

**STALKING THE SCHOOLWORK MODULE:
TEACHING PROSPECTIVE TEACHERS
TO WRITE HISTORICAL NARRATIVES**

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Introduction

Few educational slogans have had more play over the last decade than “writing to learn” (Applebee, 1977; Fulwiler & Young, 1982; Gere, 1985; Maimon, 1981; Newkirk & Atwell, 1982; Young & Fulwiler, 1986). The idea is intuitively appealing: that in striving to summarize, organize, synthesize, develop, and communicate ideas and information, we must, in the process, clarify and extend our own understandings. Many have championed the “writing to learn” cause. The National Writing Project and its state-level progeny have spread the gospel of writing as a tool for learning, enlisting teachers and university faculty alike in its dedicated ranks. Authors of standards in a range of subject matters have urged teachers to use writing as a tool to achieve greater learning (see, for instance, American Association for the Advancement of Science, 1989; Lloyd-Jones & Lunsford, 1989; National Council for the Social Studies, 1994). Policymakers in many states have followed suit. Florida lawmakers specified the quantity of writing pupils must do at different levels, and in states such as Kentucky, Massachusetts, and Vermont, writing portfolios are now part of the state assessment system. On college and university campuses, faculty and administrators intent on reinvigorating writing requirements intone the “writing-across-the-curriculum” mantra (Maimon, 1981).

The assumption appears to be that writing of any type promotes learning in all subjects. Yet, the role of writing in learning may vary considerably by subject matter as well as by writing task—or, as Langer and Applebee (1987) assert, “writing is not writing is not writing” (p. 132). In history, for instance, writing may play a role in knowledge creation and communication that is unparalleled in mathematics or the physical sciences. For example, Mink (1987) contends that, “historical arguments are embedded or incorporated in the narrative structure of historical writing itself.” Rather than a series of propositions for which the text supplies an arsenal of evidence, historical arguments are “the specific way in which the evidence is discursively ordered” (p. 12). The narrative form is not merely a medium for historical arguments; arguments are instantiated in the narrative. Thus, to understand historical knowledge—its character and its creation—requires an understanding of how historical narratives are made. This assertion constitutes our central premise.

Researchers have not tested the contention that understanding the narrative form of historical argumentation is central to understanding the character of historical knowledge. Although several valuable cases that highlight the role of extended student writing in learning history have appeared (Holt, 1990; Jorgensen, 1993; Kobrin, 1992;

Vukovich, 1985), we found few systematic studies of attempts to teach secondary and post-secondary students to write historical essays and none that focused on narratives (see bibliographies, Durst & Marshall, 1990; Durst & Marshall, 1991; Larson & Bechan, 1992; Larson & Saks, 1993; Larson & Saks, 1995; Saks & Larson, 1994; Saks & Larson, 1995). Greene (1991), in a study of 15 undergraduates in an European history seminar, found that students who wrote essays to address an historical problem were more likely to incorporate relevant content and to structure their writing as arguments than were students who wrote reports. Newell and Winograd (1995) found that analytical essay writing seemed to assist high school pupils in recalling information as well as using the information more effectively than did other, less extended writing such as responding to study questions. On the basis of three connected studies of writing in secondary classrooms, Langer and Applebee (1987) concluded that extended writing increased both pupils' recall of information and their generation of original formulations more than shorter writing assignments or reading alone.

In most classrooms, however, the purpose of pupil writing is to evaluate, not consolidate or extend, learning. Tighe's (1991) survey of secondary teachers in the U.S. and England appears to corroborate a finding from the Langer and Applebee studies (Applebee, 1981; Applebee, 1984; Langer & Applebee, 1987) that most teachers are comfortable using writing as a medium for evaluation, not learning. Usually, the writing most pupils are asked to do is brief. According to the 1996 National Assessment of Educational Progress, 30 percent of eighth grade social studies teachers said that they never required written reports, whereas only 4 percent said they assigned reports once or twice a week. On the other hand, nearly three-quarters of the eighth grade teachers assigned short answers daily or at least one or twice a week (National Assessment of Educational Progress, 1996). In a survey of 250 randomly selected secondary American history teachers nationwide, only 0.4 percent reported that writing essays or reports was their first choice among instructional activities, while over 84 percent mentioned lectures and discussion (O'Shea, 1994). These studies suggest that in history classrooms, when pupils write, they do so briefly in response to questions intended to evaluate their learning, not to help them connect disparate information, create their own historical narratives, or analyze and evaluate the arguments of others.

The little research that has been done on writing in history classes also suggests that teachers have yet to realize the potential of writing for learning. One explanation, suggested by Langer and Applebee (1987), is that many teachers are unaware of the contested, interpretative character of historical texts (Appleby, Hunt & Jacob, 1994; Gabrella, 1994; Novick, 1988; Rosenau, 1992). Such teachers are unlikely to see the

value of writing as a vehicle for helping pupils learn both information about the past (Newell & Winograd, 1995) and “the rhetoric or the rules of evidence that govern effective argument[s]” in history (Langer & Applebee, 1987, p. 149). If teachers are unaware of these discipline-specific dimensions of writing in history, they are unlikely to create opportunities for their pupils to learn them (Gabrella, 1994).

In the study described below, the first author, Vinten-Johansen, engaged his undergraduates, all of whom planned to teach, in a structured process of writing historical narratives. His purpose was to help them learn not only to make historical arguments in writing—a capacity that has applications far beyond academic history—but also to analyze the narratives of others as contestable products. In what follows, we examine the opportunities that Vinten-Johansen created to help students learn to write, the successive drafts of original narratives they produced, and their discussions of historical methods and reasoning. Our purpose is to explore whether a highly structured experience in writing historical narratives does help students learn this form of writing and the character of historical knowledge.

The Role of Narrative in Learning History

Before describing what we found in this investigation, we expand on our premise that learning history entails learning to compose historical narratives. Students who craft an argument in the form of a narrative must learn substantive information about the past as well as the rules and conventions that govern historical writing. Therefore, the study of history provides a particularly favorable context for teaching—and learning—how to structure an argument. In addition, as a by-product, students become more adept at analyzing and evaluating the arguments of others.

Our premise grows out of reading philosophers of history such as Mink (1987), White (1987), Danto (1985), Ricoeur (1988), and Walsh (1951/1984), all of whom distinguish chronicles from narratives. Chronicles arrange events sequentially within certain time frames but do not interpret the meaning of events. Writers of historical narratives, however, have a different objective:

to ‘grasp together,’ as parts of wholes that are ‘meaningful,’ the intentions, motivating actions, the actions themselves, and their consequences as reflected in social and cultural contexts. (White, 1987, p. 50, interpreting Ricoeur)

Since both high school and university graduation standards in history require students to be more than chroniclers, we argue that the construction of narratives is essential if students are expected to view history from the “inside,” to contemplate human motivations and intentions, to assess actions and their consequences—that is, to understand the past as “meaningful wholes” (White, 1987). Such narratives constitute arguments—“a connected series of statements intended to establish (or subvert) a position; a process of reasoning . . .” (Little, Fowler & Coulson, 1973).

Persuasive historical narrators establish a position, however, only after compiling and evaluating a storehouse of connected information bearing on particular events. In other words, engaging students in writing their own narratives—that is, telling their own stories about what happened in the past and why—is not antithetical to amassing and recalling information about past events, people, places, and conditions. In an earlier study, we found that as students labored to create their own narratives about the power struggle between James I and Parliament, they became knowledgeable about social and political conditions as well as key actors and events (McDiarmid, 1994; McDiarmid & Vinten-Johansen, 1994). Newell and Winograd (1995) similarly found that high school pupils who engaged in analytical writing actually recalled more information about the past than those who just answered study questions.

Merely being able to recall information is inadequate for the present age. Through a range of electronic means, vast amounts of information—and misinformation—are increasingly available to wider and wider audiences. The facility to evaluate information is at a premium. The process of writing an historical narrative engages students in locating relevant information, determining its relative value, reconciling sometimes conflicting information, and constructing a story. Information in and of itself is rarely of value; the value of information usually lies in its relationship to a problem or issue.

Teaching history by having students “do it”—that is, actually undertake research and write about the past themselves—has its critics. Lee (1983), for instance, argues that pupils lack sufficient knowledge of broad societal forces at work at any given moment in the past and the contextual knowledge to which professional historians are privy as members of a particular community of discourse. Therefore,

to compare the mature work of historical research with the exercises conducted by children from limited and preselected material . . . is the sort of clap-trap that brings the scholarship of educationists into doubt. (Stephens, quoted by Lee, 1983, p. 29)

Other critics argue that the proper goal of school history is to help pupils learn textbook narratives rather than having them create their own. They point to results from the National Assessment of Educational Progress as evidence that pupils are not learning the information about the past that an informed citizenry needs (Ravitch & Finn, 1987; National Assessment of Educational Progress, 1996) in order to participate in larger conversations about the direction of our nation (Hirsch, 1987). This point of view considers student understandings of historical knowledge and the methodology gained from actually doing history as either irrelevant or arcane, since most have no intention of becoming historians or even majoring in history.

Although these critics may ultimately prevail (if they haven't already), learning history by "doing it" has scarcely been tested. The emphasis in most classrooms appears to be precisely on learning information about the past by reading the accounts of others (National Assessment of Educational Progress, 1996; O'Shea, 1994). None of the opportunities that pupils encounter in the classroom—curriculum, assessment, and instruction—offer much chance to forge their own narratives of the past. Instead, most pupils fail to retain information about the past because they are rarely given the chance to "grasp together" as "meaningful wholes" the information they are taught. The narrative accounts most pupils encounter are, of course, textbooks—used at least weekly by 95 percent of the teachers in O'Shea's (1994) sample and 87 percent in the NAEP (1996) sample. Until recently, contemporary textbooks have been notable for their lack of storylines, for their lack of arguments (FitzGerald, 1979; Gagnon, 1988; Sewall, 1987). Most tend to be "catalogues of bloodless facts." The reasons for this seem obvious: narratives in which historians endeavor to establish a position or stance are risky and likely to offend one constituency or another. Therefore, the result is all too frequently bland and unengaging texts.

Tests that pupils take, moreover, frequently emphasize the recall of information independent of a narrative structure that would afford the information significance and meaning or that would connect it to other information. The need to communicate a lot of information about the past seems to drive history instruction, both at the secondary and college levels. This notion of the teacher's responsibility frequently appears to override any desire to help pupils craft their own narratives. History and social studies teachers at the secondary and college levels who may want to help students write original narratives are ill-prepared because they either have not done genuine historical research or do not understand the structure and conventions of historical genres (Langer & Applebee, 1987). These teachers may themselves be victims of university history departments whose faculty assume that students should already have learned to write and do not consider it their

responsibility to systematically teach writing (Weir, 1994). When pupils are expected to write historical narratives, the results are often discouraging—perhaps because neither teachers nor pupils have received explicit and systematic instruction in historical writing (National Assessment of Educational Progress, 1996; Weir, 1994). The irony is that pupil inadequacies are then used as evidence that “doing history” is beyond all but the highest achievers.

Assessments might compensate somewhat for the “one-damn-thing-after another” view of the past found in many textbooks, if such tests encouraged pupils to develop coherent narratives. The story we have to tell is about our attempt to test the premise that learning how to write historical narratives is central to learning history. We assume such writing must be taught systematically, replicate forms of writing common to many discourse communities as well as to the larger societal discourse, and involve pupils in learning how to analyze and evaluate the arguments of others. The outcomes of this attempt reveal not only some pitfalls of such an approach but also its promise. Overall, the results present a challenge to anyone who disparages “doing history” as inherently inappropriate or inadequate.

