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Analyzing cross-disciplinary teacher feedback in a communication-across-the-curriculum learning community

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UMI
Analyzing cross-disciplinary teacher feedback
in a communication-across-the-curriculum learning community

by

Julie Marie Zeleznik

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Rhetoric and Professional Communication

Program of Study Committee:
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Thomas A. Polito
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Iowa State University
Ames, Iowa
2003

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Graduate College
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This is to certify that the doctoral dissertation of

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has met the dissertation requirements of Iowa State University

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For the Major Program
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I am especially grateful to the 43 students and five farmers who—through their involvement in Agronomy 356/English 309—agreed to take part in my study. I continue to be amazed by their cheerful participation and interest in my work. Dave Roberts, John Schafer, Tom Polito, and Randy Killorn deserve my greatest thanks. Observing four such experienced, dedicated, and talented instructors was a privilege. I learned so much about collegiality by having the incredible opportunity to work with them.

Thank you to my parents for their constant, invaluable support. I have found that each milestone that I achieve only becomes a true and meaningful accomplishment when I can share it with them.
My study is drawn from research that I conducted about the first upper-level communication-intensive learning community at Iowa State University. Given this, I preface my study with a brief history of communication-across-the-curriculum and learning community efforts at Iowa State. I specifically characterize this history by describing the ways the pair of integrated courses that I researched—Agronomy 356 Soil, Water, and Fertilizer Management and English 309 Report and Proposal Writing—developed as a communication-across-the-curriculum learning community initiative.

To begin, I describe AgComm, a college-wide communication-across-the-curriculum program in the College of Agriculture, and I discuss the early history of Agronomy 356 / English 309—specifically the early history of Agronomy 356 as a stand-alone course.
Agronomy 356, which had been team-taught as a stand-alone course by University Professor John Schafer and Assistant Professor Tom Polito since the early 1990s, was designated by the College as communication-intensive. The instructors of this four-credit elective had made communication a critical part of the course’s curriculum even before they became involved with AgComm. For example, in Agronomy 356, Schafer and Polito assigned a major writing project (in which students collaborated on a written farm management report and an oral presentation to recommend farm management strategies to an actual client) and required that students complete other writing tasks including weekly essay quizzes.

With the presence of AgComm came communication resources including opportunities for collaboration with communication consultants from the Rhetoric and Professional Communication Program in the Department of English. In 1995, in an attempt to better enable students to accomplish the communication requirements of Agronomy 356, Schafer and Polito worked with an AgComm consultant, Lee-Ann Kastman. As a Ph.D. student in rhetoric and professional communication, she taught mini-lessons in Agronomy 356 and helped the instructors to more consciously integrate communication into their course. This strategy was helpful for the semester in which she worked with them, but their collaboration did not continue because of funding constraints.

Then in 1997, in an effort to continue to integrate communication instruction into Agronomy 356, Eric Hoiberg, Associate Dean of the College of Agriculture, approved a proposal written by Tom Polito and then-Associate Professor Rebecca Burnett (now University Professor) that requested funding to integrate Agronomy 356 with an advanced writing course, English 309. (By pairing Agronomy 356 with English 309, upper-level students in the College of Agriculture would be required to co-enroll for both classes.) While the integration of 356/309 was prompted by AgComm, the continued support for the courses, which included funding for teaching and research, was made possible by the College of Agriculture, the Department of English, and the university-wide learning community program established in 1999.
LEARNING COMMUNITIES ACROSS THE CURRICULUM

In fall 1998, John Schafer and Tom Polito paired their Agronomy 356 class with an English 309 class taught by Associate Professor Dave Roberts, and I began the assessment of 356/309 with Rebecca Burnett as my research director. In the winter of 1999, Howard Shapiro, Vice Provost for Undergraduate Education, requested proposals for learning communities—curricular initiatives that linked or integrated courses across the disciplines. Our teaching and research team applied and received funding for 356/309. At the time, this pair of courses constituted the first upper-level, communication-intensive learning community at Iowa State.

As participants in a communication-across-the-curriculum learning community, members of our teaching and research team have since attended a number of university and national conferences in which we presented our pedagogy, integration strategies, and preliminary research results concerning the effectiveness of the course integration and the impact of 356/309 on student writing improvement. During this period, our team was also invited to write two articles for the AgComm newsletter about 356/309, and we also collaborated on two chapters of a case-book.

My dissertation project, as this brief history helps to indicate, is just one part of the scholarship that has been generated about this communication-intensive learning community; therefore, my study has benefited in a number of ways. First, by including research support in all of the 356/309 funding proposals, I was able to conduct my research and analyze my data as a research assistant with a reduced teaching course load. This support enabled me to gather more critical data and to spend more time analyzing what I had collected. Second, I have had the opportunity to collaborate with members of the teaching and research team on analyzing and presenting my preliminary research results. These early collaborations paved the way for the valuable contributions that team members have made on preliminary drafts of this work.

To characterize my study in light of the Iowa State communication-across-the-curriculum and learning community history that I have presented, I next forecast the structure and argument of my dissertation.
STRUCTURE OF THE DISSERTATION

In my study, I use activity theory to investigate the ways cross-disciplinary teacher feedback was constituted in the communication-across-the-curriculum/learning community environment of Agronomy 356/English 309. Specifically, I examined issues concerning feedback styles, feedback patterns, and teacher feedback roles, as well as the ways disciplinary knowledge (in this case, agronomy and rhetoric) was communicated through cross-disciplinary teacher feedback.

In Chapter 1, I introduce my study as communication-across-the-curriculum / learning community research. I also describe the focus of my four-year study and characterize the ways I used activity theory as a theoretical lens for analyzing my feedback data.

In Chapter 2, I situate my study in current teacher feedback literature. Specifically, I illustrate the ways my study extends teacher feedback scholarship about feedback styles and patterns, and teacher feedback roles, as well as the ways disciplinary knowledge is communicated to students through feedback.

In Chapter 3, I explain why I chose to incorporate a mixed methodology (qualitative and quantitative) approach, and I discuss the ways I defined my researcher-participant role. I also characterize my research site and introduce the research questions that I responded to and the methods that I used in my study.

In Chapter 4, I present my activity theory analysis of the results of a four-year teacher feedback study in which I examined the ways four instructors from two disciplines provided written cross-disciplinary feedback about student writing. I examined differences and similarities among instructor feedback styles and patterns, teacher feedback roles (including feedback motives and tool-use). I also investigated the ways disciplinary knowledge was communicated through teacher feedback.

In Chapter 5, I synthesize my study’s results, discuss the conclusions I draw from these results, and describe the implications of my findings. I conclude by characterizing three areas for further research, which extend my cross-disciplinary teacher feedback study in useful and interesting ways.
CHAPTER 1

"PROMISING SHIFTS ... AND POWERFUL LEVERS": RESERCH ON THE BOUNDARIES BETWEEN COMMUNICATION-ACROSS-THE-CURRICULUM AND LEARNING COMMUNITY SCHOLARSHIP

The "promising shifts" and "powerful levers" in this chapter's title were taken from Thomas Angelo's keynote address to the Third National Writing-Across-the-Curriculum (WAC) Conference (later published in the September 1997 issue of Language and Learning across the Disciplines) in which he characterized how communication-across-the-curriculum and learning community initiatives could work together to effect positive change in higher education and why higher education was ready for such change. I refer to Angelo here for two reasons. First, his address acknowledged the educational potential of integrating communication-across-the-curriculum and learning community initiatives. (The fact that Angelo was invited to be keynote speaker at the WAC conference in 1997 also indicated that WAC organizers believed that facilitating a conference-wide discussion about the ways these two movements could work together was important.) Second, Angelo identified several "promising shifts" and "powerful levers" that communication-across-the-curriculum and learning community instructors and administrators could use to "hasten" a positive "transformation" in higher education—and the first of these concerned assessment (65). That is, Angelo noted that educators could be characterized now more than ever as participants in a "culture of inquiry and evidence" (65). This culture, he argued, prompts educators to analyze their "unexamined assumptions" about pedagogy and student learning "by turning" these assumptions "into empirical, assessable questions" (65).

Angelo's address is relevant to my study because of its timing and emphasis on classroom assessment. One year after Angelo's address (during the fall of 1998), Agronomy 356 Soil, Water, and Fertilizer Management/English 309 Report and Proposal Writing—the first upper-level, communication-intensive learning community at Iowa State University—

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1 This phrase is taken from Thomas Angelo's (1997) article, "Seven Promising Shifts and Seven Powerful Levers: Developing More Productive Learning (and Writing) Communities across the Curriculum," Language and Learning across the Disciplines, 2(2): 56-75.
was offered to students in the College of Agriculture. Few empirical studies had specifically researched the ways communication-across-the-curriculum and learning community principles were integrated in the classroom; therefore, an assessment component was included with this new curricular initiative, and in fall 1998, I began conducting research about 356/309. A substantial portion of the data I analyzed during my four-year study is presented here.

To introduce this study, I begin by providing background for my research focus (cross-disciplinary teacher feedback), and I identify the ways that this focus enabled me to assess 356/309 as a communication-across-the-curriculum learning community.

**Characterizing My Study's Focus: Cross-disciplinary Teacher Feedback**

The instructors who participated in the Agronomy 356/English 309 learning community had never been involved in a curricular initiative like it before. As a result, many initial decisions that they made about ways to integrate the courses, share material across classes, or collaborate to help students learn were based on a wealth of collective teaching

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2 My point is that while both communication-across-the-curriculum and learning community research were separately thriving across the country in 1998, published studies that specifically examined the ways communication-across-the-curriculum and learning community principles were integrated in the classroom were scarce.

3 My 356/309 research was funded for four years (1998-2001) by the Office of the Vice Provost for Undergraduate Education at Iowa State University.

4 I use the term *cross-disciplinary teacher feedback* purposefully throughout my study. First, as Speck and Jones (1998) suggest, terminology that describes the ways instructors respond to student writing is often used imprecisely. Therefore, I do not use the terms *evaluation* or *assessment* (connotes measurement), *grading* (suggests that only a letter-grade or point-value was assigned), or *comments* (connotes straightforward response and fails to suggest that specific revision advice was given) to identify the ways the instructors in my study responded to student drafts. Instead, I use Speck and Jones' definition of *feedback*, which they note is a term “generally used to provide suggestions or instructions for revision ... [and] is not usually ... made to justify a grade” (21). Feedback is an appropriate term to use in my study since the feedback I examined was generated on student drafts that were not initially assigned a grade; students were asked, instead, to use this feedback to revise the drafts and then to resubmit them for a grade. Second, I characterize feedback as *cross-disciplinary* when instructors from two or more disciplines provide students with evaluative feedback on a single assignment. The assignment may be a written document, an oral presentation, or an exam, and the evaluative feedback may be written or oral.
experience, knowledge of their disciplinary areas, and intuition—but not first-hand experience. For instance, when the instructors decided to co-assign a set of related documents and presentations (the farm management report project), the decision to extend cross-disciplinary feedback to students about report project drafts was one made collaboratively but without benefit of experience responding to student writing in this way. That is, while the instructors had years of experience providing students with feedback, they had never provided cross-disciplinary feedback before. Moreover, the instructors’ decision to respond to the drafts in this way was not based on research findings characterizing the challenges and merits of providing cross-disciplinary feedback because such studies were few and far between. In my study of the cross-disciplinary feedback that 356/309 instructors provided students about their report projects drafts, I not only wanted to begin to fill this gap in the literature, but also I wanted to help the 356/309 instructors to better understand the ways they collectively and individually responded to student writing so that they could continue to improve their feedback strategies as individual instructors and as a collaborative team.

To meet these research goals, I conducted a four-year longitudinal analysis of the cross-disciplinary feedback that my four instructor-participants provided on drafts of students’ report project documents. Along with this quantitative analysis of the feedback, I also studied the ways perceptions of the instructors’ own feedback practices evolved. In examining instructors’ feedback and feedback practices, I discovered that I could investigate other issues beyond characterizing and tracing cross-disciplinary teacher feedback. For instance, I found that examining my feedback data through the theoretical lens of cultural historical activity theory (Vygotsky 1978, Leont’ev 1981, Engeström 1987) allowed me to respond to more fundamental issues about the ways rhetorical process knowledge and domain-content knowledge (in this case, agronomy) were integrated by the instructors in the

---

5 Feedback research overall tends to focus on the feedback provided during one or two semesters by individual instructors on one or more assignments that are written for a single class—whether the class is one in composition (Anson 1989, 1998; Brannon and Knoblauch 1982; Connors and Lunsford 1988, 1993; Sommers 1982), technical communication (Dragga 1991), or in a variety of other disciplines (Mathison 1996, Jeffrey and Setling 1999). While studies have examined the feedback that multiple instructors have produced during a single term (Beason 1993), these studies do not examine cross-disciplinary feedback. Instead they investigate the feedback generated by multiple instructors on unrelated assignments in a relatively arbitrary series of writing-enriched courses.
learning community (Geisler 1994). Specifically, I responded to the following research questions in my study:

- What feedback styles were exhibited by the 356/309 instructors, and how did these styles change over time?
- What patterns emerged in the cross-disciplinary feedback during my study?
- What impact did teaching in 356/309 have on instructor roles and responsibilities?
- What impact did teaching in 356/309 have on the ways disciplinary knowledge was communicated to students through the teacher feedback I examined?

To contextualize these questions as part of a broader study of a communication-intensive learning community, in this chapter I define communication-across-the-curriculum and learning community initiatives by describing 356/309 as an example of both. Then I discuss why my study (as communication-across-the-curriculum/learning community research) was well-positioned to investigate the integration of domain-content and rhetorical process knowledge in 356/309. I continue by characterizing my study’s scope; specifically, I focused on investigating patterns of cross-disciplinary teacher feedback and instructors’ perceptions of their feedback roles in order to analyze the integration of agronomic content and rhetorical process knowledge in 356/309. After defining my scope, I then argue why conventional theories have been unsatisfactory for analyzing my study’s feedback, and I describe activity theory as a useful theoretical framework for analyzing these data.

CHARACTERIZING COMMUNICATION-ACROSS-THE-CURRICULUM AND LEARNING COMMUNITY INITIATIVES

In this section, I begin by characterizing my study as an example of communication-across-the-curriculum/learning community scholarship by first defining Agronomy 356/English 309 as communication-intensive.

HOW WAS AGRONOMY 356/ENGLISH 309 COMMUNICATION-INTENSIVE?

To characterize Agronomy 356/English 309 as a communication-intensive curricular initiative, I begin by describing the ways communication-across-the-curriculum scholarship
defines *communication* as a critical pedagogical concept in classrooms across the disciplines, and then I describe how 356/309 incorporated communication into its curriculum.

**FUNCTIONS OF COMMUNICATION IN THE CLASSROOM.** In terms of communication-across-the-curriculum scholarship, communication (which includes writing, designing, and orally presenting information) is defined as a "complex developmental process" that has the potential "to improve learning" and to "unify the intellectual community" (Russell 1987, 184). In terms of this definition, communication-across-the-curriculum scholarship identifies two primary pedagogical approaches for integrating communication into classrooms—communicating to learn and communicating in the disciplines.6

First, communication-across-the-curriculum scholarship advocates incorporating communication—particularly writing—into courses as a way to help students learn.7 Susan McLeod (1992) identifies this principle as one of the "basic assumptions" of the communication-across-the-curriculum movement: "writing belongs to the entire curriculum, not just in a course offered by the English department" (6). These sentiments are echoed in an early argument by Toby Fulwiler (1984): "the writing process can inform all assignments" in all disciplines to help students learn more effectively (114). Educators from other fields also acknowledge the usefulness of writing to help students learn. For instance, D.J. Parrish and colleagues (1985) contend that incorporating writing into agronomy courses is an "effective way to teach and learn" (27). Writing, they argue, is an integral part of agronomic

6 While Susan McLeod (1992) calls these approaches "not mutually exclusive but complementary," communication-across-the-curriculum scholars have debated the relationship between them (3). For instance, many critique one or both of these approaches (Bizzell 1982, LeCourt 1992, Mahala 1991) while others, like McLeod, argue that a synthesis of the two positions is best (Herrington 1985, Jones and Comprone 1993, Kirsch, Levine, and Reiff 1994).

7 Communication-across-the-curriculum scholars (Ackerman 1993; Greene 1993, 1995; Nelson 1990; Penrose 1992, 1993) have shown that task representation plays an important role in the types of writing best assigned to help students learn. That is, their findings suggest that instructors should not assign writing tasks arbitrarily under the assumption that any kind of writing will promote any kind of learning. For example, Penrose (1992) found that students who studied actually retained more facts than those who wrote essays, and students who composed essays did not gain higher scores on comprehension tests "despite the fact that students spent much more time writing than studying" (489-490). Penrose also found that students' attitudes and perceptions about the task—whether that task was studying or writing—also influenced how much they learned: "the presumed advantages of either of these tasks accrued only to some of the students ... those who set more active writing or studying goals" (490).
ability and knowledge and not "pedagogical frill"—an activity "best left to the English department" (27).

Second, communication-across-the-curriculum scholarship also advocates incorporating communication activities and assignments into disciplinary courses to help students begin to anticipate the types of communicating they will do as professionals and to help enculturate students into their disciplines. Communication-across-the-curriculum literature shows that a useful strategy with which to accomplish both of these goals is to encourage students to write and analyze documents that are specific to their fields of study. In doing so, students may better understand and critique the ways knowledge is produced and circulated in their disciplines. As professionals, then, they may be more prepared to make informed decisions about how that knowledge is used: “Exposing the choice making that lies behind the apparently solid and taken-for-granted world forces us to address the ethical questions of our responsibility for our world” (Bazerman 1992, 62). Furthermore, when students are able to identify and critique the “forms and conventions” of their field, they have the potential to use them “consciously...[as] tools” (Kirscht, et al. 1994, 374).

