theirs, by the purposes, audiences and conventions in their own time. And in a college course the planning was a means to an end where students used the sessions and tapes to reflect on their own strategies for switching among the different discourses of college writing (Flower et al., 1990a; Sitko & Flower, in preparation).

One of the final outcomes of collaborative planning, most relevant to this study, is that these sessions offer a platform for research by making elements of both the cognition and the social negotiation of writing more observable. The sections that follow give us a close look at the social and cognitive process of 22 freshman writers.

PART II. STUDENTS PLANNING: CONSTRUCTION AND NEGOTIATION

Carter is a freshman in the second semester of college. He is used to getting "As" and "Bs" in high school using what sounds like an efficient knowledge-driven approach to paper writing. As he reveals in the transcript below, his recipe for success starts with procrastination--put off planning until the deadline demands prose and until the goals for the task become (happily) narrowed to producing a given number of pages that "sound intelligent." He had expected that what worked in high school would work in college.

> So, we had to write a five-page paper on African nationalism, which I had no idea, and I waited like the night before it was due to start [. . .] I thought, why this is just like high school.

Carter describes himself as "not a very good writer" but he appears to fit the profile of an able average student who has learned to use knowledge-driven planning strategies to advantage. In his first semester he was shocked to discover that his "BS" technique for fast text production no longer worked. Nevertheless, the solution he describes is a better recitation of knowledge. In talking about both high school and college writing, Carter's focus is on content--on the presence or absence of ideas and on the quality or correctness of his coverage of an assigned topic. Knowledge-driven planning, it appears, is a strategy Carter is learning to use with awareness and increasing success.

When Carter walked into his freshman writing class in the second semester, he entered a rhetorical situation he probably did not expect. In this new context, some of Carter's past strategies for success were seen (by the instructor) as part of the *problem*, and the instruction and assignments he received were designed to come in direct conflict with his first-draft-final, knowledge-driven approach to writing. As a student, Carter had entered an intentionally orchestrated conflict where the route to success was *not* to increase your knowledge, but instead to change some of your goals for writing, to alter your process and habits--where you are expected to learn new strategies for a task that only a year ago your old strategies handled with relatively ease. To succeed in this new rhetorical situation, Carter would have to "read" this message from the context of the class and do so with enough critical awareness to resolve the conflict.

Carter's situation is not unusual. As Bartholomae has described, many classes in college introduce students to a new discourse community where the parallel of initiation to the rites of a secret society is not far fetched. Students often feel (and perform) like outsiders to these communities where the language, the conventions of speech and ways of arguing, and the commonplaces, concepts and genres are new (Herrington, 1988). Sometimes these cues to change are overt--as when a graduate student in English encounters the discourse of empirical research (Berkenkotter, Huckin, & Ackerman, 1988). But if the student (or teacher) defines this initiation as a vague need to "improve writing," the real need to rethink the task--to entertain more complex goals and criteria, to change strategies--may be unapparent to the student and the cues to the nature of the desired change hard to read.

When students like Carter use a collaborative planning session to construct meaning, we can see them trying to bring their past experience and tried and true strategies into synch with the new rhetorical situation. The metaphor of initiation, with its emphasis on the expectations of the group, may gloss over the different ways individual students interpret and negotiate the context. At times one sees negotiation in the hard-nosed sense of the term--writers considering what values, interests, ideas, or

strategies they must give up, what to hang on to, what instruction and advice to accept, and what to ignore. But this adversarial image, that pits student against the system, may at times blind us to the equally important interpretive enterprise students embark on and the good faith effort they make in doing so. In these sessions, students negotiate the context of learning as one might negotiate rapids in a white water canoe, trying to read the stream for cues, looking for the waves that harbor rocks and the deep channel to shoot through. The discussion that follows will try to model some the the distinctive ways this negotiation helped shape the construction of meaning in the collaborative planning of these freshmen.

The Students and the Assignment.

Students were asked to read two chapters from Peter Farb's *Word Play* (chapters on how language and conceptual labels affect what we see and know) and to write a short (1-2 page) paper "that analyzes a 'discourse' problem of your own choosing." Earlier assignments had focused on finding and defining problems and on the idea of discourse communities and on awareness of your own writing process. In their preparation for this assignment, students were urged to consider a realistic "discourse" problem you or other students encounter. As you plan the paper, give some thought to your own purpose in writing the paper. Sometimes people analyze a problem in order to think a question through for themselves. Or in order to explain a problem or issue to someone else. Or maybe to discuss a possible solution to a problem or even persuade readers to act on one solution. Decide on our own purpose, let your reader know what it is, and use it to organize your paper. What do you want to accomplish in this paper?

As they had done on previous papers, students were to meet outside of class with a partner of their choice for a collaborative session, once they had developed a preliminary plan. Because collaborative planning was being used in this course for the first time on an experimental basis, instruction in "how to conduct" a collaboration was spare. A class was devoted to introducing the idea of the Planner's Blackboard and students were given a handout on how to track their own process by 1) conducting a short self-interview about their plan on tape before the collaboration, 2) taping the collaboration and 3) conducting a final wrap-up interview with themselves on what they had observed or found interesting.

The papers were to be evaluated on four criteria students received in advance:

1. Did you apply your reading to a real discourse problem or an issue which you define in the paper?

2. Did you use the material from Farb's book for a purpose of your own, and did you make your own purpose as a writer apparent to readers?

3. Did you use your purpose and/or your sense of a problem to organize the rest of the paper? Is each paragraph relevant to your purpose and to the logical development of your analysis?

4. Did your paper meet college-level standards for correctness and style?

The students in this study came from two freshman composition classes taught by two experienced instructors interested in experimenting with collaborative planning. The twenty-two students we discuss (10 from one class, 12 from the other, out of the total of 36) were students for whom a complete set of tapes from three different sessions existed. Only the middle of the term session will be discussed here.

The Issues That Emerged

These transcripts record a crossroads literacy event--a situation in which learning and performing converge, in which cognition, context, and prior knowledge are in vigorous interaction. In trying to describe how these collaborations affect meaning making, three issues stand out, which we will consider in turn in the remainder of this paper.

• ***The social negotiation of meaning.*** As these students enter a new discourse, their planning process and attempts to build a satisfactory representation of meaning involves an active negotiation of the social context of writing. Negotiation here is a two-way street in which writers are not only reading this context and interpreting its cues, but translating their understanding into action in the goals they set and the writing strategies they invoke.

• ***The construction of plans, task representations, and texts.*** Collaborative planning sessions appear in many cases to support constructive planning and to challenge or change students' representations of both the task and the text they are writing. Moreover, the parts of their plan which come under the most direct scrutiny (from both the Blackboard prompts and the partner) show up in significant parts of the final text, such as the introduction, conclusion, or major examples.

• ***Individual differences.*** Students use collaborative planning in significantly different ways, measured in terms of the holistic quality of the session, the extent of constructive planning, and the amount of reflectiveness. These differences, however, are not adequately explained by ability, paper grade, or strategies alone, but appear to reflect the strategic knowledge--the goals, strategies, and awareness--students bring to the collaboration.

NEGOTIATING THE SOCIAL CONTEXT OF LEARNING: "WELCOME TO COLLEGE"

When two writers work together, some of the social negotiations that help forge meaning move into the spotlight, and some of the normally silent cognition behind these negotiations can be heard. To take the large view, the episode of planning transcribed below--two students and a tape recorder behind the door of Jennie's dorm room--could be read as a tiny event bobbing in the open seas of its wider social context. This event has been quietly shaped by Western culture and the tradition of a liberal education, the ideology of success and competition in school, and the middle-class context of university life. Together Carter and Jennie are tacitly responding to the obligations and opportunities created by this particular freshman class, to the signs that reveal their teacher's expectations, and to the protocol of a course-sponsored collaborative "date." Within these layers of context, some forces, like the desire to succeed in school, are likely to operate simply as givens, as distant and indirect forces like faraway thunder that create a disposition and attitude. Other, more directly observable forces like, the assignment to find a "meaningful problem," appear not only to shape specific decisions the writer makes, but to be negotiable social influences, mediated by the writer's awareness of them. Not surprisingly, these transcripts offer at best weak evidence of how larger social and cultural forces (such as capitalism, orality, literacy, and educational institutions per se) figure in this event, allowing us to do little more than speculate on which of these forces might be shaping some specifiable feature of Carter's writing or how they operate to do so. However, these collaborations do reveal some critical points at which these writers are interpreting the more well-specified situation of school, of this

class, and of this collaboration. In reading this level of the context for cues to action, they are not passively responding to the social meaning of their situation, but actively negotiating it. That is where our analysis will focus.

There are, for example, many ways to interpret a "C-" on your first college paper in World History. In the conversation starting at turn #31, Jennie asks for an example of how different wr.ing styles can actually cause a problem. In the story Carter tells, he transforms his teachers' responses into a direct comment on his own writing strategies and his (Carter's) assessment of the effort required. With his partner he constructs the significance of his school experience. (See Appendix A for a slightly abbreviated version of this entire session and for a discussion of the conventions of transcription and coding at the end of each turn. Here S= supporter):

31 S: So, what kind of examples are you gonna use? Can you give me an example? An example... [tx con]

32 Carter: Um... Okay... I'll give you a real big example. Switching from high school writing to college writing. [info]

33 S: Uh-huh. [off]

34 Carter: In high school, you could - most of the times for any class you could get away with, you know, BS in a lot of papers. And you'd get good grades, just 'cause it sounded intelligent, even though it really didn't say much. In college they don't go for that stuff. You gotta really, you know, go write, and you can't BS your paper, because they'll know right away that you're doing that. [. . . .]

37 S: [. . . .] So some of your main points are gonna be that from high school to college - in high school, you can get away with saying things that aren't really relevant. In college you can't. But how are you gonna explain that? Are you gonna give a specific example in your life? With like... In high school I did this, in college I can't do that. Like I think it would become more real. [key pt/tx con, R]

38 Carter: Yeah. Okay. I can do this. In high school, in my senior year, we had to write a thesis paper. And we had an entire semester to do it. And, just like me - I waited until like the last three weeks of the semester to start doing it. And I didn't have all the research done that I should have, but I started working on it real hard. And I had a lot of pages. It ended up being 15 pages long... /wow/ with bibliography and... Well, that's what she expected - she said 10-15 pages. And it was really long and drawn out, and it didn't really say much of anything, but it sounded like it did. You know what I mean? [info]

39 S: Yeah. That's a good example. I really like that. [tx con]

40 Carter: I got an - I got an 'A' on it... [info]

41 S: Oh! Congratulations! [off]

42 Carter: It really didn't say anything, so I was so happy and I got an 'A' in English, and that made my day, and then I graduated, and I was even happier. But, for college... [off]

43 S: Yeah. That's a good example. [tx con]

44 Carter: I'm not done yet. [off]

45 S: (Laughs) Sorry Carter. [off]

46 Carter: (Laughs) Okay. And comparing that to the - the first semester of college... I took a class, [on culture and history], which is probably the most boring class I've ever taken in my life. But, we had to write... [info]

47 S: I hope [name] doesn't listen to this tape (giggle). [off]

48 Carter: Well, I'm done with it, and I got a 'B' in it, or whatever. But anyway... [off]

49 S: Whatever. [off]

50 Carter: So, we had to write a five-page paper on African nationalism, which I had no idea, and I waited like the night before I was due to start that... [info]

51 S: You have a bad habit of doing that. [off]

52 Carter: I know. Well, I put all that into my writing style analysis paper, so that's all there. So, anyway.... So I wrote five or six pages on nothing, but I included the words 'African nationalism' in there once in a while. I thought, why this is just like high school, I can get away with doing this. I got the paper back, and it was a C minus, or a C, or something like that. It said 'no content.' And I was introduced to the world of college writing. [info]

In the explanatory account Carter constructed during his history course, he cast himself as a writer who had options, but made the wrong, low-effort choice, to which his instructor's comment was a direct reply. Now, in response to Jennie and the assignment to explore problems, he recreates the story for a new purpose. Creating a new link in this personal network of meaning, Carter represents the experience now as an *example* of a writer who needs to learn the ropes of college writing. The process of interpreting, reinterpreting, linking and reorganizing a network of ideas, attitudes and experiences is not only a process of constructing meaning for a paper, it is one way individuals negotiate the social context of writing.

Carter's approach to school work, this vignette suggests, grows out of a string of encounters in which he has been interpreting the context of writing as a guide to action and, in the process, changing his script and redrawing his image of what is expected. With each of the small social negotiations recorded here, Carter is elaborating his theory of the task of college writing. In this transcript the string of interpretive acts starts with the "welcome to college" story Carter told himself last term when he got his shocking C- (a reading he supports with flashbacks to his prior habits of negotiating high school expectations). The theory-building process continues in turn #38 as he tries to embed his

first semester understanding within a new, second-semester situation which is asking him to extend the "transition" and figure out the "writing styles" different courses demand. [2]

Another artifact of a previous social negotiation turns up in Carter's description of what is expected in two courses, Strategies for Writing and Science and Technology (see Appendix, turn #56). No doubt, the instructors would not be entirely satisfied with Carter's interpretation of the key features they look for in writing. Nevertheless, this vignette shows a student looking closely for the cues that will guide action--trying to forge an operational definition of what matters in each class and how to write differently. In their demands for "content' and for "organization," each course is asking Carter to transform his knowledge and to structure that knowing in a particular way. The point here is that *Carter's reading of the situation attempts to turn contextual cues into specific literate practices.*

The sections of Carter's transcript just described let us indulge in social archaeology, digging up evidence of how past interpretations and negotiations guided the construction of meaning. However, we should recognize that these paired retrospective stories of "reading a situation" are probably being constructed in part for this occasion. In fact, it is likely that the need to plan and write the current paper is itself leading Carter to this more articulated representation of his experience. Thus, another form of social negotiation happens in real time in these sessions when the planner must deal face-to-face with the prompts, criticisms and requests of the supporter.

Face-to-Face Negotiation

Courtney Cazden's study of classroom discourse sketches a number of ways the talk between teachers, students, and peers can support learning (Cazden, 1988). One way is by serving as a catalyst that stimulates, even demands, change. Another is by adding the missing bit the learner needs to perform, through scaffolding a conversation, completing and extending thought, or playing a complementary role (such as prompter or critic) which the learner might eventually internalize. One of the points of contention in this research is whether discourse supplies the catalyst and support for change by engendering conflict and cognitive dissonance (a position attributed to Piaget) or whether it dictates the path of growth by providing new models and forms of thought that the learner immersed in the experience then internalizes (a position attributed to Vygotsky). This polarization is unfortunate, since neither Vygotsky or Piaget intended to exclude a cognitive or social influence, and since discourse seems able to do both--to contribute models of performance and to engage students in a process for constructing their own knowledge. Moreover, "internalization" is itself a constructive process in the sense presented here. As Cazden points out, quoting Leont've, another Soviet psychologist, internalization is not covert imitation:

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[2]Carter's conclusions offer an interesting parallel to some more systematic observations of how other freshman represent the task of reading-to-write (Flower et al., 1990b). In that study, some students saw that college papers may ask you to transform information rather than respond to or summarize it. And to do this requires a change in the writing strategies you normally use since they are adapted to reciting knowledge, avoiding conflicts and contradictions, and subordinating your own elaborations to the authority of the source text. On the other hand, summary and response may still be a sensible move, since in any given course the rules of the game for integrating your own knowledge with a source can be difficult to figure out and integration is risky to attempt.

> The process of internalization is not *transferal* of all external activity to a preexisting internal "plane of consciousness"; it is the process in which this internal plane is *formed*. [quoted Cazden. p.109]

Vygotsky and Piaget's theories were trying to account for the rapid cognitive and social development of young children. When we turn to the collaborative talk of the young adults in this study, we see that this friendly discourse continues to provide models for thought (in the form of Blackboard prompts, comments when students drop into teacher talk with a self-conscious laugh, and suggestions for "how I would do it"). The discourse is also full of contradictions, conflicts, requests--offering a catalyst and a process for change. However, it would be naive to envision these writers as mere passive recipients, absorbing or even responding to all influences of the discourse. The reality of this social situation, and the meaning of all this talk, rests in how the writers interpret and choose to use it.

For our study, one of the most important social negotiations to track occurs when the supporter confronts the planner with a face-to-face request for a constructive act. These are critical occasions in collaborative planning in which the partner goes beyond merely prompting the planner to tell more (about a topic or to talk *about* the audience, for example) and actually raises a problem or pinpoints a place where knowledge-driven thinking won't work. How do writers interpret this request for constructive planning when the request is no longer an indirect cue (such as the "no content" comment written on a finished paper)? Here is an invitation to thinking, happening in real time, directly tied to the task at hand, and likely to reflect on the self-image the student is trying to project.

We attempted to answer this question for Carter and the other 21 students in the study by locating points at which the supporter's comment or request called for constructive planning (i.e., raised a problem or question that an experienced writer would see as calling for goal setting or knowledge transformation, a point that could not be answered with a yes or no or with content information. This coding avoided having to infer the supporter's intention and let us distinguish between a cue calling for such planning and the planner's response to it). For each such prompt we asked (1) was the request to construct knowledge itself rejected or deferred, (2) what knowledge or possibilities were constructed (or rehearsed) in response to it, and finally, (3) do traces of this response appear in the text or not.

The four occasions on which Carter received a direct request to rise to constructive planning involved some of his central ideas (see Table 1). For example, at #20 Jennie questions whether Carter's broad claim about everyone needing or even wanting to switch styles is really true (see Table 1). Carter responds first by becoming more tentative and then by narrowing the focus to his audience of college students, for whom this would be relevant. The final text begins with a statement that anticipates a reader like Jennie, asserting that people are asked to switch styles "throughout [their] educational careers."