Methods

Selection of HST 483 for Study

In an earlier paper, we examined the impact that a required undergraduate historiography course (HST 201), taught by Vinten-Johansen, had in challenging student preconceptions of historical reasoning, historical work, and, for those who had such aspirations, historical teaching (McDiarmid, 1994, 1996; McDiarmid & Vinten-Johansen, 1994). Our conclusions relied heavily on data from an extensive student interview that included exercises in interpreting historical documents and textbooks, responses to questions about historical events, and speculation about how those who planned to enter secondary teaching might help their pupils understand events and people in the past.

A major portion of the course was devoted to teaching students how to produce historical narratives that interpreted the meaning of an apparently obscure controversy over a Parliamentary seat at the beginning of James I’s reign in England. We did not undertake, however, a systematic analysis of what students learned about history from their writing about this event. Consequently, our conclusions about the tension between students’ new understandings and prior notions of historical knowledge depended more on their discussion of what they read than on what they wrote. In the end, we were uncertain whether the process of writing interpretive historical essays had contributed anything to the emergence of this tension.

When Vinten-Johansen was assigned to teach a senior-level seminar, we were able to incorporate data collection as part of the course. During the spring semester of 1993, Vinten-Johansen's "Seminar in Modern European History" (HST 483) was one of several offered to history majors. The curriculum for undergraduate majors in the Department of History at Michigan State University requires completion of two senior-level seminars designed to satisfy a portion of the university writing requirement.

The historical problem in Vinten-Johansen's section of HST 483 was to sort out the intellectual development of Charles Darwin during the *Beagle* voyage, 1831-36. A combination of networking by Cambridge mentors and pure serendipity had produced an invitation for Darwin to join a British Admiralty surveying ship as the captain's dining companion. At other times, Darwin could pursue his avocation as a gentleman naturalist. That is, no assigned shipboard duties were attached to the free passage, which included a hammock and a small work station in the poop cabin.

For three and a half years, Darwin explored interior areas of South America while captain and crew charted coastlines. When the captain decided to call it quits, the *Beagle* was on the west coast of South America. Without a canal across Panama and no desire to make another passage through the Strait of Magellan, the captain turned the ship west. Darwin's wish for a circumglobal voyage was thereby fulfilled. Layovers in the Galápagos Islands, Tahiti, New Zealand, and Australia ensued before the ship returned to Falmouth.

HST 483 was designed so that students would study what Darwin wrote while on this voyage, select a focused topic, and write an historical narrative. In addition, students were assigned two essays on historical methodology—one early in the semester, the other at the end—and various worksheets connected to reading and writing assignments throughout the semester.

Description of Data and Analysis

Unlike our earlier study (McDiarmid & Vinten-Johansen, 1994), we largely restricted data collection to activities and artifacts directly associated with the seminar. Our primary sources were students' formal writing: photocopies of three drafts of their historical narratives and two drafts of their methodology essays (baseline and final). We also photocopied all reading and writing worksheets that students completed. Finally, the second author collected other data, including fieldnotes on classes, which were compared to transcriptions of audiotapes made of seminar discussions; informal discussions with students outside of class; and formal interviews with Vinten-Johansen at the beginning and end of the semester as well as informal interviews conducted throughout the semester.

Analysis of student writing featured successive drafts of the students' research and methods papers. We summarized their thesis statements, the structure of their arguments, and the substantiation they provided. We entered all summaries into a database which permits us to trace each element of students' essays through various drafts and compare any changes students made—either through their own choice or in response to written criticism. Therefore, we included in the database all critical comments and marginalia written on each draft by Vinten-Johansen and classmates during peer-review.

We also analyzed the student papers on historical methodology, entering these analyses into the database to allow comparisons between the baseline and end-of-semester versions. For each student in the sample, we could also explore relationships between particular versions of the narratives and the historical methodology papers with concurrent class discussions.

The Focal Students

Twelve students enrolled in the course: two graduate students and ten undergraduates, all seniors; nine men and three women; eleven Caucasians and one African-American. One male undergraduate withdrew from the university during the semester, and two undergraduate men were given incompletes because they did not finish all assignments within the semester. Of the eight who completed everything on time, seven planned to teach, all but two at the post-secondary level.

Because of our interest in the preparation of history teachers, we selected as focal students five who planned to teach, who had completed all course assignments, and whose final drafts received marks representative of student writing performances in the course: one at 3.5, two at 2.75, and one each at 2.3 and 1.7 on a 4-point scale. We also believed that the five focal students were representative of the range of perceptions among seminar participants about what it means to do history. All five focal students were Caucasian; three were male, two female. The table below (table 1) contains additional academic information about the students we selected for this study (all student names are pseudonyms).

Table 1. Focal Students

Name	Gender	Future Teaching Plans	Major	Hst 201	Lower-level	Upper-level	Senior Seminars	Prior classes w/PVJ	Total History courses
Jerod	Male	Secondary	History	yes	3	2	0	1	5
Lynn	Female	College	Humanities	no	1	7	0	3	8
Corey	Male	College	History & Philosophy	yes	0	3	1	4	4
Mick	Male	Secondary	History	no	3	5	0	0	8
Monique	Female	College	Humanities	no	0	5	0	2	5

Although three of the focal students were history majors, two majored in Humanities. Such a major requires concentrations of courses in three disciplines within the College of Arts and Letters. All Humanities majors had History as an area of concentration.

Michigan State University used a quarter-term calendar until fall 1992. Most of the history courses taken by the focal students prior to HST 483 were nine or ten weeks in length, not fifteen-week semester courses. All sections of HST 201 address historiography; most sections include a research component. Lower-level courses are typically surveys taught in large classes with recitation sections. Most writing is in-class essay examination although occasionally a term paper is also required. All upper-level courses in History require writing beyond essay examinations: book reviews and/or essays which interpret an author's thesis and argumentative structure. All senior seminars involve intensive study of an historical "problem or theme" and require multiple drafts of historical essays, usually research papers. In his upper-level courses, Vinten-Johansen teaches students to write essays that combine interpretation and analysis of primary documents. In senior seminars, he teaches historical narratives in which students tell a story based on inquiry into sources.

Limitations

Our objective was to compare developments in the focal students' notions of history that surfaced in seminar discussions with those that appeared while drafting successive versions of the narratives—that is, when they were undertaking their own historical investigations. Like all case studies, this one has specific limitations. We cannot generalize from findings that are only suggestive; we do not know if the outcomes that strike us as significant would have occurred in other settings.

Goals and Elements of the Course Design

The course was designed as a highly structured and constrained—or “tight”—history workshop. All history workshops presume the teacher has selected a common set of resources that every “apprentice” will use while preparing a research project. In tight workshops, students must limit themselves to consulting only primary and secondary sources chosen by the teacher and all sources are common to the entire class. Looser workshops involve fewer common sources, but students are expected to consult a broader, even unlimited, array of resources. The range from tight to loose is neither progressive nor hierarchical. Which type teachers choose depends on their course objectives: How many shared experiences are optimal? How much individual initiative is desirable? What skills will be emphasized? A decision, once made, is reversible. The teacher may loosen or tighten restrictions on resources at any time, depending on the mid-course corrections that seem necessary.

Vinten-Johansen chose a tight workshop format for HST 483 because he wanted to stress student development of reading and writing skills rather than other, equally significant, research skills. He prepared worksheets designed to foster critical reading of texts—specifically, abstracting the components in an author’s argument, condensing that abstract into an interpretation, and clustering, by themes, substantiating evidence from the texts. The reading worksheets also prepared students for interpretive and analytical writing. Vinten-Johansen assumed that students should understand how arguments are structured before constructing arguments of their own. That is, Vinten-Johansen designed the course to make his students more effective readers, thinkers, and writers—in general, not just of history—than they were when they first enrolled.

Defining the Arena of Research

Vinten-Johansen’s tight workshop format limited research topics to Darwin’s worldview ascertainable from the writing he did while aboard the *Beagle*. Chief among these was a journal of daily activities—known as the *Diary*—initially intended simply to jog his memory when he corresponded with family members during the five-year voyage. But Darwin soon became so enamored with his own travel narrative that he sent it home as well.

Students chose research topics after reading about one-third of the *Diary*. The range of topics in this volume is greater than one might imagine from someone who later devoted six years to barnacles before plunging into a book *On the Origin of Species*. Darwin consciously modeled his *Diary* on Alexander von Humboldt’s story (1814-29) of

travels to “the new continent”—i.e., South America—three decades earlier. Topics available to students of the *Beagle* period in Darwin’s life include: scientific subjects or, in the vernacular of his day, the “various branches of natural history”; religious beliefs; views of slavery; responses to the various social groups he encountered; and attitudes about European missionary and imperialistic initiatives. After choosing topics, Vinten-Johansen gave each student a computer diskette copy of the *Diary* he had developed for research purposes.

Beyond the core sources, students had common reading assignments in a published collection of excerpts (Barlow, 1945) from Darwin’s *Beagle* field notebooks, *The Red Notebook* (Herbert, 1980) of reflections he began near the end of the voyage, reprints of two books (Paley, 1802; Herschel, 1830) that Darwin had read during and immediately after his undergraduate years at Cambridge University, and an interpretive monograph (Ruse, 1979) on the scientific, philosophical, and religious context for Darwin’s ideas. Supplemental resources available on library reserve included the zoological and geological volumes describing specimens collected during the voyage, the *Darwin Correspondence*, and Darwin’s ornithological notes. Vinten-Johansen also made available folders containing two dozen articles on selected topics.

By organizing the research material in advance, Vinten-Johansen enabled the students to concentrate their time and attention on analyzing a limited number of common sources rather than on identifying and tracking down library materials. Although experiencing such legwork is essential to understanding how historians work, some things must be sacrificed, truncated, or deferred in courses that only last fifteen weeks. Vinten-Johansen’s constructed this history workshop tightly in order to feature the process of researching and writing three drafts of an historical narrative.

Creating a Community of Scholars

Other considerations urged Vinten-Johansen to restrict the research arena to Darwin’s intellectual development during the *Beagle* voyage. For most students, developing a thoughtful, reasoned, personally meaningful stance toward the world is as much a struggle as it was for Darwin. At the outset of the voyage, Darwin was two months shy of his twenty-third birthday and a new-baked baccalaureate; at the outset of HST 483, most students were close to the *Beagle* Darwin in age and university status. And like Darwin’s experience with undergraduate studies, most students in HST 483 had learned to deliver what they believed their instructors wanted rather than pursuing their own learning goals. In such a pedagogical context, Vinten-Johansen hoped that as the students confronted different course expectations and situations while studying a person

who was also contending with the unexpected, they would rethink their attitudes about learning in general, learning history in particular.