In terms of both of these approaches—communicating to learn and communicating in the disciplines—communication-across-the-curriculum scholarship articulates that misconstruing the definition of communication as “a set of generalizable, mechanical ‘skills’ independent of disciplinary knowledge” further fragments an already too disparate curriculum and may hamper students’ future success in other classes and in the workplace (Russell 1992, 25). In other words, communication-across-the-curriculum scholarship argues

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8 Using genre-based pedagogy has been debated by communication-across-the-curriculum scholars (Berkenkotter and Huckin 1993, Blakeslee 1997, Coe 1994, Freedman 1993, Williams and Colomb 1993). Central to this debate is whether students’ writing in the classroom is “authentic” or whether “[f]ictive rhetorical exigencies ... [do] little to teach students about the instrumental, transactive and, above all, rhetorical nature of writing” (Petraglia 1995, 97). In other words, when students write workplace genres in class, are they learning rhetorical strategies they can then use in actual workplace contexts or are they just “wearing suits to class”? (Freedman and Adam 1994). Many scholars argue that writing is a highly situated, context-dependent activity and that simple transference from one (academic) setting to another (workplace) setting is unlikely (Dias et al. 1999, Freedman 1993 “Situating,” Paré 2000). Yet others argue that writing and analyzing workplace genres in the classroom helps students to critique the meaning-making practices in which they will soon engage as professionals (Bazerman 1992, LeCourt 1996). For instance, Bacon (2000) uses her findings from a study about a community service writing assignment in a first-year composition course to conclude that “the contradiction of teaching rhetorical awareness from a classroom may not be so intractable after all, as long as the classroom opens out to other rhetorical environments and provides students with the tools to analyze them” (594).
against isolating communication instruction to one department (English); without infusing communication throughout the curriculum, students may potentially fail to understand the "process of learning how to use language in a certain way to become accepted, literate, or...credentialed in some profession" (53).

FUNCTIONS OF COMMUNICATION IN AGRONOMY 356/ENGLISH 309. Agronomy 356/English 309 incorporated communication into its curriculum in a variety of ways—beginning with the ways in which Agronomy 356 and English 309 initially were taught as stand-alone courses. That is, before these courses were integrated in 1998, each was a communication-intensive, stand-alone course.9

When John Schafer and Tom Polito taught Agronomy 356 as a stand-alone course, 356 was designated as communication-intensive by the College of Agriculture. Two factors that helped to designate 356 as such were preserved when 356 was integrated with English 309—namely, assigning the report project and giving weekly essay quizzes. First, the 356 instructors assigned a semester-long writing project—the farm management report project. To complete this project, student teams wrote a farm management recommendation report and orally presented these recommendations to their farmer client. During the semester, student teams drafted sections of this report and received teacher feedback on these drafts. Student teams were then expected to use this feedback to write effective recommendation reports; that is, reports that were agronomically sound, environmentally friendly, socially acceptable, and economically feasible.10 Second, to assess students’ agronomic knowledge, the 356 instructors assigned weekly essay quizzes in which students individually responded in class to four essay questions written by the instructors. (Students were given opportunities to revise selected essay quiz responses, if they wished.) When Agronomy 356 became integrated with English 309, the 356/309 instructors preserved these aspects of 356; that is, the semester-long farm management report project became a key feature of 356/309, and the 356 instructors continued to assign weekly essay quizzes.

9 In 1998, when 356 and 309 were integrated, Agronomy 356 was no longer offered as a stand-alone course in the Department of Agronomy; instead, students taking Agronomy 356 had to co-enroll in English 309. However, other stand-alone sections of English 309 continue to be offered in the Department of English.

10 These assessment criteria were also used to assess report project drafts in Agronomy 356/English 309.
When English 309 was taught by Dave Roberts as a stand-alone course, 309 was obviously communication-intensive. Roberts designed the course to give students ample opportunities to write a variety of proposals and reports including consulting proposals, training proposals, prospective client reports, progress reports, and recommendation reports. The course was also structured to give students the opportunity to present material orally to their peers and to use presentation software (e.g., PowerPoint) to organize and help deliver this material. For Roberts, teacher feedback, peer review, and student revision were important activities that helped students improve as writers. When 309 became integrated with Agronomy 356, the 356/309 instructors preserved many of these features. For example, 356/309 students were required to complete a consulting proposal, training proposal, prospective client report, progress reports, and a recommendation report. Likewise, 356/309 students were asked to collaboratively deliver a formal oral presentation.

Overall, 356/309 was a communication-intensive curricular initiative not only because of these multiple ways in which the instructors integrated communication into its curriculum, but also because of their perceptions about the function of communication in the classroom. For the 356/309 instructors, having students write, present and design in substantive, ongoing ways was "an intrinsic part of learning" in 356/309 (Russell 1991, 297).

In this section, I have shown the ways that communication-across-the-curriculum scholarship defines communication as a critical pedagogical concept in classrooms across the disciplines, and I have characterized 356/309 as a communication-intensive curricular initiative by describing the primary ways in which this pair of courses incorporated communication into its curriculum. I continue to situate my study as communication-across-the-curriculum/learning community scholarship by characterizing this curricular initiative as a learning community.

**HOW WAS AGRONOMY 365/ENGLISH 309 A LEARNING COMMUNITY?**

To characterize Agronomy 356/English 309 as a learning community, I begin by describing the ways learning community scholarship defines community as a critical pedagogical concept in classrooms across the disciplines, and then I specifically describe the characteristics that identified 356/309 as a type of learning community.
FUNCTIONS OF COMMUNITY IN THE CLASSROOM. For advocates of learning communities, community is the catalyst that builds peer support among students and forges bonds between students and teachers. Most important, though, community is a means by which students and teachers “experience courses and disciplines not as arbitrary or isolated offerings but rather as a complementary and connected whole” (Gabelnick, et al. 1990, 19). Simply put, community helps to make students’ learning more engaging and meaningful by enabling them to collaborate with others and to connect ideas from courses across the disciplines. This sense of community is crucial to student learning:

An active, collaborative learning environment and increased student interaction results in a strong sense of community.... Without it, students are not willing to take the intellectual and personal risks that facilitate the development and integration of course ideas and the construction of knowledge. (Demulder and Eby 1999, 897)

These learning community definitions of community are rooted in two beliefs: “a purposeful creation of academic community” helps students to learn more effectively, and a conventional curriculum often fails to create this community for students (Smith 1993 “Creating,” 32). Learning community proponents argue that communities of students and faculty that “purposefully restructure the curriculum to link together courses or course work” allow students to “find greater coherence in what they are learning as well as increased intellectual interaction with faculty and fellow students” (Gabelnick et, al. 1990, 5).

Additionally, learning community advocates believe that communities of learners create “an intensive learning environment and a changed dynamic between students and teachers” (Zawacki and Williams 2001, 120-121). Learning community proponents note, too, that typical curricula often fail to provide students with a strong student-student, teacher-student community—calling the “structural characteristics of many colleges and universities...major impediments to effective teaching and learning” (Gabelnick et, al. 1990, 9).

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11 Besides connecting courses across the disciplines, learning community pedagogy also has been used to help instructors manage conflict in classroom discussions of poetry and literature (van Slyck 1997).

12 In their description of the Indiana University/Purdue University learning communities, Evenbeck and Williams (1998) point out the particular benefits of building learning communities for students from commuter campuses.
Learning communities use several models to help create and foster community: residential learning communities in which students with similar interests (e.g., students who have the same majors) live in the same dormitory, freshman interest groups, and linked or clustered courses. Linked courses and clustered courses constitute two popular models for structuring learning communities. Courses are linked or clustered so that students co-enroll (as a cohort) for the same classes. The linked or “paired-course model” links two courses; this model “is considered the simplest of learning communities … in terms of curricular strategy” (Shapiro and Levine 1999, 23). As a way to build upon the paired-course model, the “cluster approach” links “three or four individually taught courses” (24).

Learning community scholarship suggests that using one of two approaches—theme or project—can help to ensure that courses become linked or clustered in substantive ways (Gabelnick, et al. 1990, Shapiro and Levine 1999):

- The theme approach links or clusters courses by a common theme; the courses tailor readings and assignments to respond in a variety of ways to this theme.
- The project approach (used in 356/309) links or clusters courses around a common project; assignments, discussions, and activities from each course contribute to students’ completion of the project.

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14 Freshman Interest Groups (FIGs) provide first-year students with “an immediate support system for their first experience in a large college setting” (Gabelnick, et al., 1990, 25). FIGs embody the learning community conception of community by purposefully creating—during students’ critical first year—a community of learners. Students use this community as a “support system” to take charge of their own learning and to more readily involve themselves in academic and university activities. Three qualities characterize the design of FIGs. First, students (typically those who declare the same major) are enrolled as a cohort in the same first-year courses. Second, students engage in opportunities for peer advising. Students can meet regularly for a “one-credit discussion session that often includes orientation activities and becomes the basis for study groups” (Smith 1991, “Taking,” 44). Additional peer advising may involve other second- or third-year student study mentors or additional faculty mentors. Third, students participate as a group in discipline-related activities such as field trips or other university-sponsord events. As a curricular structure, a FIG can be used across the disciplines and may incorporate a residence life component. That is, some FIGs not only enroll a cohort of students in the same cluster of courses, but also students may be assigned to live in the same dormitory.

15 For example, three courses—an economics, a biology, and a political science course—could be clustered around this theme: “What are the ramifications of creating and distributing genetically modified organisms to third-world countries?” This question, then, could be responded to in different ways (i.e., in economical, biological/environmental, and political ways) by each of these courses.
Failing to devise an overt strategy to link or cluster courses may lead to curricular initiatives that do not take advantage of the integrative possibilities offered by these learning community models. That is, simply enrolling a cohort of students in the same courses without faculty explicitly adopting these types of linking or clustering strategies may mean that students will experience only a limited sense of community, or students may fail altogether to perceive connections among the courses.

Therefore, while learning community models such as these can go a long way toward building community among students, “none of these [models] is sufficient … without the active involvement and participation of faculty” (Shapiro and Levine 1999, 91). Encouraging and selecting faculty to participate in these initiatives, then, is an important factor in determining their success (Newell 1994). To prepare faculty for the kinds of collaborating they will do in learning communities (or to have faculty who participate in existing learning communities reflect on the ways they collaborate), James Davis (1995) created a model to help instructors identify their “type and level of collaboration” (8). Davis’ four-part continuum contains low through high degrees of collaboration for each of the following learning community stages: “planning, content integration, teaching, and evaluation” (20). (See Chapter 3 for further explication of Davis’ model and the degrees of collaboration exhibited by the 356/309 instructors.) Faculty who participate in learning communities can then identify the degrees of collaboration that they wish to engage in during the planning and implementation of these initiatives.

**FUNCTIONS OF COMMUNITY IN AGRONOMY 356/ENGLISH 309.** Given this definition of community and the different models and functions of learning communities that exist, Agronomy 356/English 309 adopted the paired-courses model, and the instructors used the following strategies to build community among themselves and among their students:

- First, all of the instructors who participated in 356/309 were committed to creating a cross-disciplinary learning environment. That is, each instructor’s willingness to re-conceptualize the ways his course material was delivered in the classroom was absolutely necessary to the integration of 356 and 309.
• Second, during the semesters the courses were offered, the 356/309 instructors held weekly meetings to plan seminar and lab activities, to schedule assignment deadlines, and to discuss student progress. These meetings were invaluable for helping to maintain the integration of the learning community and for tailoring the syllabi of both courses as the semester progressed.

• Third, class times between 356 and 309 were often exchanged when it became necessary to meet integration goals. That is, when the 356 or 309 instructors needed additional class time to discuss writing assignments, exams, or to cover a lecture topic, they often coordinated with the other instructors to use part of their class time.

• Fourth, the instructors also attended one another’s classes to learn about each other’s discipline and to show the ways in which the content of the courses complemented and informed each another. Research investigating learning community initiatives shows that regular contact in class helped instructors integrate course materials, and that this interaction was perceived by students as an important indicator of the success of the overall coordination among the courses (Smith 1991, “Taking”).

• Fifth, the primary strategy that the 356/309 instructors used to build community and integrate the courses was to jointly assign and assess the farm management report project. As I explain in Chapter 3, several of the written and oral assignments that constituted this report project were co-assigned and co-assessed by the 356/309 instructors. Therefore, this project gave instructors a common topic to discuss and prompted them to integrate their syllabi throughout the semester. Without this project, I doubt that such high levels of coordination between 356 and 309 (and thus, high levels of collaboration among the instructors) would have been as necessary.

In this section, I defined the ways 356/309 was characterized as a learning community by describing how learning community scholarship defines community as a critical pedagogical concept and by characterizing those primary qualities that identified 356/309 as
a learning community. In the following section, I introduce how my study of this
communication-across-the-curriculum learning community was well suited to investigate the
ways the 356/309 instructors collaborated to integrate disciplinary knowledge.

**Conducting Research about Communication-Across-the-Curriculum/Learning Community Initiatives**

In this section, I argue why my study—as an example of communication-across-the-
curriculum/learning community research—was well-suited to examine the integration
between domain-content and rhetorical process knowledge in Agronomy 356/English 309. In
doing so, I begin by discussing the nature of communication-across-the-curriculum/learning
community scholarship. I then introduce Cheryl Geisler’s (1994) characterization of domain-
content and rhetorical process knowledge and describe the ways my communication-across-
the-curriculum learning community was uniquely positioned to study how the instructors
collaborated to integrate these two types of knowledge in 356/309.

**Characterizing the Landscape of Communication-Across-the-Curriculum / Learning Community Research**

While both communication-across-the-curriculum and learning communities have a
long history in the academy and thriving research agendas, only recently has scholarship
been published that theorizes the impact of integrating communication-across-the-curriculum
and learning community initiatives into the curriculum. Generally this scholarship has been
favorable, in that it aims to acknowledge the compatibility of communication-across-the-
curriculum and learning community initiatives. For instance, in Thomas Angelo’s address

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16 See Russell (1991), for a history of the communication-across-the-curriculum movement in America; see
Gabelnick et al. (1990) and Shapiro and Levine (1999) for a history of the learning community movement.

17 Regional and national communication-across-the-curriculum conferences and the journal *Language and
Learning across the Disciplines* [http://wac.colostate.edu/lad/](http://wac.colostate.edu/lad/) are important outlets for communication-
across-the-curriculum research while an abundance of learning community conferences and the *Learning
Community Commons* web site [http://learningcommons.evergreen.edu/](http://learningcommons.evergreen.edu/) maintained at Evergreen State
College are important ways to disseminate learning community research.
discussed at the beginning of this chapter, Angelo perceived both initiatives as poised to collaborate successfully:

I’m convinced that leaders of the learning communities movement can profit from 25 years of WAC [writing-across-the-curriculum] theory, research, and practical experience. At the same time, by allying themselves with the learning communities efforts, WAC activists may increase the likelihood of realizing their reform agenda. (Angelo 1997, 56)

While Angelo argues effectively for the ways communication-across-the-curriculum and learning community initiatives can benefit from collaborating, those who teach and administer in either communication-across-the-curriculum or learning community programs may approach such alliances with trepidation. For instance, one important thread of discussion during the 2001 College Composition and Communication Conference workshop, “Learning Communities as New Institutional Contexts for Writing Instruction,” did concern the potential downsides of integrating communication-across-the-curriculum and learning communities. While this workshop generated many good reasons for these initiatives to work together, such concerns—specifically pertaining to program funding and program initiation—did emerge.

Workshop participants noted that unproductive competition can develop between communication-across-the-curriculum and learning communities programs when funding is limited (or when the availability of staff and equipment resources is limited). That is, important program features such as a communication-across-the-curriculum writing center or a learning community peer mentor program may need to compete for funding, staff, equipment, or space. Such competition can be detrimental to both communication-across-the-curriculum and learning community initiatives unless administrators can resolve these issues.

Besides funding, workshop participants also identified program initiation as a point of concern. Specifically, discussion ensued about the ways in which communication-across-the-curriculum and learning community initiatives must collaborate with one another for these programs to be reciprocally beneficial. Workshop participants noted that when learning

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18 Workshop facilitators included Emily Decker, Joan Graham, Jean MacGregor, Nancy Shapiro, Charlotte Thralls, Martha Townsend, and Terry Myers Zawacki.
community initiatives such as those that link or cluster courses across the disciplines were poorly introduced into the curriculum (e.g., administered from the top-down or without genuine faculty support), communication-across-the-curriculum writing instructors often suffered. In such initiatives, the writing instructor involved in the learning community often became the sole (and unwitting) lynchpin for the cross-disciplinary collaboration. In this role, the writing instructor was charged with bringing together faculty from other disciplines to collaborate on planning and implementing a learning community that disciplinary faculty often did not perceive as meaningful or necessary. Coordinating these initiatives in this unproductive way was certainly not the collaborative vision of Angelo and others and very much a concern of communication-across-the-curriculum and learning community administrators and instructors.

In terms of funding and program-initiation concerns like these and also in terms of the potential for productive collaboration between communication-across-the-curriculum and learning community initiatives (as noted by Angelo), more research is needed to identify which types of communication-across-the-curriculum/learning community integrations tend to work (and why) and which are not beneficial for certain programs, teachers, or students (and why). Such research could enable administrators and instructors to better understand what types of initiatives could be integrated or tailored to meet the needs of their institutions, programs, and classrooms. Given the relatively recent history of both communication-across-the-curriculum initiatives and learning communities at Iowa State University (see Preface), my study's findings—while not generalizable to every upper-level, communication-intensive learning community—can still provide educators and administrators at Iowa State with valuable insights into the challenges and successes of incorporating this particular initiative into the curriculum.