Prompt at Turn #	Reject Defer	Knowledge/ Possibilities Constructed	Trace in Text
#20 Is claim true?	no	Some people may not care but impt. to students	¶1. Different styles a problem for students
#27 Adapt focus to audience	no	Gives ex. of switching from h.s. to college	¶3. Hardest transition: h.s. to college style
#37 Make it more real	no	Tells story about high school vs college paper	¶ 4. Learned the hard way example
#75 Give solution or just talk about it ?	no	Can help reader catch on to differences sooner	Final ¶. Problems cause confusion, so think *before* writing

Table 1. Carter's response to prompts for constructive planning.

Just what effect does such a prompt have on Carter's thinking? It could be any one of the following: It could (1) in the case of greatest influence, lead to the generation of a new idea or set of connections, or (2) lead to the elaboration and extension of an idea he already had in mind, or it could (3) simply have the effect of making a previous idea more salient, tagging it as interesting, problematic, or important. In Carter's case, a taped self-interview just before the session suggests that he had planned to address "mostly freshmen" (#20), that he already planned to talk about confusion over styles and switching from high school to college (see #32, "Okay, I'll give you a real big example"). Jennie's first two prompts lead to elaboration and qualification. However, it appears that the idea of using his senior thesis and his World History paper as a specific example was created in response to Jennie's prompts (see #38, "Yeah, Okay. I can do that. In high school..."). We can also see that the ideas that emerge from Jennie's prompts to do constructive planning (i.e., to set goals for his text, to adapt information in response to a problem or reader's needs) achieve a prominent place in the final text, including the introductory and concluding paragraphs. As we saw in #20, the challenge to an idea he already held led him to qualify that idea while asserting its importance in a prominent place in the final text.

For Carter and the some of the other 21 students, this face-to-face prompt to make a constructive planning move left an imprint on planning that can be tracked directly into the text. In Table 2 students are listed in an order based on a holistic quality score (column 2) given to each session (this scoring will be discussed later). The table shows the number of direct prompts to constructive planning given by the partner followed by the number of occasions on which the planner ignored, deferred, or refused to engage

with this request for constructive effort. The column entitled "Writer Constructs" shows how often the writer then responded to the prompt by constructing a plan(or rehearsing one already in mind) there in the transcript. (Note: a writer could recognize a need or accept a prompt or criticism, but not actually generate ideas in response.) The next column then tracks those ideas into the final text: Did the information generated in response to the prompt turn up in the student's written text? A fraction indicates that only some (e.g., two out of three) of the idea clusters mentioned in the transcript made it into text. The codes show where that information turned up. The final column is a shorthand version of the prompt itself, some of which came as suggestions (e.g., to "Make it more real") while others are marked as questions (e.g., "What are you going to try to do in the conclusion?"). (Reliability based on pairwise comparison on the number of prompts and engagement was 96%.)

Table 2. Constructive prompts from talk to text.

Writer's Name	Quality Score	Partner Prompts	Prompts Refused	Writer Constructs	Location in Final Text	Abbreviated Version of Prompts
Jennie	4	2	0	2	Intro, Con	Try to do in conclusion? Work on conclusion.
Carter	4	4	0	3	Intro, Con, MEx	Adapt to aud. Make real. Solution?
Liz	4	5	0	4	MEx, Con	Don't reiterate Farb. Why p. exists. Solution?
Patrick	4	2	0	2	Intro, Con	Is that a problem? Turn to a problem.
Fran	4	7	0	7	Intro,MEx, Con	Problem? Rel to context. Be specific. Impt to aud?
Kate	4	3	0	2	Claim , 1/3	A discourse problem? Show to aud in different light.
Han	3	0	0	0		
Ben	3	2	0	2	MEx,Con	Relate to aud?
Tomas	2	3	1	2	paper missing	How relate to anything? Aud will know ?
Paul	2	3	0	3	Intro, Claim 2/3	Use Farb? Aud already knows.
Vince	2	4	4	1	Intro, Con	What's point? Conclusion? Just examples?
Bob	2	3	0	3	new topic	How's that relate?
Ron	1	4	3	1	Con	Purpose? Explain cause?
Linda	1	1	1	0		Your insight?
Tracy	1	1	0	1	Intro	Relate to Farb.
Sara	1	0	0	0		
Gary	0	3	0	3	Intro 2/3	What's interesting? Do for aud?
Laura	0	3	0	3	Intro, con 2/3	Purpose? Conclude?
Chanda	0	2	0	2	new topic	Purpose? Aud response?
Janine	0	2	0	1	new topic	Purpose?
Yun Ho	0	0	0	0		
Lisa	0	0	0	0		
Average for group		2.45	0.41	1.91		
for 4 /3 scorers		3.13	0.00	2.75		
for 1 /0 scorers		1.60	0.40	1.10		

LEGEND for Location in Text Column
Intro = Introduction
MEx = Major Example
Con = Conclusion
Fractions show number of ideas used over total constructed, when only some are used

Perhaps the most interesting observation here is that these supporters, who had little or no instruction in being collaborators, much less peer tutors, are asking questions that call for more than knowledge-driven planning, that the answers to their questions show up with great regularity in the text, and perhaps most importantly, that these responses show up in some of the most important parts of those texts--in the introduction where the problem is framed, in the conclusion where the writer's own position often appears, and in the major examples used to develop the paper. This trail from prompt to text is most visible in the top eight sessions, which received quality scores of 3 and 4. These sessions also averaged 3.13 prompts, which yielded 2.75 instances of information constructed in response. By contrast the 10 lowest scoring sessions averaged only 1.60 prompts with a yield of 1.10 constructive responses. (The average was 2.45 prompts yielding 1.22 constructions.) Although there is a difference in the total activity (prompts and response) of the students with high and low quality scores, perhaps the more important figure is the the impressive 89% rate of yield for these prompts across groups.

It seems fair to say that collaboration is not only providing an occasion for some of the cognitive, conceptual work the instructors hoped for, but that some key parts of the writer's representation and text are being brought into this social negotiation. If we read this conservatively and assume the weakest case, in which the supporter's prompt simply foregrounds selected parts of a representation that already exists, that influence alone could help the writer structure this paper around salient issues or anticipate reader's responses in the subtle way Carter does from prompt #20. This data also raises questions whether prompts from a tutor or teacher might lead to a different yield rate and a different kind of negotiation.

At these prompts it may be hard to assert which process is happening--new generation, network reorganization, or simply selection and foregrounding. Nevertheless, the trail from collaboration to text at these points shows one way meaning develops, as both a socially negotiated, but personally constructed representation. Looking at the entire transcript, of course, reveals other dimensions of the writer's representation built from the active interplay of cognition and context. For instance, it is not enough to assume that Carter is simply "responding" to the social context of school. to his grades, or to his collaborator's prompts in predictable ways: the "meaning" of these contextual cues is not dictated by the context itself. In constructing his own rather complex but coherent web of meaning, Carter turns a past success on his senior paper into a causal explanation in his "welcome to college" story. That story is itself transformed into an example of a discourse problem. And in response to Jennie's gentle prompts Carter restructures the stories he told himself into a new text for two new readers--other freshmen and a composition instructor. Since social negotiation is likely to be a tacit interpretive process, these transcripts may reveal only the tip of the iceberg--but enough to show us that a highly constructive process is going on, whose imprint can be seen in both plans and text.

CONSTRUCTING A REPRESENTATION--IN COLLABORATION

A collaborative planning session is a sort of compression chamber for planning: some of the decisions, confusions, challenges, and epiphanies seen in an extended solo process can be telescoped into a 20-30 minute session. External influences, such as the instructor's criteria and the reader's expectations, turn up as direct prompts the writer must negotiate on the spot, while the need to explain can call the writer's own private agendas to the surface. In this section we will look at both the process of such meaning making and at the representations these writers construct.

It is important to recognize that this study is by necessity and design a descriptive analysis, not an experiment to validate an instructional technique. In fact, we learned a good deal about how to teach collaborative planning from this close look at a relatively untutored process. Unlike an experimental curriculum study, there is no control group of solo planners and texts for comparison--indeed, we saw no good way to capture a comparable individual performance and were skeptical that the blunt instrument of holistic evaluation would tell us much about the effects assigned collaboration might be having. The most relevant comparison this data does allow is an indirect one: do these planners fit the novice profile in which knowledge-driven planning is the default option for managing a school task, or does collaboration take these freshmen into the rhetorical thinking the instructors hoped it would? However, the interesting questions here can not be answered with a yes or no. The real focus of this study is on what these writers *did with* this instructional prompt--how they interpreted it within the context of this course and their own goals and strategies for writing. In fact, we will argue that one of the most important but least understood features of an instructional process like this is not the procedural package the teacher proffers, but the strategic knowledge with which individual students use it.

The Focus of Attention in Planning Talk: Coding the Transcripts

The categories of the Planner's Blackboard and the predictions from previous research on planning offer a starting point for analysis: Where are students focusing their attention? How much of that attention is devoted to generating topic information, in relation to effort spent on purpose, audience, and discourse options? The quantitative analysis will include the comments made by either the planner or supporter, telling us about the collective representation--the image of possibilities--that emerges over the course of the collaborative session. Clearly some of these ideas will remain options that the writer may or may not use, but this collective analysis lets us see the kinds of ideas and goals that are brought under consideration as these writers plan. Since the intent of collaborative planning is not just to improve a given paper, but to engage students in a supported constructive process and to help them reflect on their own thinking and collaboration, the nature of this jointly constructed representation is of special interest.

The unit of analysis is a conversational turn. If a turn includes more than one kind of planning statement it is double coded to capture each category. The coding categories described below are an expanded version of the Planner's Blackboard which reflects not only the theoretical predictions from Section 1, but explains how this metaphor was in fact interpreted by the students. When excerpts are quoted, their coding will be indicated in brackets at the end of each turn.

Topic Information (Info)

Statements are coded as Topic Information (*Info*) when the student talks over ideas that he or she finds interesting and might want to include, or recites a more developed discussion he or she already has in mind (see Carter #32). At times students even "drift" away from from the paper itself into sharing their own knowledge or experience with the topic. When topic information dominates the discussion to the exclusion of other concerns, we see evidence of the knowledge-driven planning strategy that appears to be a normal or default move in school writing and that is supported by a number "process" activities taught in composition classes, such as freewriting, journal writing, and brainstorming, which focus on the fluent generation of ideas.

Since other categories such as Audience and Text Conventions frequently include or "drift" into a discussion of Topic Information, an episode was coded as Topic information only when it was the sole focus of the entire turn or (in the occasional cases of double coding) an independent segment of a turn.

Key Point and Purpose

Our coding for this blackboard category distinguished between three kinds of purpose statements: Key Point, Rhetorical Purpose, and Generic Purpose.

Key Point (Key Pt)

Out of the wealth of ideas generated as Topic Information, these statements are ones that would serve as major claims or thesis statements (a topic plus comment) and that are in some way marked as a key point the writer wants to make (or are marked by the supporter who hears a key point and reflects it back to the writer or offers one as a suggestion). Note, this category does not include ideas that *could* function as a key point or that become marked as one *later on* in the process. As a result, this coding highlights the way Key Points are often constructed in the process of planning, as a student moves from a network of "interesting" ideas (coded Topic Information) early in the session, to a rhetorical focus on the key point he or she wants to make. For example, Patrick opens his session talking out a still tentative, exploratory review of the territory that will eventually yield his point:

> (#1) After reading Chapters 8 and 9 of *Word Play*, this is the ideas that I've come up with are these. Something that struck me as most important, they've got me confused maybe, was in Chapter 8 Farb quotes this guy, Ludwig Wittgenstein of Cambridge University and Wittgenstein says uh, the limits of my language mean the limits of my world and says, uh, I'll read one paragraph... [100 words of talk and reading later] I think Farb . . . kind of, I mean he said this and it seems to me as though he agreed with it. But he sort of contradicted himself later on. I mean with the examples of color [(terms] . . . . [info]

Eventually, in turn #23 Patrick hammers out the first statement of his point, which revolves around Farb's contradictory and misplaced emphasis:

> (#23) All right, my main point I suppose would have to be that Farb is very concerned with discourse between different communities and that's good an' all when you need to go to that other community. But basically, I mean the main thing that we need to understand . . . is communication within our own community. [key pt]

However, by the end of a session trying to untangle Wittgenstein ("All right, let's start over here. What did you think this dude was saying here?" turn #40), Patrick has in fact decided to argue against Wittgenstein's later position, that one must learn to accept the limitations of language. In his final text, Patrick, a first-year design student, describes how the invention of new color terms can improve communication within the design community. The introductory paragraph of his eventual text (below) reflects this new Key Point, which emerged near the end of the session (in turn #60):

> If there was one thing I never wanted to do in a paper it would be to dispute one of the most "influential philosophers" of this century, but I disagree with

Ludwig Wittgenstein's thinking concerning language and I feel obligated to show why.

In our analysis, Patrick's first comment, tentatively exploring ideas that "stuck out," would be coded as a discussion of Topic Information in contrast to later comments where certain ideas are more clearly marked with the status of a Key Point. Patrick's pattern of exploration followed by a marked (though still tentative and revisible) Key Point assertion is common in these sessions.

Rhetorical Purpose (Rh Pur)

These statements set an explicit intellectual, personal, or audience-based purpose that indicates the planner's desire to produce some kind of effect. The Planner's Blackboard presents Key Point and Purpose as separate but linked concepts (on the same blackboard), because at times writers think of their purpose in terms of asserting or presenting a given idea (a Key Point). That is clearly a form of purpose. But at other times writers create what we are calling a"rhetorical purpose" by constructing a set of specific intellectual or rhetorical goals for this particular text. The reader may figure strongly in these rhetorical purpose statements, as in Carter's intention to "prove it to them that different writing styles exist, and I want my audience to be able to relate their own experiences to this, and maybe see how it affects them" (turn #30). Rhetorical purpose statements can also focus on a writer's personal desire to think through or answer a question or explore an issue, as Patrick puts it: "I'm writing to question what he [this "philosopher guy"] said later on [on his career]."

Rhetorical Purpose statements, then, had to meet the criterion of setting specific, substantive goals particular to this paper. The threshold for statements to enter this category was set high: comments that depended on highly general verbs such as "I want to say," "show," "describe, or "explain XYZ" were coded as Key Points or, if in the context discussing purpose, as Generic Purpose Statements.

Generic Purpose (Gen Pur)

This third purpose category (not named on the blackboards) emerged from the freshman transcripts as an important form of purpose statement. With it writers refer to generic discourse plans used to describe the purpose or direction for the paper. Although these plans do not explicitly involve an audience or the unique intellectual goals we typically associate with rhetorical planning, these statements occur in the context of shaping the overall goals of the piece (and may be described by the writer as "my purpose" or "plan"). They define purpose in terms of whole-text text conventions and reflect the students' concern with managing the demands of a mini-genre or a kind of discourse. Some plans coded as Generic Purpose plans reflect simple formulas or textbook genres such as a "thesis and support" paper, but other episodes show students in a sophisticated struggle with the demands of a relatively new kind of discourse, such as a problem analysis.

This category provides an important alternative to the Key Point and Rhetorical Purpose as ways of representing and thinking about purpose, since it may tend to absorb the attention of students learning a new genre, perhaps to the exclusion of other versions of purpose. It also helps us examine the difference between a formulaic and a heuristic use of these generic plans. For instance, we see Patrick (quoted above) and his partner considering ways to carry out the generic purpose of writing his assigned problem analysis, trying to define the "problem" the paper will address. Talking about the barriers language creates (an example of a problem), Patrick notes that an artist and a basketball

player would indeed have trouble talking about the composition of a painting; however, he concludes that this problem is:

> "kind of obvious. . . . I think disagreeing with this philosopher is a little more important as far as his point." (turn #61).

His partner, however, doesn't appear to see finding a *significant* problem as a major constraint in school writing and replies to the charge of obviousness with:

> "Yea, but you can argue that just for being an argument."

Both writers are talking about purpose in terms of what the genre--a problem analysis or a argument paper--asks you to do, but the partner's image appears to focus on surface features more than rhetorical qualities. He interprets this generic purpose in a more limited and formulaic way. Because these generic purposes are, like other high-level goals, relatively abstract, they must be instantiated with more specific goals and key points. It is at this level of planning that students choose whether to argue with Wittgenstein or rehearse the athlete/artist barrier. Did Patrick's partner recognize this challenge to his goals? If teachers are to convey these qualitative differences to students, they may need information they normally don't have about the specific goals writers are setting for themselves and the way a generic injunction (e.g., "find a problem" or "support a thesis") is being interpreted.

Audience (Aud)

These statements mention a particular audience, describe its characteristics, or (more rarely) project a reader's response. As we will see, some ways in which students use the notion of audience serve to test and elaborate their ideas, but some ways--which textbooks often sponsor--do little more than conjour up a fictional reader who is conveniently disposed to hear the points the writer plans to make.

Text Conventions (Tx Con)

With these statements planners indicate their awareness of a wide range of conventional features of text such as examples, conclusions, lists; organizing plans such as point/counterpoint; design factors and visual cues such as bullets and italics; and the conventions of various genres. Unlike the plans coded as Generic Purpose statements, these deal with local decisions or specified parts of the text and frequently drift into a discussion of Topic Information. Some of these planning statements indicate the students' conscious awareness of textual patterns and options (see the discussion of examples and comparisons [#30 & #35] in Carter's session). But in other cases, these terms may be simply woven into our language for talking about content. At times, it seems that students possess a language for talking about text without the awareness or control to take full advantage of what they know.