Built into the workshop were multiple opportunities for students to work with one another. Vinten-Johansen used the baseline essay on historical methodology to divide the seminar into three basic groups (Vulcanists, Neptunists, and Transmutationists), each with four students. His intention was for each basic group to contain a mixture of learning styles and academic backgrounds. Basic groups were set up to augment discussion of assigned reading and to provide peer review of writing assignments. Primary responsibility for analyzing texts was often divided among basic group members. For example, each student would prepare a chapter or an article for presentation and scan-read the rest for familiarity with content and argument. When the seminar met, all students who had read a particular chapter or article would “shuffle” from their basic groups to a temporary group for preliminary discussion of what they had read in common (an activity others term “jigsawing”). Then each student would return to basic groups for brief presentations of the thesis and structure of argument in the assigned readings, usually followed by whole seminar discussions.

Vinten-Johansen also established four permanent shuffle groups reflecting contiguous research topics (Thinking & Learning; Anthropology & Slavery; Religion & Science; Worldview & Science). Students met weekly in these research shuffle groups to share potential evidence and resolve nagging problems. Each type of group served distinct functions in the writing process: shuffle groups nurtured the development of expertise about various topics and texts, whereas basic groups provided settings for peer review of writing exercises related to the production of historical narratives, as well as actual drafts. Because all students were working on topics drawn from a limited research arena, they had sufficient understanding of what each person was writing about to constitute, over time, a community for informed discussion of ideas, sources, research problems—and the process of writing an historical narrative.

Structuring the Process of Writing

The design of the course embodied a specific approach to the process of writing an historical research paper. Although Vinten-Johansen’s process resembles that advocated by proponents of one or another version of process writing (Graves, 1994,1991; Calkins, 1991), his version has evolved more or less independently over twenty years. The process is designed so students evolve and continuously refine interpretations—or thesis statements—as they research and write in several stages. First, students identified Darwin's initial stance on their topic, referred to as the “From” element. Second, they

identified his stance at the end of the voyage, the “To” element. Then, they looked for factors that might explain either perceived changes or continuities, the “Because” element.

Writing assignments were designed to help students conceptualize their topics as historical problems that could be resolved within the framework of this heuristic device. An early writing exercise asked students to prepare a partial thesis statement based on Darwin’s “From” position. For example, a student might write, “Darwin began the voyage with the assumption that all human societies could be placed on a progressive scale, with industrialized Europeans (particularly the English) most advanced.” After discussing thesis statements such as this in basic groups and receiving written comments from Vinten-Johansen, students wrote drafts substantiating only the “From” portion of their thesis. Members of their basic group read this draft and provided both written and oral comments, using guidelines for peer review distributed in advance. Separately, Vinten-Johansen provided marginal comments and a full-page summary evaluation. Second drafts were supposed to contain an expanded thesis and additional substantiation for the “To” and “Because” elements, as well as a revision of the first draft. Vinten-Johansen and peers also reviewed the second draft. The third draft—a complete revision in response to suggestions made by peers and Vinten-Johansen—was due three weeks later. This draft was again reviewed by basic group members, after which each student wrote a self-evaluation: which aspects of their thesis paragraph and substantiation would they maintain, which would they change, and how, if another draft were required? After reading the third drafts and self-evaluations, Vinten-Johansen marked the papers and assigned grades.

Guided Reading and Research Activities

Parallel to the writing process, students worked on tasks designed to help them read more critically and analytically. To help students assess historical arguments, they completed “Structure of Argument” worksheets (SoAs; see Appendix A) for all assigned books and articles on the young Darwin. One objective of SoAs was to practice the argumentative format concurrently used in writing the research paper. For each secondary source, students were asked to use whenever possible the “From-To-Because” device to diagram the author’s rhetorical structure. From these diagrams, they then generated interpretations of the author’s thesis. The SoAs also contained brief evaluations of the usefulness of documentation notes and bibliography, as well as comments on the potential value of the book or article for themselves and basic group members.

Vinten-Johansen also designed “Thematic Clustering” worksheets (TCs; see Appendix B) to assist students in selecting and organizing potential evidence for their

research papers. The TCs were sheets of paper divided into quarter-blocks, each containing a heading that referred to one of the research shuffle groups: T/L (Thinking/Learning), A/Sl (Anthropology/Slavery), R/Sc (Religion/Science), and W/Sc (Worldview/Science). As the students made initial passes through the *Diary* (Barlow, 1933), Paley (1802), Herschel (1830/1987), and the *Darwin Correspondence* (Burkhardt & Smith, 1985), they would jot down page numbers and brief descriptive phrases identifying textual passages bearing on the four major research themes underway in the seminar. Clustering by themes while reading rapidly is a task Vinten-Johansen designed to assist students in identifying potential evidence for their own topics and to alert classmates to something they may have missed in their clustering. TCs are effective in the early stages of research when students are building resource bases and prioritizing the evidence they select. Merely a preliminary short-hand reference, clustering is not a substitute for rereading and extensive note taking when students are writing particular stages of their narratives.

Instructor's Roles

Critical to the course design were the particular roles the instructor played. In the first place, he organized the entire experience—identifying the arena of research, selecting common primary and secondary source materials, devising worksheets to guide students' reading and writing, setting up basic and shuffle groups, and establishing a schedule of reading and writing assignments. Thereafter, he served as a critic for students' work, evaluating worksheets and marking each draft of the essay.

During seminar meetings, he served as a choreographer, directing students into shuffle, primary, and whole group configurations for different tasks. During discussions, he served as a facilitator and an interrogator, pressing students to clarify their statements and ideas. Finally, Vinten-Johansen played the role of an experienced practicing historian. He told stories of his own struggles to write in order to demystify the writing process. Like all parables, the stories culminated with a moral, usually in the form of a warning about unproductive habits or a caution about imbuing others, particularly "professionals," with heroic dimensions. Although Vinten-Johansen's pedagogical approach included strategies for reducing ex post facto learning to a minimum, he believes that struggling, with his support, can have productive outcomes.

Students' Roles

Just as Vinten-Johansen's varied roles were key elements in the course design, those played by the students were equally essential to an effective history workshop. In the main, each student was an apprentice historian, learning the ropes of researching and writing a persuasive historical narrative. In addition, students had collective responsibilities. They served as colleagues in joint reading enterprises, often analyzing or summarizing source materials for their basic group. And they served as referees during peer review exercises, listening and commenting on their classmates' ideas, worksheets, and writing.

Setting the Stage: Exploring the Historian's Methods

The initial two weeks of seminar time (the class met twice a week, seventy-five minutes in each meeting) were largely devoted to discussing how the students thought historians solved problems and the methods that Jim Chee, a Navajo policeman in a number of Tony Hillerman's mysteries, employed while trying to solve several cases in the novel. It is an indirect approach to flush out the students' default assumptions about history and historical methodology. In particular, Vinten-Johansen pushed students to examine their prevalent view that history consists of objective reconstructions of what had actually happened, whereas fiction is entirely personal and imaginative.

The Hillerman mystery (1982) was also intended to reduce disparities in student experiences with "doing history" at the outset of the course. All students enrolled in the course had already taken some history courses, but not all students were history majors. All students had been expected to write historical essays, but only a few had been taught systematically how to write them, whether at college or in high school. Prior student experiences with research papers varied considerably. Because some students know more than their classmates about how to compose historical narratives, history seminars can devolve into situations where students simply demonstrate the fruits of differential academic backgrounds—unless the playing field is leveled as much as possible. Such leveling was begun in HST 483 by starting with a non-historical text, asking students to analyze its argumentative structure, and extending the discussion to include comparisons between criminal detection and historical reasoning.

The novel provoked lively discussions in class. For example, the discussion below occurred during the second week:

Vinten-Johansen: How would you describe the method Chee uses?

Monique: He's really thorough. He followed [the car] tracks that others had dismissed.

Vinten-Johansen: Why do you think he did that?

Monique: Well, it's like he uses every ounce of information that's out there. . . .

Vinten-Johansen: Yes, but why do you suppose he does that?

Kieran : Isn't it because of his Navajo worldview—he believes there is a reason for everything, that there are no random events? So, if you look closely enough and hard enough you'll eventually find out why something like the murder and the plane crash happened.

Ethel : He's always searching for a reason for everything. That's why he built character profiles of everyone involved. [As an example, she describes one of Chee's prime suspects in the murder.] By understanding their character, he could understand their motives.

Vinten-Johansen: So the search for the reasons for events includes understanding human motivation?

Kieran: I think Chee relies a lot on intuition and following his intuition. It's the [shamanistic] teachings of his uncle that get him in touch with his intuition.

Lynn: The thing I really noticed was how he was constantly asking himself questions. [Opens Hillerman, 1982] Like on page 232. He kept this notebook and in it he wrote questions. [Reads] "Across from 'Why the burglary?' he wrote: 'Was there a burglary?' Then he studies the other questions. Across from 'Did Musket kill John Doe?' he wrote: 'Was John Doe Ironfingers?'" And what he realized that he needed to do next was to step back and think it through.

Einar: I think that's really important—stepping back. When he does that, he notices something different, something he didn't notice before.

Monique: That's part of the patience aspect of it. He doesn't rush things. It's like he knows that if he stays with it, if he doesn't rush things, it'll come to him. It may take a while but sooner or later it will come. . . .

In this meeting, students also explored qualities and dispositions they considered as critical to an historian as to Hillerman's Navajo policeman: being thorough, paying

attention to seemingly insignificant details, considering human motivations, following one's intuitions, taking stock, and periodically stepping away from one's data. In the previous seminar meeting, Mick had argued that central to Chee's success was his ability to empathize with the criminal, to "get into the criminal's mind." The continued interest in human motivation reflected a preliminary exploration of whether empathy was also central in historical problem-solving.

Part of the leveling project was to have each student write a five-page, ungraded essay comparing Chee's methods "analytical discussion of evidence [selected from the novel]) with your own viewpoints of historiography—what historians do, plus how and why they do it . . ." (HST 483 syllabus). The assignment was intended to be a relatively stress-free opportunity for students to consolidate their ideas. From Vinten-Johansen's perspective, an essay written during the second week of the semester had distinct pedagogical advantages: the analytical portion offered insights into student capacities in expository writing, and the section on historiographical views provided information on the range of interests and learning styles in the class. He used this baseline essay on Hillerman to place students in basic groups and as a transition to his writing expectations for the remainder of the semester. That is, on the due-day, at the beginning of the third week, students brought to class their essays and, separately, extractions from them: the entire opening paragraph containing their comparison of historical and detective reasoning, plus a seriatim list of all topic sentences from subsequent paragraphs. Vinten-Johansen asked each student to evaluate a classmate's thesis paragraph and the structure of argument reflected in the topic sentences as a prelude to discussing his expectations for the organizational structure, logical development, and analytical substantiation in the historical narratives they would be working on thereafter (Appendix C).

Ultimately, the Hillerman essays also served as sources of "baseline data" for the students themselves. In lieu of a final examination, they wrote an essay comparing their views of historical methodology at the beginning of the seminar with those they held after having completed the final draft of an historical narrative about Darwin on the *Beagle* voyage. Only then did Vinten-Johansen realize that assigning a mystery novel had yielded unexpected benefits:

Asking them to compare Hillerman's detective (Chee's assumptions, method of ratiocination, *modus operandi*, etc.) with their own notions of historiography at the beginning of the course was initially (and primarily) designed for deck-clearing rather than getting them to think about how to proceed through the Darwin materials. That the latter evolved as well was icing on the cake. (Final interview)

The Journey from Prospectus to Final Draft

Stage I: Selecting a Topic

Each student followed an identical process in writing a research narrative about the young Darwin. The first stage, selecting a viable research topic, involved several steps: identifying potential topics, formulating a prospectus for one topic, and defending the prospectus. Vinten-Johansen structured outside assignments and seminar discussions so that topic selection evolved in tandem with conversations about the nature of history generated by the Hillerman novel. For example, as the students read how Jim Chee learned to conduct the “Blessing Way” curing ceremony, Vinten-Johansen introduced the “Primary Way” and “Secondary Way” typically used by historians in the early stages of research. That is, one may first come across a promising or puzzling matter in primary sources (in this case, Darwin’s *Autobiography* [Barlow, 1958] or *Diary* [Barlow, 1933]), then confirm it is doable and significant after consulting selected secondary sources (for the students, excerpts from Clark, Eiseley, Ghiselin, and Irvine, plus two chapters in Ruse)—or the reverse.