In moving forward with investigating communication-across-the-curriculum/learning community initiatives, researchers have begun to identify the challenges inherent in conducting these types of studies. For example, Terry Zawacki and Ashley Williams (2001) describe their experiences teaching and researching in the New Century College, the undergraduate learning community college at George Mason University, which incorporates communication-across-the-curriculum initiatives into a learning community curriculum.
composed of linked and clustered courses. Zawacki and Williams note that in this communication-across-the-curriculum/learning community environment, writing is used by students to "learn/speculate/integrate" and becomes "crucial to meaning-making" (18). Along these lines, they state that communication-across-the-curriculum/learning community initiatives necessarily prompt "a more robust understanding of writing to learn," and they argue firmly that "new thinking" is needed "about how such work" (i.e., researching communication-across-the-curriculum learning community initiatives) "can be categorized" (18). Put another way, Zawacki and Williams believe that the effective integration of communication-across-the-curriculum and learning community initiatives not only can create more substantive, favorable learning environments for students, but also they argue that these learning environments necessitate research designs that are as highly innovative as the classroom sites they study.

While Zawacki and Williams do not specifically articulate what factors in communication-across-the-curriculum/learning community classrooms tend to prompt this "more robust understanding of writing to learn," my study of 356/309 helps me to suggest one: communication-across-the-curriculum/learning community initiatives provide instructors with curricular mechanisms that enable them to integrate domain-content and rhetorical process knowledge. As I discuss below, integrating these two types of knowledge in the classroom can be a powerful way to help students begin to understand ways to think about and use disciplinary knowledge in expert-like ways.

To explicate this point, I next discuss Cheryl Geisler's (1994) characterization of expertise as it relates to the ways domain-content and rhetorical process knowledge are typically taught in the classroom, and I describe the ways that my study of 356/309 was uniquely positioned to examine the integration of these two types of knowledge.

RESEARCHING COMMUNICATION-ACROSS-THE-CURRICULUM/LEARNING COMMUNITY INITIATIVES AS SITES OF "INTEGRATED PRACTICE"

Differences between the communication practices of experts and novices have been studied in multiple ways in workplace settings (Beaufort 2000, Jacoby and Gonzales 1991, Katz 1998, Matalene 1989, Scarselletta 1997, Schön 1982, Spilka 1993, Winsor 2001) and in
the classroom (Bereiter and Scardamalia 1987, Berkenkotter, et al. 1991, Brown and Day 1983, Carter 1990, Dannels 2000, Chi et al. 1988, Mahala and Swilkey 1994, Norgaard 1999), and in the ways students transition from academia to the workplace (Dias, et al. 1999, Paré, et al. 2000). However, Cheryl Geisler’s (1994) study of literacy practices and expertise in academia is one of the most useful for identifying the multi-layered, complex, rhetorical nature of expertise. In her study, Geisler begins by indicating that “expertise is usually taken to be something more than mere competence in a domain” (53). That is, an astute knowledge of content does not in itself characterize expertise, but rather a more apt characterization of the expert is someone with an ability to communicate and apply content knowledge in rhetorically sensitive and appropriate ways.

To further explicate this definition of expertise, Geisler uses Carl Bereiter and Marlene Scardamalia’s (1987) concept of the dual problem space framework. This framework, Geisler notes, is constituted by two problem spaces—“a problem space in which experts explore the domain content of a particular field, and a problem space in which they consider a field’s rhetorical dimensions” (83). Experts, then, tend to operate in both spaces—moving back and forth between domain content and rhetorical process; in other words, experts “mediate between their disciplinary representations [i.e., disciplinary content knowledge] and ... specific [rhetorical] contexts in which they work” (66). Thus, Geisler defines expertise as not simply a knowledge of domain content but that “[e]xpert knowledge ... appears to be highly rhetorical” (66).

In thinking about expertise in this way, Geisler argues that students in school tend not to be in learning environments that help them to begin to operate in the domain-content and rhetorical process problem spaces in expert-like ways. That is, conventional curricular structures in college tend to separate domain-content knowledge from rhetorical process knowledge; therefore, in school, students are neither given enough opportunities to perceive the connections between these two problem spaces, and nor are they allowed to substantively...

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19 While Bereiter and Scardamalia (1987) do not provide an extensive analysis of the ways experts move between these dual problem spaces, they define these spaces thusly: “In the content space, problems of belief and knowledge are worked out. In the rhetorical space, problems of achieving goals of the composition are dealt with. Connections between the two problem spaces indicate output from one space serving as input to the other” (11). This “interaction between problem spaces,” argue Bereiter and Scardamalia, is the “basis for reflective thought in writing” (11).
practice thinking and writing about disciplinary knowledge in expert-like ways. The curricular structures that Geisler describes, which engender this split between domain-content and rhetorical process knowledge, can be found at every level of the college curriculum. For instance, general education courses that students take during their first or second years of college offer them a "rhetorical problem space [that] remains basically naïve" in that “[k]nowledge still has no rhetorical dimension” (87). Likewise, courses that students take in their majors during their third or fourth years may not require them to explore many of the rhetorical processes used in their disciplines. And if students take upper-level writing courses, frequently they are not provided with many opportunities to write about their disciplinary knowledge in rhetorically sophisticated ways. As a result, during their careers in college, many students are continually taught to perceive a split between the problem spaces of domain-content and rhetorical process knowledge—even when such a split is contrary to the behaviors that experts tend to exhibit.

In thinking about the ways that these conventional curricular structures may hinder students’ abilities to practice exercising expert-like behaviors, I believe that communication-across-the-curriculum learning community initiatives have the possibility to become sites of "integrated practice"—that is, learning environments in which students are asked to “reintegrat[e] the rhetorical aspects of expertise with their conceptions of the domain content of their fields” (211).

Communication-across-the-curriculum learning communities are characterized by the following curricular features that enable instructors to integrate domain-content and rhetorical process knowledge. First, communication is an important component in these initiatives. As I discuss above, many instructors who teach in communication-intensive courses by definition perceive of communication as a tool that is integral to student learning. In this sense, the writing, speaking, and designing activities that students complete in these courses are not separated from but are instead integral to the meaning-making in which they are asked to engage. Second, creating community—and particularly helping to foster collaboration among instructors across the disciplines—is an important feature of learning communities. Specific pedagogical approaches (e.g., the theme approach or project approach) can help foster and maintain such cross-curricular collaborations among instructors and
students. Therefore, substantive, ongoing cross-disciplinary collaborations—which perceive of communication as integral to meaning-making—may encourage instructors to reflect on the rhetorical nature of knowledge in their fields and to think about the ways they as experts can help students practice applying disciplinary knowledge in rhetorical, expert-like ways.

But while I argue that communication-across-the-curriculum learning communities are characterized by these curricular features—and, thus, are poised to become sites of integrated practice— instructors need to take advantage of these features to integrate domain-content and rhetorical process knowledge in their classrooms. That is, simply participating as instructors in a communication-across-the-curriculum learning community does not necessarily guarantee that content and rhetorical process knowledge will be integrated. For example, while I have shown that 356/309 displayed these curricular features (e.g., 356/309 was communication-intensive and the instructors used certain strategies to build community), the 356/309 instructors’ primary intent in integrating these two courses was to improve student outcomes in communication, and they may or may not have initially approached teaching this learning community with the specific aim of integrating agronomic and rhetorical process knowledge. In my study, then, I was interested in understanding whether or not (and if so, to what degrees) the 356/309 instructors were able to integrate agronomic content knowledge and rhetorical process knowledge in their communication-intensive learning community.

To focus this examination, I chose to analyze the cross-disciplinary teacher feedback that instructors provided on drafts of student report project documents. Focusing my study in this way enabled me to characterize and trace the ways in which the 356/309 instructors communicated agronomic and rhetorical process knowledge to students through their feedback.

To discuss how I conducted a longitudinal, cross-disciplinary feedback analysis such as this, I next describe the theoretical framework that I used to analyze my feedback data. Specifically, I argue why product- and process-oriented feedback theories were not sufficient for analyzing my cross-disciplinary teacher feedback and why I found activity theory to be a useful analytical tool.
THEORIZING FEEDBACK DIFFERENTLY: USING ACTIVITY THEORY TO ANALYZE THE CONTEXTUAL COMPLEXITY OF CROSS-DISCIPLINARY TEACHER FEEDBACK

I next explain that current theories of feedback were unsatisfactory for analyzing the cross-disciplinary teacher feedback that I investigated in my study, and I identify the ways that activity theory enabled me to examine my feedback data in the context of 356/309 in interesting and sophisticated ways. Specifically, I argue that while feedback scholarship does acknowledge the contextual complexities of providing teacher feedback about student writing (Anson 1989, 1998; Fife and O’Neill 2001), theories of teacher feedback have not moved beyond conceptualizing feedback in either product- or process-oriented ways. In my study, I theorize feedback differently—not simply as a product or a classroom process—but as “developed through joint activity with mediational tools” (Russell and Yañez 2002, 336).

I next characterize the ways in which current feedback theories failed to enable me to satisfactorily analyze my cross-disciplinary teacher feedback, and then I introduce and define the theoretical framework I used—activity theory.

TRACING THEORIES OF TEACHER FEEDBACK

Theories of teacher feedback—like theories of writing—have tended to follow a product- to process-oriented trajectory. That is, product-oriented teacher feedback scholarship has tended to use quasi-experimental research designs to test the effects that different types of feedback had on student revision. For example, such studies explored the ways students revised when they were given teacher feedback between drafts and when students were asked to rely upon self-evaluations of drafts (Beach 1979). A variety of studies have also investigated the effects of praiseworthy (i.e., solely positive) feedback on student revision (Daiker 1989, Dragga 1988, Gee 1972, Zak 1990). Other studies have examined

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20 While product- or process-oriented theories of feedback have provided the theoretical framework for many feedback studies, scholars have theorized feedback in other ways. For example, Lester Faigley (1989) and Anne Greenhalgh (1992) provided postmodern critiques and analyses of teacher feedback and instructor feedback roles while Robert Probst (1989) explored the ways transactional theory impacted teacher feedback. Chris Anson (1989) used Perry’s (1970) stages of development to characterize the roles instructors adopt as they respond to student writing, and Anson (1998) also invoked Schön’s (1982) work to describe the importance of using reflective practices in entreating instructors to become reflective providers of teacher feedback.
whether prescriptive feedback—that is, feedback that "pointed out and labeled the flaws and provided guidance for correcting them"—elicited more substantive revision than feedback that was diagnostic and "provided only general directions" for identifying and revising error (Carifio, et al. 2001, 112). In all of these cases, feedback was theorized in product-oriented ways. In other words, feedback was considered to be a variable in the "teacher-student stimulus/response relationship"—a relationship in which instructors "provide the feedback and students process it" (Zellermayer 1989, 147).

Process-oriented theories of writing, on the other hand, theorized feedback not as a product or variable but as a process that was negotiated between teachers, students, and students' texts. For example, such studies tended to provide instructors with feedback strategies that enabled them to perceive those "difficulties" in student writing not as errors to identify and correct but as "evidence" of students' "legitimate attempts to deal with the complexities of composing" (Podis and Podis 1986, 96). In doing so, instructors were prompted not to correct or "control" student texts but to provide feedback "through response and negotiation" with students about their drafts (Brannon and Knoblauch 1982, 166).

Anecdotal and empirical studies, then, investigated the feedback process—and in particular, the role of the teacher as an agent in this process (Brannon and Knoblauch 1982, Lees 1979, McDonald 1978, Sommers 1982, Purvis 1984). These types of studies theorized feedback as a process—one primarily constituted by teachers responding to students and to their writing. And while process-oriented feedback scholarship did not treat feedback as a product or a variable, the larger context of the classroom in which the student and teacher belonged was sometimes not fully characterized or was often ignored altogether.

With both product- and process-oriented approaches were established as important theoretical frameworks for feedback scholarship (Podis and Podis 1986), scholars also began studying the ways specific types of classroom contexts impacted teacher feedback and feedback practices (Anson 1989). For example, teacher feedback studies situated in the composition classroom no longer constituted the primary research site in which feedback was investigated. Scholars also explored the ways instructors provided feedback in technical

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21 See Sweeney (1999) for a similar study in which she examines the differences between "inductive" and "deductive" feedback on patterns of revision in basic writers (214)
communication classes (Dragga 1991), in writing-intensive courses (Beason 1993), and in classes across the disciplines (Jeffrey and Selting 1999, Mathison 1996).

Because of studies such as these, much current feedback scholarship can be characterized as sensitive to the context in which that feedback was generated. That is, feedback research now tends to describe the classroom, the assignment, and the instructor (e.g., the instructor’s level of teaching experience, beliefs about feedback, and/or perceptions about his/her feedback practice) when investigating teacher feedback. In terms of providing this kind of contextual detail about feedback, Chris Anson (1998) defines a range of situational factors that can impact teacher feedback. Such features include the influences of “curricular timing”—for instance, whether the instructor is providing feedback about a rough draft or responding to a student’s final draft (306)—and “institutional standards,” which may include standards set by the institution (i.e., the university) and/or the department/discipline to which the instructor belongs (308). Other contextual factors that impact feedback also include the instructor’s “personal belief” concerning the topic of the student’s draft (311), the “rhetorical and situational goals” of the assignment itself (312), and the “readers’ [i.e., instructor’s] circumstances”—including where the instructor provides feedback (e.g., in a quiet office or on a noisy plane) and even the order in which the students’ drafts are read (314). All of these factors, Anson argues, may impact the ways instructors provide feedback. And for these reasons, he notes, instructors should be aware of them each time they provide feedback (and researchers should be aware of them when they investigate feedback and feedback practices).

Yet while identifying the specific contexts and situational factors under which instructors provide feedback has become an increasingly important feature in feedback research, scholars still tend to analyze their findings using product- or process-oriented theoretical frameworks which, I argue, fail to fully capture the contextual complexity of responding to students’ writing. Therefore, in my study of cross-disciplinary teacher feedback, activity theory offered me a theoretical perspective that other product- or process-based theories did not. Specifically, I used activity theory to characterize the contextual complexity of the 356/309 feedback activity and to analyze this complexity as fully and as systematically as possible. While no published work has used activity theory to analyze
cross-disciplinary teacher feedback, activity theory has been employed to theorize how other writing activities and literacy practices are constituted in both workplace and university settings (Artemeva and Freedman 2001; Bazerman and Russell 2002; Berkenkotter and Ravotas 1997; Bodker 1991; Dias et al. 1999; Engeström, R., 1995; Engeström, Y., 1993, 2001; Russell 1997; Wiemelt 2001; Winsor 2001).

To describe the ways I use activity theory in my study, I next define the primary components of activity theory and discuss the ways I used them to analyze teacher feedback.

**Defining the Primary Activity System Components**

Activity theory is a social learning theory initially articulated by cultural psychologist Lev Vygotsky (1978) and further developed by Alexei Leont’ev (1981) and Yrjo Engeström (1987). Activity theory revises conventional notions of context—what Michael Cole (1996) describes as the “dissatisfaction with the concept of context in the reduced form of an environment or cause” (137). That is, Cole points out that defining context as simply the environment in which a person performs a task only perpetuates the notion that this relationship is a unidirectional, cause-and-effect one. This misconception suggests that a “simple, temporal ordering” (134) can be used to characterize the ways a person in a certain environment performs a particular task; he states, however, that context “cannot be reduced to that which surrounds” (135).

Activity theory instead conceives of context as activity-driven and tool-mediated. To analyze an activity as such, eight primary components constitute the activity system (i.e., the unit of analysis): subject, object, motive, tools, community, rules, division of labor, and outcome (Figure 1.1). These components work relationally to form the context (i.e., the activity system) under study.

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22 Lev Vygotsky (1978) developed the notion of mediation—expressed by the subject, object, and mediating artifact (tool)—which is critical to current understandings of activity theory. Alexei Leont’ev’s (1981) characterization of the differences between the individual (action) and the collective (activity) further developed Vygotsky’s tool-mediated idea of activity. Using Leont’ev’s notion of collective activity, Yrjo Engeström (1987) graphically represented an activity system as socially and culturally situated. (See Engeström [1993, 1996, 2001] for discussions and analyses of the historical and theoretical underpinnings of activity theory.)
The *subject* in an activity system is the person or group completing the activity. This subject is complicit in all other aspects of the activity system. In activity theory, a researcher chooses which subject is the focus of the analysis; this subject's point-of-view necessarily directs the researcher's perspective (Engeström 1987).

![Subject](image1)

The *object* is the focus of the subject's activity. More specifically, the object is a "problem space" (67) at which the subject's activity is targeted; the object can be either material or conceptual.

![Subject Object](image2)

The task of working in this "problem space" is fueled by the subject's *motive*. The motive is the impetus for the "direction" of the activity; put another way, a motive is a "(provisionally) shared purpose" that drives the activity (Russell 1997, 511). Motive is "provisional" because a subject's motive can change and "shared" because the community has a stake in that motive. Moreover, the motive and object work together: "the object of an activity is its true motive" (Engeström 1987, 67).

![Subject Motive Object](image3)

Figure 1.1 Description and Illustration of Activity System Components
To work on a task to complete an activity, the subject uses tools. Subjects may engage in an activity simultaneously using a variety of tools (e.g., a material tool such as a computer and/or a discursive tool such as writing). Thus, tools-in-use by a subject mediate the relationship among the subject, community, object, and motive.

![Diagram of Activity System Components]

A subject is always a member of a community. The community is composed of members who hold a common interest in the object of the activity, which the researcher studies. A community may be comprised of individuals and/or groups of individuals.