Consolidations (Consl)

In these turns, two or more elements from the Blackboards are consolidated in the sense of being talked about in an integrated manner. Each comment counted as a Consolidation was also included in the counts for the two or more blackboard categories it contained. Only rarely did the planners give indications of attempting an overt, self-conscious consolidation. Occasionally writers referred to two or more blackboard elements during a turn without integrating them. These turns were double coded but not counted as Consolidations

For example, Patrick and his partner eventually worked out a key point asserting that "communities are limited by language but that they shouldn't be." In turn #70 the supporter restates this point then shifts his attention to the issue of audience--an example of a non-integrated, double-coded comment. However, this prompt leads Patrick in turn #73 to try consolidate his rhetorical goals with his image of a reader and to link his genre-based purpose (to discuss and undermine a quote) with specific features of a text (examples, conclusion)--a comment in which these concerns are consolidated. (In the text, consolidations are indicated by the slashes between categories).

70 S: Limitations need to be broken down. Okay. All right, I kind of think so. And you're writing to this philosopher guy. [key pt and aud, R]

71 Patrick: Well, he's dead. I mean I'm writing against his philosophy to. . . damn I don't know who I'm writing to 'cause he's dead. [aud, R]

72 S: You could just say like to anybody that agrees with his philosophy. [aud, R]

73 Patrick: I'm writing to the people who are going to listen to his philosophy. I writing to question what he said later on [in his career]. What about this? How am I to write my paper? I guess I'm going to write about . . . to discuss his quote, and then I'm going to use the examples that Farb has [of how communities adapt]. And that's going against what he says. And then I'll just conclude with, basically I'll just write with the examples. I don't know about my conclusion. [rhet pur / aud / gen pur / tx con, R]

74 S: Okay [off]

75 Patrick: I"ll just conclude with the main point about how this isn't true what he says. [key pt / tx con]

75 S: All right. It sounds like we worked something out. Okay. [off]

Off (Off)

Collaborative planning sessions include a good deal of valuable social talk as well as revealing metacomments about the planning itself. However, since these do not make a substantive contribution to the representation or plan itself, they were coded as Off for this analysis. For the same reason prompts, such as "Who is your audience?" or fragments, such as "My purpose, ahh...." that mentioned a Blackboard category but failed to supply any propositional content were also coded as Off and not included in the counts for the Blackboards, since they add little to the network of meaning. Offs also include uncodeable fragments.

Interrater reliability, calculated by Cohen's Kappa among three raters on 20% of the transcripts, averaged 73% agreement across all categories plus all major combinations (to account for occasional double coding of episodes). Instances of disagreement were discussed and resolved among the three coders.

Constructive Planning Scores (0-6)

To make quantitative differences in students' use of the planning blackboards more apparent, we created an operational definition of constructive planning in which each session was given a score from 0 to 6 based on the amount of attention given to each of the three categories of purpose (rhetorical, key point and generic) and to the audience,

text convention and consolidation blackboards--that is, to effort that took the students beyond knowledge-driven planning. Sessions received a point for each area in which their number of comments was at or above the average number for the group. To eliminate the skewing caused by a few high-scoring sessions, the modal rather than the mean average was used.

Reflection (R)

An important goal of collaborative planning is to create opportunities and support for critical reflection on one's own ideas and one's own thinking process, both during and after the session. For this analysis, reflection was operationally defined as any turn during the session that included (1) an evaluative comment or a problem identification, (2) a justification or request for justification of plans or ideas or (3) the generation or consideration of plans or ideas marked as an alternative to those already posed. A reflective turn is marked by an [R] on the coded transcripts. Interrater reliability for identifying reflection was .89 (pair-wise comparisons).

Quality Scores (0-4)

This scoring let us compare the preceding analytical descriptions of collaboration against a more holistic judgment of their intellectual quality and usefulness. Although we could have based the quality of these collaborations on the instructor's grades for the paper, we felt that the tangled skein of relations between paper grades and collaborations would be hard to interpret with confidence. For example, apparently "unsuccessful" sessions sometimes do their job by leading students to a complete change of topic or to later thinking we never see. On the other hand, a "successful" freshman session might do its job by raising a C- paper to a C+ or even by starting to expand the student's image of the task for the next paper. Paper grades are also social tools teachers use to challenge or encourage individual students or to emphasize the importance of some particular feature of an assignment. A session like Carter's may be productive, even impressive, in some areas, but ignore other criteria, such as explicit use of the source text, on which the paper is graded. Paper grades are included in Table 4. Quality Scores. However, for this descriptive study we felt the most appropriate and most sensitive quality measure would be a teacher's judgment of the session itself.

We asked four judges to read the transcripts and rate the generative quality of the sessions, as if they had overheard their own students planning and were holistically evaluating the quality of the discussion. The four judges rated each transcript on a simple high/low scale for generative quality, so the maximum score (high by all judges) was a 4, the minimum (low by all judges) was a 0. Agreement among the judges averaged 75% (by pairwise comparisons).

BEYOND KNOWLEDGE TELLING

The coding and scoring schemes described above were designed to answer a predictable teacher's question: did this collaborative process lead to rhetorical, constructive planning? And they offer some encouraging answers. However, to anticipate our discussion, the transcripts also challenged the adequacy of these categories to describe this planning process. Students in these sessions were not going about business as usual, merely planning a text. They were also learning new ways to plan and to write, and in doing so were interrogating, interpreting, and reflecting on a social/rhetorical situation. Our discussion, then, will propose a model of what *planning while learning* entails and our analysis will cover not only the differences we expected to find (i.e., differences between knowledge-driven and constructive planning processes),

but also differences in students' strategic negotiation of this event (i.e., differences created by limited versus challenging goals and by writers' reflective awareness).

Given the social and cognitive assumptions of collaborative planning, our analysis begins with the simple question: "Where are students focusing their attention?" Has the pattern of knowledge-telling been altered in any significant way? Table 3, Planning Categories, records the total turns for each session, divided into those coded as Off and as Substantive. When the Substantive category is broken down in the columns that follow, we see that students' comments are distributed across the blackboards in a somewhat surprising way. Substantive talk is appearing in all the categories listed across the top, including Consolidation and Reflection. The bottom three rows of the table show the total and the mean number of turns devoted to each category. The final row allows a closer comparison among the categories by showing what per cent of the Substantive comments each category garnered.

NAME	Total Turns	Off	Sub'tive Turns	Info	Key Point	Generic Pur	Rhet Pur	Aud	Text Con	Consol	Relects
Jennie	127	68	59	7	13	8	13	25	23	23	39
Carter	134	66	68	17	5	6	10	16	33	13	34
Liz	103	43	60	1	8	48	4	12	3	14	37
Patrick	75	23	52	21	17	11	1	7	3	7	28
Fran	56	10	46	24	3	0	0	9	9	2	27
Kate	57	12	45	26	4	0	0	8	7	0	19
Han	65	18	47	17	27	1	0	2	13	8	29
Ben	79	35	44	30	4	0	1	6	3	2	11
Tomas	90	33	57	32	10	1	2	7	8	1	4
Paul	89	42	47	26	9	2	0	5	13	4	28
Vince	101	62	39	13	15	7	0	3	12	6	17
Bob	40	16	24	17	2	0	5	5	0	4	11
Ron	70	35	35	7	8	5	0	5	16	3	12
Linda	38	23	15	4	6	0	0	5	1	1	7
Tracy	43	24	19	5	3	2	0	4	8	3	6
Sara	24	14	10	3	2	0	1	2	2	0	0
Gary	19	2	17	1	3	4	2	7	6	5	8
Laura	24	11	13	0	5	0	2	5	8	5	2
Chanda	34	11	23	7	4	2	0	4	8	2	1
Janine	24	9	15	6	3	1	0	1	4	0	1
Yun Ho	21	9	12	3	1	3	0	3	6	3	0
Lisa	16	6	10	1	1	0	0	4	6	2	2
Tot. Turns	1329	572	757	268	153	101	41	145	192	108	323
Mean	60.41	26.00	34	12.18	6.95	4.59	1.86	6.59	8.73	4.91	14.68
Percent of Substantive				35%	20%	13%	5%	19%	25%	14%	43%

Table 3. Planning categories.

Students appear to be going beyond the default moves of knowledge-driven planning that we might have expected. Moreover, when we collapse the three kinds of Purpose statement into one category (Figure 2. Focus of Attention), we see that purpose, at 39% of the comments, is even gaining slightly more attention than Information at 35%. Audience accounts for 19% and Text Conventions for 25%. Collaborative planning is clearly drawing students' attention beyond content and correctness and to matters, such as purpose, which the research reviewed above would not lead us to expect. (Remember

that comments that simply repeated a prompt for purpose or audience, etc., without additional propositional content, were counted as Offs.)

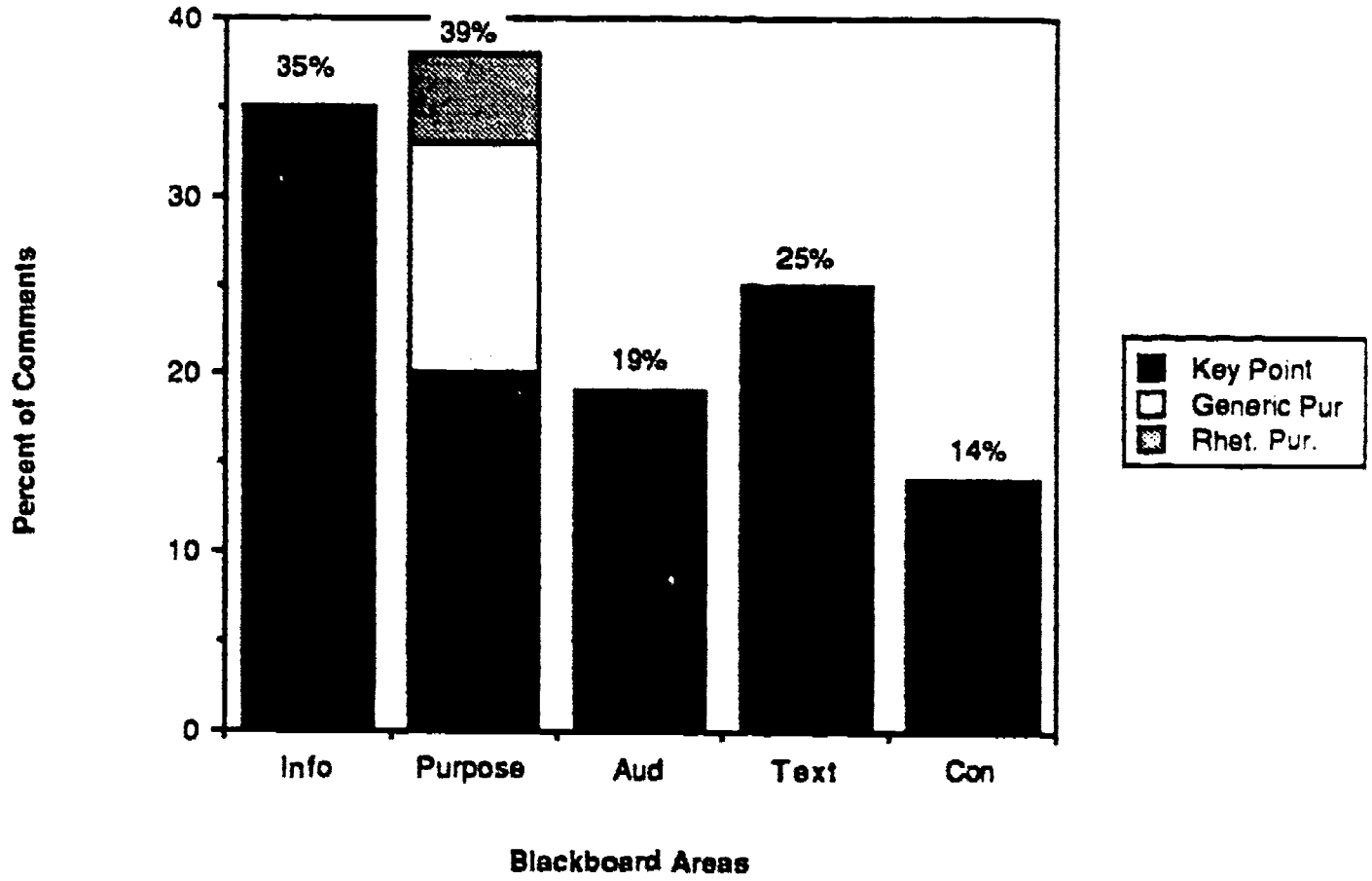

Figure 2. Focus of Attention

However, in going beyond the pattern of knowledge-driven planning one might have expected from novice writers, a look at the transcripts shows these freshmen students are not performing like experts more generally, nor even in ways their instructors' may have been expecting. The facts of the matter suggest a more complicated and revealing interaction between writing and learning to write. Consider, for example, how the collaborators went about constructing a purpose. Notice the difference in frequency of the three kinds of purpose plans. In this composition class, one might have expected Rhetorical Purposes: the instructors encouraged and valorized the creation of unique personal, intellectual or audience-based rhetorical goals for a text. The assignment and the criteria for evaluation seemed to invite such thinking. However, the extended attention Carter paid to such rhetorical goals at turns #18, #30 and #76-82 was not typical. These concerns did not seem to be particularly relevant to most students: only 5% of the total comments are devoted to discussing rhetorical goals. Are students unable/unwilling to do necessary rhetorical planning or is there another logic to their use of this collaboration that frequency figures don't show? (The breakdown of comments in Table 3, Planning Categories, lets us compare Carter's activity in each category (e.g. 10 Rhetorical Purpose comments) to the group's mean number of comments per blackboard (e.g., 1.86 Rhetorical Purpose comments), found at the bottom of the table.)

From one perspective, the attention paid to Generic Purposes (13%), coupled with the slight glance given to broader Rhetorical Purposes (5%), seems at odds with the rhetorical emphasis of the course. However, a closer, qualitative analysis of how students and teachers talked about purpose (Petraglia, Flower, & Higgins, in preparation), suggested that representing one's purpose in terms of genre may have been a pragmatic, successful move in this context, despite the announced goals of the class. Even though rhetorical planning is often necessary and probably helped Carter turn his insights into a well-supported argument, did this freshman assignment really require such planning to do a credible job? It is even possible that Carter's preoccupation with the personal, realistic aspect of the task led him to ignore another aspect--using material from Farb--for which his instructor was also looking. Carter may have dropped one constraint in order to deal with another. At this point in the course most students are clearly struggling with the new genre of problem analysis which encourages them to find and define a meaningful problem for which there is no easy solution. Under these conditions, concentrating on the intellectually demanding purposes associated with this genre may represent a sensible way of negotiating the demands of the course and a sensible learning move. (It also suggests that if teachers expect students to do significant rhetorical thinking about audience and purpose--when those students are also learning a new genre or a new topic--they may need to do more than merely "expect" or create assignments which "invite" such thinking.)

In order to interpret the significance of Table 3 we may also need to understand how a comment functions. The low frequency of some kinds of planning, such as an average of only 1.86 Rhetorical Purpose statements per session, may even make the category seem negligible. However, as we saw in Carter's comment (turn #30) on going beyond proving a thesis to showing other students how conflicting "writing styles" affect them, a single turn devoted to purpose helped frame a broader conception of the task and opened the door to Jennie's continued prompts to make his examples "more real."

A Student Model of Planning While Learning

Frequency alone will not tell the full story. Nor can descriptive analysis based solely on how these students approximate our model of expert/novice differences, even though those serve as useful reference points. Novices, strictly speaking, are merely trying to *do* a task with little special knowledge; students are trying to *learn how* at the same time. To understand what these student planners are doing we need what we currently lack--a more developed model of *expert student* performance (and a more diagnostic model of less expert students), a model that foregrounds the fact that we are witnessing an educational process, not just a writing performance in which a given text is the only objective. In a freshman course of this sort, we need an image of *learner expertise* and *success* that is sensitive to the fact that students' first order of business is to *develop a new understanding* about writing and/or about a particular form of discourse.

This is not to abandon the comparison with experienced writers. However, the more extensive discourse knowledge and well-learned, even automated strategies of experienced writers means they have more attention to spare and the skills to carry off more of their intentions. They have the luxury of setting more sophisticated problems for themselves. Descriptions of expert practice (in its own varied manifestations) are critical to theory building and setting long-term instructional goals. In research, they offer an important benchmark for comparison, but such descriptions are not always an adequate model for understanding the *process of writing while learning to write*. Students asked to tackle a new kind of discourse like problem analysis are still developing their own

representation of the task, which includes interpreting the rhetorical context of the class. In tandem with discovering what could be done, they are often learning whether or not their current repertoire of strategies, learned in other contexts, will do the job. A collaborative session (as well as papers written early in the course) can be an informative trial run to see what strategies transfer, what don't, and what is needed to create the kind of meaning this situation seems to require.

A *student model* of how these writers are building meaning--when learning may be as important as performing--must recognize two kinds of work that go on. In such situations:

1) ***students are building a representation of the task.*** This representation is not only a broad theory of the task, an image of what college writing, a "problem analysis," or a paper for English might entail, but also a more immediate working representation of what this particular assignment entails (including the goals the writer chooses to shoot for). Students report that talking over the task is one of the most important ways they use collaborative planning. In a more indirect way, challenges, prompts, and questions from a partner can work tacitly to expand or alter a student's theory or image of the task, even though they may have no material effect on the current plan or paper.

2) ***students are building a representation of meaning.*** This image of meaning is of course the foundation for what writers will say in a paper, but it is often rather more complex--and full of conflicts, possibilities and ambiguities--than the rendition we see in the final text.