By the third week, students had written an essay about the Hillerman novel, were scan-reading for potential research topics, had been introduced to the model of an historical narrative that Vinten-Johansen expected them to follow—thesis paragraph, substantiation, and conclusion—and had been shown how to adapt that model for a research prospectus. During the third week, they discussed, in basic groups of four students each, possible topics they had identified while sampling the first year in Darwin’s *Diary* and cross-checking with secondary works on library reserve. The topic stage culminated during the following week with presentations of the prospectus, in which each student recast a chosen topic into an historical problem, surveyed existing scholarly literature on the topic, explained how the common resource base would be mined for evidence, and sketched initial lines of research. In advance of class presentations, the students distributed copies of the prospectus to basic-group members, each of whom then prepared comments according to guidelines that Vinten-Johansen provided. The topic-selection stage, therefore, concluded with written and oral peer review in basic groups.

For various reasons unconnected to this study, Vinten-Johansen placed Corey, Jerod, Mick, and Monique in basic group #3. Lynn was in basic group #2. The five focal students developed prospectus on the following topics—and were, like everyone, also placed in one of the four research-shuffle groups discussed above:

Corey	Darwin's mind/ways of thinking (T/L)
Jerod	Darwin's anthropological hierarchy (A/Sl)
Lynn	Darwin as a Romantic empiricist (W/Sc)
Mick	Darwin's views of slaves and savages (A/Sl)
Monique	Darwin's religious worldview (R/Sc)

Stage 2: Establishing the “From”

Opportunities to Learn: There were three and one-half weeks between presentation of the prospectus and the due-date for the first draft of the narrative. Students were informed at the beginning of this period that the first draft should cover only the “From” portion of their argument—short-hand for their assessment of Darwin's initial perspective on their respective topics. That is, each first draft should establish an intellectual “baseline” against which the students could compare developments, if any, in Darwin's ideas and behavior during the remainder of the voyage.

Vinten-Johansen scheduled reading assignments and structured the seminar meetings so that students could begin drafting the “From” portion of their narratives as early in this period as possible. His rationale was that the learning experience should attempt to replicate the parallel investigations of text and context that characterize the practice of most historians. Students, therefore, reread the early portions of the *Diary* and consulted extant correspondence by, to, and about Darwin from his youth to the *Beagle's* departure in December 1831. The objective was to establish Darwin's worldview from the inside—what he thought and did—as well as the reactions of relations and friends. Students also looked outside the Darwin circle at three authors whom Darwin had read and personally identified as pivotal in his thinking prior to the winter of 1831: Paley (1802), Herschel (1830/1987), and Humboldt (1814-29). The purpose of delving into an intellectual context of possible relevance to the *Diary* was to have the students assess the degree to which these authors might have influenced Darwin's initial thinking.

Vinten-Johansen also phased in reading assignments from Darwin's contemporaries to replicate the problem-solving process historians typically use. For example, when the students were sampling the *Diary* (Barlow, 1933) for possible paper topics, Vinten-Johansen asked in seminar why Darwin was puzzled by the “harvest” he netted from the sea between the Canary and Cape Verde Islands: “Many of these creatures, so low in the scale of nature, are most exquisite in their forms & rich colours. It creates a feeling of wonder that so much beauty should be apparently created for such little purpose” (Barlow, 1933, p. 23). None of the students had enough background in

the history of science to explicate Darwin's wonderment. Consequently, Vinten-Johansen suggested that an answer might be found by examining the context of the *Diary*, specifically the morphological paradigm Darwin had learned at Cambridge. The students were already familiar with Ruse's claim that the Cambridge curriculum featured Paley's "design argument" as proof that a wise creator exists. To establish that Darwin knew Paley's argument, Vinten-Johansen read a letter from Darwin in which he described reading Paley in preparation for his "little Go," an examination that second-year Cambridge undergraduates had to pass to proceed to their third year (Burkhardt & Smith, no. 56). Vinten-Johansen also read from the *Autobiography*, where Darwin recalled that Paley "gave me as much delight as did Euclid" and was of "use to me in the education of my mind" (Barlow, 1958, p. 59). He then explained that in the fifth week, everyone would read enough of Paley to understand whether Darwin's comments assumed that his correspondents—his family and a few friends—understood and perhaps accepted Paley's general argument: that the evidence of order in nature indicates that an intelligent artificer designed particular contrivances for specific adaptations. "This is the scale by which we ascend to all knowledge of our Creator . . ." (Paley, 1802, p. 40).

The purpose in reading Paley was to resolve problems associated with researching specific topics about Darwin, not to master Paley's entire argument. Everyone was assigned the first portion of Paley in which he establishes his "general argument." Concurrently, students reread the *Diary* and identified instances where Darwin sounded Paleyan, took detailed notes on their own topics, and completed Thematic Cluster sheets for colleagues in their basic group. In clustering, for example, Corey, whose topic fell into the Thinking/Learning category, also noted page numbers and brief phrases as he came across evidence relevant to Mick and Jerod for Anthropology/Slavery and to Monique for Religion/Science. In seminar during the fifth week, the class discussed Paley's argument, evidence in the *Diary* that struck them as Paleyan, and differences between influences and parallels in historical reasoning. Since it was possible that individual students might find useful evidence in the portion of Paley not assigned as common reading, each basic group divided and read the remaining 457 pages, completed Thematic Cluster sheets, and distributed copies to everyone in the group.

Vinten-Johansen also assigned reading in the *Darwin Correspondence* (Burkhardt & Smith, 1985) during the period students were researching and writing the "From" portion of their narratives. Just as a letter had fingered Paley as a key influence, other letters might suggest additional sources to investigate for clues about Darwin's worldview. There are 153 extant letters written between 1821 and December 1831, when the *Beagle* left British waters. Just as students shared responsibility for reading Paley, each person in

every basic group read approximately 45 pages of letters over a two-week period and completed Thematic Cluster sheets (Appendix D). Students assigned to read the same set of letters briefly compared notes in shuffle groups in advance of distributing and discussing their sheets in basic groups. As with the clustering exercises for the *Diary* and Paley, every student was expected to follow up any suggested leads with focused reading and detailed note taking.

At the beginning of the sixth week of the semester, students who read letter #94 (Burkhardt & Smith, 1985) reported they had found two additional contextual sources. In mid-February 1831, Darwin wrote his cousin, “If you have not read Herschel . . . read it directly.” The editors (Burkhardt & Smith, 1985), in a footnote, included a quotation from Darwin’s *Autobiography* (Barlow, 1958) in which he cited Herschel and Humboldt as the most influential authors he remembered reading. Students read several chapters from Herschel, some in basic and some in shuffle groups. In addition, everyone was expected to visit Special Collections in the MSU Library and read the same chapter in Humboldt that had spurred Darwin’s interest in making a trip of his own to the tropics one day: the description of Teneriffe in the Canary Islands.

Students’ “working drafts” were due at the end of the seventh week. Vinten-Johansen’s described the expected format—what to include in the opening thesis paragraph; how topic sentences in the substantiation should reflect a logical progression (and the expected content); and analysis of evidence selected from the *Diary* (Barlow, 1933) the *Correspondence* (Burkhardt & Smith, 1985), Paley (1802), and Herschel. In instructions distributed eleven days prior to the due date, Vinten-Johansen explained that a “working draft” meant “that you have yet to revise for diction, spelling, and minor syntax problems (parallel structure, run-on sentences, etc.). However, you are expected to use complete sentences and have manageable, coherent paragraphs.” For peer review, students were to extract the thesis paragraph and all topic sentences from the substantiation, then distribute copies to members of their basic group (Appendix E).

The Drafts: The drafts submitted suggest considerable variation in student understanding of how an historian would attempt to establish Darwin’s worldview and of what constitutes adequate substantiation of an interpretation.

Jerod linked Darwin’s hierarchical classification of different peoples to Paley via association rather than direct evidence. He described Paley’s “natural” pyramid, in which humans are at the tip, large terrestrial animals below, and so forth down to an inorganic base. Then, Jerod presented his selection of Darwin’s comments on Europeans, European colonists, and indigenous peoples such as the inhabitants of Tierra del Fuego. However, Jerod missed a link: he never explicitly connected Darwin’s human typology to Paley’s

scale of nature. During peer review, Jerod reiterated his conviction that it was sufficient to show Paley's influence on Darwin by finding hierarchical dimensions in both, despite suggestions that he rethink this approach. Vinten-Johansen, in his comments, urged Jerod to distinguish between historical influences and parallels, but he fared no better.

Lynn's topic was "Romantic empiricism," but her first draft contained several theses. First, she argued that Darwin was a Romantic because he "synthesized" existing ideas and sought new knowledge. Next, she drifted to a different topic, suggesting that Darwin was well-served by his education and the voyage "to formulate his theory of evolution." Her substantiation extended no further than examples about his love of nature and his curiosity. Lynn shifted to a third topic: that the Anglican Church in Darwin's time was a prop for the social status quo. She offered no substantiating evidence. Instead, she asserted that Darwin somehow both inherited and developed anti-clerical, anti-religious views which made it easier for him "to refute the idea of a Creation story then [sic] [if] he would have actually have been an adamant Christian." During peer review, Lynn's group mates pointed out the multiple theses in her draft and the inadequate substantiation, particularly her use of general references to the *Diary* and *Correspondence* instead of direct quotations and supporting analysis. Vinten-Johansen's assessment concurred with these comments by Lynn's peers. In addition, his marginal comments showed how imprecise diction and confusing syntax further obscured her intended meaning.

Corey had as much difficulty sticking to one thesis as Lynn had. His group and Vinten-Johansen had difficulty finding a thesis in the first draft. At times, Corey argued that Darwin developed "habits of energetic industry" which would serve him well on the voyage. But he also proposed another thesis at odds with the first: that Darwin was "predisposed by his initial abilities and unique characteristics to later adopt [an] inductive strategy of reasoning and scientific theorizing." Corey's third thesis—perhaps an extension of the Herschelian characteristics of a theorizing scientist—was that Darwin's characteristic mode of thinking was to "borrow ideas across lines of disciplines." His substantiation of the latter was problematical, since he featured as evidence the passage from the *Diary* where Darwin described how he dragged an oyster trowel behind the ship to collect specimens from the sea bed. He never explained from which discipline Darwin borrowed this idea. However, elsewhere in the draft he showed genuine understanding of what constitutes effective substantiation by establishing clear and often persuasive links among the pieces of evidence he presented for his multiple theses.