![Diagram of Activity System Components with Community]

The manner in which an activity is carried out is also determined by rules. All rules, similar to norms or conventions, "constrain the actions and interactions" of the subject in the activity system (67).

![Diagram of Activity System Components with Rules]

Figure 1.1 Description and Illustration of Activity System Components (continued)
Who completes certain tasks in an activity system is regulated by the *division of labor* in that system. Specifically, this regulation occurs by the “horizontal division of tasks between the members of the community” and by the “vertical division of power and status” (67).

The result of the activity, after it has been completed by the subject, is the *outcome*. The outcome can be either material (e.g., a physical object) or conceptual (e.g., knowledge).

In using these eight components of activity theory as the basis for my analysis of cross-disciplinary teacher feedback, I was able to define an activity system as narrowly or as broadly as I wished. That is, I used the activity system as a “flexible triangular lens to zoom in and out” from focusing on the activity of one instructor-participant to examining the activities of all of my instructor-participants (Russell and Yañez 2002, 339). Moreover, activity theory helped me to focus my analysis not only on the individual participant (i.e., one instructor’s feedback activity system) but also on this participant’s involvement in a
constellation of related activity systems (e.g., the workplace, the university, the farm operation).

To first illustrate the ways I used activity theory to investigate each of my instructor-participant's individual feedback activity systems, I use my description and analysis of Dave Roberts' feedback activity system as an example.

**ANALYZING INDIVIDUAL FEEDBACK ACTIVITY SYSTEMS**

Figure 1.2 shows that to investigate Dave Roberts' feedback activity, I had to place him in the *subject* position. The focus of Roberts' feedback activity was directed at the students' collaboratively written report project drafts; therefore, these drafts were the *objects* of his feedback activity. As I discuss in Chapter 4, Roberts' primary *motive* for providing feedback was based on students' academic performance; that is, he wanted students to use his feedback to improve their documents and to improve their performance as writers and as students in his class. Because Roberts articulated this academic feedback motive, he also tended to perceive the object of his feedback activity (i.e., student drafts) in academic ways.\(^{23}\)

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\(^{23}\) In Chapter 4, I note that each 356/309 instructor's motive for providing feedback was different; thus, each instructor perceived the student drafts (i.e., the objects of their feedback activity) in different ways. These contradictions in object/motive across different activity systems—in this case, contradictions among the feedback systems of the 356/309 instructors—are not unique to my study. In fact, contradictions like these tend to characterize most activities (Russell and Yañez 2002).
As Figure 1.2 also indicates, Roberts used at least three *tools* to engage in feedback—material tools such as a computer, discursive tools such as writing, and conceptual tools such as the report project's rhetorical situation. That is, Roberts (like the majority of the 356/309 instructors) used the rhetorical situation of the report project as a feedback tool. Specifically, Roberts used this tool to assess how well students' drafts reflected the rhetorical situation in which they were asked to write. In using this tool, Roberts would have been able to ask himself questions such as these while engaged in the feedback activity: How effectively did students anticipate the needs of the farmer-client audience when they provided farm management recommendations? How satisfactorily did students communicate their recommendations to that audience by keeping in mind the purpose of the document (which was to enable the farmers to make effective farm management decisions)? And how well did students accommodate the project draft's farm operation context?

As a subject in this feedback activity system, Roberts was also a member of a *community*, which was comprised of the 356 instructors, 356/309 students, the farmer-clients, and the 356/309 researchers (Rebecca Burnett and I). I categorized these groups as a community because members of these groups were most impacted by Roberts' feedback activity. For instance, the other 356/309 instructors were impacted by Roberts' activity because taken together the feedback that the three 356/309 instructors generated on report project drafts was constituted as cross-disciplinary teacher feedback. Also, the 356/309 students were expected to use Roberts' feedback as a tool to revise their drafts. And the farmer-clients were the audience for the report project documents while their farm operation provided the context for the report project itself. Last, the researchers investigated the ways these project drafts were assessed by the instructors, revised by the students, and used by the farmer-clients.

As determined in part by the community, the *division of labor* in which Roberts participated was hierarchical. For example, the instructors (Roberts included) performed certain activities (such as cross-disciplinary feedback) that the students did not perform. Overall, the division of labor among the community members shown in Figure 1.2 followed a division that was typical of a classroom. However, this division among the instructors was
also characterized by the instructors' notions of disciplinarity and expertise. For instance, in Chapter 4, I discuss the ways in which the instructors tended to perceive certain feedback responsibilities as associated with their perceptions of the disciplinary expertise of that instructor.

In abiding by this division of labor, the community to which Roberts belonged generated certain explicit rules and other more tacit norms. For example, certain explicit rules governed Roberts’ feedback activity such as the openly articulated deadlines for providing feedback (i.e., instructors coordinated how many days they would give themselves to read and respond to student writing before they returned the drafts to student teams). However, rules that were not articulated also impacted Roberts’ feedback activity; more tacit norms, which were specific to 356/309, were not communicated by Roberts and other veteran 356/309 instructors to the new 356 instructor when he joined the learning community. As I discuss in Chapter 4, failing to communicate these norms explicitly may have impacted the type of cross-disciplinary teacher feedback that students received during that year.

As I have shown by using Roberts as an example, activity theory is a useful analytical tool with which to characterize the features of an individual activity system. This theoretical tool, however, was also useful for showing the ways multiple activity systems related to one another. In my study, I described how each of the 356/309 instructors engaged in his individual feedback activity system and the ways he participated in a constellation of activity systems related to that system. Showing the relationship between an individual system and a constellation of systems is a useful feature of activity theory analysis. For instance, in their study of students’ writing activities in a general education Irish history course, Russell and Yañez (2002) describe the ways this course “is linked, through its participants and tools, to other activity systems” (340). Specifically, they note that several other systems impacted the students’ activities and behaviors in their course—including the activity systems of high school history courses that they had taken previously and the activity systems that students hoped to participate in as professionals once they graduated from college (e.g., one journalism major hoped she might “learn about writing history in this course that would be useful to her...one day in her career”) (344).
To forecast the ways I analyze the constellation of activity systems that I identified in my study, I next briefly introduce these systems. (See Chapter 4 for more complete analyses of this constellation.)

ANALYZING A CONSTELLATION OF ACTIVITY SYSTEMS

I analyzed the influence that seven activity systems had on the ways the four instructors provided feedback (Figure 1.3). These seven systems impacted the 356/309 instructors' feedback activity systems in the following ways:

- **Agronomy 356.** The activity system of Agronomy 356 influenced the instructors' feedback in a number of ways. For example, the 356 instructors often compared what they taught students about agronomic principles in their 356 class to what students actually included in their report project drafts. If students failed to accurately communicate these principles (as they had been taught to do in 356), the instructors would respond to this in their feedback. Similarly, the English 309 instructor often provided feedback concerning agronomic content by invoking what he had learned from 356.

- **English 309.** The activity system of English 309 also influenced the instructors' feedback activities. For example, the 309 instructor often noted concepts or principles (which had been explained in 309) that were missing or were not communicated properly in student drafts. Similarly, the agronomy instructors provided feedback that concerned issues specifically introduced in 309.

- **Farm Operation.** Since students were asked to use the farm operation as the context for their report project drafts, the 356/309 instructors tended to invoke this system and the farmer-clients themselves in their feedback to students.

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24 I chose to depict Agronomy 356 and English 309 as separate activity systems because each course was taught separately. That is, even though class times were often shared among the 356/309 instructors and the instructors would often attend and participate in one another's classes, the 356 and 309 classes themselves were still led by the agronomy and English instructors, respectively.
• Stand-alone Agronomy 356. One 356 instructor’s role as client-liaison (John Schafer) to one of the two clients who participated in the stand-alone Agronomy 356 course continued to impact the ways he provided feedback to students about their project drafts.

• Stand-alone English 309. The English 309 instructor’s activities and experiences teaching 309 as a stand-alone course impacted the ways he provided feedback to students in the learning community.

• Agronomy Workplace. The feedback of one agronomy instructor (Tom Polito) was influenced by the agronomy workplace activity system in which he had participated as an agronomist before becoming a faculty member at Iowa State University.

• Consultant Workplace. This consultant workplace activity system represented the workplace in which the 309 instructor participated in as a communication consultant. The activities he engaged in as a communication consultant shaped how he provided feedback to students in 356/309.

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25 Agronomy 356 had been co-taught by Schafer and Polito as a stand-alone course for several years before it was integrated with English 309. Similarly, English 309 had been taught by Roberts as a stand-alone course before it was integrated with Agronomy 356. As I explain below, while 356 is not offered as a stand-alone course, other sections of 309 are offered as stand-alone courses.
In this chapter, I began by introducing my research questions and describing Agronomy 356/English 309 as an example of a communication-across-the-curriculum learning community. I then discussed why my study was poised to investigate the integration of domain-content and rhetorical process knowledge in 356/309. I continued by characterizing my study's scope as one that focused on investigating cross-disciplinary teacher feedback as a way to analyze the integration of agronomic-content and rhetorical process knowledge in 356/309. I concluded by indicating why conventional theories of feedback were unsatisfactory for my study, and I described how I used activity theory to analyze my feedback data.

In Chapter 2, I continue to contextualize my study; this time by situating my study in pertinent teacher feedback scholarship.
CHAPTER 2
SITUATING MY STUDY IN TEACHER FEEDBACK SCHOLARSHIP:
STYLES, PATTERNS, ROLES, AND
THE COMMUNICATION OF DISCIPLINARY KNOWLEDGE

Given the institutional context for my research (see Preface), I situate my feedback study as communication-across-the-curriculum and learning community scholarship. In my study, I used activity theory to investigate the ways cross-disciplinary teacher feedback was constituted in the communication-intensive learning community environment of Agronomy 356/English 309. Specifically, I examined issues concerning feedback styles, feedback patterns, and teacher feedback roles, as well as the ways disciplinary knowledge was communicated through feedback.

In this chapter, I discuss how my study extends current scholarship by reviewing pertinent teacher feedback research. To situate my study in this literature, I focus my review in the following ways. First, while students receive feedback about their writing from peers or writing center tutors, I concentrate on feedback scholarship that specifically concerns teacher feedback. Second, teacher feedback can be delivered orally, electronically, or conventionally (i.e., written on the student draft or typed and appended to the draft). Since my instructor-participants chose to provide feedback conventionally, I focus on the literature that analyzes this type of written feedback. Third, teacher feedback scholarship contains a wealth of information about classroom practice—anecdotal studies and narratives from instructors about the ways they respond to student writing. Since I conduct empirical research about feedback using a naturalistic (not a quasi-experimental) research design, I emphasize these types of empirical studies of teacher feedback in my literature review. Fourth, while the history of teacher feedback scholarship has a long tradition in English studies, I examine current scholarship—that is, feedback scholarship published primarily from the 1980s to the

1 For a history of American teacher feedback scholarship beginning in the early 1900s, see Robert Connors and Andrea Lunsford (1993). For a history of writing assessment as published in the journal, College Composition and Communication, see Kathleen Blake Yancey (1999), and for a history of grading (i.e., assigning a letter grade or point value to writing), see Richard Boyd (1998).
present. I have found that only historical studies of feedback tend to draw heavily on feedback scholarship from before this period.

Given this focus, I organize this chapter by reviewing the scholarship that is most pertinent to each of my research questions (listed below) and by discussing the ways my study extends work in each area:

- **Styles.** What feedback styles were exhibited by the 356/309 instructors, and how did these styles change over time?
- **Patterns.** What patterns emerged in the cross-disciplinary feedback during my four-year study?
- **Roles.** What impact did teaching in 356/309 have on teacher feedback roles?
- **Disciplinary Knowledge.** What impact did teaching in 356/309 have on the ways disciplinary knowledge was communicated to students through the cross-disciplinary teacher feedback I examined?

To begin my literature review, I next briefly describe the ways I defined teacher feedback styles in my study, and then I characterize pertinent scholarship about feedback styles and specify how my findings extend this research.

**Analyzing Teacher Feedback Styles**

In my study, I characterized the feedback styles of my instructor-participants by identifying and describing the following features of their feedback:

- **Mode of delivery** (i.e., whether the instructor used editing symbols or abbreviations, single words, phrases, complete sentences, questions, or paragraphs to convey feedback)
- **Word length** of the feedback
- **Marginal feedback and/or terminal feedback** (i.e., whether feedback was written in the margins of the draft or written as terminal feedback at the end or appended to the draft)
Characterizing feedback styles was important in my study because I wanted (a) to clearly illustrate the ways my instructor-participants tended to provide written feedback and (b) to identify whether instructor feedback styles changed over time.

I found few current stand-alone studies about feedback styles. Besides reviews of teacher feedback literature, a wealth of scholarship analyzes various aspects of feedback and feedback practices, yet I found few empirical studies that exclusively studied feedback styles. Instead, researchers tend to mention feedback style in passing; however, I found that even these references were useful. For example, in their teacher feedback study, Robert Connors and Andrea Lunsford (1993) stated that 64% of their sample of student papers contained papers with terminal feedback (209). And in their research about the ways 12 experienced teachers (who were also well-known feedback scholars) responded to ten different student writing assignments, Richard Straub and Ronald Lunsford (1997) found that their instructor-participants tended to use terminal feedback more frequently than "proofreader's marks, abbreviations, [or] marginal comments" (175). These studies indicate that writing instructors do use terminal feedback, and that in some instances, terminal feedback may be used more frequently than marginal feedback.

In comparing these results to my own, I found that, overall, my instructor-participants tended to use marginal feedback more frequently than terminal feedback and that marginal feedback (in the form of single words, phrases, and questions) was used more frequently than editing symbols or abbreviations. However, I also found that terminal feedback was used relatively consistently by three of my four instructor-participants. That is, two of the

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2 For a review of teacher feedback literature including anecdotal, empirical, and theoretical scholarship, see Allen 1993, Griffin 1982, and Zellermayer 1989; for a review of research about error, see Anson 2000; for a review of current feedback practices, see Quible 1997.

3 A wealth of anecdotal, practice-based literature is devoted to sharing with instructors ways to alter their feedback styles in order to make the feedback activity more efficient and/or to make the feedback student writers receive more substantive (see Allen 1988, Barbour 1992, Bishop 1989, Meyers 1988, Miller 1985, Mullins 1987, Rubens 1982, Zak 1990, Zimmerman 1988).

4 Connors and Lunsford (1988, 1993) gathered 20,000 marked papers from instructors of first- and second-year college writing courses from across the country to obtain “themes in the raw”—that is, “the actual commerce of writing courses all across America” (Connors and Lunsford 1989, 397-398). Once they received the initial set of papers, they used a stratified random sampling technique to obtain a sample of 3,000 papers. Using this sample, they analyzed teacher feedback pertaining to formal error (1988) and rhetorical effectiveness (1993).
Agronomy 356 instructors (Schafer and Polito) tended to include terminal feedback, and during the first three years of the study, the English 309 instructor (Roberts) included terminal feedback on all of the student drafts I examined.

While scholarship has generated information about the use of terminal and marginal feedback, studies have also discussed the approximate word length of feedback—particularly the length of terminal feedback. For example, Connors and Lunsford (1993) found that only 5% of the student papers in their sample contained terminal feedback that was “very long—more than 100 words” (207). They also note that the word length of terminal feedback “ranged widely,” but that the “average comment length” was approximately 31 words (211). In terms of the word length of the terminal feedback that my instructor-participants provided, I found that two of the 356 instructors (Schafer and Polito) provided terminal feedback that was approximately at or below the value indicated by Connors and Lunsford while the third 356 instructor (Killorn) was well below this (he rarely used terminal feedback). During years one through three, however, the 309 instructor (Roberts) provided terminal feedback that was much lengthier than the terminal feedback reported to be included on the majority of the papers examined by Connors and Lunsford—Roberts’ terminal feedback averaged from 400 to 800 words per paper. (To illustrate this word count, note that this paragraph is approximately 200 words.)

To further develop this discussion of feedback word length and to discuss the mode of delivery, Sam Dragga’s (1991) study of the feedback that 17 technical writing teachers provided on five assignments was particularly useful. Specifically, Dragga classified this feedback according to the following “styles”: compliments, criticisms, directives, suggestions, questions, explanations, observations (206). In his analysis, Dragga found that the instructors in his study most frequently used questions to convey feedback about student writing. In my study, I also found that two of the 356 instructors (Schafer and Polito)...

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5 Connors and Lunsford (1993) did not analyze their feedback data statistically. And while a statistical analysis may have been off-putting to a segment of their College Composition and Communication readership, their analysis does suffer in its lack of precision. For instance, here they note that the word length of terminal feedback “ranged widely,” but they do not provide an analysis of variance to specifically indicate that “range.” Then they use the average to approximate feedback word length; however, given the wide variance of values, using the mean to find “the average” has a tendency to skew to the higher values. In other words, to obtain a more accurate indication of the typical word length of the terminal feedback, the median (not the mean) should have been used.
frequently used questions to convey feedback. Like Dragga, I can only speculate about why
my instructor-participants used questions in this way. Dragga attributes this style to the
instructor-participants’ familiarity with the Socratic method of question-and-answer, and I
believe that this may have been an underlying factor for the 356 instructors. My
observational data also suggest that Schafer and Polito’s use of questions in their teacher
feedback was reflected in their use of a question-and-answer strategy in the classroom. Such
similarities between classroom lecture and teacher feedback styles suggest that in their
written feedback these 356 instructors were responding to students as individuals. In other
words, they appear to have been responding to student writing in the ways advocated by
noted feedback scholar, Nancy Sommers (1982):

The key to successful commenting is to have what is said in the comments and
what is done in the classroom mutually reinforce and enrich each other.
Commenting on papers assists the writing course in achieving its purpose;
classroom activities and the comments we write to our students need to be
connected. Written comments need to be an extension of the teacher’s voice—
an extension of the teacher as reader. (155)

While these studies reported on the mode of delivery, word length, and use of
marginal versus terminal feedback, one study specifically *analyzed* feedback style. Although
she does not refer explicitly to the term in her study, Summer Smith’s (1997) analysis of
terminal feedback (which she refers to as “end comments”), provided on a sample of over
300 student drafts, informed my study of feedback style in the following ways. Specifically,
Smith argues that the terminal feedback she studied in her sample exhibited the
characteristics of genre: “This study identified a complex set of commenting conventions,
including a repertoire of primary genres ... [that] we recognize as an end comment” (264). In
other words, Smith found that instructors tended to use certain generic conventions again and
again to respond to the same types of issues that they found in their students’ writing:
“Rather than examining this complicated situation anew each time they write an end
comment, teachers follow patterns that meet the needs of the situation” (250). This “pattern

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6 Smith (1997) notes that 105 of the drafts from this sample were taken from the national sample used by
of response” in terminal feedback suggests that those instructors who engaged in the feedback activity used similar sets of genres (as tools) to provide terminal feedback about student writing (250).