A student model that can distinguish alternative ways of doing things also needs to recognize two ways in which students differ:

3) ***students will differ in what aspects of the rhetorical problem they attend to*** (i.e., which blackboards) ***and in how they interpret and use the instruction itself*** (e.g., the planner/supporter roles and the blackboard metaphor). (These differences will be reflected in both Constructive Planning and Reflection scores.)

4) ***students will differ in what judges perceive as the holistic, generative quality of their planning sessions.*** (These differences will be reflected in part in Quality scores.)

To flesh out this model of student collaboration and planning we will start with students whose performance can be explained in useful ways by the parallel to expert/novice differences. Then we will look at some performances that complicate and challenge these expectations and may require a more finely-grained strategic model that draws attention to how students negotiate this situation. We hope to show that this additional level of analysis, focused on a student's strategic knowledge, can make a significant difference in understanding not just what these writers did, but why.

Expert/Novice Patterns of Difference: Constructive versus Knowledge-Driven Planners

Planners in this study differed in ways the research had prepared us to expect. We can examine these patterns in terms of four writers whose data is shown in Table 4. Quality Scores and will be plotted for comparison in Figure 3. Benchmarks for Difference below.

A Constructive, High-Scoring Session.

Carter's planning session (see Appendix 1) has the earmarks of an engaged and productive educational experience. Above average in all 6 categories expected in constructive planning, his constructive score puts him in the company of five other students who earned high scores of 5 or 6. This planning session also earned the highest quality score of 4, rated as having a high overall generative quality by all four judges. As a benchmark for what a productive planning session might look like for these freshman, it shows writers constructing an image of both the text and the task, and it fits a reasonable expectation that quality and constructive, rhetorical thinking should go hand in hand.

NAME	Quality Score	Constr've Score	Percent Reflections	Paper Grade *
Jennie	4	6	31%	a
Carter	4	6	25%	c+
Liz	4	5	36%	D+
Patrick	4	4	37%	C
Fran	4	2	48%	B
Kate	4	2	33%	B+
Han	3	3	45%	a
Ben	3	2	14%	F
Tomas	2	4	4%	a-
Paul	2	5	31%	b+
Vince	2	4	17%	a-
Bob	2	2	28%	C
Ron	1	5	17%	d-
Linda	1	2	18%	C+B-
Tracy	1	3	14%	b-
Sara	1	1	0%	B-
Gary	0	4	42%	a-
Laura	0	5	8%	D
Chanda	0	2	3%	C-
Janine	0	0	4%	D+
Yun Ho	0	2	0%	b-
Lisa	0	0	13%	D

* Uppercase from class A
Lowercase from class B

Table 4. Quality scores.

Carter and Jennie are as much involved in building a representation of the task as they are in constructing the current text. Because Carter's effort to get a grip on college writing is itself his paper topic, we see him talk about his "theory of the task" in unusually explicit detail, identify what he sees as the key features (a set that may differ from his instructors'), and turn those general criteria into working goals for this paper. At the same time, this representation is clearly a sort of working hypothesis, subject to expansion by Jennie and disconfirmation from his teachers. For instance, the final discussion about "the most interesting part" of Carter's paper explores a qualitative dimension of the task, one in which their own response is used to predict what will interest readers.

Carter's content is also undergoing development. His initial self-interview shows that his major ideas were all present in some form before meeting Jennie. Collaboration did not produce the bouleversement or "ah ha" some students expect as evidence of change. As Carter puts it, the session helped him "think a little bit more about my examples . . . specifics . . . . audience. . . . and definitely my text conventions." At the same time, the examples Jennie elicited and her prompt to build a more useful conclusion produced material that turned up in key places of the paper (as we saw in the earlier analysis). Those bits that helped him frame his own experience as a shared problem may have had a more significant impact on his representation than Carter realized.

A Knowledge-Driven, Low-Scoring Process

Janine's session is a contrast in terms of both the work going on and the scores received. As Tables 3 and 4 show, her planning is below the average in all categories, receiving a constructive score of 0 and a quality score of 0 (i.e., no judge rated it as a "high quality" session). Her rambling knowledge-driven process repeatedly overrides the supporter's tentative prompts for constructive or transforming moves. Looking for more focus from Janine, the supporter prompts her with a tentative topic statement, then a request for a comparison, and finally a straight request for a main point or purpose. But Janine is still in the process of exploring her own knowledge and responds by plunging back into the incidents and examples she wants to draw on, responding with either topic information or a loose and baggy key point on 7 of her 10 substantive remarks.

4 S: How're you going to compare it [body language], like use different words, maybe like . . . [gen pur]

5 Janine: Well, the thing is, um, I'm gonna show from my experience with acting, like on the stage, like as far as how portraying a character and how that you're more aware of your facial expressions and your body movements on the stage than in real life. Like real life you're aware of things, but not as, you're constantly aware of them, as when you're portraying a character in a play. And, um, because when you're on the stage you're, as well as words but your facial expression and you body movements mean a lot too because once you're on the stage you're trying to look like a real character to the audience. [info]

6 S: Wait, I understand that, but what does that have to do with... I don't, I guess I don't understand what your... could you just give me like one sentence of your main purpose? [key pt]

Although Janine has found a wellspring of personally relevant ideas, her planning fails to focus or transform her stream of associations to and examples of body language into an idea she can articulate for herself or others. Her knowledge-driven process in this session could not deal with the contradictory and multiple connections in her own thinking about body language, projection on the stage, and unintentional emotional leakage that occurs off stage in conversation. The paper she eventually turns in is on a different topic (one which is also discussed by her partner and by Farb).

A Mixed Session

Vince offers us a third profile which is closer to the average for this group, with a constructive score of 4 and a quality score of 2. However, the quality score is perhaps most accurately read as a mixed performance in which half of the judges credited it with a generative process, but half didn't. A closer look suggests why. The important educational work in this session is the friendly interrogation of Vince's representation of the task. In two separate episodes, Vince's laid back but direct partner, Tomas, draws attention to Vince's limited aspirations. challenges his assumptions, and asks for more. This is the sort of advice--straight talk from a peer--that teachers hope will come out of collaboration:

16 S: Yeah. What is your key point? [(off (no propositional content)]

17 Vince: Well, it's just to discuss how this [the use of idioms and cliches] comes up in life, and how people just use it to avoid like say... [key pt]

18 S: Are you gonna be saying, "This is good, this is bad." What are you gonna be saying? [key pt]

19 Vince: Well, I'm just... I'm not gonna be saying... I'm not gonna be making any kind of judgment. I'm just gonna like discuss it., Really, I think the paper's gonna be a little too short to be into making judgments. There's also another reason why I think people do it. Sometimes they do it to avoid... [gen pur and key pt]

20 S: I don't know. It doesn't seem like much of a point to me. It doesn't sound like you're making a point. [gen pur]

21 Vince: Well, I'm just discussing something. Well, it's my - That's my purpose is to *discuss* this. [gen pur]

(22 S: Okay. Okay. Sure [off]

23) Vince: All right? [off]

24 S: Sure. [off]

25 Vince: Thanks Tomas. [laughs] Wish you were marking this paper. What an agreeable guy. No. Well, my purpose... To discuss this. This point - This topic... This situation. [off]

S: Yes. [off]

Unlike Carter, Vince does not appear to have subjected his image of the task to much scrutiny before this moment, choosing to rely on a "standard strategy" (turn #37).

Hoping for a contribution from Tomas, he is instead steered back to the central problem: he has a topic but no point to make and no rhetorical plan for doing more than knowledge telling.

37 Vince: Now. My text conventions. Ah... I was planning just... Well, they're sort of like a standard way I write my papers. I just - I just - You know - start out with an introduction. I usually give some examples, and - and - you know - I mean, I finish it up with a conclusion. [tx con, R]

38 S: Hm-hm. [off]

39 Vince: You have any input here, Tomas? [off]

40 S: What would you conclude? I mean, you... I haven't really seen any conclusion you'd come to yet. [gen pur, R]

41 Vince: Well, I know. That's why we're talking about it. See, you're supposed to help me,Tomas. [gen pur, R)

42 S: Well, I'm just... [off]

43 Vince: Oh, no. [off]

44 S: I was thinking if you had a more definite key point - maybe - maybe you could have a more definite conclusion here. [gen pur, R]

45 Vince: Well, yeah. Ah... I mean, I - I do... In my mind, see, I have a key point. I know - I know what I want to discuss. [off (no propositional content to key pt), R]

46 S: There's a difference between having it in your mind and on the paper. [off, R]

47 Vince: Yeah. A whole grade difference. [Laughs] You know. Whatever's in my mind's not gonna get me an A on the course. Ah... That's beside the point. I mean, I know what I'm gonna discuss; it's how people use idiomatic speech. [key pt, R]

Seen from an educational point of view, this collaborative session is doing important work by challenging Vince's comfortable and limited representation of the task of writing. And maybe that is enough to expect from a 10-minute session with a friend. On the other hand, Vince does not in the end take responsibility for extending his image of the task--he relies on his skills of social negotiation to get Tomas' tacit acceptance:

(80) S: So what I get from this is that - that you're just gonna go over certain examples, that's all the paper is gonna be... [gen pur]

(81) Vince: Yeah. [off]

(82) S: ...Go over certain examples of... [off, frag.]

(83) Vince: Yeah. But it's gonna... I mean... Yes. That's about it. [off, frag.]

As a result, this session contributes very little to our second desired outcome--to building an expanded representation of the writer's meaning or a more developed text. On the other hand, as we will discuss, the "A-" Vince receives on the paper suggests that his

well-developed knowledge-driven planning continues to stand him in good stead in the class.

Strategic Patterns of Difference: Limited Versus Challenging Goals

The three profiles of planning we have just seen fit an understandable pattern of expert/novice differences. That is, they differ in their use of knowledge-driven versus constructive planning and in how well each pattern of planning meets the goals of the assignment, which asked students to engage with a relatively complex rhetorical problem, where audience and purpose mattered. For a number of students, the high, low or mixed scores for constructive activity run parallel to high, low or mixed quality scores for the session, and the expert/novice paradigm helps us describe the difference. However, it is the cases which don't fit this pattern to which I want to turn now, because in complicating the picture they challenge some reasonable, if convenient assumptions we may make as educators.

In teaching, and in evaluation we typically focus on large and obvious dimensions of practice: the papers one can grade or analyze and the activities or behaviors one can teach, observe students doing, and then measure. There are good reasons to do this. The bottom line in evaluations is finally the paper one can produce. And in teaching our claims for the value of one method over another need to rest on reliable and repeatable measures of what was done. (Hillocks, 1986). However, as Hillocks argues and Applebee (Applebee, 1986) has begun to demonstrate, a narrowed focus on activities and outcomes carries a cost. For example, the "natural process" approach to teaching writing has at times popularized itself into a set of approved activities--a sort of process canon which includes "brainstorming, journal writing, focus on students' ideas and experiences, small-group activities, teacher/student conferences, . . . emphasis on multiple drafts, postponement of attention to editing . . . and elimination or deferment of grading" (p.95-6). Applebee suggests that in this enthusiasm for activities one can do and teach (and, unlike certain mental actions, require one's students to exhibit), teachers may lose sight of the goal-directed nature of writing. Instead of presenting writing strategies as means to the writer's own ends, teachers prescribe a set of "naturalized" or even required activities. The students in Applebee's study ended up seeing an activity like journal writing as just another exercise to complete by the rules, instead of a writer's tool that can be good for certain purposes.

Unlike the activity-centered, "natural process" approach Applebee describes, the problem-solving emphasis of cognitive rhetoric may circumvent a part of this problem by focusing more directly on a writer's plans and goals and on the merely probabilistic, heuristic nature of any given technique, whether it is using Aristotle's topoi, drawing an issue tree, or doing collaborative planning. Nevertheless, when it comes to developing explanatory accounts of students' writing process, it, like other research agendas, tells us more about what students do than why they did it. The curriculum research Hillocks reviews, for instance, looks at the activities teachers conduct or assign. Other studies that contextualize the process still use ethnographic data to describe how knowledge is presented and how students interact within a class (Herrington, 1988) or textual data to infer the discourse knowledge students lack (Bartholomae, 1985). Studies with a cognitive focus may look for developmental patterns within a large set of general thinking behaviors (Langer, 1986), or use experimental instruction to produce a theoretically revealing change in writers' performance (Bereiter & Scardamalia, 1987). Or they may look for expert/novice patterns and differences that reveal key features of a process such as planning or revision (Flower et al., 1989; Hayes et al., 1987) . For all that this process approach and process research have taught us, the focus has been primarily on the

situations and activities students are swept into and/or the definable strategies they exhibit.

But as we will see in the benchmark cases below, a description of strategies and/or knowledge alone can not always offer an adequate explanation. The students in this study who challenge the pattern do so because of the goals they bring to this session. Because of those goals, a session devoted almost exclusively to knowledge-driven planning was the basis for a high-quality discussion, yet another session that appeared to be constructive (by our scoring) was a low-quality exercise. Figure 3 lets us plot these apparent contradictions graphically. Across the top of the graph we see Carter's frequent use of all the blackboards; Janine's line runs along the bottom; and the average frequencies for the group is plotted with the heavy line running near the middle.

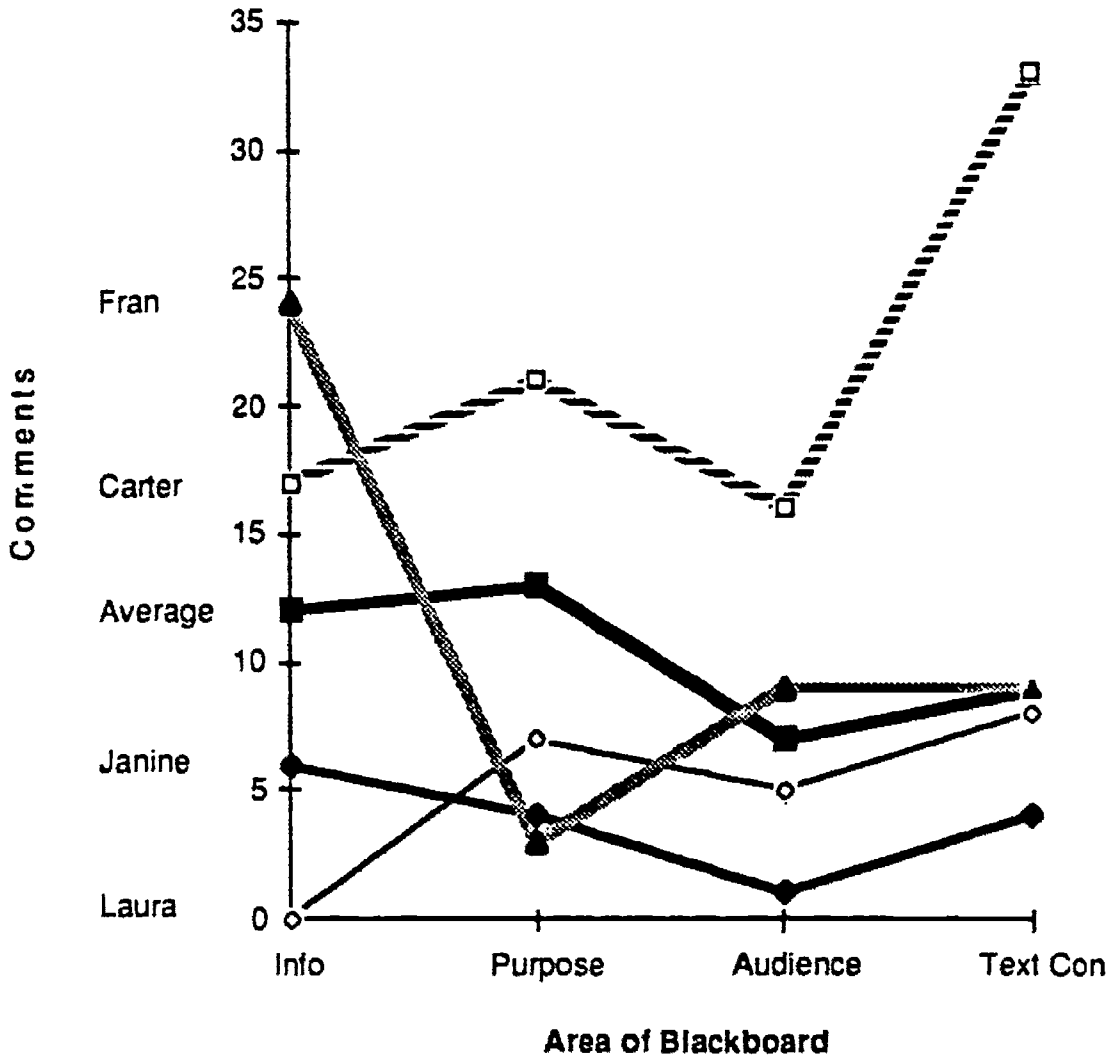

Figure 3. Benchmarks of difference.

Limited Goals

Now consider Laura. Although she is somewhat below the mean average in her use of most of the blackboards (see Table 3. Planning Categories), the more lenient

modal average used for the constructive score gives her a score of 5. This stands in apparent contrast to her low quality score of 0 (Table 4. Quality Scores). If Laura is carrying out the planning activity her instructor requested, why don't the teacher/judges value the result? And why does her graph take such a nose dive at the category of Topic Information (Figure 3. Benchmarks)? A closer look which takes account of the writer's goals suggests a rigorous sort of logic behind this performance.