Mick, whose topic was Darwin's view of slavery, was unclear about the limits of context as an explanatory factor. His thesis was that Darwin "develops a fervent antislavery stance after seeing the brutality of slavery firsthand in Brazil." Mick argued that Darwin's Brazilian experiences caused him to rethink his earlier attachment to Paley's "pyramid of life" in which "savages" ostensibly occupied a low position. In his substantiation, however, Mick noted that "there is a complete absence of the issue of slavery in Paley." Moreover, Mick did not explain how Paley's view of savages substituted for the lack of evidence about slavery. To support his thesis, he relied, instead, on an unsubstantiated reference to the "collective consciousness of Europe." This collective consciousness, of which Darwin ostensibly was a part, regarded non-Europeans as inferiors. Responding to this argument, Vinten-Johansen and his peer reviewers referred Mick to passages in the *Diary* where Darwin remarked on the intelligence of slaves he met and questioned Mick's conflation of slaves and savages, as well as his tenuous reliance on "mental climate" as a warrant for his thesis.

Monique dawdled several weeks in the topic selection stage. Her first draft—consisting of one long, discursive paragraph—did not meet expectations, although she appeared impervious to comments that she was far short of the mark. The draft indicated that Monique was still having difficulty focusing her topic sufficiently to guide her research. As a result, she had an ambiguous thesis: Darwin began the journey with "relaxed" views of religion and scientific method but, by the end, "he was able to come into his own as a scientist, with or without his religion as a dominant motive or factor." She offered no substantiating evidence or analysis.

Problems with the first drafts: These papers revealed, at best, tenuous understandings of what constituted a workable thesis and promising substantiation. At this stage, Vinten-Johansen hoped the students would have a plausible thesis that established Darwin's worldview at the outset of the voyage. Instead, each of the focal students had a thesis that required extensive rethinking and revising. Whether any of them had engaged Vinten-Johansen's approach to writing was also unclear. None of the drafts were limited to the "From" stage. As for substantiation, Monique had provided none at all. Whereas Jerod, Lynn, and Mick cited some evidence, it often took the form of undigested block quotations. All three assumed that merely incorporating quotations from the assigned readings constituted supporting evidence. When asked how the quotations connected to the thesis, all three students were puzzled. Evidence speaks for itself, they claimed. Analysis is self-evident if the quotations are well-chosen. Of the three, Lynn eventually realized that the relation between thesis and evidence in her first draft was

problematical; Jerod and Mick interpreted the criticism they received largely as demands to provide more quotations.

Only Corey's draft reflected at least an abstract understanding and partial realization of Vinten-Johansen's expectations. His thesis was unwieldy and multifaceted, but he mustered chains of evidence and attempted to explain their connections to the thesis. Although his thesis ranged beyond the "From" that Vinten-Johansen specified, his substantiation was appropriately limited to Darwin's habits of thinking early in the voyage.

All five drafts revealed considerable uncertainty about how to employ the available evidence—whether contextual sources Paley (1802), Herschel (1830/1987), and Humboldt (1814-29), primary sources specifically connected to Darwin, or secondary sources—to compose the first part of an historical narrative focused on their chosen topics. The drafts suggest an analogy to domestic car repair: the students, like shade-tree mechanics, were dumbfounded by a shoebox of loose carburetor parts. They knew that every part was important and had a place, but none of the five knew how to rebuild the carburetor.

Stage 3: Establishing the "To" and "Because"

Opportunities to Learn: Discussion of first drafts occurred during the first seminar meeting after spring break. Vinten-Johansen began class with a mini-lecture on the difference between a first draft and the expanded revision due in four weeks. Often, he said, first drafts are explorations of potentially viable arguments, much like one of Jim Chee's strategies as a detective in the Hillerman novel. Looking for a vehicle he believed linked to a murder, Chee had walked up a promising arroyo "until he decided it was a cul-de-sac," then returned to the main wash and continued his search. Vinten-Johansen told the students to use Chee as a model, to "click into [their] logical, compulsive side" when assessing their first drafts. That is, look for argumentative culs-de-sac, such as multiple topics, tangents, unsupported assertions, and fallacious causality—all of which Vinten-Johansen said he had noted when marking their papers.

The preliminaries for peer review of the first drafts occurred before spring break, when students in basic groups exchanged drafts and completed detailed evaluations. The goal of this activity was to help each other reshape the "From" portion of their thesis statements. After the break, group members helped one another eliminate tangents and focus on a single argument. Vinten-Johansen urged the students to use peer evaluations of topic sentences to diagram a revised organization that matched the thesis. For example, they might consider consolidating the argument ("You may find you talk about Paley's argument in five different places"), break up long paragraphs, rewrite topic sentences, and

so on. Vinten-Johansen also commented on recurring problems in the analysis of evidence: asserting what Darwin believed rather than presenting direct evidence such as quotations that supported the thesis; conflating parallel ideas with influence; sprinkling the paper with quotes instead of explaining their meaning within the argument presented; and assuming that words necessarily signified in the past what they do today. After reviewing comments from their classmates and Vinten-Johansen, each student prepared a self-assessment identifying “what to retain or develop, what to change, what to drop, and what else is needed” (HST 483 Syllabus) in advance of half-hour individual conferences with Vinten-Johansen during the following week.

Other than evaluating first drafts, seminar time during the rest of Stage 3 was used to discuss research questions emerging from common reading in Darwin's *Diary*, field notebooks, the *Correspondence*, and interpretive perspectives drawn from various secondary sources. Research during this stage was guided by several questions:

If CD's [Charles Darwin's] thinking changes, when does it begin to change, and “To” what, by the end of the voyage? Why does it change? What are the factors that you find plausible to explain the change? (HST 483 Syllabus)

Vinten-Johansen had assembled an archive of articles on various subjects bearing on Darwin's intellectual development. One student from each basic group signed out and read a copy of each article. At subsequent seminar meetings, students who had read the same article met initially in a shuffle group to compare “SoA” worksheets and to discuss the author's thesis. For instance, during the eighth week, Monique, Jerod, and Corey constituted a shuffle group with the task of explicating an article by Burstyn (1975):

Monique: [According to Burstyn] Darwin wasn't asked to be on the ship to be the naturalist but to be FitzRoy's [the captain's] companion. The ship's doctor, McCormick, was really the naturalist. So, Darwin could go out exploring and collecting he was a lot freer than McCormick. . . .

Corey: That could explain why he didn't explain his ideas until he was back for several years. He really couldn't talk to FitzRoy about it. [Reads from Burstyn's article] “This proud young man [Darwin] was forced each day to take his meals with a religious fanatic who was under the heavy strain of a difficult sea command. Darwin could not argue as an equal with FitzRoy without the risk both of being insubordinate and ungrateful and of pushing the

captain towards a breakdown.” [Burstyn, 1975, p. 69]. So Darwin developed in his own mind a deeper sense of vision. . . .

Jerod: You might want this, Corey. [Shows him the notes he has taken on a letter from the *Correspondence*]. It says that when he was back, he is well-known as a “worthy follower” of Humboldt. . . .

This excerpt typifies conversations students had in their shuffle groups: comparing passages from primary and secondary sources, discussing potential implications for Darwin's development, and alerting one another to potentially useful evidence. Then, students returned to their basic groups to present the author's thesis and to discuss the relevance of these sources for everyone's research topic.

The Drafts: Vinten-Johansen expected the “penultimate” drafts, handed in at the end of the eleventh week, to contain revised thesis paragraphs (i.e., an historical problem containing the topic; definitions and background information; and a complete thesis statement), revisions of the “From” portion of the substantiation, and new substantiation for the “To” and “Because” components.

Jerod's narrative was incomplete. He was explicit about the “To” portion, asserting that by the end of the voyage, Darwin “had a scale or hierarchy of human beings . . . [that started] with the English (top), then the Tahitians, the New Zealanders, and last the Fuegians (low).” But he neither suggested whether Darwin's anthropological views at the end of the voyage differed from those at the outset nor explained continuity or change. Substantiation was limited to passages from the *Diary* where Darwin commented on various indigenous peoples he encountered. Moreover, Jerod did nothing to redress the fallacious reasoning about influence that dominated his draft.

Vinten-Johansen had urged Lynn during her individual conference to focus on one of the topics she had already begun to research, such as “romantic empiricism” or anti-clericalism. Instead, she decided to focus on a contrast she perceived between Darwin's development as a naturalist and his lack of development as an anthropologist. Her thesis was incomplete: “Darwin was unable to remove himself from the [human] scene that he was experiencing and view it as a scientist—not simply as an upper middle class Englishman.” That is, Darwin's initial stances—the “From”—and his ostensible development as a scientist remained undeveloped in the thesis. Lynn's second draft also lacked a “Because” component. In the substantiation, Lynn quoted extensively from Paley, Herschel, and Humboldt—although she did not mention the latter in the thesis paragraph. Like Jerod, Lynn assumed that merely juxtaposing parallel ideas demonstrated

historical influence. She did not provide specific evidence that showed how these thinkers influenced Darwin.

Among the five focal students, Corey's penultimate draft reflected the greatest improvements in both thesis and substantiation. He followed suggestions to narrow his thesis. His reformulation was that Darwin gradually moved from a "focus on classification of observable information as a demonstration of the order and design inherent in the world"—the view Paley espoused—to a stance adopted from Herschel, "whose use of hypothetico-deduction and analogy to speculate gave Darwin license to theorize about the inorganic." Corey's substantiation was well-crafted but often circumstantial. For example, he never linked specifics in Darwin's maturing scientific reasoning with Herschel's discussion of inductive and deductive methods. This weakness in Corey's argument was similar to the juxtapositional fallacies evident in Jerod's and Lynn's drafts. Lacking evidence that connected Darwin's thinking to Herschel's, Corey at least needed to acknowledge that Darwin's willingness to theorize during the voyage might have been unrelated to any particular intellectual influences.

Mick's penultimate draft suggested either that he had chosen to ignore comments on his first draft or he had done little subsequent writing. His thesis paragraph was largely unchanged. He restated Darwin's shift from Paleyan to non-Paleyan views on slavery, yet he did not add an explanatory element ("Because"). His substantiation remained an unanalyzed series of quotations from primary and secondary sources, and he still provided no evidence from Paley about slavery. Therefore, there was no substantiation whatsoever of the "From" portion of his thesis. His conclusion reflected a near-verbatim restatement of his thesis rather than an elaboration.

Monique's paper was, in reality, a first draft since she had written but a paragraph earlier and changed her topic in the interim. Her thesis statement contained a "From—To" development: Darwin changed from a "boy with an interest in science, some experience with geology, and a rich beetle collection" but no real "aim," to an adherent of "Lyell's view of geology and Herschel's method." Her thesis never hinted at a "Because"—that is, how or why Darwin developed as she asserted. Monique's substantiation consisted of genuflections to Humboldt, Lyell, and Herschel until, near the end of her narrative, she baldly proclaimed that Darwin turned his attention increasingly to geology because he became disappointed with natural history—a *deus ex machina* explanation. She never established the nature or cause of Darwin's disappointments with natural history or why Lyell and Herschel, whom he had read throughout the voyage, suddenly acquired new significance for him.

Problems with the penultimate drafts: With the exception of Corey's, the revisions, did not exhibit the "logical, compulsive" qualities of mind that Vinten-Johansen had urged his students to adopt. Lynn and Monique essentially started over instead of pruning and rethinking their first drafts. The results were rudimentary and incomplete. Neither draft demonstrated the improvements in thesis and substantiation that Vinten-Johansen had expected in a revision. Jerod extended his argument to include a "To" component. Although he realized that a thesis should be substantiated, he did not draft a narrative that connected evidence to thesis or explained his assertions. Jerod was not alone: Lynn, Monique, Mick, and, to a lesser degree, Corey suffered from the same malady.