Given these findings, I found that three of the instructor-participants in my study used consistent feedback styles during my four-year study. That is, only one instructor’s style (Roberts’) changed, and I attributed this change (i.e., he stopped providing terminal feedback on all report project drafts during year four) to time and workload management issues (see Chapter 4). While Smith’s analysis of a sample of writing instructors from across the country indicated that instructors tended to adopt the same generic conventions to respond to similar issues in student writing, I found that my instructor-participants’ feedback styles tended not to change from one year to the next. That is, the instructors in my study who responded to the same set of student writing assignments used the same feedback styles again and again.

In summary, this literature about feedback styles helps me to situate my study’s findings concerning the styles that my instructor-participants used and enables me to illustrate that studies tracing feedback styles over time are few and far between. That is, my review of this scholarship indicated that research about the ways feedback styles evolve is relatively scarce. However, understanding how instructors adopt different strategies and styles over time to respond to different assignments (or to respond to students’ writing across several courses) provides a more complete picture of feedback and feedback practices. In my study, the longitudinal analysis of the 356/309 instructors’ feedback styles that I conducted indicated that only time and workload management issues substantively altered teacher feedback style. However, more research conducted in a variety of classroom contexts is needed to fully understand the ways teacher feedback styles evolve.

I next review the literature that pertains to my second research question, which analyzed the patterns that emerged in the cross-disciplinary teacher feedback I examined.

**Analyzing Patterns of Teacher Feedback**

An important area of teacher feedback scholarship includes those studies in which researchers collect feedback, identify the patterns that emerge in it, and use those patterns to
speculate about the ways feedback is provided in the classroom or about the ways students would (or did) respond to that feedback. This type of scholarship differs from the product-based, quasi-experimental teacher feedback research that I described in Chapter 1 (in my discussion about theorizing teacher feedback) in that the studies I review below are primarily naturalistic. That is, the researchers in these studies did not attempt to alter instructors’ feedback practices, but rather they studied the practices as they actually occurred. I review these naturalistic studies of feedback patterns in this chapter because they most resemble the study I conducted about cross-disciplinary teacher feedback patterns in 356/309.

One characteristic of this type of scholarship is that each researcher tends to classify feedback differently, which makes comparing results across several studies challenging. Therefore, in this section, I begin by briefly describing the ways I categorized my study’s cross-disciplinary teacher feedback, and I review those studies that classify feedback in ways similar to mine. Then I briefly review studies that do not categorize feedback in ways similar to my own but that are important to feedback scholarship none the less. After reviewing this research, I conclude by arguing that more longitudinal studies are needed to trace the ways feedback changes over time.

**TEACHER FEEDBACK SCHOLARSHIP: DEFINITION AND CRITICAL STUDIES**

In my study, I classified teacher feedback into the following four broad categories:

- Effectiveness of argument
- Quality of document design and content organization
- Attention to sentence-level feedback
- Attention to academic processes

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7 Here I distinguish feedback scholarship that investigates patterns of teacher feedback from the quasi-experimental scholarship I described in Chapter 1, which related to my discussion of product- and process-oriented theories of feedback. In that chapter, I discussed that the primary purpose for product-based, quasi-experimental feedback studies is to test the effects of different types of feedback (e.g., teacher versus peer feedback; diagnostic versus prescriptive feedback) on the revisions that students make while using that feedback. As I discuss in Chapter 1, these types of studies remove feedback from the context of the classroom; in other words, such research tends to treat feedback as an experimental variable. Feedback scholars (Anson 1998, Dragga 1991, Fife and O’Neill 2001, Hillocks 1982) disagree theoretically with this approach to feedback research. They argue that recommendations for changing feedback practices should be made by investigating feedback as it is used in the context of the classroom.
Of these four categories, I found that effectiveness of argument feedback was provided most frequently by my instructor-participants during the four years of my study (Table 2.1). As I discuss below, effectiveness of argument feedback was the category that most pertained to both agronomic and rhetorical issues. That is, effectiveness of argument feedback concerned the ways audience concerns were met, the use of background information, the professional tone and appearance of the document, the rhetorical delivery of conclusions and recommendations, the appropriate use of evidence, and the attention to societal and environmental concerns (see Appendix B for feedback category definitions and samples of coded feedback). Therefore, effectiveness of argument feedback primarily concerned a complex combination of agronomic content and rhetorical issues. Below I review those studies of feedback patterns that examined similar categories of feedback—that is, feedback about communicating content in rhetorically effective ways.

Table 2.1 Total Effectiveness of Argument Feedback (%) Compared to All Other Categories of Feedback, Years 1–4

<table>
<thead>
<tr>
<th>Study Year</th>
<th>Argument Effectiveness Feedback (%)</th>
<th>All Other Feedback (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55.21</td>
<td>44.79</td>
</tr>
<tr>
<td>2</td>
<td>62.27</td>
<td>37.73</td>
</tr>
<tr>
<td>3</td>
<td>72.59</td>
<td>27.41</td>
</tr>
<tr>
<td>4</td>
<td>53.00</td>
<td>47.00</td>
</tr>
</tbody>
</table>

*All other feedback categories include the following: quality of document design/content organization, attention to sentence-level feedback, and attention to academic processes.

**Feedback Scholarship about Rhetorical Effectiveness.** In their research about the ways 12 instructors responded to ten different student writing assignments, Straub and Lunsford (1997) found that feedback categories pertaining to global, rhetorical issues were the most frequently used by the instructors in their study: “emphasis on global concerns, i.e., global structure, development, and ideas” constituted 55% of the total feedback provided while attention to “local concerns, i.e., local structure, wording, and correctness” comprised 21% of the total feedback (182). Likewise, Connors and Lunsford (1993) found that “56% of all papers” provided feedback pertaining to “supporting details, evidence or examples” while
28% of the sample papers contained feedback about organization—"especially issues of introductory sections and issues of conclusion and ending, and thematic coherence" (212). These studies indicate that feedback pertaining to aspects of communicating content in rhetorically effective ways can constitute a sizable portion of the total feedback. In the case of my study, argument effectiveness feedback was also the type of feedback that my instructor-participants tended to provide most frequently (Table 2.1).

While the studies cited above involved instructor-participants who were writing instructors, other studies investigate the feedback that instructors in the disciplines provided to students. In Larry Beason's (1993) study of the feedback and revision that occurred in five writing-enriched courses, he found that feedback concerning how to communicate content in rhetorically effective ways constituted just less than 50% of all feedback provided. Specifically, Beason classified feedback according to seven assessment criteria; of those categories, I determined that three (focus, development/support, and validity) were similar to my broad category of effectiveness of argument feedback (Table 2.2). In this case, the instructors in my study tended to provide greater percentages of effectiveness of argument feedback than those instructors in Beason's study. Since Beason does not elaborate on the types of student writing assignments on which his instructor-participants provided feedback, I cannot determine whether features of the assignment (i.e., whether or not students were asked to address a particular audience in their drafts, to make recommendations, to describe a process) may have influenced this figure.

Table 2.2 Effectiveness of Argument Feedback (%), (Beason 1993, 406)

<table>
<thead>
<tr>
<th>FEEDBACK CRITERIA PERTAINING TO ARGUMENT EFFECTIVENESS*</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td></td>
</tr>
<tr>
<td>&quot;clear overall purpose that suits the given task and audience&quot; (399)</td>
<td>3.5</td>
</tr>
<tr>
<td>Development and Support</td>
<td></td>
</tr>
<tr>
<td>&quot;sufficient explanation, depth, and proof&quot; (399)</td>
<td>32.9</td>
</tr>
<tr>
<td>Validity</td>
<td></td>
</tr>
<tr>
<td>&quot;the truth or accuracy of the author's ideas&quot; (403)</td>
<td>9.4</td>
</tr>
<tr>
<td>TOTAL % OF EFFECTIVENESS OF ARGUMENT CRITERIA</td>
<td>45.8</td>
</tr>
</tbody>
</table>

*Feedback criteria in Beason's study not related to my study's effectiveness of argument category included organization (15.3%), mechanics (5.9%), expression (28.2%), and other (4.7%)
In studies that investigated the ways instructors in the disciplines and writing instructors provided feedback, I found that instructors do respond to issues pertaining to content and rhetorical effectiveness. In fact, these studies indicated that such feedback was frequently provided on drafts examined by a cross-section of instructors from across the country (Connors and Lunsford 1993). Moreover, the studies also showed that in some cases this type of feedback constituted nearly 50% (Beason 1993) or more (Straub and Lunsford 1997) of the total feedback provided by instructors.

In the following discussion, I briefly introduce a set of early studies of teacher feedback patterns that continue to be cited today. While these studies do not quantify and categorize feedback as I did in my study, they do present findings that continue to impact feedback scholarship and pedagogy.

**Other Scholarship about Patterns of Feedback.** In the early 1980s, researchers in the fields of composition and technical communication made important contributions to the research about patterns of feedback—contributions that are still influential today. Of their findings, the most important involve characterizing feedback patterns to discuss what these patterns suggest about instructors' feedback practices.

Specifically, these studies indicated that instructors tended to generate feedback that focused on assessing drafts as products rather than helping students improve their writing processes on those drafts. For instance, in their study of 40 college writing instructors who provided feedback about a draft of student-generated expository writing, Lil Brannon and C.H. Knoblauch (1982) found that the instructors in their study failed to recognize the "writer's control" over the draft (160). From their analysis, Brannon and Knoblauch concluded that instructors "ought to relinquish ... control of student writing and return it to the writers"; doing so, they argue, "will not only improve student incentive to write but also make our responses to the writing more pertinent" (161). Along the same lines, Nancy Sommers' (1982) study of the feedback that 35 instructors from two universities provided on drafts of student writing also showed that instructors tended to provide feedback that "appropriate[d] the text from the student" (149). Sommers found that this text appropriation occurred "particularly" when instructors provided feedback pertaining to "errors in usage, diction, and style" instead of providing students with feedback concerning global issues of
content, organization, or audience (150). In other words, the findings from both of these studies suggest that the instructor-participants tended not to use their feedback to suggest ways for students to continue to develop as writers, but rather the instructors assessed these drafts as products—without including feedback to enable students to improve their writing processes.

Since these studies do not analyze the feedback data quantitatively, I cannot draw neat comparisons between this research and my own. However, in analyzing my feedback data qualitatively (as the researchers above did), I can tentatively conclude that my instructor-participants did make attempts to help students improve the quality of their drafts and the quality of students' thinking about the agronomic and communicative issues that impinged upon the drafts. (See Chapter 4 for an analysis of instructor feedback motives.)

Besides the research indicating that instructors tended to generate product- rather than process-oriented feedback, early studies about patterns of feedback also indicate that instructors often failed to communicate feedback to students in ways that allowed them to effectively use the feedback. That is, in Sommers' (1982) study of the 35 composition instructors, she found that their feedback did not indicate which issues were most critical for students to revise: feedback was "worded in such a way that [was] difficult for students to know what [was] the most important problem in the text and what problems [were] of lesser importance" (151). And in Sam Dragga's (1991) study of 17 technical writing instructors, he found a similar lack of "hierarchy" in the feedback being provided: "To which type of comment does a student give his or her attention? None of the seventeen teachers displays a systematic usage of locutions according to degree of importance" (212).

In thinking about these findings concerning the inclusion of a "hierarchy" in patterns feedback, I found in my study that the English 309 instructor (Roberts) provided the most explicit indication of which feedback items were most important. That is, in many cases, Roberts specifically stated in his terminal feedback those two or three issues on which students needed to focus in their revision. Overall, the Agronomy 356 instructors were not as explicit as Roberts in the ways they created a "hierarchy" of their feedback; however, Schafer and Polito often used their one-to two-sentence terminal feedback to indicate the primary issues that students should address in their revisions.
While these studies about patterns of teacher feedback have yielded important results about the ways instructors respond to student writing, a gap still exists in this scholarship. In the following section, I discuss the need for longitudinal teacher feedback research and describe the ways my study helps to fill this gap.

**Need for Longitudinal Research about Feedback Patterns.** Overall, feedback scholarship tends to limit the length of its studies to one year or less, and as this review indicates, the majority of feedback scholarship examining patterns of teacher feedback use data from only one writing assignment. Virtually all conclusions about the characteristics of teacher feedback, then, are drawn from analyzing *snapshots* of feedback. These snapshots—in which researchers collect and analyze teacher feedback provided on one writing assignment—can only characterize the feedback provided at that moment on that assignment. This data collection strategy allows researchers to understand feedback in that moment, but does not allow researchers to characterize the ways feedback may have evolved or the ways instructors adapted their feedback and feedback practices to different assignments or contexts. This snapshot method also appears to diverge from current theories of feedback, which argue that the activity of responding to student writing is not static. That is, feedback scholars agree (Anson 1998, Brannon and Knoblauch 1982, McLeod 1995, Mirskin 1995, Onore 1989) that the responses instructors provide to students about their writing can change from one assignment to the next depending on a number of factors including “curricular timing” (i.e., whether the writing is a rough draft or a final draft), “personal belief,” “rhetorical and situational goals,” or “readers’” (i.e., the instructors’ circumstances” (e.g., the order in which you read students’ papers) (Anson 1998, 306-314).

I argue that studying feedback patterns longitudinally can help to identify the ways instructors respond to such changes in context. In my study, I traced the feedback patterns of the four 356/309 instructors during my four-year investigation. During that time, I focused my analysis on the same set of assignments—two progress report drafts and a recommendation report draft. Even though the instructors were responding to the same assignments year after year, their feedback patterns did alter. And in particular, I analyzed the ways changes in feedback (particularly changes in effectiveness of argument feedback) appeared to have been impacted by the instructors’ ongoing collaboration and by a faculty
personnel change during year four (see Chapter 4). These results, which pertained to the influence of faculty team dynamics on feedback, were visible primarily because my study was longitudinal. Therefore, more long-term research about feedback and feedback practices is necessary to complement findings from more short-term studies.

To continue my discussion of the ways I situated my study in current teacher feedback scholarship, I next identify pertinent literature that focuses on the teacher feedback roles that instructors adopt when they respond to student writing.

**Analyzing Teacher Feedback Roles**

Characterizing the roles instructors adopt as assessors of student writing—by analyzing teacher feedback, interviewing the instructors themselves, observing the classroom, or some combination of all three methods—comprises another important area of feedback scholarship. Such studies enable researchers to theorize about the complex network of instructor attitudes and perceptions that underlie the feedback that instructors give students. This type of research is important because analyses of feedback patterns often fail to fully account for the impact that these attitudes and perceptions have on feedback. I begin by first briefly characterizing the feedback roles that my instructor-participants adopted, and then I review pertinent literature about feedback roles.

**Defining Teacher Feedback Roles in My Study**

In my study, I identified and analyzed teacher feedback roles primarily by examining faculty interview data in which instructors discussed their feedback and feedback practices. In my analysis, I characterized teacher feedback roles by using activity theory to first identify each instructor’s primary feedback motive and then illustrating how that motive impacted the ways instructors perceived the object of their feedback activity—the student drafts. I further characterized teacher feedback roles by identifying the ways instructors used the rhetorical

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*Anecdotal and theoretical studies also characterize instructor roles. For example, Claudia Keh (1990) identifies the roles of reader, writing teacher, and grammarian. Anne Greenhalgh (1992) distinguishes between role and voice (the latter is her preference). In her essay, Greenhalgh provides a “linguistic theory and method for identifying voices” based on a postmodern concept of the teacher-student relationship (401).*
situation of the report project as a feedback tool. As my review indicates, I found no published scholarship about teacher feedback roles that used activity theory in this way; however, as I discuss below, this analysis strategy was useful in a number of ways.

Overall, in my study, I found that each instructor adopted a different feedback role, and that these roles did not change over time. Each instructor’s feedback role also reflected the experiences that each instructor brought with him to 356/309 (e.g., teaching in other courses, working in industry). This finding suggests that in my study, teacher feedback roles were as influenced by the experiences that each individual brought to the learning community as the collaborative activities that each instructor engaged in to plan and teach 356/309. This conclusion makes sense, though—given the nature of the cross-disciplinary teacher feedback activity in 356/309. That is, instructors engaged in this activity individually, not collaboratively; thus, their perceptions of feedback roles were constructed primarily through notions of individually generated (not collaboratively generated) experiences and expertise.

To situate this analysis of teacher feedback roles in pertinent feedback scholarship, I begin by characterizing the four teacher feedback roles that I discovered to be most common in the literature I reviewed. Overall, I found that my instructor-participants did assume characteristics of all four roles. However, I hesitate to define any of the 356/309 instructors solely by one or more of these roles. Instead, I believe that identifying feedback roles using activity theory enabled me to characterize instructors’ responses and reactions to the feedback activity in ways that captured not just their feedback approaches but helped me to depict their feedback motives and the ways they perceived the object of their feedback activity—the student drafts.