Laura shows us a schema-driven planning strategy, as efficient as any alchemist could desire, for turning a simple idea into a five-paragraph theme. It starts (she tells us in the initial self-interview) with the discovery of an assertion. While reading Farb, she "came to the conclusion that our language is basically limited and we have a problem with that. . . because there are not enough words in the English language [to explain all we know]." By the time her brief, 24-turn collaboration begins, this observation has been transformed into a thesis which will be stated in the introduction, then lead to three points, each with supporting examples, to be neatly wrapped up with a conclusion. In such schema-driven planning, topic knowledge is called in to fill in the template; the five-paragraph discourse schema packages ideas in such a clearly defined way that the structure itself becomes generative--a thesis in search of examples. In turn #12 this schema-driven plan confronts and briskly co-opts the problem analysis assignment, which, ironically enough, had been designed to conflict with a pat thesis and support plan.

12 S: How are you going to write it ? [tx con]

13 Laura: First I'm going to make the introduction, which states the problem or the purpose of writing it. Then I'll have my supporting ideas, which are the problems. And then I'll conclude it, and I don't think I'm going to try and solve it or give a solution because I don't think there is one besides changing our entire language.[tx con/rh pur]

14 S: But wouldn't that be a solution... [tx con]

15 Laura: Yea but it's sort of unrealistic to change the entire English language. [rh pur]

Notice how Laura deftly inserts the instructor's request for a problem into her five paragraph theme schema--her supporting ideas will mention problems, and since the problem is too big to solve, her thesis can itself serve as the conclusion. This formulaic schema appears to assimilate the prompts of the Planner's Blackboard into its agenda as well. At turn #6, her partner's skepticism about the broad, unfocused audience of "everyone" prompts Laura to a move used by a number freshman (Petraglia, Flower, & Higgins, in preparation). She simply redefines the audience as people who are interested in her topic.

(6) Laura: Well then.... I don't know. All right my audience is to... This is going to be directed towards students that don't realize that the English language has so many flaws. [aud/key pt]

(7) S: All right. . . . [off]

In essence, the audience is a shadow cast by Laura's topic and thesis. As a function of the point she intends to make, it plays little role in constructing or testing the plan or challenging her conclusions. Her partner appears to share Laura's strongly schema-driven approach to the paper, prompting her for supporting ideas, organization, conclusion and length--wrapping up the session with approval after 24 brief turns. The paper follows this plan closely.

Although these transcripts did record a few sessions that deftly avoided planning by treating the session as a perfunctory exercise or a campy social event, Laura's tape does not suggest a desire to resist or avoid the demands of the assignment. Laura and others like her may be operating with the confidence that they are doing precisely the task the instructor had in mind. Although Laura is considering the *issues* her instructor requested, the limited *goals* she sets for herself are so easily satisfied by surface features of the text, that attention to audience and purpose loses much of its meaning. In the same vein, there is nothing wrong with a schema-driven strategy per se, but in this case Laura has invoked a schema with rather limited aspirations and criteria, in a situation that calls for more critical and constructive thinking. To understand the low quality of Laura's session and the mixed evaluation of Vince's ("I'm just discussing something"), we need to look not only at the strategies they invoke but the goals they are setting for themselves. The main difference between these two may well be the partner: Vince's challenged his image of the task, Laura's bought into a familiar plan. In the six cases that received low-quality scores from all four judges, we see the signs of limited engagement--the total number of turns, blackboard and reflective comments are typically below average. The problem with these "problem cases" is knowing whether students' strategies stem from limited engagement or personal investment (as the cause) or whether such limited engagement is itself a result of the goals students give themselves. Because goals are so rarely made public, students like Laura may continue to assume their tried-and-true high school goals are acceptable even if a given paper wasn't.

Like Carter ("welcome to college writing"), Laura is receiving an introduction to certain features of academic discourse. But if our analysis were to stop with this fact--to see all these students as the product of a culture of recitation and five-paragraph themes, determined by their own assumptions, placed in a power relationship that compresses the scope of their authority, operating as the uncertain initiates to a frequently mystifying discourse--if we were to look no deeper than the social, contextual reality these students are likely to share, we would be missing an important part of the picture. That more finely-grained cognitive analysis, which I am valuing with the term "deeper," would help us distinguish between these students who for all they share, are handling school in significantly different ways. And it would help us build an explanatory account of why they differ based in part on the different ways students are reading, interpreting and, in a sense, constructing not only textual meaning but the teacher's instructions and their theory of the task. It would show us one way personal agency operates within the powerful, shaping context of school as some freshmen writers set, reflect on, question, and revise their own goals and test and modify their strategies, while other students cling to old formulas by avoiding engagement (Vince) or perhaps by failing to see the alternatives that exist (Laura).

Challenging Goals and Reflective Processes

If a strategic analysis that recognizes students' goals can account for the logic of some low performers, how can we account for the high quality sessions that do little constructive planning? Figure 3. Benchmarks of Difference plots the performance of Fran who (like Kate and Ben on Table 4. Quality Scores) received a high quality score from the judges but gave scant attention to the rhetorical elements of her plan (particularly her point and purpose). Fran's session exemplifies an energetically goal-directed collaboration, but one in which her goal is not to shape and develop a paper, but to explore ideas, examine assumptions, and to precipitate an issue out of the clouds of her ideas. Fran's goals (for the collaborative process itself) are not the ones the Instructors had in mind--hoping students would use collaboration to elaborate and test an initial plan in this new more rhetorical context. Still at an early point in her writing, Fran treats

collaboration as an occasion for discovery. At the same time, she is willing to engage with a demanding image of the task--one that expects her to find a real issue--and to accept and wrestle with goals she can't yet meet. Like Patrick, trying to work out his answer to Wittgenstein ("My thoughts are all jumbled, but that's good"), Fran is willing to accept the tension and uncertainty generated by hanging on to high expectations. Unlike Vince ("I'm just gonna like discuss it"), Fran accepts the gambit each time her partner poses a difficult question.

The apparent contradiction in Fran's high quality but low rhetorical performance is resolved when we we have access to the the writer's goals--when we see this as a goal-directed strategic process in which the student put off the constructive planning the teacher expected, while accepting the challenge of finding a problem. However, we would like to argue that the logic of this performance emerges even more clearly when we look at a third aspect of Fran's strategic knowledge--at the strategic or metacognitive awareness she is bringing to this session, as she monitors her own thinking process and considers her options. Look for a moment at not only the rambling path of Fran's conversation, but at the way she is monitoring and reflecting on the process.

Fran's session brings us in on the genesis of a plan. As she says in her self-interview before the collaborator arrives:

> I really don't know what I'm doing my paper on, but that's all right, cause that's what I'm here for.

The starting point, she tells us, is what "stuck out in mind" when she reviewed Farb. This appears to include a sense that society is linked (somehow) to language, followed by a jumble of interesting examples (of something)--e.g., Apaches and Amazons with strange classification systems, German words that don't translate, a Connecticut roommate whose abrupt "Northeastern" style made her seem cold. Out of all of this Fran is trying to find or define a problem, supported by a persistent and faithfully optimistic partner (whose occasional interjections appear between /slashes/):

30 S: It seems that all these things are the result of some problem, but what could it be.... [info, R]

31 Fran: The larger problem or a smaller problem? Larger problem...people would just - people aren't aware of the way people talk and ... /aren't they?/ in other communities necessarily. /well.../ They don't quite realize everything... I mean, sure if they'd been there for a while, they would get to know it, but just like going somewhere else... like... people from.... [info, R]

32 S: [begins to speak with a southern accent]. Well, everybody's heard about how everybody talks down south, I mean I knew about that and I never been there, well, I been there, but I was too young to know. [info. R]

32 Fran: Yeah (laughs). [off]

33 S: Well, the very fact that I know, I mean, doesn't necessarily help me. So I don't know if the problem is awareness of how they talk. [info, R]

34 Fran: What I was thinking was the people that go... like someone from... like out in the country, he doesn't really hear a lot because they're out in the country and separated from everything and then they go to the city and they try to communicate... [info]

35 S: Why can't you make a drawing (laughs)? [Fran is a design student.] [tx con]

36 w: It's subconscious, well its not subconscious, I don't think about it as drawings. I just start drawing and my drawings kind of relate to what I'm saying. By the way, there's lots of arrows and boxes on my page here. When these people will go to like the city, they wouldn't quite realize that, there are just certain things you don't do or say or act. That people in the city aren't quite as friendly and open as people out in the country might be. Umm... I feel like I'm like running around something, but never quite getting anywhere... I think I need to think about this for a while longer and just let it sit in my mind and let it grow. [info, R)

37 S: Yes, see, like you said, the worst part is, is that all these ideas are related, somewhere, but ... [info]

38 Fran: Somewhere. [off]

The faith that "all these ideas are related, somewhere" could be the theme song for other collaborations that received these mixed scores. The Kate and Han transcripts resemble Fran's in their preoccupation with sources, problematic or conflicting ideas and examples, in their high scores for Topic Information, and in their limited concern with either putting that knowledge to use or constructing a text. All three are using the conventions of problem analysis as a heuristic for invention rather than the design of an argument, as they are pushed by supporters who ask "Now why is that a . . . . I don't really see that as a discourse problem" (#29, Kate). Their high quality scores may reflect this persistent engagement with their own knowledge. Their low scores for constructive planning also indicate how this dedication of attention to one part of the rhetorical problem has put other calls on hold. True, they have not lived up to all the instructional intentions of collaborative planning, at least not to the level some students did. However, in adapting the planning session to their own uses and immediate needs in fruitful ways, they are exhibiting the kind of strategic cognition we expect from experts including expert students. Unfortunately, this strategic dimension of a student's performance is not always available to the instructor.

Setting challenging goals (even when they aren't the instructor's) appears linked to metacognitive awareness in another way, in that the planning process doesn't stop when the assigned activity is over. Kate's final self-interview is a revealing glimpse of a process guided not by the automated moves an expert might have, but by the reflective awareness of a learner. During this self-interview Kate listens to the planning tape made with her partner and evaluates both what she accomplished and what she didn't do:

> Okay I really don't think that our collaboration went that well, so I'm kind of writing down ideas as I listen to it [the tape], and I think I got a really good idea here. What I think I really want to do is . . .

After an extended, 850 word planning session with herself, she concludes that "just thinking this through" helped more than the collaboration did. Yet, stepping back, it is also obvious that this focused, productive *second* session alone [with her tape] would not have occurred without the first. As Kate, herself, concludes:

> It might help though, if I get together with my partner again, and I get somebody to talk with me about this. I think that's what I'm going to do next.

These two students, Fran and Kate, are like the low-scoring Janine ("body language"), lost in their own networks of knowledge, trying with mixed success to see some pattern in their own sense of unarticulated conflicts, to link their experience to Farb, and to see how these disjunctions in discourse are, to quote Fran's partner, "the result of some problem, but what could it be?" All three focus their collaboration on unraveling this tangled skein of topic knowledge, but the strategic knowledge--in particular the challenging goals and metacognitive awareness--Fran and Kate bring to this process is different from Laura in some striking ways. First, both writers are highly reflective. Terms like "reflection," "metacognition," and "awareness" are often used in a broad sense that includes performing a cognitive action (such as planning), as well as being aware of one's action and/or able to articulate that awareness (cf. Brown, 1980; Durst, 1989; Paris & Winograd, 1990; Higgins, Flower, & Petraglia, 1991). Because we are interested in how writers use reflection and self-awareness to manage their own process and negotiate rhetorical situations, this study defines "reflective" comments in the more limited and rigorous sense. The reflection scores (see the last column of Table 3) are based on the presence of (1) an evaluative comment or a problem identification, (2) a justification or request for justification of plans or ideas, or (3) a comment that generates or considers plans or ideas marked as an alternative to those already posed. As Table 4 suggests, the reflection scores turned out to be highly correlated with the quality scores for collaboration (after length was factored out, $r=.66$, $p<.05$, Pearson Product).

How do these reflective moves translate into the generative planning the judges saw? For Fran and Kate this reflective stance includes an awareness of their own process and options. When Fran's partner raises a constructive challenge (such as,"what is the problem?" "how is this related?" "what does this have to do with the audience?"), Fran treats these questions as a necessary and natural part of writing--even when she knows she can't yet answer them. She accepts the gambit, goes as far as she can. Moreover, she appears to be monitoring the changes in her plan as a whole, and to see the parts of her representation (the different blackboards, in effect) as connected to each other. At turn #43, when this monitoring pays off and she sees a way to consolidate her ideas, she recognizes that this new decision has reverberations across her plan:

42 Fran: Let's see, maybe like all these little things I've been talking about are kind of topics under this larger context.

43 S: Who's the audience, again?

44 Fran: Audience, okay. Now it's all changed again. I've got to think, who is this important to . . . to whom is this important? [. . .] Actually, maybe like . . . something like *Psychology Today*.

Collaborative planning appears to stimulate reflective thinking, but, we might ask, does this awareness depend on sophisticated powers of introspection? Does reflection have to be intentionally initiated or guided by explicit knowledge about options to consider? As far as we can infer from this data, Fran's strategic awareness may be relatively tacit, her sense of options invoked by a challenge or triggered by an opportunity. She might not be able to describe precisely what she does to a floundering Janine (even though she might be a good supporter). Kate's transcript, however, shows a more explicit awareness of her own process as she reviews what she accomplished, set against a set of goals that are clearly more demanding than Janine's ("body language") or Laura's ("about three paragraphs"). In Kate's second, private session with the tape, she in fact prompts herself to face a potential criticism:

> So that's a pretty broad subject. But I think that . . . All I really want to do is just analyze this, and in analyzing it, I want to explain to my reader that this does exist.

One can imagine the internalized voice of a teacher in Kate's diagnosis--"a broad subject." And a few minutes later she engages the textbook author (whom she does not know) by name in a simulated dialogue, walking herself through what the author might say:

> She tells us, you know, first we're supposed to explore the subject. Well, I think just by being a student I've more or less explored the subject [e.g., understanding the language of a new discourse like physics]. And . . . Let me see . . . What did she tell us to do next?

Kate wraps up this self-interview with the decision to have another collaborative session, not only reviewing and evaluating the status of her own thinking, but making plans that guide her own process. Kate is not an expert writer even by freshman standards (her paper received a B), but she is a good model of a student expert, using both the collaborative experience and the self-interview to experiment, observe, reflect, and learn about both her topic, the task, and her own writing process.

Strategic Choices and The Quality of Collaboration

The strategic analysis we have just done adds to our understanding of student planning in two ways. It tries to incorporate data on writers' goals and awareness which a traditional analysis focused on outcomes and activities would exclude. And it looks not only for the broad patterns of difference an expert/novice model would suggest, but for individual writers or small groups of writers who depart from those patterns in meaningful ways. The statistical analysis which follows offers converging evidence of and a different perspective on these patterns by asking, "What actions predict the quality of a session?" The regression model which offered the best fit to this data identified three factors (in descending order) as the best predictors of the judged quality of a session: the number of substantive turns, the percent of reflective comments, and the constructive planning score. (The r squared value for this model was a high .929; the adjusted squared multiple r =.840. Beta weights for the three factors in order were .076, .029, and -.229) The first factor, number of constructive turns, contributes heavily to making this a strong correlation, and its strength, combined with correlations among the factors, reduces the apparent role of the other two, to the point of showing a negative value for constructiveness. However, all three of these elements are needed to create the best fit regression line, and in a post hoc test of individual elements in the best fit model, both reflection ($F=6.962$, $p=.017$) and constructive score ($F=5.089$, $p=.037$) are significant contributors. The overall pattern suggests that, on the one hand, substantive engagement (not surprisingly) combined with reflection and, to a lesser extent, with constructive planning predicts a quality score. On the other hand, the mixed predictive results we see for constructive planning argue against a simple linear correlation. Looking at the logic of students' strategic process earlier suggested why the relationship is unstable: students working with limited goals can turn complex issues (like purpose) into a routine exercise; while writers setting challenging goals may adapt knowledge-driven planning in valuable ways to their own current needs and purposes. This analysis suggests that quality depends on strategic choices about how to use an activity more than which activity one uses.

The regression points up the same need for closer analysis we argued for above: the expert/novice pattern (defined in terms of knowledge-driven vs. constructive planning) identifies a meaningful difference in how students use collaboration, but it can only tell part of the story.[3] A check for the possibility of outliers, that might call the regression line itself into question, was negative. However, an analysis based on Cook's distance, identified two students whose scores, given this small sample, were highly influential in depressing the predictive value of the constructive score. One student was Tomas, whom we have discussed; the other was Gary. The Cook's measure identifies problematic cases within the data which depart so far from predictions that they influence the larger pattern. Gary has much in common with Laura--a short session in which the Blackboard Planner topics are brought up but not followed up. What makes him so influential in the statistical analysis and worth scrutiny is a high reflective score, which is based on Gary's uncertainty and his partner's persistent, but unrequited reflective questioning:

10 S: What's this going to do for them, though, them reading your paper?

11 Gary: That's a good question.

12 C: I mean, what are they going to get out of it; is it just going to be examples or what?13 Gary: It will be a lot of examples and just my point of view on . . . I mean, its a discourse problem, but . . . I guess really there isn't too many ways you can solve it.

Like Laura, Gary's image of the appropriate goals for a college paper appear to set a ceiling on effort and a comfortably low threshold for success. As the statistical analysis suggests, the quality of the session is linked to significant strategic choices.

17 Gary: It will be a typical like essay, where, you know, you start with your introductory paragraph and then offer a few examples, a few paragraphs with examples, and then a concluding paragraph. I mean, it will all relate to each other, each paragraph will sort of have something to do with the one before.

PART III. WHAT ROLE DOES STRATEGIC KNOWLEDGE PLAY IN CONSTRUCTING NEGOTIATED MEANINGS?

In the final section of this paper we will explore ways this investigation of students' planning and its focus on their strategic knowledge might contribute to a fuller theory of how writers construct negotiated meanings.