Stage 4: Final Research Stage

Opportunities to Learn: During the first seminar meeting after the due date, students received written evaluations from members of their basic group and Vinten-Johansen, who made marginal comments and wrote one-page critiques of each draft. Concerned that "not a single person carried out [a revision] to the point it could have been taken," Vinten-Johansen suggested that "binge writing" probably produced the poor quality of the drafts that belied the thoughtfulness of seminar discussions. Observing that an "uncanny relationship existed between how early you started writing and the quality of the writing," Vinten-Johansen distributed worksheets on which each student should establish and keep track of "Weekly Writing Slots" while working on the final draft. On the log, he urged them to write "at least 4 times/week" for "at least 1.5 hr. per slot."

In the next seminar meeting, Vinten-Johansen, continued to focus on writing habits. He warned them that "what works in other classes will not work here." The first two drafts demonstrated that waiting until the last few days yielded inadequate results. If something isn't working, change your approach. As an analogy, he described a tennis match he played in his youth against Arthur Ashe. Even then, Ashe had a booming first serve. Vinten-Johansen responded with enough block-returns from inside the baseline to keep games even as Ashe broke his serve with ease. When Ashe shifted to spin serves and stopped rushing the net, however, he took the first set and won the second at love. Vinten-Johansen wanted the students to be like Arthur Ashe: adjust to deal with new circumstances. He advised them to start revising immediately and use the writing logs to track progress toward developing new habits.

The final three weeks of seminars were largely devoted to small-group discussions. Students had assignments in extracts from secondary materials on the *Beagle* voyage. They met at the beginning of the class in shuffle groups and then reported to their basic

groups. Discussions frequently focused on disagreements they discerned among the various secondary sources or between their reading of the *Diary* and interpretations in the secondary sources.

Vinten-Johansen also introduced two new tasks in addition to the writing logs. At the end of the thirteenth week, students diagrammed their current thesis statements on a worksheet that reflected the “From—To” structure expected in their narratives (see Appendix F). The worksheet included a “Because” block in which the students were to “list the causal factors that explain the shift [in Darwin's worldview] you detect.” The following week, students briefly presented their current historical problem statement, thesis, and structure of argument in basic groups. In a mini-lecture, Vinten-Johansen described the process of completing an historical narrative, including the kind of documentation he expected.

The Drafts: Vinten-Johansen expected the final drafts to be complete historical narratives that reflected inquiry into workshop material and told clear, persuasive stories.

More complete than his earlier drafts, Jerod’s final narrative remained hobbled by an elusive thesis and incomplete substantiation. His revised thesis—Darwin ended the voyage believing in a social hierarchy—included a restatement, from the first draft, that Darwin’s initial conception was an appropriation of Paley’s pyramid of creatures. To explain this shift, Jerod suggested that Darwin became “coherent,” adopting Herschel’s views that “the development and use of the mind” determined the “advancement of a society.” In the substantiation, Jerod explicated seriatim Paley’s, Humboldt’s, Herschel’s, and Darwin’s notions of a hierarchy of creatures. Sometimes, his discussion featured distinctions between humans and animals; sometimes, he emphasized distinctions among various human groups. His narrative reflected careful reading of the sources and suggested that he had a particular story in mind to tell. But that story remained unclear to the reader because he never analyzed the evidence he had so carefully selected to show why and how Darwin's thinking changed as he claimed it did.

Lynn’s final draft contained a complete thesis but inadequate substantiation. Like Jerod, she asserted that Darwin's initial perspective on humans derived from Paley. Unlike Jerod, Lynn believed that Darwin’s views did not change appreciably during the voyage—particularly in comparison to improving skills and understandings as a scientist—because he lacked scientific curiosity about human groups. Lynn failed, however, to substantiate Darwin’s pre-voyage views. Like most of her classmates, Lynn assumed that citing passages where Darwin mentioned having read Paley constituted evidence that he shared Paley’s view. She also assumed that Paley’s hierarchy of organic beings incorporated human diversity, particularly Darwin’s ascending hierarchy from savage to civilized. Her

narrative never explicitly connects Darwin's observations and musings to specific passages in Paley. Nor did she recognize that many of her quotations from Darwin's extensive comments on indigenous peoples and slaves refuted the explanatory ("Because") portion of her thesis. The evidence Lynn selected portrays Darwin as a very curious and thoughtful observer of people and behavior. Ultimately, Lynn's argument falls apart because, as Vinten-Johansen wrote in his critique, she "scolds Darwin rather than empathizing."

Corey's historical narrative met Vinten-Johansen's expectation for a thorough, open-minded investigation of course materials, but the story he told was incompletely substantiated. His thesis was fully developed but logically inconsistent:

. . . by the journey's end, Darwin had become a 'mature' theoretical geologist holding a gradualist-uniformitarian theory of geological history; an idea which for Darwin was a synthesis between a Paleyan belief in centres of creation and a Lyellian notion of gradualism to explain organic differences of biogeographical phenomena and answer questions regarding geographical distribution.

How can Lyell's geological theory be a synthesis of Paley's "centres of creation" and Lyell's biogeography? The "From" element remained somewhat implicit, since Corey expects the reader to interpret Paley as a geological catastrophist. The "Because" component was imbedded in the second clause of the thesis, since the causal factor seems to be Darwin's desire to jettison Paley's implied catastrophism while keeping his "centres of creation." To substantiate his thesis, Corey traced the progression of Darwin's ideas about geological change from catastrophism at Cambridge to his rapid adoption of Lyell's uniformitarian, actualist, and steady-state concepts. Corey's argument was structured to support his thesis, but he never explained Darwin's intellectual leaps. In addition, Corey sometimes conflated Darwin's exposure to particular ideas with his adoption of them.

Mick, whose penultimate draft reflected little development from the first, had changed his thesis; despite Darwin's experience during the voyage and exposure to other ideas, his views of slavery and "savages" continued to reveal Paley's initial influence. That is, on the issue of slavery and savages, Darwin did not change. To substantiate this argument, he drew almost exclusively on evidence from the *Diary*. Mick conceded that some passages did suggest Darwin thought human behavior was environmentally determined. Yet, Mick argued, Darwin continued to rank groups of people on a

hierarchical scale, betraying indebtedness to Paley that humankind’s “sociocultural status had been sealed by God.”

Monique’s final draft read like a preliminary first draft. The reader discovered her thesis at the end of the paper, as if she was condensing what come before. The thesis was rough and hesitant: Darwin was able to “unite his geological collections” by the end of the voyage because he adopted Lyell’s theoretical frame. Lacking a similar organizing theory in “natural history,” however, Darwin lost interest and “had nothing to report.” Her substantiation, ultimately, hinged on a solitary passage in the *Diary* about volcanic steam vents, which she interpreted as an expansion on Lyell’s theory. She never established a direct connection between Darwin’s idea and Lyell. Otherwise, her substantiation consisted of mini-summaries of Herschel, Humboldt, and Lyell that were largely unconnected to her eventual thesis.

Stage 5: Criticism and Self-Evaluation

Opportunities to Learn: During the last week, students had given Vinten-Johansen their final drafts and exchanged copies with everyone in their basic group. Vinten-Johansen distributed peer review forms and grading criteria. The former had room for comments about thesis paragraph, structure of argument, and general overview (a variation on Appendix C). The latter listed the criteria Vinten-Johansen would use in assigning marks on final drafts (Appendix G). In addition, each student was to give mock grades for historical narratives written by three peers. At the next seminar, students presented their critiques in basic groups and distributed written evaluations. Subsequently, students wrote self-evaluations in which they listed the strengths and weaknesses of their narratives as well as the improvements they would have made in another draft (Appendix H).

Self-evaluations: Jerod recognized that “the ‘how and why’ [Darwin] changed was not present” in his thesis, and that he failed to explicate Paley’s idea of a scale for human groups. Moreover, he thought an unclear structure of argument, “rough” transitions among paragraphs, “vague” topic sentences, and under-analyzed evidence weakened his substantiation.

Lynn thought her causal connections—“why Darwin behaved and studied [people and geology] this way and what is significant about it”—were unclear in both her thesis and substantiation. She felt that she had failed to analyze fully the evidence she presented and that it was inadequate to support her thesis.

Corey was relatively satisfied with his narrative. In a subsequent draft, however, he would define his terms “more effectively.” His major self-criticism was that the

“argument [was] much too oversimplified chronologically and idealistically [ideologically?].” To rectify this, he “would like to examine more in-depth influences on CD—Humboldt, Sedgwick, Paley [and] find out much more about Lyell.”

Mick summed up his final draft in two words and an ampersand: “Confused & unorganized.” Yet, his suggested remedies were temperate refinements rather than fundamental reconstructions. For example, he stated that he would argue, in a subsequent draft, that Paley’s influence on Darwin’s views of a hierarchy of peoples “faded (but not completely).” This suggestion differed little from what he had written in his final draft.

Monique noted that her essay lacked “a clear problem statement.” Her suggestions for a revision echoed her evaluators, to wit, that she failed to analyze the evidence presented, that she never explained Lyell’s theory of geological gradualism at the heart of her thesis, and that her “phrasing” was ineffective. Addressing the latter problem could not, she noted, “be accomplished in just one more revision.”

These self-evaluations concurred frequently with comments from peers and Vinten-Johansen, suggesting that most of the students understood the weaknesses in their narratives and also had ideas about how to remedy them. However, each of the weakness had already been noted on earlier drafts. None of the focal students managed to construct an unambiguous thesis statement containing all three elements (From, To, Because). That is, all were still unsure exactly what they wished to argue. In their substantiations, all, to varying degrees, struggled to establish whether the ideas of Paley, Herschel, and Humboldt had influenced Darwin. In other words, all struggled with historical causality. None entirely avoided what we have termed the “associational fallacy”: Because Darwin is known to have read particular authors, Darwin must have shared their ideas and views. Differences among the focal students appeared on this issue: Some relied on unanalyzed juxtaposition of evidence to substantiate their arguments, while others assumed, without evidence, that Darwin believed and assimilated everything he read.

Stage 6: The “Philosophy of History” Essays and Final Seminar Meeting

In lieu of a take-home final examination, students revised their initial essay on the Hillerman novel to include a comparison of their thoughts about the methods they used in this course with what Jim Chee did as a detective. These essays served as the basis for an open-ended “debriefing” during the scheduled examination period about writing research papers, historical epistemology, empathy and presentism, and methodological issues such as the importance of placing historical events in contexts.

Experiences with historical research: Jerod spoke for several of his classmates when he described, in his essay, a typical writing assignment in the five history courses he had taken prior to HST 483:

At stage one, a professor would give you a topic, a list of topics, or a book to write a paper on. I would then read the directions for what would have to be in the paper, read the book or books on the topic, and then comment on the specific topic chosen after reading the books.

That is, nothing in Jerod's academic background—including a course where Vinten-Johansen taught interpretive writing—explicitly prepared him for a situation where he was expected to write an historical narrative based on research from an array of sources.