**Characterizing Four Common Teacher Feedback Roles.**

In my review, I found that each study about teacher feedback roles tended to present several roles—with each role characterized by different qualities. As I mention above, researchers identified and described these roles by investigating teacher feedback, faculty

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9 That is, the 356/309 instructors did not work side-by-side (collaboratively) to provide written feedback about students’ report project drafts. Instead, the instructors worked individually to respond to these drafts.
interviews, and/or classroom observations. Given this, I identified four roles that appeared in multiple studies about teacher feedback:

- **Institutional** (Jeffrey and Selting 1999, Purvis 1984, Sperling 1994)

I next characterize each role to help me illustrate the commonalities among these findings and to enable me to identify those characteristics that my instructor-participants tended to adopt.

- **Editorial.** The editorial feedback role is one that instructors adopt when they provide feedback solely about sentence-level conventions “related to grammar, mechanics, and format” (Jeffrey and Selting 1999, 190). Besides this concern with the “editorial tidiness” of students’ writing, the editorial role is also characterized by the authority that instructors tend to assume over student drafts (Lees 1979, 371). In this role, the instructor appears to have “control ... over the writing” that students produce (Straub and Lunsford 1997, 194).

- **Emotive.** The emotive feedback role is one that instructors adopt when they have “expresse[d] feeling” about (Sperling 1994, 182) or “respond[ed] emotionally” to students’ writing (184). Instructors who adopt this role are also primarily concerned with the “emotional style” of the draft (Purvis 1984, 262). In other words, the emotive role, more than any other, “suggests that teachers have feelings as they read student papers and that these feelings are often of the bread-and-butter sort which students and teachers occasionally pretend not to have” (Lees 1979, 371).

- **Institutional.** The institutional feedback role is one that instructors adopt when they are representing their academic institutions (e.g., universities, departments)
or their disciplines through the feedback they provide: “People in this role act ... as surrogates for various establishments” (Sperling 1994, 262). Most often, instructors who adopt the institutional role tend to articulate their responses to student writing exclusively in terms of how effectively the draft “fulfilled the assignment” (Jeffrey and Selting 1999, 189).

- **Ideal.** The ideal feedback role is one that instructors *should* adopt when they respond to student writing so that they can provide the most effective feedback possible. This role is often characterized as a compilation of various roles: “teachers may incorporate different roles and tasks in their central task of using comments to help students learn to write better” (Straub and Lunsford 1994, 194). This role is also characterized by a sensitivity to the rhetorical situation of the feedback activity: instructors should adopt feedback roles “depending on the nature of the situation in which the writing is produced” (Purvis 1984, 263).

My instructor-participants assumed characteristics of each of these roles at one time or another, but I did not characterize their feedback roles solely in terms of any one of these. Instead, I found that activity theory helped me to analyze what *motivated* the instructors to assume characteristics of the editorial, emotive, institutional, ideal roles, and I further characterized the ways my instructor-participants perceived the student drafts (i.e., Did they perceive the drafts as academic objects? As workplace objects?).

To continue to situate my research about teacher feedback roles into current literature, I next discuss two issues of importance to my study—the ways feedback roles change and the ways disciplinary and institutional factors impact feedback roles.

**Changing nature of teacher Feedback Roles**

In my study, the feedback roles of the 356/309 instructors did not alter measurably from one year to the next. The instructors tended to articulate the same feedback motives and tool-uses—even after four years of participation in the learning community. While literature about teacher feedback roles is plentiful, few studies specifically analyze how these roles
change over time. One longitudinal study that does speak to this issue, however, is Melanie Sperling's (1994) semester-long investigation of a high school literature teacher's "perspective as reader of her students' writing" (176). Specifically, Sperling traces the ways this instructor responds to eight of her students about five of their writing assignments: a journal, an autobiography, two literature critiques, and one position paper.  

Above all, Sperling is interested in capturing the ways this instructor's "perspective" as a "reader" changes given different assignments and different students. She argues that earlier research about teacher feedback roles does not fully consider such issues: "Research on written comments has tended not to question the ways teachers' expectations influence their reading of different students' writing and different writing types" (177). Given this focus, then, Sperling is less concerned with the ways the instructor's overarching feedback roles and motives may have evolved than with the ways in which her instructor-participant reacted to the texts of individual students writing particular assignments. Not surprisingly, Sperling discovered that her instructor-participant responded to student writing by using different "frames of reference" during the semester—largely dependent upon which student (and on which assignment) the instructor was directing her feedback (181). This type of analysis enabled Sperling to conclude that the instructor "constructed different social experiences for different students" and for "different writing types" (199-200). In other words, given Sperling's focus, she was able to illustrate the ways different students and writing assignments elicited different "orientations" and types of feedback (i.e., feedback that was more emotive, more evaluative, and so on) from the instructor.

Since my investigation focused on tracing patterns of feedback and teacher feedback roles during my four-year study, I did not specifically examine how the 356/309 instructors reacted to each student and writing assignment. Had I focused my study of teacher feedback roles in ways similar to Sperling's study, I likely would have reduced the number of student drafts with feedback that I examined. Given these differences, however, Sperling's study does inform mine in two ways. First, Sperling's findings about how her instructor-participant responded differently to student writing (given the student and the assignment) helps to

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10 For the position paper, students were asked to take a position on a particular issue and to support that position with evidence.
confirm my suspicions that instructors do respond to student writing in individualized ways. Second, Sperling’s study provides me with an interesting avenue for further research. In other words, given that Sperling’s instructor’s “orientations” differed when she responded to different writing assignments, I could investigate the ways my instructor-participants responded to drafts of the report project compared to ways they responded to drafts of other writing assignments (e.g., the consulting proposal or the weekly essay quizzes). I could focus this study by examining the teacher feedback from one year or even from one three- or four-person student team. Such an investigation would help me to build on my findings about teacher feedback roles.

While Sperling’s study helped me to think about ways to respond to the changing nature of feedback roles, I next discuss how disciplinary experiences (e.g., teaching courses, working in industry) and institutional factors influenced the feedback roles that instructors adopted in my study.

**Teacher Feedback Roles: Disciplinary and Institutional Factors**

In my study, I found that the instructors’ prior teaching experiences and their work in industry impacted the feedback roles that they adopted when responding to student writing. In my literature review, I found one study that specifically spoke to the ways instructors’ experiences and areas of disciplinary expertise influenced their feedback roles.

In this study, Francie Jeffrey and Bonita Selting (1999) analyzed and compared the feedback provided by ten instructors (each from a different discipline) with the talk-aloud protocols given by these instructors as they provided feedback. The instructors each selected a student writing assignment on which they had already provided (or were about to provide) feedback. In analyzing these feedback data, Jeffrey and Selting identified the following four teacher feedback roles: “discipline-specific guide, intellectual mentor,

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11 A talk-aloud protocol is a data-gathering method in which study participants are trained to talk out loud about a task while they perform that task. In this case, Jeffrey and Selting asked their instructor-participants to speak into a tape recorder while they provided written feedback on student drafts.
Of these four roles, discipline-specific guide and assignment judge speak most to my study’s findings:

- **Discipline-specific Guide**: Instructors provide feedback that “seemed to be coming out of the instructors’ disciplinary perspective” (187) and that tended to “include the student—however peripherally—in the discipline’s conversational circle” (188).

- **Assignment Judge**: Instructors provide feedback that identifies “how well the student had fulfilled the assignment” (189)

In terms of the ways certain characteristics of these two feedback roles appeared in my study, I found that all four of my instructor-participants guided students in disciplinary ways at one time or another—whether it was to give agronomic or communicative feedback about aspects of students’ report project drafts. The propensity of my participants to provide discipline-specific feedback probably had to do with a number of factors including the learning outcomes that the instructors articulated for 356/309, the purposes for assigning the report project, and the teaching and industry experiences of the instructors. In particular, I found that the instructors’ teaching and workplace experiences helped to shape their teacher feedback roles. My research, therefore, extends the work of Jeffrey and Selting by identifying those experiences and activities (which occurred outside of the 356/309 classroom) that appeared to influence the types of disciplinary feedback that the instructors generated.

Besides the discipline-specific guide, Jeffrey and Selting also indicated that the role of assignment judge was adopted by their instructor-participants; in fact, they stated that this role was used the “majority” of the time (190). In my study, however, the 356/309 instructors rarely exhibited characteristics of this role in their feedback. In fact, I classified teacher feedback into an academic processes category, and in my analysis of instructors’ uses of this type of feedback, I found that my four instructor-participants provided academic processes feedback less than all other types of feedback (Chapter 4).

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12 Jeffrey and Selting also characterized four complementary student roles—"identities to which students were being assigned" by the instructors (187)—which I do not discuss in this review.

13 Feedback in this category referred to the quality of the written draft or to the quality of the students’ performance on the draft and/or in the class.
So while Jeffrey and Selting found that the instructors in their study adopted the role of assignment judge the majority of the time, the feedback provided by the instructors in my study showed that the 356/309 instructors rarely adopted assignment-judge characteristics when they provided feedback about report project drafts. Reasons for this difference were perhaps due to the nature of the 356/390 report project assignment. That is, in my study, the project drafts to which the instructors responded were contextualized in the rhetorical situation of an actual farm operation, and the instructors were able to identify relatively clear purposes, uses, and audiences for the project drafts. Given this, I argue that the 356/309 instructors could more easily read in “rhetorical/epistemological senses” because the report project drafts were situated in a specific rhetorical situation (191). Therefore, given the differences between my study’s findings and those of Jeffrey and Selting, I believe that producing rhetorically based assignments (regardless of the discipline) may help instructors move away from performance-based (academic processes) feedback and toward more rhetorically situated feedback.

To conclude my review of feedback literature pertinent to my study, I next identify and describe scholarship that researches the ways disciplinary knowledge is communicated to students through teacher feedback. As this discussion shows, empirical studies of feedback in the disciplines are not as abundant as studies of feedback generated in writing courses.

**Analyzing Cross-disciplinary Teacher Feedback**

Studies that examine the ways disciplinary knowledge is communicated through teacher feedback, while not as profuse as other types of teacher feedback research, still offer interesting insights. For example, in this review, I discuss the results of three studies that specifically examined feedback and feedback practices from outside the discipline of English studies. This research indicates that instructors from one discipline (in this case, sociology) tended to provide feedback in different ways; that is, each instructor identified and emphasized different features of student writing in their feedback (Mathison 1996). And research comparing the feedback provided by instructors across the disciplines shows that
while these instructors may have attended to similar issues in students’ drafts, the feedback they provided differed as well (Beason 1993, Wall and Hull 1989).

In her study, which examined the feedback that four sociology professors provided to 32 students in an upper-division sociology course, Maureen Mathison (1996) found differences in the ways these instructors responded student writing; that is, while the instructors’ feedback pertaining to argument development and students’ use of primary sources were similar, other areas of feedback were different. Specifically, Mathison examined an assignment in which student-participants were asked to write a two- to three-page critique of a scholarly article. Four instructors (none of whom were teaching the course) “were asked to apply their own criteria to rate” the student drafts (338). As Mathison states, “examining professors’ judgments of student performance” helps researchers to “gain insight into how written discourse signals valuation of material and the types of thinking required of students in assessing information in the disciplines” (319).

Overall, the ways students provided evidence for the claims they made figured a great deal into the feedback instructors provided: student drafts that “supplied more negative commentary substantiated by disciplinary support were rated as having higher quality texts” than those “written with topics and evaluative commentary interwoven” (335). And in terms of the ways the instructors provided feedback, Mathison notes that “although professors agreed somewhat on what constituted quality, the weight they gave to certain features varied” (337). This variation in feedback may have resulted, in part, by the instructors’ use of their “own criteria” to respond to the student drafts (338). In doing so, the instructors were not asked to come to a consensus beforehand about what constituted an effective student critique—given the objectives of the course and the students’ progress thus far during the semester. In my study, even though the 356/309 instructors were from different disciplines, they agreed upon the parameters of the assessment criteria before they actually provided feedback on the report project drafts.

In one of the first studies to consider the feedback produced in writing-enriched classes as a focus for analysis, Larry Beason (1993) examined teacher feedback on the first and final drafts from four intermediate writing-enriched courses—business law, journalism, dental hygiene, and psychology. In Beason’s analysis of feedback from across the
disciplines, he found similarities and differences in the ways these instructors responded to student writing. Specifically, he discovered that “four aims” accounted for the majority of the feedback, which included “Advising, Praising, Problem-Detecting, and Editing” (my italics, 406). However, in analyzing the uses of assessment criteria by the instructor-participants, Beason found that while “Development/Support” was most frequently used by the instructors in three of the four classes (journalism, dental hygiene, and psychology), the criterion of “Focus” was used most frequently by instructors in the business law course (406).

Beason also extended his analysis by comparing the instructor-participants in his study (i.e., instructors who taught writing-enriched courses in their disciplines) with other feedback research results specifically pertaining to the feedback that writing instructors provide. In other words, Beason compared his study’s results to those findings about the ways writing instructors provide feedback. For instance, Beason noted that his instructor-participants, “like composition teachers, [were] particularly likely to avoid praising student writing” (417). Beason goes on to state that “although there [was] evidence that these two types of teachers [i.e., writing instructors and instructors in the discipline] try not to rewrite students drafts,” both types of instructors tended to “make actual changes in drafts” (417). These similarities and differences in feedback from across the disciplines show that while these instructors may focus on similar issues, their different disciplinary perspectives encourage differences in the types of feedback they provide.

In an investigation that complements and extends many of Season’s findings, the final study I discuss indicates that instructors from different disciplines tended to concentrate on different features when they responded to sentence-level errors on the same set of student writing assignments. In this study, Susan Wall and Glynda Hull (1989) analyzed the feedback provided by ten college professors (from disciplines other than English), 20 English secondary teachers, and 25 English elementary teachers on the same set of student writing. Wall and Hull’s analysis specifically focused on the sentence-level feedback that these instructors provided pertaining to grammar, usage, style, and punctuation. Wall and Hull found that, overall, the instructors had a low agreement about which features of the text

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14 Beason (1993) differentiates between aims and criteria: aims “address the apparent purpose of each comment” (402) while criteria identify “writing assessment” criteria (403).
actually needed improvement: "Of all the places marked in this text as errorful, nearly three-quarters (74.6%) were marked by 20% or fewer of the teachers responding and about two-thirds (63.5%) by fewer than 10%" (272).

These findings speak to my own research about cross-disciplinary teacher feedback and suggest an avenue for future research. Specifically, the results of Wall and Hull's study indicate that instructors from different disciplines may provide sentence-level feedback that not only identifies and emphasizes different issues but also feedback that may be contradictory. In my study, I chose to focus my analysis on the broad patterns of cross-disciplinary teacher feedback (emphasizing, in particular, effectiveness of argument feedback) and not specifically about feedback pertaining to sentence-level conventions. However, further research focusing on the patterns of feedback concerning sentence-level conventions and the ways these patterns differed among the instructors and between the disciplines would be a viable and interesting research topic.

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In this chapter, I discussed the ways my study extends current scholarship by reviewing pertinent teacher feedback research. Specifically, I examined issues concerning feedback styles, feedback patterns, and teacher feedback roles, as well as the ways disciplinary knowledge was communicated through the teacher feedback I examined. This review helped to indicate how my study extends what researchers have come to understand about teacher feedback.

In Chapter 3, I continue this discussion of cross-disciplinary teacher feedback by arguing why I used a mixed methodology (qualitative and quantitative) approach to investigate this activity—given the types of research questions I asked. In this chapter, I also define my researcher-participant role, characterize my research site, and describe the methods I used to respond to my research questions.
CHAPTER 3

BECOMING "EPISTEMOLOGICALLY ECUMENICAL":
STRATEGIES FOR CONDUCTING MIXED METHODOLOGY
CLASSROOM RESEARCH

Julie’s role is to get honest feedback—both positive and negative—and to help us to get a more accurate picture of whether or not we are truly accomplishing our goals.

Since she has no teaching goals, her interpretations of student comments are more accurate and meaningful.... Sometimes she can share these with us during the semester, and sometimes she must wait until the semester is over and the grades turned in before she shares.... Her responses have caused several shifts in our teaching approaches and the methods we use in the course.

From a professional point-of-view, when she is able to quantify these observations and analyze them statistically, we have something that we can publish and share professionally both with our fellow teachers and our research colleagues.

John Schafer, 2001, University Professor of Agronomy
Agronomy 356 Co-Instructor

In Chapter 2, I discussed the ways my study extends current scholarship by reviewing pertinent teacher feedback literature about feedback styles, feedback patterns, and teacher feedback roles, as well as the ways disciplinary knowledge was communicated through the feedback I studied. In this chapter, I characterize how my mixed methodology research design helped me to respond to my study’s research questions, discuss my role as a researcher-participant, and describe my research site and methods.

As the epigraph helps to illustrate, I wanted my study to respond to the local concerns of the 356/309 instructors and to have my findings speak more broadly to the scholarly and pedagogical interests of professionals across the disciplines (particularly in agronomy and English). This dual objective prompted me to carry out my research using a mixed methodology approach. Specifically, I believe that structuring my research design so that it

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1 This phrase is taken from Carol Berkenkotter’s (1991) article, “Paradigm Debates, Turf Wars, and the Conduct of Sociocognitive Inquiry in Composition,” College Composition and Communication 42:2: 151-169.

incorporated qualitative and quantitative methods enabled me to more convincingly communicate my findings across disciplines—to scholars and teachers in agronomy and in English. However, mixed methodology approaches often prompt debate about whether both types of methods are epistemologically compatible enough (or at all) to be incorporated into one research design. Therefore, in this chapter, I first discuss my two primary reasons for using this methodological approach—my study’s audience and the nature of the research questions I posed.