STRATEGIC KNOWLEDGE AND THE LOGIC OF A LEARNER

Like any educational exploration, this study brought with it a set of expectations about what collaborative planners might do. One possibility was that because knowledge-driven planning is such a well-learned default strategy with such a record of success in school, that neither the blackboard metaphor nor the social support of the partner would make much difference. These freshmen did not receive extended

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[3]We want to thank David Wallace for his suggestions for this analysis and insight into the convergence of the statistical and strategic analyses, which point to revealing patterns of individual difference.

instruction in how to be planners or supporters, or an opportunity to reflect on their own performance in class--two things we would emphasize in later instruction. There was also the possibility that the planning session would turn into a more familiar peer critique or advice session, in which authority would be wrested from the planner by a "supporter" who was more vocal, more able or had his or her own idea of what should be done.

Alternatively, we might discover that the combination of opportunity with even minimal instruction would unleash a wealth of rhetorical thinking. Giving writers a conceptual framework for planning that focused attention on the areas students often ignore would help them to monitor their own thinking. Embedding this awareness in a supportive, collaborative setting with an assignment that invited self-directed inquiry might allow latent and natural abilities to emerge. In the uncomplicated version of this outcome (in which to some extent teachers always have to believe), we might see students setting unique and elaborated rhetorical goals to investigate a paradox that intrigued them or to convince the reader to reexamine an assumption about academic discourse, while the writer weighed whether the conventions of problem analysis or the technique of setting up counter claims would be more effective, and so on.

There was also a third possibility (which you as readers with a large repertoire of text conventions have no doubt already predicted will be the mediating and favored hypothesis). Perhaps these collaborations would not fit the profile of either unassisted solo novice or a flexible expert. These students are working on the problem of learning, grappling with those demanding goals Carter and Patrick describe. In doing so they make a variety of strategic choices that do not add up to a predictable or even consistently successful or unsuccessful pattern. In contrast to an experienced writer, for instance, who could draw on a repertoire of strategies for formulating problems out of ambiguity and contradiction, who could call up well-developed text schemas for analyzing them, a student might have to work through this process in a far more ad hoc and experimental way, adapting the knowledge she or he does have, compensating for what he or she doesn't. If this were the case, our process analysis then, would need to uncover the logic of a more problematic, experimental, and unpredictable *student* process.

And in fact, these students presented us with a picture of significant diversity that resisted fitting into a simple pattern. Neither experts nor simply novices, they are learners, trying to adapt the knowledge and strategies they have to a new problem. But that adaptation can take different paths. For instance, students differed in which features of the discourse and the assignment they controlled (or chose to tackle) and, as a result, in the grades they received. They differed in their use of the reflective and rhetorical strategies encouraged by the instructor and the Planner's Blackboard and in the perceived quality of the sessions themselves. And yet, none of these measures could fully predict the others; some students appeared to succeed in one area and not in another. Taken alone, the single variables of knowledge, process, or context can not account for this diversity at the level of detail an instructor needs to diagnose problems or locate the grounds for success--that is, to understand what individual student are doing or why.

In trying to understand the problems of basic writers (and the reason good models, instruction, and feedback didn't always "take"), Mina Shaughnessy demonstrated that there was a strong underlying logic to the process of the writers she studied and to decisions they made. When teachers did not understand and address the logic that was guiding action, their instruction often missed the mark. For instance, given the student's faulty but reasonable grammatical rule system, grammar drills were irrelevant. Given their error-dominated image of writing, their disastrous strategies of overcorrecting but never reviewing seemed impervious to change. Subsequent research in other areas of learning is revealing the persistent, seemingly reasonable, but "buggy" routines children

bring to learning to do math and the common-sense intuitions, the pre-Newtonian assumptions and problematic schemas students bring to learning science (Larkin, 1983). Nor is the problem limited to children or basic writers: advanced medical students (tomorrow's doctors) bring an array of necessary, helpful, but partially faulty metaphors to learning physiology and diagnosis (Feltovich, Spiro, & Coulson, 1989).

Much of this research on hidden logics has focused on the knowledge and schemas learners bring to comprehending another body of information or, in the case of writing, to recognizing the features of a genre. Likewise, process research has focused on either the activities taught, and the behaviors or thinking strategies observed or the context and messages it sends. But to understand the logic behind the open-ended, social process of these collaborative sessions, we need to take strategic knowledge into account as well.

Strategic knowledge is understanding in action. ***Strategic knowledge as it is used here refers to three critical elements--goals, strategies, and awareness.*** It is this combination which turns knowledge into a strategic act and that lets writers embed the strategies they control in a coherent theory of action. If we want to understand the hidden logic of the students who present us with contradictions or who fail to fit the pattern of our instructional expectations, we may need to look deeper at not only the *strategies* they use and the knowledge they receive, but their *goals*--at the priorities they set, the criteria they think are important, the task as they represent it to themselves. The goals these student collaborators set are a kind of interface between their store of knowledge about what could be done--and what they actually choose or realize to do here and now. These goals also reflect the students' reading of the context--whether that context is the culture of schooling or the persistent prompt of a collaborator. In setting (and in forgetting, revising, or elaborating) their own goals, writers turn their theory of a task, their reading of a rhetorical situation, their response to a context into actions they can take or into criteria by which to assess that representation of meaning they are trying to build. These goals can be more difficult to see or infer than composing behaviors, cognitive strategies, or discourse knowledge, but goals provide the logic that governs why and how writers use what they know.

However, looking for goals and strategies alone does not capture the dynamic nature of the writer's process--or the way goals may change as an idea or text develops. *Awareness*, we believe, is a critical if little understood element of strategic knowledge. Awareness can appear to be triggered by circumstance (like Fran's) or more consciously invoked (like Kate's); it can be active, reflective and extend over many areas (like Kate's and Carter's) or seem quite painfully limited (like Janine's). This metacognitive awareness affects how writers monitor and control not only their writing process, but it allows them to examine their own knowledge (to review not only what they know, but the state of their current network), and it allows writers to reflect on their own goals, their assumptions, expectations or reading of a situation. Our understanding of the role metacognitive awareness does and could play is surprisingly limited given the value we place on self-reflection. This blind spot may come from equating such awareness with the meager, after-the-fact declarative knowledge writers appear to possess. But we have ignored the situated cognition and awareness that occurs during writing, in response to the immediate context, in the attempt to solve a specific problem.

Stored Knowledge or Current Cognition?

Strategic knowledge, as a term, suggests that knowledge of appropriate goals, strategies, and awareness (or metaknowledge of options) exists as a stored body of knowledge, as something we learn, recall, and modify. And indeed, there seems little question that writers develop a strategic repertoire, in which they see a familiar rhetorical

situation and can then call on a cluster of goals, strategies, and a sense of options evoked on previous occasions. This cluster of elements may be part of the schematic knowledge people develop about writing--schemas that include knowledge of discourse features and of ways teachers, readers or peers might respond. The strategic knowledge we see operating in the structured world of a class is, we hope, not just a one-time performance, but a cluster that is being learned and will be invoked again.

However, we should not assume that the strategic knowledge we observe is always a stored body of information. In many cases, what we see students doing is better described as *strategic cognition*, as an action in real time in which we see writers setting goals, invoking strategies, and exercising some level of awareness. We can not tell what if anything is being learned at that moment, what clusters of possibly stored strategic knowledge are being called upon. All we can safely say is that we can see evidence of strategic cognition operating and that this knowledge of the writer's goals, strategies and awareness seen in action helps us understand the logic of the writer's performance. Take, for example, the following exchange:

22 S: How do you like... How are you gonna... This is a paper about the Farbs [sic] book, right?

23 Paul: Yeah. Hm-hm.

24 S: So, how're you gonna use the Farb book into this thing?

25 Paul: Hm. I didn't really think about that.

26 S: Perhaps you should include that in your text convention.

27 Paul: Yeah. Okay. That's a good idea. I forgot all about that Farb was...

28 S: Yeah. In writing about Farbs, you should mention some statement about Farbs.

29 Paul: Yeah. That's true. I should probably... Yeah. That's a good idea. Can I borrow your pencil for a second, just write that down.

The goal of including Farb may have been triggered by this specific situation--by an assignment that said "use the readings." However the "mention" strategy the supporter offers as a way to carry out this goal may be a well-used part of the repertoire of both writers. (The student's final text begins by quoting a fine generalization from Farb--and neither claim nor source are ever heard from again.) The strategic knowledge/cognition a writer exhibits, then, may reflect a locally-triggered, opportunistic, context-specific act, or the operation of a well-established, generalized schema, or context-specific act in the process of becoming part of a such a schema. One could hope, for instance, that our writer may be developing a repertoire of ways to integrate sources with your own thinking. The concept of strategic knowledge/cognition, then, refers both to knowledge one can possess and to the process of using such knowledge--the nature of our evidence will determine which description seems most accurate.

As a concept, strategic knowledge is simply an argument for expanding the boundaries of what we recognize as relevant knowledge, to recognize the role goals and awareness, as well as strategies, play in the writer's process and the role they should play in our attempt to understand the logic of the learner's process. This means that the term is not an honorific, in the way "strategic" is often used to mean "planful." It is not a quality you can have or lack. All writers are operating with some level of awareness and

metaknowledge (including the misleading or limiting assumptions students often have about their own ability). All operate with a repertoire of strategies (including "buggy" routines and efficient techniques for all-nighters). And all are guided by some set of goals, including unexamined ones, just as instructors suspicious of theory nevertheless operate with tacit "theories" and assumptions about teaching and learning. In sum, the "logic" of the learner's process rests on the occasionally irrational, often inconsistent, but always influential body of goals, strategies, and awareness brought to the task.

Negotiation and Feedback

Understanding the logic of the learner's process by looking at the broader picture of strategic knowledge helps us see how individual writers are making "sense" of the situation. But it is also likely to complicate the picture for both student and teacher. For instance, if Laura ("about three paragraphs") and Vince ("I'm just discussing something") used these planning sessions as a way to reflect on their own goals--to compare them to the instructor's image of this task or to Carter's, Jennie's or Fran's--it might call into question a strategic process that had perhaps stood them in good stead for 12 years of school. It would complicate the learner's job, suggesting that the task had changed and they must not simply "use" what they knew, but re-evaluate it. For Laura, who received a D+ on her thin paper, this might in fact demystify what had gone wrong with a plan that had "sound[ed] pretty good" to her and her partner. But despite the limitations of Vince's collaboration, his paper on idiom was a soundly organized elaboration on the source text, using a mixture of details from Farb and his own examples "to show how this comes up in life. " He received an A-. His limited goals and knowledge-driven strategy, combined with engaging personal examples from his trip abroad, was effective and efficient for this two-page paper. Although the teacher noted the vague sense of purpose, this was a well-written short paper on other counts. Should Vince try for more?

By contrast, Carter who plunged into what was judged as a highly generative, reflective, and constructive process, who used this paper to interrogate his own assumptions, to revise his theory of the task of writing, to confront the problem of switching discourses, and to "make it real" for his readers, received a C+. The goals Carter set were well suited to learning, but the task he represented to himself, perhaps in his focus on a "real problem" led him to ignore other goals set by the course. These included the second criteria on the handout sheet : "*use the material from Farb's book* for a purpose of your own" (italics added), which was a highly salient feature of the assignment in the teacher's eyes. If Carter read and pondered Farb, beyond the fact that discourses come in conflict, there is no indication of it in the transcript or the paper. As Carter's average grade and Vince's "A" indicate, strategic knowledge, whatever its logic, operates within a social context. The goals writers' set and the metacognitive awareness they develop have meaning within the social and rhetorical context which the writer must interpret and respond to. Success may depend on which purposes (or whose purpose) you entertain.

Understanding the logic of the learner might alter the feedback a teacher would give. In addition to his A-, we might want Vince to also start to learn about the limits of his well-developed knowledge-driven strategies, to recognize the challenge inherent Tomas' questions about purpose, and to realize that in not engaging with that issue, his limited goals led to a planning session of limited value. We might want the feedback Carter receives to balance his C+ with a positive recognition of what he did accomplish. Such feedback could affirm that his desire to help readers "sit down and see" something, as well as his generative inquiry into the nature of the task (e.g., analyzing problems) and into his own assumptions about writing are central to good writing and to learning to

write. At the same time this rhetorical situation involved an additional constraint typical in college assignments (e.g., using the source texts) that he ignored. Such feedback might locate the problem where it lies: not in his writing "ability" but in his "reading" of the rhetorical situation.

STRATEGIC KNOWLEDGE WITHIN A SOCIAL/COGNITIVE PROCESS

Students' strategic knowledge--their goals, strategies, *and* awareness--helps shape the different planning strategies they use to construct meaning, where meaning is defined as a representation of both the task and of the text. Strategic knowledge also shapes the way social and cognitive processes interact in writing. Some theorists and researchers, especially those who study processes of acculturation, socialization, and learning in early childhood and who wish to explain social and historical patterns, worry that even the term "interaction" suggests separation of society and the individual mind, where they see "identity" (Feltovich, Spiro, & Coulson, 1989; Rogoff, 1990). The reality of this relation is obviously more complex than any single metaphor, like interaction, will capture. But to wash out individual/group distinctions blinds us to the ways individual minds interpret, negotiate, reinterpret, and even resist social constructs--even as they are learning them. Our perspective on this social/cognitive process is from the vantage point of the individual rather than the group; one of our goals is to explain the development of personal agency in young adult writers. In the interaction of cognition and context, we can discover some of the distinctive ways individual writers learn to negotiate a social process and a rhetorical situation.

In the social/cognitive process of writing, individuals are part of a social fabric and its shared knowledge; they are also the active constructors of a personal, internal representation of meaning. From a social perspective, the individual writer is operating within a cultural, interpersonal, and rhetorical context. The intentions writers hold are always bounded intentions, circumscribed by the expectations and constraints imposed by others, as well as tacit assumptions of what is acceptable or normal. The roles writers take, whether the social role of "student" or the persona of a text, come with culturally defined patterns of expectation and response. This context then is loudly or subtly suggesting goals, reinforcing certain strategies and not others, and "naturalizing" some responses, such as avoiding the use of "I," pushing them below the threshhold of awareness or above objection. But context is not an unmoved mover, and bounded intentionality is still intentionality.

From the perspective of individual cognition, the social context, its patterns and expectations, do not exist as reified objects, independent of the minds that conceive them. The important question is how individual learners construe that context, as they do in reading a situation, in attending to cues selectively, and in interpreting the signs and symbols, the advice, instructions, and feedback that surround writing. In building both a theory of the task and a representation of what the immediate task involves writers are translating the context of writing into both a meaningful image and a plan for action. Unacknowledged individual differences here may spell critical differences for success in school.

In this interaction between the individual writer and the context of writing, a writer's strategic knowledge is at once the site on which this process occurs, the result of social shaping, and the source of personal agency. It is on of the best places to see how constructing meaning is at once a social and a cognitive act. The act of setting goals--which are based on immersion in and one's reading of the social context--is one mechanism by which writers participate in a social act while building an individual sense of meaning. The strategies writers call up translate goals into action--they are the

operational definition of how to live up to the expectations of a rhetorical situation. The set of goals and strategies a given writer exhibits reflects not only the socially available options but a personally constructed and far more fully specified repertoire of moves. Awareness is the wild card in this process: it is the force which has the potential to change the shape of the interaction, to call both social influences and personal assumptions into question, and to support or resist the state of play.

We noted earlier that students' collaborative sessions can telescope the planning process, eliciting a repertoire of cognitive moves on a range of planning problems. These collaborations also create a small social microcosm in which some tacit elements of the social process of writing become more explicit and students' patterns of response become more apparent to us and the writer. Collaboration often pushes the constructive process into an arena of negotiation. We would not want to assume that the hothouse of a collaborative session produces a "typical" social interaction--it was designed in some ways to make the infrequent happen. But it reveals how students interpret and negotiate some of the social forces that may affect their writing in other settings.

In this discussion I have tried to exploit the multiple meanings of negotiation. In the sense most critical to learning, students must strike a course through a territory of constraints and criteria clamoring for their attention, finding a path guided by their reading of the situation and the logics they bring with them. Negotiation is a series of decisions among alternatives competing for the writer's attention. However, these decisions and concerns are also often the artifact of an interpersonal negotiation where the talk between two people sets agendas, charts paths, and confers social value on some choices and not others. And within a larger political sense, negotiation can be a move within a set of power relations where decisions represent the give and take of assertion, resistance, and compromise. It is to these latter two meanings I want to turn now, with two "process" questions that are critical to describing collaborative planning as a social/cognitive event: First, if supporters do influence meaning making, just how do the patterns of talk and interaction between these students lead to learning and text? And secondly, given the politics of learning, how do writers negotiate some of the power relations that school institutes?

How Does Collaborative Talk Lead to Learning or Affect Writing?

Collaborative planning, like other socially structured forms of talk, has its own signature. It sets up an interpersonal relationship defined by the roles of planner and supporter. It creates patterns of interaction that distinguish it from other kinds of talk, including peer response and teacher/tutor conferences. But the really interesting question here is not just how do these students interact, but just how does that interaction lead to learning or to texts?

In their review of the research on response groups, DiPardo and Freedman conclude that it is not enough to idealize response groups; we need to understand how "peer dynamics can support the larger goals of writing instruction" (p. 143). They then make a strong and potentially controversial prediction about the influence those dynamics have: in comparing the success of different types of instruction, they say, "the instructional mode would not be the key variable; rather, the degree and type of social interaction would" (DiPardo & Freedman, 1988, p. 142). Our observations on the cognition of collaboration in this setting may both support and qualify that claim. This study does not compare the success of collaborative planning as an instructional mode to others, such as the presentational or natural process modes Hillocks describes (Hillocks, 1986). And unlike most process-product research, it is not seeking to measure correlations between an instructional process and an successful outcome or product.