Lynn, who had taken eight history courses, including Vinten-Johansen's three-course sequence featuring interpretive writing, believed the uneasiness she felt at the outset of HST 483 was

mostly likely due to the fact that I have never officially attempted a “research” paper before. When that title entered the picture, waves of uncertainty and fear of inexperience clouded my abilities. I did not see, just as Darwin did not, that I could approach this topic as I had all of the topics before—I only had to put a different, even more analytical and document-oriented twist to it.

Lynn's belief, that a “more analytical and document-oriented twist” would have overcome the difficulties she experienced in the seminar, suggests she had yet to understand Vinten-Johansen's premise that producing an historical narrative involved a different process than other kinds of writing. Perhaps, Lynn simply disagreed with him. None of her classmates challenged her assessment of how she should have proceeded.

Empathy and presentism: The most frequently recurring theme in these concluding essays was empathy, particularly the belief that it served an essential role in writing history and solving crimes. All five focal students commented on empathy. For example, Monique stressed that Jim Chee had to flesh out a profile of his prime suspect by interviewing prison mates, family, friends—and constantly indwell this emerging personality in search of an explanatory motive. Such empathy, for Monique, was also an antidote to presentism:

You must try to separate yourself from your morals, your sex, your past, your present, and your position in society—and try to fill them with your subject’s morals, gender, past, position in society, etc. To successfully walk a mile in someone else’s shoes you must first take your shoes off.

Lynn was now acutely aware that her presentism—and the absence of historical empathy—rendered the thesis of her historical narrative untenable:

At times I found myself not remembering that the 1830s were not the 1930s or 1990s, and I was having little to no compassion for the way in which Darwin was viewing people. He would not have even thought of things like equal opportunity employment, equal rights, equal pay, or the possible downside to becoming “civilized.” I had to remember that he was [in] a different frame of reference when I read his *Diary* entries that were, by today’s standards, racist and sexist.

Mick, who criticized Darwin for failing to challenge the idea that human groups could be ranged on a scale of civilizations with Englishmen at the top, also argued that the “historian must be able to place himself in the subject's own psyche.”

In short, the three focal students whose narratives reflected the least empathy with Darwin and greatest inclination to judge him by current standards were the most emphatic during the final seminar about the dangers of presentism and the need for his-torical empathy. Perhaps, empathizing and avoiding presentism are easier to comprehend than act on in writing, or don’t fully manifest themselves except in the writing process.

Methods: Most of the students argued that, for both the historian and the detective, consulting primary sources was essential. Lynn wrote in her final essay:

Trying to use only other people’s information on the supposed “facts” of his life would be similar to investigation of a murder case and only asking the people who heard about it through the grapevine where the victim was stabbed.

Jerod thought examining primary sources enabled him to “establish the context[s] in which the work . . . was written.” By studying the primary sources, one could become a “mini-expert” on an aspect of the subject. He also saw a role for secondary sources.

Whereas Darwin's *Diary* was like Chee's road map to the area where the murder took place, the secondary sources helped Jerod "identify which of the many arroyos to explore" for evidence.

Lynn, Monique, and Jerod argued that understanding the context was critical to historians and detectives alike. Monique argued that understanding an individual required the historian to learn about "the circumstances of a person's upbringing," particularly his economic circumstances. Jerod and Lynn viewed setting their subjects in the broader intellectual and social context critical to the historian.

Otherwise, the discussion contained little agreement on methods. Mick emphasized the importance of basic and shuffle groups in which the students "formed and rejected our own theories, allowing a free flow of imagination and testing our ideas." He also thought that the historian's method consisted of determining the motives of the participants, remaining objective, entertaining all possible explanations, adopting the view of the subject, and searching for evidence to invalidate one's theories. For Corey, the historian's and detective's tasks consist of using their imaginations to "fill in the blanks" between the few "hard facts" they can find. Their only tools are the capacity to empathetic capacities, careful observations, and personal perspectives.

Lynn's description of the historian's methods, in contrast, was linear and lock-step: start with a case, collect and study the data, make suppositions, test them, develop an hypothesis. These comments parallel Lynn's self-evaluation, which suggested to us she had learned little about the pragmatic process of doing history that Vinten-Johansen had designed the course to demonstrate.

Monique, alone among the focal students, discussed the role of writing in learning: "it is through writing that you begin to synthesize the ideas and knowledge you've acquired through your research. The writing then focuses your [subsequent] data collection." Despite the weaknesses of her final draft, this is a genuine realization. Of all the students, Monique had most developed her sense for doing history, particularly in realizing that writing can be a medium for greater understanding. In fact, reading her self-evaluation, we are convinced that she might actually have come to understand how to write the paper she had finally figured out she wanted to write.

Discussion

We undertook this study to learn whether writing historical narratives influenced student understandings of history, particularly fundamental epistemological issues such as what history is about and how historical interpretations are constructed. That is, we wanted to examine the types of learning that occur when students construct their own

narratives about historical problems. The setting of this naturalistic study was a history-workshop seminar specifically designed to move students systematically through various stages of research and writing.

An unexpected paradox emerged. Discussions in the seminar were animated by students' increasingly sophisticated critical skills, honed by analyzing primary and secondary sources on structured worksheets. They demonstrated a developing facility to identify an author's thesis, the structure of an argument, and any flaws in either. In addition, students demonstrated growing understandings of historians' methods and habits of mind, including the capacity to empathize, avoid unreflective presentism, withhold judgment, forestall conclusions, attend to details, and interrogate evidence.

Yet, such growth was not consistently reflected in their narratives. Despite frequent criticisms, successive drafts of their essays never reflected the sophisticated skills and knowledge evident in their discourse. For example, once they had formulated initial thesis statements, most seemed unwilling to do what good historians and detectives must do: step back from each draft, assess it critically and dispassionately, and, if necessary, rethink their "case" and supporting evidence.

How do we explain the contrast between their sophisticated discourse and their stagnant writing? Bereiter (1990) offers one possible explanation. He argues that all learners develop "contextual modules," each of which is an interdependent "complex of knowledge, skills, goals, and feelings." The particular learning context triggers one of these modules when the learner confronts a challenging task. For example, the context of school may trigger either the "schoolwork module" or the "intentional learning module." The schoolwork module, according to Bereiter, provides "a coherent total response to almost anything that happens in school." Students respond to difficult learning tasks not as challenges but as "work that is too hard." To cope, students use various stratagems such as "obstructive procedures" or "getting the teacher to take over the cognitively demanding parts of the task." In contrast, Bereiter describes an "intentional learning module" organized around different goals—"goals of personal knowledge construction rather than goals of task performance" (p. 616). For students who operate out of this module, accomplishing difficult learning tasks contributes to and enhances their self-concept (Bereiter & Scardemalia, 1989). For those who operate out of a schoolwork module, completing, renegotiating, or evading the immediate task is the goal.

In the case of HST 483, writing assignments at every stage triggered schoolwork modules for four of the five focal students. The strategies they lighted upon included obstruction, transfer of cognitively demanding tasks to the instructor or classmates, and "mentioning." The latter was particularly prevalent. Even though they were unsure about

the organic, conceptual significance of particular information, ideas, or thinkers and struggling to understand the relevance of Paley's and Herschel's ideas to Darwin, students nonetheless include extended treatments of them in their papers—just to be on the safe side. This is a strategy arising from the schoolwork module they developed through their experiences of school. Their treatments of Paley and Herschel are often thoughtful and insightful. Missing, however, is an explicit, substantiated connection between the ideas of these thinkers and Darwin's developing ideas.

The mentioning strategy is consistent with Greene's (1991) findings in his study of the writings of 15 undergraduates enrolled in a European history course. The students felt compelled to use the sources assigned in the course, regardless of whether they were writing a report or a problem-based essay, in order "to demonstrate that they had done the reading and they knew what the key issues and problems were" (p. 20).

Students in HST 483 were writing an original narrative within the context of a required history seminar. Despite Vinten-Johansen's admonition to suspend what they had previously learned about writing papers, his students seemed unable or unwilling to shed the schoolwork module out of which they had, successfully, operated for their previous fifteen years of school. Their goal was to get the paper done, even though their contributions to seminar discussions bespoke goals consistent with the intentional learning module. Perhaps the exigencies of completing, in but 15 weeks, three drafts of an original narrative and two other short papers, as well as reading and analyzing extensive primary and secondary sources, left little opportunity to reconsider their schoolwork modules. Once they had settled on pursuing a particular thesis, the idea of radically reconsidering their direction may have seemed too daunting a prospect because it jeopardized the overriding goal of finishing the paper.

Yet, not all the focal students operated primarily from a schoolwork module. Corey's performance suggested goals more characteristic of the intentional learning module. His thesis showed substantial development, gaining in clarity, depth, and complexity with each successive draft, suggesting that the writing process was integrally part of his learning. In addition, from the beginning of the course, Corey demonstrated an understanding of the process involved in developing a narrative as well as the nature of historical argument. Here, he had a leg up on the other focal students. In three previous courses with Vinten-Johansen, he had structured opportunities to learn how to write expository essays that required him to analyze primary sources. In addition, under Vinten-Johansen's guidance, he had just embarked on writing a senior thesis. Did the skills and habits of mind he brought to bear in writing his historical narrative derive from prior opportunities? Was his pursuit of a senior thesis symptomatic of the intentional learning

module he brought to the History 483 experience? We cannot answer these questions with certainty, although we're inclined to answer "yes" to both. For the other focal students, Vinten-Johansen's efforts to "level the playing field"—reading and discussing the Hillerman mystery, meticulously structuring the process of writing an essay, and providing devices to help students read critically and analytically—may not have addressed their perception of the task and a more fundamental issue: the relationship of the task to inadequate conceptions of themselves as apprentice historians (Bereiter & Scardemalia, 1989) .

Despite the discrepancy between their understandings as expressed in classroom discussions and in their narratives, the evidence seems to indicate that the focal students did develop some of the epistemological understandings that the course was designed to encourage. Were these understandings a consequence of their attempts to write an historical narrative? We cannot say from which particular experiences, academic or non-academic, students learned. It does not seem farfetched, however, to see a connection between students' struggles to construct an original narrative and their deepening appreciation for the problems historians encounter when crafting historical accounts.

Conclusions and Implications

As data on the students in this study seem to show, assuming that students have learned to write in the genre most characteristic of history—the narrative—because they have taken a number of history courses is questionable, at best. If the experiences of these students are typical, and we have no reason to believe they are not, few history courses, even at the 300 and 400 levels, include direct, explicit instruction in how to craft convincing historical narratives. Given that in many history programs, narratives or essays written in senior-level research seminars are used to evaluate students' success in the program, students are being judged on skills and understandings that few of them are explicitly taught in their history courses or elsewhere.

Consequently, if the capacity to write research-based narratives or essays is to be a primary criterion for evaluating students' disciplinary competence, students need to be explicitly taught extended forms of historical writing in ways that make transparent each step in the process. Given the sheer difficulty of learning to write historical essays and narratives, opportunities to learn and practice the skills and understandings ought to begin in elementary social studies classes and continue throughout students' academic careers. Attempting to force students to master such a demanding form of written discourse in a short time during what for some is the end of their formal education seems unrealistic, unfair, and unproductive.