After discussing this issue of mixed methodology, I introduce and describe my research design. Specifically, I characterize my role as a researcher-participant, describe my research site, discuss the research questions that comprised my teacher feedback study, and identify the methods that I used to respond to these questions.

**INCORPORATING A MIXED METHODOLOGY RESEARCH APPROACH**

This chapter’s title comes from a phrase used by Carol Berkenkotter (1991) in which she encourages faculty to help graduate students broaden their methodological repertoires by helping them to become “epistemologically ecumenical” (166). I use this phrase to indicate my position in the mixed methodology research debate in which distinctions between qualitative and quantitative methods are often identified with “different ways of knowing or forms of knowledge” (Walker and Evers 1999, 40). When such distinctions are made, qualitative and quantitative research can be perceived as “radically distinct epistemologically; each having its own theories and rules of justification, meaning, and truth” (40). Therefore, the notion of whether these research traditions have “some epistemological touchstone”—a shared conception of knowledge, meaning, truth—is a primary sticking point (40).

While I believe that these research traditions are “epistemologically ecumenical,” scholars weigh in on this issue in different ways. Some scholars (North 1986) believe that these traditions are too radically distinct to find any common epistemological ground while others (Hammersley 1992, Datta 1994, Krantz 1995, Guba and Lincoln 1998) argue that
quantitative and qualitative methods can be used compatibly in the same study even though both types of methods operate in distinct epistemological paradigms:

At the broadest level, that of paradigms, the approaches are more likely to be mutually exclusive; as we move to consideration of the levels of design approaches and methods, it becomes easier to envision the approaches used together in a complementary manner. (Hedrick 1994, 49)

Still others (House 1994, Shadish 1995) argue that the idea of two distinct epistemological paradigms is false: "the very idea of such paradigms... [is] mistaken, even incoherent" (Walker and Evers 1999, 41).

In terms of this debate, my intention is not to resolve it but rather to identify my position in it. Ultimately, I believe that my purposeful use of a variety of methods—both qualitative and quantitative—allowed me to ask complex research questions and to respond to them in engaging ways. Given this, however, I do believe that the idea of two distinct epistemological paradigms is false. To me, articulating such a move only creates definitional and conceptual boundaries where they do not exist and ultimately ignores the complexities and nuances that characterize both research traditions. Some argue that each tradition holds radically different beliefs about what constitutes reality and what our relationships, as researchers, are to that reality (Guba and Lincoln 1998). Such theories of a researcher’s reality, however, are often inaccurate. That is, scholars from one research tradition often misrepresent or oversimplify what they believe constitutes reality for scholars from another research tradition. So while researchers from the quantitative and qualitative traditions have different ways of observing, analyzing, and interpreting what is around them, suggesting that these strategies (and the values, epistemologies, and ideologies that help to constitute them) comprise separate realities and, thus, distinct epistemological paradigms, only creates conceptual divides where none exist.

My position in this qualitative-quantitative debate, and particularly my use of a mixed methodology approach in this study, is echoed by a number of composition and professional

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3 Composition and professional communication scholars debate rigorously about methodological issues rooted in these questions of epistemology. Many of their deliberations concern the roles of ideology and power in classroom and workplace research (Blyler 1995, Herndlé 1991, Herndlé and Norwath 2000, Dohery-Farina 1993) and the most precise ways to theorize, explain, and (sometimes) to defend the use of qualitative and/or quantitative methods (Charney 1996, Cooper 1997, Barton 2000).
communication researchers. Overall, those who encourage adopting a mixed methodology approach believe that researchers should be well versed in a range of qualitative and quantitative methods and that they should select those methods in purposeful ways—based on the research questions being asked (Berkenkotter 1991; Barton 2000, 2001; Kirsch and Sullivan 1992; Lauer and Asher 1988). In other words, research design and analysis should be akin to rhetorical argument: “Our approach is to identify research studies with arguments” (Eisenhart and Howe 1992, 655). Those researchers who adopt such mixed methodology approaches do so for a number of reasons. Janice Lauer and William Asher (1988) argue that including in deliberate ways both qualitative and quantitative methods strengthens composition research. This strategy, which they label “multimodality,” allows researchers to have “richer opportunit[ies] for studying the complex domain of composition studies” (7). Likewise, Ellen Barton (2000) encourages researchers to build a “methodological repertoire” that includes both qualitative and quantitative methods (409). By doing so, Barton claims, researchers are better able to “function with knowledge of the range of methods expected in today’s interdisciplinary university” (409).

In situating my research, I adopted a mixed methodology approach for two reasons: my study’s audience and the nature of the research questions I pose. First, Barton’s (2000) point concerning the interdisciplinary university is particularly well taken in that my study is conducted in a cross-disciplinary classroom. Therefore, using a mixed methodology approach enabled me to speak more convincingly to colleagues from across the disciplines about my research goals, findings, and conclusions. Because I conducted communication-across-the-curriculum research, the intended audience for my study (comprised of colleagues in professional communication, agronomy, and teachers and administrators across the university) prompted a need for me to adopt a research design that was itself interdisciplinary. Second, the nature of my study and the kinds of research questions to which I wanted to respond also pointed me toward a mixed methodology approach. That is, because I conducted longitudinal research, I was interested in learning about the ways patterns of teacher feedback (as evidenced on drafts of student writing) changed during my four years of data collection. Therefore, statistical tests and mathematical models have helped me to account for such patterns in useful ways. I then wanted to complement this knowledge of the
ways discourse changes over time with an understanding of why such changes may have occurred. In this sense, those qualitative findings from my research site observations and faculty interviews were extremely valuable.

As I have shown, including both quantitative and qualitative methods not only allowed me to better communicate my findings to colleagues from other fields, but these methods also enabled me to analyze aspects of my research site in rich and complex ways. To continue to characterize my methodology, I next discuss the role I adopted as a researcher-participant.

APPROACHES FOR FILLING MY RESEARCHER ROLE

As a researcher-participant, my involvement in Agronomy 356/English 309 was different from the involvement of the instructors or students who participated in this communication-across-the-curriculum learning community. In the following discussion, I first differentiate my role from theirs and characterize myself as a researcher-participant. I then introduce the ways I adopted one particular strategy—"boundary spanning"—for carrying out my research tasks and for building my researcher identity (LeCompte and Preissle 1994, 103).

As a researcher-participant, my role in 356/309 involved a "special status—part-time, temporary, voluntary" (145). In terms of this special status, then, I was not held responsible for completing 356/309 activities in the same ways as other members of the learning community. For example, as a researcher-participant, I attended 356/309 lectures and labs; consequently, I was able to discuss current classroom events with students and instructors. However, I was not taking the exams, writing the documents, or answering questions in class about the courses' material. Therefore, my involvement was "voluntary," and my participation and role in 356/309 was quite different from the participation and roles of the students. In the same sense, while I attended weekly faculty meetings (in which 356/309 instructors scheduled and planned the week's activities) and spoke with faculty about their teaching strategies and methods, I did not teach the courses or assess student work. As a researcher-participant, I felt strongly about distinguishing myself from the teaching of the
courses in these ways. In doing so, I strove to preserve my researcher-participant role and to be a person in whom students could comfortably confide about the classes, teachers, and other students.

Because my levels of involvement and responsibility were different from those of the students and instructors of 356/309, I sought specific ways to conceptualize my researcher-participant role. In doing so, I engaged in what Margaret LeCompte and Judith Preissle (1994) describe as a useful, characteristic behavior of researcher-participants—"boundary spanning" (103). Specifically, boundary spanning means that as a researcher-participant I first familiarized myself with the "behaviors, goals, and beliefs of all constituencies that influence a project" (103). Simply put, I assessed the research site and identified and acquainted myself with members of those groups (in my case, primarily students and teachers) who occupied it. My relationship with these groups and my involvement with their activities, however, was also characterized by my ability to span boundaries or to move from group to group. That is, researcher-participants need to identify ways to be "in many groups" without becoming a "full-fledged member of any of them" (103). While LeCompte and Preissle argue that this ability to successfully span boundaries is "critical to the success of a research project," they acknowledge that there is no formula for effectively accomplishing this strategy given that each research site (and each researcher-participant) is different (103). In my case, I found that my status as a graduate student enabled me to effectively span the boundaries between the student and instructor groups.

During the four years I collected data, my status as a graduate student consistently helped me to be "in many groups" without becoming a "full-fledged member" of any of them. That is, as a graduate student, I was neither an undergraduate student nor a faculty member, and for this reason, I was able to span the boundaries between both groups. For example, the 356/309 students knew that only several years before I had been an undergraduate student myself. This history enabled me to interact with them in their student group. I was able to commiserate with them about the typical problems faced by full-time college students—heavy course workloads, assignment deadlines, time management issues (e.g., juggling part-time employment and school), and so on—because I had once dealt with these issues as an undergraduate myself. Students also knew that my status as a graduate...
student immediately disqualified me from full membership in the faculty group. I believe that this factor also helped me to interact with the student group; I speculate that if I would have been perceived as a full-fledged member of the faculty group some students would not have been so direct with me in their critique about the faculty or the courses.

My status as a graduate student allowed me to interact with members of the faculty group in similar ways. In effect, I had access to information about the classes, the students, and the course material that I would not have had I been a full-fledged member of the student group. For example, the 356/309 faculty held weekly meetings to plan seminar and lab activities, to schedule assignment deadlines, and to discuss student progress. As a researcher-participant, I attended and participated in these discussions. However, I was not responsible for performing tasks completed by the faculty (i.e., for carrying out seminar activities or scheduling assignments). For this reason, I was able to function in the faculty group not as a full-fledged member, but rather as a researcher-participant. I also believe that my status as a doctoral student with the intention of becoming a college professor further enhanced my ability to span the boundaries between the teacher and faculty groups. That is, in the same ways that the students related to my past experiences as an undergraduate, the instructors related to what would be my future work as a professional colleague. Faculty saw my research project as a critical step in my development as a teacher and scholar. Because of this, the faculty and I had a mentor-mentee relationship, and I believe that the mentoring aspect of our relationship further helped to distinguish me from being perceived as a full-fledged member of their faculty group—that is, I was not colleague, but a potential future colleague.4

As I have discussed, my researcher-participant approach has taken into account the ways my role differed from that of the student and faculty groups who participated in 356/309. The methodological concept of boundary spanning has also helped me to theorize and carry out my responsibilities as a researcher-participant. To continue to characterize my methodology and, in particular, my research design, I next describe the 356/309 research site.

4 For more discussion about this mentoring relationship, see our article, "Ranks, Roles, and Responsibilities: Crossing the Fine Lines in Cross-Disciplinary Mentorship," in Chris Anson (Ed.) The WAC Casebook: Scenes for Faculty Reflection and Development, 2002, Oxford UP, 227-236
RESEARCH SITE DESCRIPTION

To characterize the Agronomy 356/English 309 communication-across-the-curriculum learning community as my research site, I describe the 356/309 courses, including their assignments, quizzes, and exams; the strategies that the 356/309 instructors used to integrate the courses; and my study's participants.

AGRONOMY 356/ENGLISH 309

Integrated pairs of courses—like 356/309—enroll a group of students concurrently into two different disciplinary classes. This communication-across-the-curriculum learning community was comprised only of students who were co-enrolled for 356 and 309, and its enrollment was capped at 15 students, though the option existed for up to 20 students. Historically, enrollment was capped at this number because of the nature of the collaborative, communication-intensive work students did in the stand-alone Agronomy 356 course. Since this communication-intensive work continued in 356/309, the enrollment cap remained.

In communication-across-the-curriculum learning communities such as 356/309, instructors often collaborate with one another on aspects of course planning or implementation in order to encourage students to make connections between the subjects of both courses: "faculty of linked courses teach individually, but to some degree they coordinate syllabi and/or assignments" (Gabelnick et al. 1990, 20). The degree to which this coordination is achieved, as most learning community scholars point out, is up to faculty (Gabelnick et al. 1990, Shapiro and Levine 1999). However, scholarship about instructor collaboration in learning communities suggests that when a higher level of collaboration among instructors is achieved, student learning has the potential to increase: "preliminary evidence suggests that the more thematically integrated and team-taught models do have higher pay-off in terms of student engagement and learning" (Smith 1993, 34).

5 In the case of 356/309, students still received separate final course grades from 356 and 309.

6 During 2001, due to low enrollment figures that the teaching team speculated were caused by problems in registration procedures, the 309 course was opened to agronomy, agricultural studies, and agricultural business majors who were not concurrently enrolled in 356. During that term, three students were enrolled in 309 but not in 356; these three students were not included in my study. Because of the difficulties in coordinating assignments and delivering instruction, however, this enrollment strategy has not been repeated. Figures for the 2002 semester showed that enrollment in 356/309 had rebounded to 19 students.
The 356/309 instructors made specific efforts to collaborate on the planning and implementation of this learning community. Strictly quantifying high or low levels of faculty collaboration achieved in cross-disciplinary efforts like 356/309 is difficult; however, scholars do theorize distinctions between these levels. For example, in her discussion of interdisciplinarity, Julie Thompson Klein (1990) notes differences between collaborations that are multidisciplinary and interdisciplinary: a multidisciplinary collaboration "signifies the juxtaposition of disciplines ... is essentially additive, not integrative" (56) while an interdisciplinary collaboration "achieve[s] a synthesis greater than any single disciplinary approach" (58). And invoking Klein's work, James Davis (1995) identifies a four-part continuum of faculty collaboration that indicates low through high degrees of collaboration for the areas of "planning, content integration, teaching, and evaluation" (20).

As depicted in Figure 3.1, I observed that in these four areas the 356/309 instructors maintained relatively high levels of collaboration with one another during the four years of my study. I found Davis' continuum to be a useful tool with which to describe instructor collaboration for two reasons. First, the low through high distinctions allowed me to identify to what degrees instructors collaborated. Second, the distinctions among the four areas of collaboration—planning, content integration, teaching, and evaluation—were useful for more precisely characterizing the ways faculty worked together in this communication-across-the-curriculum learning community.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>LOW TO HIGH DEGREES OF PLANNING, COURSE INTEGRATION, TEACHING, AND EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW</td>
<td>Planning --- HIGH</td>
</tr>
<tr>
<td>LOW</td>
<td>Content Integration --- HIGH</td>
</tr>
<tr>
<td>LOW</td>
<td>Teaching --- HIGH</td>
</tr>
<tr>
<td>LOW</td>
<td>Evaluation --- HIGH</td>
</tr>
</tbody>
</table>

Figure 3.1 Four-part Continuum of Faculty Collaboration (adapted from Davis 1995, 20)

To more specifically characterize this collaboration, I begin by describing the communication-across-the-curriculum learning community itself by introducing each course—Agronomy 356 and English 309.
AGRONOMY 356 SOIL, WATER, AND FERTILIZER MANAGEMENT. As a four-credit course, Agronomy 356 met for three hours of lecture and three hours of lab per week. During the term, students learned about tillage management, nutrient management, highly erodable soil (soil prone to water or wind erosion) identification and management, hydric soil (soil prone to water saturation, ponding, or flooding) identification and management, and new operational and management technologies available to farmers. Students were assigned to three- to four-person teams during the first week of the semester, and they worked in these teams during the term to complete their farm management recommendation report project (both team selection strategies and the report project are discussed below).

In 356, students were evaluated by their performance on weekly essay exams, the farm management report project (which included an oral presentation to the farmer client), and an oral final exam. Each week during class, students responded in writing to four essay questions. Each 356 instructor wrote two of the questions; after receiving feedback, students were given opportunities to revise and resubmit selected responses if they wished. During the final week of class, students individually signed up for an oral exam time. During the exam, the 356 instructors met with students individually and asked each student questions about issues and topics covered in class and discussed in his or her team’s farm management recommendation report.

ENGLISH 309 REPORT AND PROPOSAL WRITING. As a three-credit course, English 309 met for three hours per week but often shared time in the three-hour agronomy lab. In 309, students learned writing strategies for preparing a variety of documents—a prospective client report, a consulting proposal, a training proposal, progress reports, and a farm management recommendation report. In 309, students were evaluated by their performance on reading quizzes, the drafts and documents that they wrote, an oral presentation, and a final written exam. Each week, students were assigned chapters to read from their text, Writing Winning Business Proposals (Freed, et al. 1995), and during the first ten minutes of class, students responded individually to a short-answer quiz about that day’s reading assignment.

In 309, students individually wrote a consulting proposal and a training proposal while they collaboratively wrote the prospective client report, progress reports, and farm management recommendation report. These collaboratively written documents, along with
the consulting proposal and an oral presentation, constituted the texts students generated for the farm management recommendation report project, which was jointly assigned and assessed between 309 and 356. Therefore, in their collaborative work for 309, students worked in the same teams that they were assigned to in 356. In 309, students took an in-class written final exam. Several days before the scheduled exam students received the exam prompt (typically asking them to write a short business proposal). Students prepared for the exam by taking notes about the proposal that they would write in class during the exam period.

To continue to characterize this 356/309 collaboration, I next discuss the course integration strategies used by the 356/309 instructors—in particular the farm management report project.

**Course Integration Strategies**

Four factors impacted the learning community instructors’ ability to substantively integrate Agronomy 356 and English 309. The first three were critical to the success of the learning community; however, the fourth—co-assigning and co-assessing the semester-long farm management report project—was most critical of all.