Nevertheless, the process tracing analysis does show that neither the fact of collaboration as a mode nor the instructional prompt could insure a high-quality session; what mattered was how students interpreted the prompt and how they used the situation. Garrison has mounted a philosophical critique of process-product research on the grounds that it can not account for an intervening variable--the intentions a given instructor brings to the use of any instructional technique (Garrison & Macmillan, 1984). Our study suggests that the intentions of learners and their ways of putting instructional activities to use may be an equally important, and even less acknowledged "key variable."

Although Gere's work (Gere & Stevens, 1985) concentrates on the virtues of and theoretical justification for writing groups, she raises the question of quality in much the same terms we would use: what sort of cognition does this interaction actually produce:

> Collaboration is a necessary, but not sufficient, condition for collaborative learning. While the democratic give-and-take of collaboration is essential, it does not by itself guarantee that any learning will take place. Participants in collaborative groups learn when they challenge one another with questions, when they use the evidence and information available to them, when they develop relationships among issues, when they evaluate their own thinking (p. 69).

If we admit that students, not the fact of being in a "group," will shape the process of collaboration, what is the nature of the interpersonal interactions that are actually occurring, and how do they contribute to learning, if they do? To start with, the ways collaborative planners interact with each other differ in some ways from the dynamics observed in the other studies of response DiPardo and Freedman review (DiPardo & Freedman, et al., 1988). These studies show a variety of relations based on *information giving*, on *consensus*, on *conflict*, on *scaffolding*, and on *collaborative problem solving*, some of which are in clear contrast to what we observed. For instance, Gere and Steven's 46 students, scattered across elementary, middle, and high school, operated under rules of peer response designed to minimize the cycle of criticism and self-defense that peer editing can engender. Under these instructions writers are not allowed to "comment on, or apologize for, the selection read," while readers comment in turn on their "strongest impressions of the writing" (Gere & Stevens, 1985, p. 86). Of the 7,928 comments Gere and Stevens analyzed, 88% were devoted to *giving information* (usually about an item of content) or directives; only 12% (941) elicited information (presumably from the writer). Collaborative planning is designed, obviously, to reverse this dynamic: supporters try to elicit ideas from writers, rather than evaluate, and to shift the focus from content per se to uses of that content (a move which these collaborative planners apparently made with 65% of their comments devoted to the rhetorical blackboards.)

For similar reasons, perhaps, this pattern also looks different from the series of 6 student-teacher conferences Sperling observed for a small group of ninth-grade students (Sperling, 1989). When discussion was devoted to planning future text, the number of "student-owned" topics ranged from 0-3 per student, and the number of student initiated cooperative units of talk (such as question/answer, offer/acceptance) ranged from a grand total of 1 to 8 per student over the combined set of conferences. In the conferences conducted by these experienced teachers, student-initiated planning appears to play a small role.

Nor did these collaborations exhibit the drive toward *consensus* building Bruffee describes as the goal of collaborative learning (Bruffee, 1984). In fact as the coding for reflection showed, students were engaging in evaluation, problem-finding, alternative

making, and justification--creating the patterns of *conflict* and *cognitive dissonance* that, the Piagetians argue, can lead to learning. However, the form conflict takes is important. Plans are fluid creations, under the control of the writer. Just as there is little need to forge consensus or agreement (this is the writer's plan, after all), there is also little need to defend or cling to a text in which one may have some investment. The cognitive dissonance in these sessions appears to sit easily in the air. Two telling exceptions we have observed are Han's session (in which the supporter vigorously argued against the claim that man is at the mercy of language) and in tapes of a pilot session in a local high school where the instructor felt the blackboard categories and notion of being a supporter would be too complicated for his students to keep in mind and downplayed those goals. His instruction lead to lively, argumentative episodes of peer response, some of which he later described as bull sessions and barroom brawls, typically focused on the writer's claim, and were high in overt conflict and pressure for agreement, they showed few signs of cooperative problem-solving. Comparing these video tapes to tapes of supportive collaboration seen in other inner-city schoolrooms and to the freshmen described here, it appears that the way teachers present or students perceive the "rules of the game" can make a visible difference in the social interactions and the kinds of cognition collaborative planning elicits.

Another form of interaction described by Vygotsky (Vygotsky, 1987) and Bruner (Bruner, 1983), and for writing instruction by Applebee (Applebee, 1984), goes under the name of *scaffolding*, in which learners participate in a structured situation and in doing so, enter their "zone of proximal development," going beyond what they could do on their own. The term is sometimes used quite metaphorically to justify or valorize instruction based on group talk, by drawing questionable analogies between the classroom experience of 15- to 25-year-olds and the language development observed in infants and toddlers. In the developmental examples, where mothers build scaffolds of language that turn "Doggie!" into complete sentences, or adults and older peers create talk with empty slots that let the child participate in increasingly sophisticated linguistic structures. When scaffolding is used in writing instruction, the role of teachers, older partners or peer groups can range from stimulating or extending the learner's efforts, to co-authorship with or even co-option of the writer. Differences in the way such social scaffolding works, then, may be informative. For instance, the scaffold in collaborative planning is not provided by the knowledge of a "more capable peer" but by the Blackboard metaphor, as a prompt both partners use, and by the role of the "supporter" which distributes the responsibility for metacognition and monitoring. Nor is there the "hand-over" process (Bruner, 1983) one might see in oral language development, in cognitive apprenticeship (Collins, Brown, & Newman, 1989), or even in peer tutoring in which the "caretaker" or "master" introduces a new procedure and gradually "hands it over" to the learner. In fact, much of the "modeling" of the process, so critical in cognitive apprenticeships, is done by the writers themselves in response to a prompt, and observed when students switch roles, reflect on the session, or listen to their tapes.

A more precise description of this jointly constructed scaffold for learning writing is probably the *collaborative problem solving* that both Freedman (Freedman, 1987) and Nystrand (Nystrand, 1986) observed and that other instructional techniques such as "reciprocal teaching" (Palincsar & Brown, 1983) and "procedural facilitation" (Bereiter & Scardamalia, 1987) also strive to support. Differences in the ways all of these studies analyze their data make precise comparisons difficult, but the following excerpt typifies some of the patterns of interaction that stand out in these collaborations. When Vince (whose limited goals we saw in action earlier) switches from a Planner to a Supporter, he does *not* take the role of a capable peer tutor whose input is designed to diagnose, gently lead, or advise his partner, Tomas. His input appears to have two main goals: to play the role of a blackboard reminder (at turns #6 and #10) and (at turns #8, #12, #16,

and #32) to elicit enough information to "make sense" out of this plan for himself. Vince's skeptical comments reflect his own effort after understanding. The rather simplistic key point Tomas offers at #11 would only make sense if one projected a particularly "ignorant" audience, as Vince does at turn #12 . Although Vince is raising a pertinent question, he is not doing so out of expertise as a tutor or teacher. His prompt is engendered by a gap or conflict in his own image of the situation and his attempt to construct a purposeful, rhetorically sensible, common sense meaning out of Tomas' plan. And as a result, Tomas tries to elaborate and alter his own representation. The roles of collaborative problem-solving (informed by the partner's drive for meaning) appears to provide an important scaffold for this process.

6 Vince: All right. That's your topic?

7 Tomas: That [the previously mentioned idea "that words have several meanings"] is my topic.

8 Vince: How does that relate to anything? I mean, words with different meanings...

9 Tomas: Okay. The point... The key point...

10 Vince: The key point. Key word.

11 Tomas: Yeah. The key point that I'm gonna make in this paper is - um - that these words with several meanings - um - make people unfamiliar with the language being used - it makes them confused. Um - Both in the sense that they don't know how to... They don't know the usage, so they have trouble using them in context, and they also don't understand the meaning several times when they're used in context, and so they don't understand when people are talking to them.

12 Vince: In other words, these people are just ignorant?

13 Tomas: Yeah. No. I mean, it's beyond ignorance. I mean...

14 Vince: They're beyond ignorant? They're a piece of wood?

15 Tomas: It has nothing to do with ignorance. It's just lack of knowledge about the language. It could happen to you in German.

16 Vince: [. . . .] This... I don't know.... Just doesn't sound like... Can you like sum it up in like one sentence - what your key point is?

17 Tomas: The key point is that words with multiple meanings confuse people that are unfamiliar with the language. Is that good?

After some discussion about the audience and whether they will "know like what you mean" *before* they read the paper, Tomas replies:

27 Tomas: Well, I guess it'll be for the people who know what's it about. (Laughs)

28 Vince: (Laughs) I think you just have to make it clear like when you're writing - like your introduction, especially....

29 Tomas: I don't see what you're getting at.

30 Vince: Well...

31 Tomas: Are you saying that people can't understand why this would affect people?

32 Vince: Well... Maybe what I'm saying is that I [emphasis on tape] don't understand what your paper's gonna be about. All right - I understand that it's gonna be about like people get confused... Why don't you give me an example?

Talking with Vince becomes an occasion for metacognition. Perhaps the most interesting and distinctive social dynamic in collaborative planning could be described as a form of *shared metacognition*. The combination of teacher-designed prompts, with a partner who makes an opportunistic, in-process use of them as needed, and a writer who accepts the goals of the enterprise, prompts the writer to try to build a more elaborated, rhetorical image of his or her own meaning. In addition, this potent combination prompts the writer to self-monitoring and both partners to reflecting on the state of the image. The partners engage in this shared metacognition by reminding each other to think about rather high level issues or try to carry out cognitive moves that students often ignore. Perhaps "ignore" is even the wrong term here. As Bereiter and Scardamalia have argued, one of the hardest things young writers must learn is to monitor their own thinking and to develop the "executive routines" that remind them to generate some more ideas, or to try another angle when they feel stuck. Perhaps it is no coincidence that nearly every session starts with the writer at least attempting to describe a key point, but that nearly all the comments about purpose depend on a prompt from the supporter. As one writer said, "I'm not used to thinking about my purpose. " In collaborative planning the partners share the effort of metacognition--the burden of projecting the present moment onto a larger picture. Like Vince, they help monitor whether the current version of the plan makes sense, especially in light of issues involving purpose, audience, and discourse conventions. Even without a problem, they remind writers to "pop up" to either those issues or to a meta-level survey of their own thoughts. For these freshman, thinking about purpose clearly depended on the partner's reminder or meta-awareness of a problem (as we saw in Vince's own planning session). However, the rise to metacognition seems quite shared in other ways. For instance, episodes of reflection were almost equally initiated by planners and supporters (Higgins, Flower, & Petraglia, 1991).

But are all versions of shared metacognition equal? Freedman's study of response predicted that the "achievement of cognitive gain [in a group process] depends on the substance of the social interactions" (1987, p. 8). On the basis of the present study, we would suggest that both the educational quality of the experience and the pattern of students' interactions with each other are influenced by the way they interpret the prompt and interpret or negotiate this school-sponsored meeting. Some writers treat the prompts (meaning both the questions and the issues they represent) as a relatively simple checklist to be run over. As we saw in Laura's ("about three paragraphs") session, the prompts are read in a literal, reductive way; the response is a recitation of a few key facts or a simple naming of the audience or purpose, or even a rejection of the request, as the writer (like Vince) declines engagement, as if an item on the checklist (e.g., purpose) were considered not applicable. Collaborative planning, like other forms of group work, not only reveals simple differences in what teacher and students find important, but it can be susceptible to the lowered thresholds of acceptance and the less sophisticated evaluative criteria Newkirk (Newkirk, 1984) observed.

By contrast, other students use the prompts not as a checklist but as a heuristic. In the excerpt above, Vince jokes with a split awareness of the different ways these prompts

can be taken. His question about audience at #20 is an effort after meaning. When Tomas delays, he comes back with a mock version of a checklist question, but Tomas' response returns the exchange to a heuristic effort. When these metacognitive moves are treated as a heuristic, they become a road into a problem or a discovery. They typically lead to an extended inquiry or exploration by both partners, rather than a short question/answer session. The meaning of even a simple prompt or question borrowed directly from the blackboard (such as "what is your purpose?") is read as a broad invitation to engagement with a problem or a possibility. These transcripts show us sessions of shared metacognition operating in both the checklist and the heuristic mode; they contain cooperative sessions where both partners seem to share the same representation of their task which ever it is; frustrating sessions where the supporter persists in expecting more; and disappointing sessions where a planner seems primed to explore and the supporter is ticking off items on his shopping list. What we were not able to do with these students was to go back with this data and ask: do you see these differences too, and which sort of session would you prefer if you could orchestrate your collaborative planning sessions for your own purposes?

How Do Collaborators Negotiate the Power Structures of School?

When educational researchers describe the supportive patterns of peer talk and teacher conferences, the scaffolding that nurtures the development of the child, or the patterns of cognitive apprenticeship by which skills develop outside of school, they illuminate the natural and positive ways social structures nurture the individual, guide cognitive development, and increase options.

However, these social structures that instruct and initiate are at the same time power structures which impose their authority, assert their values, and set their priorities. The paradox for education lies in a commitment to active instruction based on strong educational objectives, even as those objectives include the goals of democratic participation and students' authority. Teachers talk about the issue, but given the institutionalized structures of school, much of the resolution rests with the students and with how they deal with the situation. Collaborative planning is an excellent case in point of this paradox. It takes a natural social event, like talking with a friend, and imposes a structure upon it; that structure is derived from educational research, and it is intended to engage students in a particular kind of thinking they might not otherwise choose to do. (Of course, *why* those default choices developed is another question.) In fact, some students who have developed finely honed strategies for midnight inspiration and writing under pressure, find this purposeful, rhetorical approach to writing an actual interference. And some educators who emphasize self-expression, the privacy of writing, or a concern with language and style better handled in revision, might find collaborative planning irrelevant as well. It is then, an educator's construct that is neither a "natural act" nor the unquestioned "right way" to write. It is assigned because the teachers who use it believe it will be a means to achieve certain goals. As such it is a clear instance of both power relations in school and the structures, such as assigned activities, which maintain them.

On the other hand, the goals of collaborative planning are not to achieve a certain product or a valued voice, or a teacher-imposed ideological perspective. They are, ironically, to encourage students to take more responsibility for their own thinking, to take their sense of purpose beyond a formulaic representation into a more fully elaborated web of intentions. The goal is not to comply with a genre (whether it is journal writing or 5- paragraph themes), but to help students explore their options and realize that they control a repertoire of text conventions. And in the larger picture, this educational construct was designed to foreground the real problems of writing for an audience,

entering a discourse that writers only partly control even as it exerts power over them. From the instructor's point of view, collaborative planning is a forum for students to try to build a representation of the task, to figure out what is expected, and to imagine how readers, including teachers respond. In short, it is intended to help students take control of their writing and to manage the situation in which they find themselves in a more purposeful way, just as all of us do who write for our jobs or personal ends within the social structures we inhabit. (The extent to which teachers share authority in their classes is equally important, but a somewhat separate issue.)

In using the power structures of school not to "give" independence but to help writers develop ways of achieving rhetorical power through writing and personal authority within it, collaborative planning embodies the power paradox seen in many educational innovations. And like any activity, it will take on the complexion of the class in which it is embedded. However, studying activities like this might help us understand more about how students negotiate their ways through these trickly waters of opportunity and restraint. Recognizing that much of the outcome is not in our hands--however enlightened our teaching--but in the hands of students, might also suggest ways to combine our activity-centered approach to education with increasing student's awareness of the often ignored, goal-directed nature of our instruction and their writing.

Patterns of Power

From a researcher's perspective the following discussion is decidedly post hoc. We did not enter the study with either a theory or hypothesis about power relations, nor manipulate some aspect of them. We did not design the process-tracing measures to capture or compare patterns of negotiation. We think such research should be done. However, from an educator's perspective, this is the analysis that must go on every time you teach a thinking process and try to understand what students did with your attempt at instruction. And the patterns we did see speak to a paradox.

Carter and Jennie take the road of *cooperation*. Their comments on tape and their teacher's evaluation reflect their attempt not only to please the teacher, but a good-natured, good faith effort to "play the game." And they do so in a productive way, developing an enlarged image of the task and of what readers, including teachers and peers, look for in a paper.

In Kate's session ("I don't think our collaboration went that well") discussed above, we see a more critical or at least assertive intellect at work. Kate deals with authority by *appropriating* it. She uses the planning session for her own purposes--to explore her ideas. But as we noted, she later takes on the mantle and voice of a teacher in a sort of experimental manner, walking through the textbook's advice to see what it would yield--and evaluating the result. And she ends the session with the intention to collaborate again--to cooperate with the program. If in that later session she had tried to engage with the difficult issues of purpose and reader, she would have taken the cooperative stance of Carter, much as Fran did ("these ideas are all related, somewhere"), willing to participate as a learner in a process she doesn't fully control. Cooperation that can lead to appropriation and critical awareness appears to be a useful way to deal with the structures of school if you are trying to learn something. The fact that only occasional moments of critical reflection occur during these sessions, however, emphasizes the need to make self-reflection a part of the school-sponsored structure of doing collaboration. As we found in our classroom inquiry project, when teachers want to use collaboration to teach awareness of one's own thinking or assumptions, they have to make such reflection a genuine activity that merits class time and attention.