Our study also suggests that students' prior experiences with their subject matter in school and at university establish particular expectations, attitudes, skills, habits, goals, and feelings with which instructors must contend. Awareness of students' prior experiences and their habituated ways of thinking and acting in relation to academic work in the subject matter, while critical (Holt-Reynolds, 1991), may be insufficient to enable the instructor to change students' "contextual modules" (Bereiter, 1990). Making students aware of their own habituated ways of reacting to particular assignments, such as writing research papers, also seems critical. However, such awareness may be insufficient to enable students, in the course of a single semester, to begin to develop new intellectual and work habits. If students are to become intentional learners, their habits of mind and behavior must be addressed early—ideally in school, before they enter university but, at the latest, when they begin university. Although not everyone may be disposed to intentional learning, everyone should at least have the opportunity to unlearn the unproductive habits that schools—and the wider society—foster (Cohen, 1988).

Our inability to realize our goal of greater intentional learning through writing blinded us to positive results in other tasks. We were discouraged re-reading successive drafts of the students' narratives. Lack of development of their theses, the persistent brittleness of their notions about substantiations, their apparent disregard of critical comments—all suggested that our carefully planned and orchestrated system for helping them develop their own narratives had failed. Yet, these data stood in contrast to others, particularly the intensity and thoughtfulness of seminar discussions. Despite evidence in their drafts that most of the students lapsed back into their "schoolwork module," they did seem to evidence, in their talk and in final essays, deeper understandings about historical methods, historical narratives as a form, and the elusive character of truth in history (Appleby, Hunt, & Jacob, 1994). Also, they evidenced intimate knowledge of Darwin's intellectual development, particularly the evolution of his own habits of investigation, data analysis, and theory-testing. This seems promising, and encourages us not to give up, to stick with our original goals and tinker with our system.

Currently, we are trying to build on the fact that most students seem to manifest more learning in spoken discourse than in writing. When speaking, students are much more willing to take intellectual risks such as spinning out nascent theories or explanations, more adept at mustering support for their theories, and more analytical about the ideas and interpretations of others. The pedagogical problem is: how can we help students bring similar skills and dispositions to bear on their writing? That is, how do we help students change the schoolwork module that seems to govern their writing? Over the years, Vinten-Johansen has, like other teachers, rued the writing "binges" to which

many students are given. Tapping out 10-page papers in non-stop, caffeine-fueled marathons is hardly conducive to learning. In an effort to make them more aware of their habits, he has required students to keep writing logs in which they note both the time of day and length of time they spend writing. Although his students seem to become more aware of work habits that militate against both learning and good writing, merely keeping a log does not induce immediate changes in long-standing habits. Since this study shows it is possible to help students organize their ideas and develop defensible explanations and theories for classroom discussions, we should be able to foster parallel approaches for writing, perhaps by requiring weekly writing tasks.

Since all the students in our sample planned to teach—at either the secondary or post secondary level—this study also speaks to the issue of what prospective teachers need to know, understand, and be able to do if they are to help their students learn to write narratives that constitute arguments. First, teachers themselves need to understand the role that writing plays in learning if they are to teach their students to write research-based narratives. Most of our students did not conceive of writing as a mode of learning, in large part because this concept differs from their own experiences in school. Operating out of a “schoolwork module,” as most seemed to do, they thought writing was a means to demonstrate that they had read assigned texts and accumulated information.

Second, teachers need models of classrooms where writing is a mode of learning. Again, before the seminar, the students clearly lacked such models. We do not know if they perceived their experience in the seminar as a model of how they, as teachers, might use writing as a medium for learning. Yet, we believe the highly structured nature of the writing experience and the students’ participation in all dimensions of the process—from defining their questions, to reading and evaluating primary and secondary sources, to writing repeated drafts in response to colleague’s criticisms, to criticizing colleague’s drafts, to assessing the effectiveness of their arguments—will increase the likelihood that they will be conscious of the steps involved in creating an authentic historical narrative.

Finally, teachers need to understand the subject-specific character of writing in different disciplines. As Langer and Applebee (1987) have argued, “While teachers can easily recognize (and reward) correct information, they have more trouble articulating the rhetoric or rules of evidence that govern effective argument within their particular discipline” (p. 149). The intent of the seminar was just this: To make manifest the rules and conventions that lay behind the creation of historical narratives. Without explicit knowledge of these rules and conventions, teachers are unable to help their students understand the structure of historical narratives. Without such knowledge, students are less likely both to evaluate the narrative arguments of others or to create their own.

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Appendix A

Structure of Argument Sheet

Author: _____

Title: _____

Major thesis:

Structure of argument (major points & conclusions, in order discussed):

Usefulness of documentation notes & bibliography for Darwin scholarship:

On reverse side, note whether the entire article, or parts thereof, would be of possible interest to members of your basic group.

Appendix B

Thematic Cluster Sheet

Author: _____

Title: _____

Page # / Major Points/argument/thesis (continue on back):

T/L

A/SI

R/S

W/S

Appendix C

Evaluation of First Hillerman Essay

Thesis Paragraph:

(1) There should be a connection between the introductory segment/context and the thesis statement; comment on this matter.

(2) There should be a distinct thesis statement that establishes the central principle(s) in Jim Chee's detective methodology. In your own words,

boil the thesis statement down to its central principles:

Provide suggestions for making the author's thesis statement as analytically clear and comprehensive as possible:

Structure of Argument:

Topic Sentences: Are the topic sentences analytical or intentional? What are your suggestions for improving their analytical qualities (what & why):

Diagram/outline the logical progression suggested by the topic sentences.

Does this logical progression seem likely to provide substantiation for the author's thesis statement? Why or why not? Do you have any suggestions?

Appendix D

Darwin Correspondence -- Overview Sheet

Although the *Calendar* to Charles Darwin's correspondence lists topics that struck the editors as significant, it may not alert everyone in your group to material of potential relevance to their research topics. Under each rubric below, note the correspondence number and date you recommend that your groupmates should consult. In addition, do the same on the back side, for correspondence containing information of general relevance for reconstructing CD's character & context.

T/L

A/SI

R/S

W/S

Appendix E

Evaluation of Historical Narrative (1st Draft—FROM)

Please refer to Agenda #2 for instructions about the form I expect you to follow in composing the working draft of the FROM component of your research paper.

Make copies of the entire thesis paragraph and the topic sentences from the substantiating paragraphs for everyone in your basic group. We will distribute the copies in the seminar so that everyone can read them and fill out the form before our next seminar meeting.

In commenting on each point below, please explicate sufficiently (rather than making simple yes/no statements).

Thesis Paragraph:

(1) Is the explanation of the research topic clear to you? Do you believe it is properly focused (neither too narrow nor too broad) and doable (evidence exists to support a research paper on this topic)? Are essential terms defined, if necessary?

(2) Does the partial thesis statement contain a clear and comprehensive formulation of Darwin's view/position on the topic at the beginning of the voyage?

Logic of the argument:

(1) Are the topic sentences analytical (what + significance/meaning)?

(2) Does the paragraph order suggested by the topic sentences provide an effective development of the argument set forth in the thesis statement?

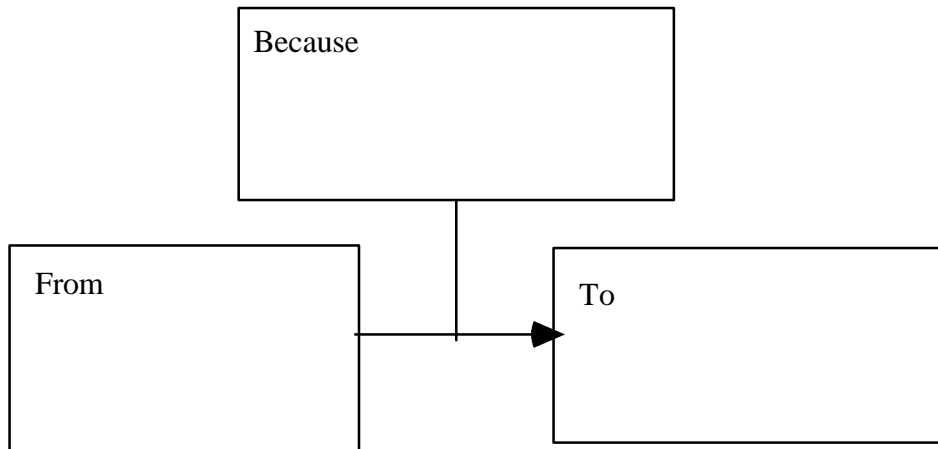
Appendix F

Historical Narrative SoA

In the From block, encapsulate Darwin’s initial position on your topic.

In the To block, encapsulate Darwin’s view on your topic at the end of the voyage.

In the Because block, list the causal factors that explain the shift you detect.



Appendix G

GRADING CRITERIA FOR DARWIN ESSAYS

These are the criteria I will use in marking your essays. I assume that each grade reflects your accomplishments in overcoming the problems listed for lower marks. When an essay does not fit all the criteria for a particular grade, I usually place the greatest emphasis on the quality of the thesis paragraph.

Keep these criteria in mind as you compose the overview sheet for each person in your basic group. Then note your evaluation of each essay—on this sheet—and hand it in at the beginning of class on Wednesday, along with copies of your evaluations. You may choose a mark that falls between the categories, if you consider that appropriate.

- 4.0 Thesis paragraph contains analytical thesis statement and relevant context (problem statement). Substantiating paragraphs reflect a logical

progression of the argument, including complete topic sentences and thorough analysis of specific evidence.

- 3.5 Either context or thesis statement is analytically incomplete. The essay lacks some evidence and/or analysis essential to the interpretation.
- 3.0 Thesis paragraph present, but context and thesis statement are analytically incomplete. Substantiation has topic sentences with analytical potential (connections to thesis paragraph and causal explanations). Citation of specific evidence is the norm, although analysis of evidence is inconsistent. Stylistic problems do not significantly obscure the interpretation.
- 2.5 Thesis paragraph present, including an explicit thesis statement (rather than a simple statement of intent); however, some intent (or circular reasoning) may remain in the thesis. Incomplete substantive connections between the thesis and the context. Topic sentences dominated by intent rather than analytical connections. Citation of specific evidence (and analysis of it) roughly balanced by discussion unsubstantiated by evidence. Discussion limited to thesis topic.
- 2.0 Thesis paragraph incomplete, such as missing part of the context or an explicit thesis statement. Substantiation may diverge from thesis topic. Paraphrasing and summation (as distinct from specific citation) of evidence is the norm; or series of quotations are "tossed in" rather than discussed.
- 1.5 Thesis paragraph contains no ascertainable thesis. Substantiation deals with assigned reading but there is little citation (or documented paraphrasing) of specific evidence. Problematical and syntax obscure interpretation of material.
- 1.0 Essay is a summation of selected topics in assigned reading rather than an interpretation set forth in a thesis paragraph. Or the essay may be expressionistic, substituting personal views/feelings for analysis of the historical significance of the assigned reading.

I would assign a mark of _____ on _____'s essay.

Appendix H

Self-Evaluation of Research Essay

As you listen to your classmates comment on the third draft of your research essay, focus on the elements that constitute an effective thesis paragraph and substantiation—what you should maintain intact, what you should delete or diminish, what you should expand, and what you should add. After class, reflect as well on the written evaluations. Then list the strengths and weaknesses of each major element in the existing draft under the two rubrics (eg., for the thesis paragraph, comment on problem statement, definitions, necessary background information, and thesis statement). In the right-hand column, note what you would do to maintain and/or improve each element in another draft. P.S. Substantiation is on reverse side of sheet.

Thesis Paragraph

Existing draft

Next draft

Substantiation

Existing draft

Next draft