These patterns of cooperation and appropriation are familiar and easy to understand, as are the opposite stances of *resistance* and *avoidance*. What is often more difficult to understand are those students who deal with the structures of school through *compliance* without engagement, doing the steps without learning to dance. One response is to ask for causes and lay blame: teachers and/or the institution of school deny students authority and in demanding cooperation deny the possibility of true cooperation. Or the blame is with the students who are unmotivated, unwilling to make intellectual efforts. Another response is to argue for changing the situation: encourage students to resistance, to deny or subvert the agenda they have not made. Or solve the problem by restructuring the uneven distribution of power in schools. We will argue that understanding compliance in terms of the writer's strategic awareness may open up an additional avenue of response and a way to deal with part of the paradox of power in education.

One of the clearest examples of tacit compliance in this data comes from Vince and Tomas' session--a long excerpt of which was presented as an example of a session that drew mixed quality scores and a moderate constructive planning score. The success of the session on either count can probably be attributed to the partner's persistent questioning about Vince's point--whether he has one and what he will conclude--to which Vince consistently replies, "well, it's just to discuss how this come up in life." A little interpersonal negotiation gets Vince off the hook, getting his partner to laugh and agree, "Okay. Okay. Sure."

Vince and Tomas are "A" students their teacher describes as smart, stimulating, and a little cynical about school. And as we noted, even though the instructor noted the lack of a real point in the paper, Vince's knowledge-driven planning earned him an "A-". But if we look at this collaborative session in terms of the writer's strategic knowledge, Vince is doing an activity, but ignoring its goals. He is neither avoiding the task nor actively resisting the rules of the game. Instead he has turned it into a "teachers' process," an exercise that is fulfilled when one goes through the steps. The real goals of the game--the event the teacher actually had in mind--are not a part of his picture. There is no attempt here to see his writing as a rhetorical act, to explore his own purposes or interests, to imagine a reader, question his plan, and so on.

The obvious problem with a compliance strategy is that it allows the student to deal with the structure of authority by cooperative outward behavior while failing to engage with the goals that make the strategy worth doing. But as a strategic act, the more critical issue here may not be goals or strategies but awareness. The purposes of education or of Vince could have been better served in a number of ways: 1) he could have engaged in an active resistance to this approach to writing (he has a process that works for school, after all), to collaboration, or to the assignment; 2) he could have chosen to avoid the imposed session or its goals to stimulate thinking, because a calculus test tomorrow was higher in his priorities; 3) he could have chosen to engage/cooperate in his partner's questions, even if he didn't choose to write a more complex paper. But Vince's session gives little indication that he is really aware of his options or of the fact that in doing the "teacher's process" he has given himself an exercise with low aspirations and limited value to himself. It is not clear Vince is aware that he has, in effect, chosen to spend this collaborative time on a low- investment, but low return strategy.

Compliance--stepping through strategies and ignoring their goals, and doing so with limited awareness--is a way to maintain some sense of internal authority while still staying within the bounds of school. But it is a way that offers students little in return, since it supports neither learning nor effective rhetorical action. Perhaps the same thing could be said of some acts of resistance as well, if the student is not really aware of the

options and implications of his or her stance. Choosing to blow off an English paper in order to study calculus or finish an architectural drawing, as some of these students did, is a reasonable move, a legitimate assertion of a student's priorities, and part of learning how to negotiate as well as change structures of authority. Compliance, on the other hand, is like the action without theory Freire describes--an action without awareness. But without an understanding that they are engaging in strategic acts, in which goals and awareness play as large a role as observable strategies, students may not see the reason for engagement or change. The positive side of this problem is that collaboration with reflection opens up an arena in which students can examine their own ways of negotiating issues of authority and the structures of school.

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APPENDIX 1 CARTER AND JANE'S PLANNING SESSION

Transcription Conventions:

Pause	...
Short, abrupt pause	-
Overlapping speech	/ inserted word /
Tape was unclear	[uc]
Editorial ellipses	[. . .]
Coding (at end of turn)	[info]
Consolidation	[aud/rh pur]
Double code only	[aud + rh pur]
Reflection	[R]

C: Carter

S: Supporter, Jane

1 S: Okay, Carter. I listened to your self-interview and... [off]

2 C: Did you like it? [off]

3 S: Yeah. [off]

4 C: O' . . That's good. [off]

5 S: Carter, could you just briefly run through it again. What... What is your discourse problem? [info (coded as prompt only)]

6 C: Okay. My discourse problem is how - how some people have difficulty - or a lot of people probably have difficulty in switching writing styles for different writing assignments. And this is mostly - more common in switching assignments from class to class. I said in my self-interview that you use a totally different kind of writing for writing a paper for Technology and People, as opposed to writing papers for Strategies for Writing. In Technology and People, they give you a problem that you're asked to solve, and you just solve a problem. They don't care even if it's in paragraph form, or - or - you know, you can miss punctuations, spelling and they don't really care. [key pt]

7 S: Oh, really? [off, R]

8 C: They just want... You know... They just want what your thoughts are and that you solved the problem right. [info, R]

9 S: Uh-huh... Right. [off]

10 C: But in Strategies for Writing, if you don't use paragraphs and you misspell lots of words wrong... then you're gonna get in big trouble. [info, R]

11 S: Yeah, you get in trouble. [info]

12 C: So there definitely is different writing for different classes. [key pt]

13 S: Yeah. [off]

14 C: And the problem that can come out of this is - is trying to decide what style to use for different classes, because when you first start taking the class, you really don't know what to expect, so you might not know what writing style to use for that class. [key pt]

15 S: Yeah... Yeah. I definitely see how different classes require different things from you. And I think that in itself can be a problem for writing, just because each class will like kinda put you in a mold of what they want and you have to fill those requirements, and you know they're gonna have limits on you, which will be a problem in writing when you want to express something in a different way, and you just can't do that. So that's gonna be like your main focus and key point, right? [key pt]

16 C: Right. [off]

17 S: Well, what are some of the main points that you're gonna bring out in this paper? [prompt]

18 C: I'm gonna try to - well convince the reader that these differences do exist for a lot of people. I'm sure that they don't exist for everybody, because probably a lot of people write the same way for everything - they don't really have a difference. [rh pur/aud, R]

19 S: I don't know. [aud, R]

20 C: You don't think? I think some people... You know... They might... [a, R]

21 S: Well, it depends... [aud, R]

22 C: They might not care. I mean, they might just write the same way for everything, and not really care. I'm sure no students [here] do that, but... [info, R)

23 S: Yeah. Yeah. That's what I mean. Well, who's your audience for this? [prompt]

24 C: My audience would probably be college students... It would really be of interest probably to freshman because they're switching from high school and starting out college writing. So... [aud/rh pur, R]

25 S: So is that gonna be another.... [off]

26 C: Yeah. It's gonna be one of my /components?/ Yeah. I forgot to mention that. I'm sorry. [off]

27 S: I see. Well, Carter, if your audience is gonna be a college student, I think every college student, you know, has to go through this changes... I can see if your paper is to the general public, and some people really don't write too much, and really write for one specific purpose, and which would be the same all the time. But if it's for a college student, I think you should focus that it *does* change, not that it *might* change. [aud, R]

28 C: Okay. You're right. I guess. You're always right. [off]

29 S: (Laughs) Well... Nah.... I'm just kidding. [off]

30 C: And my audience... They're probably gonna expect a lot of examples. I'm gonna have to use a lot of examples to prove - to prove it to them that different writing styles exist, and I want my audience to be able to relate their own experiences to this, and maybe, and see how it affects them. [aud/tx con/rh pur, R]

31 S: So, what kind of examples are you gonna use? Can you give me an example? An example... [tx con]

32 C: Um... Okay... I'll give you a real big example. Switching from high school writing to college writing. [info]

33 S: Uh-huh. [off]

34 C: In high school, you could - most of the times for any class you could get away with, you know, BS in a lot of papers. And you'd get good grades, just 'cause it sounded intelligent, even though it really didn't say much. In college they don't go for that stuff. You gotta really, you know, go write, and you can't BS your paper, because they'll know right away that you're doing that. And, another example I could use is, like I said before, the Technology and People and Strategies for Writing... And maybe... I haven't thought of this until now... Is maybe ask some people from a different college, maybe like [College of Science] or whatever, if they have any different writing styles that they use for their classes, since I don't have some of their classes. Maybe compare it to like [College of Engineering] writing styles, if I could do that. [tx con]

35 S: Yeah, I think you might be better to compare it to like someone more different. Like [Humanities and Social Sciences]... [tx con, R]

36 C: [College of Fine Arts] ... [info, R]

37 S: Yeah. Or [College of Fine Arts]. Because I think [the College of Science] is kind of close. But I think - Um... you were kind of.... Well... How do I want to say this. So some of your main points are gonna be that from high school to college - in high school, you can get away with saying things that aren't really relevant. In college you can't. But how are you gonna explain that? Are you gonna give a specific example in your life? With like... In high school I did this, in college I can't do that. Like I think it would become more real. [key pt/tx con, R)

38 C: Yeah. Okay. I can do this. In high school, in my senior year, we had to write a thesis paper. And we had an entire semester to do it. And, just like me - I waited until like the last three weeks of the semester to start doing it. And I didn't have all the research done that I should have, but I started working on it real hard. And I had a lot of pages. It ended up being 15 pages long... /wow/ with bibliography and... Well, that's what she expected - she said 10-15 pages. And it was really long and drawn out, and it

didn't really say much of anything, but it sounded like it did. You know what I mean? [info]

39 S: Yeah. That's a good example. I really like that. [tx con]

40 C: I got an - I got an 'A' on it... [info]

41 S: Oh! Congratulations! [off]

42 C: It really didn't say anything, so I was so happy and I got an 'A' in English, and that made my day, and then I graduated, and I was even happier. But, for college... [off]

43 S: Yeah. That's a good example. [tx con]

44 C: I'm not done yet. [off]

45 S: (Laughs) Sorry Carter. [off]

46 C: (Laughs) Okay. And comparing that to the - the first semester of college... I took a class, [on culture and history], which is probably the most boring class I've ever taken in my life. But, we had to write... [info]

47 S: I hope [name] doesn't listen to this tape (giggle). [off]

48 C: Well, I'm done with it, and I got a 'B' in it, or whatever. But anyway... [off]

49 S: Whatever. [off]

50 C: So, we had to write a five page paper on African nationalism, which I had no idea, and I waited like the night before I was due to start that... [info]

51 S: You have a bad habit of doing that. [off]

52 C: I know. Well, I put all that into my writing style analysis paper, so that's all there. So, anyway.... So I wrote five or six pages on nothing, but I included the words 'African nationalism' in there once in a while. I thought, why this is just like high school, I can get away with doing this. I got the paper back, and it was a C minus, or a C, or something like that. It said 'no content.' And I was introduced to the world of college writing. [info]

53 S: Great, Carter. Well, that... Well, that's good that that happened to you, and... For two reasons, you know. One, so you can learn from it, and two, so you can use that for an example in your paper. And that's an excellent, excellent example. [tx con]

54 C: And three, so I can write about African nationalism. [info]

55 S: Yeah. It's excellent. Um.... But... Okay, so that's an example for one of your points. What about an example for how writing varies... Well, I think you already kinda told me that... How writing varies from Tech. and People to Strategies of Writing. Just, you would say, one needs more content than the other... I mean, more facts and details, and not as much style. [tx con/key pt]

56 C: Yeah. Well, I can give a specific example for that. For a problem analysis paper in Strategies for Writing, my first draft... It wasn't very well organized, and... Well, you know, we handed the papers in and got them back, and Rebecca commented on them... [tx con]

57 S: Hm-hm. [off]

58 C: She said my paper wasn't very well organized, and she gave me ideas of how I could structure it better. [info]

59 S: Oh, that was nice. [off]

60 C: That was very nice of her. I got a 'B' on the paper, so I was real happy. [info]

61 S: Oh, great. [off]

62 C: But... And she told me how I could structure it better, you know,make it more smoothly flowing, and whatever. And... And so I wrote it like that, as, you know, real paragraph form, everything was ordered, and everything like that. Good spelling. Good grammar. Good punctuation. [info]

63 S: Yeah. So that's necessary in an English paper. [info]

64 C: Yeah. But in Technology and People, we have papers due almost every Friday, and most of them are... They'll give us a problem, and they'll ask us to give a possible solution of the problem. You know... In a report form sort of. And my papers for Tech. and People... Usually, they'll have maybe a paragraph. And then maybe a problem, like an equation worked out, or something like that. They won't really be structured. I mean, I'll just have like one, problem one, and then all that, you know, so it's really different. [info]

65 S: Yeah. Okay. So... Good example. What's some of the other texts you mentioned that you're gonna be using besides examples? [tx con]

66 C: I don't really see a lot of places I can fit text conventions in here, other than maybe... [tx con, R]

67 S: Well, comparisons, along with examples. [tx con, R]

68 C: Yeah. Comparisons, contrasts. [tx con]

69 S: Headings? Would you use headings? [tx con, R]

70 C: Hm. I don't think so. [tx con, R]

71 S: How about a concluding paragraph? [tx con]

72 C: Yeah. A concluding paragraph. It'll definitely be in there. That's a necessary in Strategies for Writing paper. I might... [tx con]

73 S: Well, let's talk about your conclusion then. [tx con]

74 C: Okay. My conclusion... [tx con]

75 S: Like, are you gonna try to offer a solution to this problem, or just talk about it? [gen pur, R]

76 C: I might give them ideas on how to at least try to give ideas on how to, you know, keep - keep these things straight. [rh pur/a]

77 S: Well, how could you really solve those problems? [gen pur, R]

78 C: I don't think you really can solve it. All I said is, I might give ideas to maybe help, you know, nurse along. [gen pur, R]

79 S: Help what? [rh pur]

80 C: Help people catch on to these - to these differences sooner than I did... I learned the hard way. [rh pur/aud]

81 S: Okay. Okay. Yeah. I see that. [off]

82 C: You know. If a high school student read this, or a college freshman, like a beginning year freshman, they'd know they couldn't get away with the same stuff that they could in high school. [aud/rh pur, R]

83 S: Yeah. That's good. And even for someone who hasn't learned that yet. It would be emphasizing... [aud/ rh pur]

84 C: Seniors haven't learned that yet. [aud/rh pur]

85 S: Yeah. Definitely. Well, by the time you're a senior, that's almost worthless... Okay. So, you're not really using text conventions a whole heck of lot. Well, Carter, what do you think is the most interesting part of your paper? [aud + tx con]

86 C: I think it's gonna ... be the examples, I guess. [off (meta)]

87 S: Uh-huh. That's what I was thinking. [off (meta)]

88 C: I think that'll be pretty interesting. [off (meta)]

89 S: Yeah. Just to see... Well, just so the reader can learn more about the problem, and so the reader can learn more about you, and some of the experiences you've been through. [tx con/aud/gen pur, R]

90 C: Because, I... I don't think people think about this, you know, too often. Like when they sit down to write - "Oh, it's different from like the Strategies paper. " [aud/gen pur, R]

91 S: Yeah. And by reading your paper they'll sit down and see... [aud, gen pur, R]

92 C: Maybe they'll be able to realize their own differences, and everything, realize that they exist. [rh pur, R]

93 S: Yeah. I think that's the part of the paper that interests me the most. Just so I can see that, Yeah, it's really different. And even though there's nothing you can do about it - even if there are boundaries set on you, and that's a given, and you can't really change that - but if you're aware of that, you can be more aware of what is expected of you, and

you can work with that. That's really good. Well, so has this talk helped you change your plan, or reinforce anything... [rh pur, R]

94 C: Um... It made me think a little bit more about my examples. [off (meta)]

95 S: Huh-huh.... [off]

96 C: Further just kind of general examples. I thought more about the specifics. It made me think about my audience a little bit more. [off (meta)]

97 S: Huh-huh. [off]

98 C: And definitely my text conventions a little bit more. Because I have little notes here. I have two lines up for text conventions. [off (meta)]

BREAK IN REVISION [line numbers are changed, but scores and totals unchanged].
99 E: Oh... ----------[?540]

100 C: It's, you know, short little notes... Like 'make my warm and engaging ----------[?542] self interview.

101 E: Yeah. It's wonderful. Well, you saw my notes didn't you?

102 C: Hm-hm.

103 E: ----------[?544]

104 C: Discourse problems are so fun.

105 E: You think...

106 C: Because it's ----------[?546] one to two pages.

••••
107 S: Yeah. I know. Well, do you think you're gonna have a problem with the length. I'm sure you have enough information. But do you think it will get too long? Will you ramble with this, or can you condense it, or.... [tx con, R]

108 C: It'll be easy. I'm not the best writer in the world, I'll admit to that. But I think I can condense it, and make it short and sweet, you know... [tx con, R]
••••
E: Yeah.

C: Two pages.

E: Yeah. You know, with examples. That's great. That's great.

C: I'm going to have an opening paragraph, examples, more examples, then maybe like ideas on how to, you know, realize this paragraph, and maybe a concluding paragraph.

E: Maybe?

C: Yes. Concluding paragraph.

E: You definitely... You need a concluding...

C: Definitely have a concluding paragraph.

E: Yeah. Jane, is there anything else you want to talk about?

C: If this is fifteen minutes, no.

E: (Laughs) Oh. Okay.

C: Has this been fifteen minutes?

E: Yeah. Yeah.

C: Well, I think that's about... I have to learn about everything there possibly is to learn about my paper...

E: Good. Good.

C: So this has been a real great learning experience.

E: Good. Well, good luck to you, Wayne.

C: Oh, thank you very much Janet.

E: Hope everything comes out okay.

C: I'll see you bright and early tomorrow.

E: Tomorrow. I can't wait. Oh, I can't wait. Okay.

C: I'm gonna go to bed right now, so I can get up.

E: Oh, me too. Okay. Well, I'll see you later then.

C: Okay.

E: Bye.

C: Bye, bye.

[575]

(End of transcript)

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