First, the four instructors who participated in the learning community were committed to creating a communication-intensive, cross-disciplinary learning environment. Each instructor’s willingness to re-conceptualize the ways his course material was delivered in the classroom was absolutely necessary to the successful integration of 356 and 309. Second, during the semesters the learning community was offered, the 356/309 instructors held weekly meetings to plan seminar and lab activities, to schedule assignment deadlines, and to discuss student progress. These meetings became invaluable for helping to maintain the integration of the learning community and for tailoring the syllabi and schedules of both courses as the semester progressed. Third, class times between 356 and 309 were often exchanged when it became necessary to meet the integration goals. The instructors also attended one another’s classes to learn about each other’s discipline and to show the ways in

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7 As I explain below, the 356/309 instructors collaborated on selecting which students would comprise which teams.
which the content of the courses complemented and informed one another. Fourth, the primary strategy that the 356/309 instructors used to integrate the two courses was to jointly assign and assess the farm management report project.

As I explained in Chapter 1, learning community scholarship indicates that linked or clustered courses can be integrated most successfully by using a theme approach or a project approach. As I describe below, many of the classroom lectures and discussions, writing assignments, oral presentations, and readings were related to this report project.

**FARM MANAGEMENT REPORT PROJECT.** The farm management report project assigned students to work in teams of three or four to complete a series of tasks for an actual farmer-client that reflected the work and communication that certified crop advisors (CCAs) do for their farmer-clients. As CCAs, (explained below) 356/309 student teams worked for a fictional agricultural consulting firm. The primary audience for all report project documents (and for one of the oral presentations) was the farmer-client, while the secondary audience for all project documents was the panel of “bosses”—that is, the 356/309 instructors who managed the fictional agricultural consulting firm at which the students worked as CCAs.

By definition, CCAs understand soil characteristics and soil and water management practices, and CCAs advise farmers about pertinent federal and state regulations concerning environmental and/or land management issues. CCAs become certified by passing a national and a state exam that tests their knowledge in the following areas: nutrient management, soil and water management, integrated pest management, and crop management. CCAs, who generally have undergraduate degrees in agronomy or a related agricultural field, maintain their certification by taking an additional 40 hours of training every two years in these areas. Because CCAs can work for a co-op or a company, they are expected to follow a code of ethics. In other words, CCAs are expected to put the viability and profitability of their client’s farm operation before the profitability of the individual co-op, company, or product line (i.e., a particular brand of seed or fertilizer) with which that CCA may be affiliated.

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8 A CCA is a career in which several 356/309 students articulated interest. As I explain below, CCAs are certified by the American Registry of Certified Professionals in Agronomy, Crops, and Soils (ARCPACS) through state and national certification boards. (I obtained my information about CCAs from lectures given in Agronomy 356 and from the American Society of Agronomy web site at http://www.agronomy.org/.)
To begin work on their semester-long farm management report project, which was jointly assigned and assessed in 356 and 309, students were placed into three- or four-person consulting teams in which they would remain for the entire semester. During the first week of class, the 356/309 instructors placed students in teams by assessing the following factors for each student:

- Agronomy and English courses previously taken
- Individual writing ability as demonstrated by a diagnostic writing sample administered during the first day of class
- Previous or current workplace and/or internship experience
- Farming experience
- Gender

The 356/309 instructors attempted to balance each of these features by team. That is, each team should have contained members with some upper-division coursework in agronomy and English, fair to adequate writing ability, some workplace experience, some farming experience, and each team should have been gender-balanced when possible.

For the farm management report project, the students completed the five written documents and two oral presentations described in Table 3.1. The order in which these assignments appear in the table is the order in which they were assigned during the semester. That is, the report project began with the prospective client report and concluded with the oral presentation to the farmer-client. As Table 3.1 shows, students worked collaboratively on six of the assignments, and they worked individually on one of the assignments—the consulting proposal. Since the consulting proposal was a document in which students were asked to use a set of strategies discussed in their 309 text, *Writing Winning Business Proposals*, the 309 instructor found it beneficial to assign and assess this document individually.

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9 The 356/309 students completed other quizzes, exams, and writing assignments not connected to the report project. Table 3.1, then, introduces and defines only report project assignments.
Table 3.1 Farm Management Report Project Assignments

<table>
<thead>
<tr>
<th>ASSIGNMENT DESCRIPTION</th>
<th>STUDENTS RECEIVE FEEDBACK IN THESE COURSES</th>
<th>STUDENTS RECEIVE A GRADE IN THESE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective Client Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student teams use data from farmer-client interview to describe client's current situation, needs, and future plans.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Consulting Proposal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each student proposes methods to discover ways to make the client's farm operation more productive.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Tillage Management Progress Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student teams report progress of work completed concerning the farmer-client's tillage management needs.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Nutrient Management Progress Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student teams report progress of work completed concerning the farmer-client's nutrient management needs.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Farm Management Recommendation Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student teams write a recommendation report covering nutrient management, tillage management, residue management, availability and usefulness of new farming and farm management technologies, and other topics of specific concern to the client.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Oral Business Presentation to the Bosses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student teams present farm management recommendations to agricultural consultant firm bosses (i.e., 356/309 instructors), and they respond to questions from bosses about recommendations.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Oral Presentation to the Farmer-Client</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student teams present farm management recommendations to the farmer-client at his home, and they respond to questions from the farmer-clients about recommendations.</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

During the semester, students completed a series of tasks that helped them to generate these report project documents and to complete these oral presentations. Completing these tasks enabled students to work on drafts of their recommendation reports virtually during the entire term. I next describe these report project tasks as they occurred during a typical 16-week semester:

- Week 3. Visit the Farm and Meet the Client. During class, student teams were given maps of the client’s farm operation. Teams then visited the client’s farm
during 356 lab and took a “windshield tour” to identify the locations of the fields on which they would concentrate. During this visit, student teams also met the client for the first time. As a class, teams conducted an interview with the client to determine his farm operation’s current situation, needs, and future plans. This interview took place at the farm and was typically conducted outside—near or inside one of the outbuildings. Teams prepared a list of questions to ask the client, and each team was required to listen, take notes, and ask follow-up questions. This information formed the basis for the students’ prospective client report.

- **Weeks 5 and 7. Collect Soil and Manure Samples.** Student teams collected soil and manure samples from the clients’ farm operation. All of the soil and manure samples were submitted by the 356 instructors to the Iowa State University Testing Lab. The results students received were in the same form as test results that professional CCAs would receive. During this period, teams examined soil maps of the clients’ fields to identify areas of highly erodable soil (soil prone to water or wind erosion) and hydric soil (soil prone to water saturation, ponding, or flooding). Teams also walked the clients’ fields to identify apparent pest damage to standing crops (or other crop symptoms that may have indicated problems). Student teams reported these items and their analyses of the results of the soil and manure tests in the tillage management progress report, nutrient management progress report, farm management recommendation report, and in the oral presentations.

- **Week 13. Present Recommendations to Instructors.** Student teams collaborated on an oral business presentation given during class to the consulting firm bosses (the 356/309 instructors). This presentation, in which teams used PowerPoint or other presentation software, enabled students to practice giving a formal business report.

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10 Since farm operations in Iowa typically consist of hundreds of acres, student teams necessarily worked on only a portion of those fields that comprised a particular farm operation. In 356/309, students typically worked on six or seven different fields, which typically constituted 30–40 acres each.

11 The ISU Testing Lab is affiliated with Iowa State and provides analyses to university and workplace clients.
and to test their knowledge of the farm management recommendations before student teams actually presented them to their farmer-clients.

• Week 15. Present Recommendations to Farmer-Clients. Student teams delivered their recommendations to the clients at the farm operation. Each student team arrived separately to present their farm management recommendations. Typically, the team presentations occurred with the client and each team sitting around the client’s kitchen table. This more informal method of presentation is typical of what CCAs do when they present recommendations to their clients.

After having discussed the structure of the 356/309 communication-across-the-curriculum learning community and the assignments and tasks that students were asked to complete, I next characterize my study’s 52 participants.¹²

PARTICIPANTS
From 1998 to 2001, four instructors, 43 students, and five farmer-clients agreed to participate in my study. I received human subjects permission from all 52 participants, and my human subjects materials were renewed and approved each academic year by Iowa State University’s office of Human Subjects Research (see Appendix A). To protect their anonymity, I have assigned the students and farmer-clients pseudonyms that reflect gender; the instructors have given me permission to use their names.

INSTRUCTORS. Four instructors—three in agronomy and one in English—participated in my study. The instructors allowed me to observe their 356/309 courses and their weekly planning meetings, interview them three times a semester, photocopy their 356/309 handouts and materials, photocopy the written feedback they provided students, and audiotape the oral feedback they provided students about their writing.

The following instructors participated in 356/309 since its inception in 1998 (year one of my study); as Table 3.2 shows, the communication-across-the-curriculum learning

¹² Even though my study focuses on four instructor-participants, I discuss student- and farmer-client participants as well. I do so because—in terms of activity theory—these two groups helped to constitute the community in which my instructors belonged when they provided cross-disciplinary teacher feedback.
community experienced one personnel change—John Schafer retired after year three, and Randy Killorn took his position as co-instructor of 356 during year four.

Table 3.2 Agronomy 356/English 309 Instructors, Participation and Background, Years 1–4

<table>
<thead>
<tr>
<th>STUDY PARTICIPATION</th>
<th>INSTRUCTOR</th>
<th>TITLE / DEPARTMENT AFFILIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years 1–3</td>
<td>John Schafer, Ph.D.</td>
<td>University Professor, Agronomy</td>
</tr>
<tr>
<td>BACKGROUND. John Schafer spent his 30-year career as a teacher and researcher in the Department of Agronomy at Iowa State University. He and Tom Polito team-taught Agronomy 356 as a stand-alone course for approximately 10 years before 356 was integrated with 309 in 1998.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years 1–4</td>
<td>Tom Polito, Ph.D.</td>
<td>Assistant Professor, Agronomy; Director, Agriculture Student Services</td>
</tr>
<tr>
<td>BACKGROUND. Tom Polito worked as an agronomist in industry before becoming an assistant professor in the Department of Agronomy at Iowa State. At Iowa State he is also the Director of Agriculture Student Services in the College of Agriculture.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years 1–4</td>
<td>Dave Roberts, Ph.D.</td>
<td>Associate Professor, English</td>
</tr>
<tr>
<td>BACKGROUND. Dave Roberts taught English 309 as a stand-alone course in the Department of English at Iowa State for many years before this course was integrated with 356. Besides teaching 309, Roberts taught a variety of other advanced communication courses. While teaching at Iowa State, Roberts also worked as a communication consultant in industry. He helped professionals in a variety of workplaces to solve communication problems and to increase the efficiency and accuracy of their communication practices.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 4</td>
<td>Randy Killorn, Ph.D.</td>
<td>Professor, Agronomy</td>
</tr>
<tr>
<td>BACKGROUND. Randy Killorn had never taught Agronomy 356 before he agreed to participate in 356/309 during 2001. Killorn was invited to co-teach Agronomy 356 primarily because of his experience as an extension agronomist in which he provided farmers with information to help them solve or avoid crop management problems.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While these instructors each had different areas of expertise and different professional experiences, they held remarkably similar perspectives about pedagogy and student learning. Notably, they all believed in the importance of helping students to become better communicators (writers, designers, presenters) by enabling students to practice communicating in professional settings and in professional ways. Because of this, the 356/309 instructors collaborated to identify the following learning outcomes for 356/309 students: Once students have completed 356/309, they should be able to (a) understand the
responsibilities of professional agronomists and the ways agronomic decision-making relates to environmental, social, and economic concerns; (b) communicate effectively in a variety of professional settings and show improvement in their communication skills; (c) understand how to capitalize on the career options they will have as agronomy professionals; and (d) work in teams to complete complex tasks.

**STUDENTS.** Forty-three students enrolled in 356/309, and all 43 agreed to participate in my study. The students allowed me to observe their 356/309 courses, administer a pre- and post-course survey to them, interview them individually three times a semester, examine and photocopy drafts of their written work, and videotape their oral presentations (one presentation to the instructors and one presentation to the farmer-client).

The communication-across-the-curriculum learning community attracted students who majored in agronomy, agricultural studies, agricultural business, or other related fields in the College of Agriculture. Students took 356/309 to fulfill their advanced communication requirement,\(^{13}\) to expand their agronomy coursework (356 is offered as an elective), and/or to acquire the experience of working for a farmer-client as a CCA. Many of the students who enrolled in 356/309 aspired to a career in farming or in agronomy. Table 3.3 shows the number of responses to a short-answer survey question that asked students to identify the "most likely career/job for them." The majority listed careers as farmers or agronomists while others preferred careers in areas of agricultural research or agricultural sales.\(^{14}\)

<table>
<thead>
<tr>
<th>FARMER</th>
<th>AGRONOMIST</th>
<th>RESEARCH</th>
<th>SALES</th>
<th>OTHER*</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>12</td>
<td>9</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

*Including conservationist (2), contractor, entomologist, animal nutritionist, and extension agent.

Of the 43 student participants, 36 were male and 7 were female, and all were either juniors or seniors (356/309 enrolled one graduate student). Many students had workplace or

\(^{13}\) English 309 is one of several courses that students in the College of Agriculture can take to fulfill their upper-level communication requirement.

\(^{14}\) Two of the 43 participants did not respond to the question. Also, several of the students listed occupations in combination (i.e., farmer/agronomist; seed salesperson/farmer). The table lists separately each occupation that students identified in combination.
internship experience that ranged from crop scout, laboratory technician, to agricultural salesperson. Nearly all students had some farm background in that they had grown up and worked on a family farm or had experience working on a farm operation.

**Farmer-clients.** During the four years of my study, the 356/309 learning community worked with two different sets of farmer-clients: Victor Hoven of the Hoven Family Farm (1998–1999) and Bob and Eric Jacobson of the Jacobson Farm (2000–2001). These farmer-clients allowed me to observe, audiotape, and videotape their interactions with the 356/309 students and to interview them twice during the semester. The farmers’ participation involved five to six hours of their time—they spent one hour in an interview with the entire class, one hour or more reading the contents of the recommendation reports, and one hour listening to each student team’s recommendations (three to four total hours). During the semester, the farmers also allowed the 356/309 students and instructors to walk their fields and to collect manure and soil samples. In return for the farmers’ time and for this access to their operation, the students provided the farmers with farm management recommendations that could be implemented.

As this description of my research site helps to indicate, many different issues concerning the Agronomy 356/English 309 learning community could have been analyzed. In the following section, I identify the research questions and characterize the methods I used in my investigation of cross-disciplinary teacher feedback.

**Cross-disciplinary teacher feedback research questions and methods**

Overall, in my study of cross-disciplinary teacher feedback, I was interested in understanding the impact of instructor participation in 356/309 on cross-disciplinary feedback over time. And I analyzed four years of cross-disciplinary feedback produced by three agronomy instructors and one English instructor in Agronomy 356/English 309. I focused on the written feedback that fourteen 3- to 4-member student teams (43 students) received concerning three collaboratively written report project drafts—two progress reports

---

15 John Schaefer elicited the cooperation of both the Hoven Family Farm and the Jacobson Farm.
and a penultimate draft of the farm management recommendation report. Specifically, I responded to the following questions in this study:

- What feedback styles were exhibited by the 356/309 instructors, and how did these styles change over time?
- What patterns emerged in the cross-disciplinary teacher feedback during my study?
- What impact did teaching in 356/309 have on teacher feedback roles?
- What impact did teaching in 356/309 have on the ways disciplinary knowledge was communicated to students through the feedback I examined?

I next discuss the teacher feedback data I collected and describe the ways I analyzed them. Specifically, I collected three types of data to better triangulate my study's findings: research site observations, instructor interviews, and cross-disciplinary teacher feedback on student documents.

**Research Site Observation: Settings and Techniques**

I conducted observations in three classroom environments (356 class, 309 class, and the farm operation) and the site in which faculty conducted their weekly team meeting. To conduct these observations, I assumed the role of participant-observer. In doing so, I took field notes and reflected in writing about my study participants and my researcher role.

I analyzed these observation data primarily as a way to triangulate findings I identified in either my faculty interviews or feedback or as a way to investigate the details of an issue not apparent from the interview or feedback data. For example, I consulted portions of my observation data when I wanted to determine differences in English 309 course attendance rates for Polito and Schafer. This information was not readily available from the interviews or feedback data; therefore, my observation data were valuable in confirming my suspicions—that Polito attended Roberts' 309 class more frequently than Schafer.

**Faculty Interviews: Methods and Analysis**

I conducted three individual instructor interviews each year of the study—one each during weeks 2, 8, and 14. Since the week 8 interview focused on the ways document feedback helped to constitute the student-teacher interaction, I primarily use the week 8
interview data in this study. Each interview was conducted in the instructor's office and audio-taped, and I transcribed selected portions of the interviews. I asked the same script of questions each year; therefore, the interview script for the 1998 week 8 interview was the same as the script for the 1999 week 8 interview, and so on. Doing so enabled me to trace the ways the instructors' attitudes about feedback changed and the ways that they believed their feedback was influenced by the integrated courses environment.

After I transcribed the interview data, I noted identifiable themes or patterns. Because I asked the same questions each year, I was able to trace these patterns from one year to the next. For example, when I analyzed Schafer's responses to the question pertaining to his responsibility as an assessor of student writing, I found that he used phrases such as "two hats" (Schafer 1998) or "two roles" (Schafer 2000) to discuss his feedback responsibility and that similar types of phrases were repeated across years. I identified this pattern as a theme characterizing Schafer's perceptions of his feedback responsibilities. With this theme identified, I could then further explore it in relation to others in the faculty interview data set.

TEACHER FEEDBACK DATA: SAMPLE, CODING, AND ANALYSIS

To analyze four years of cross-disciplinary feedback generated by the four learning community instructors, I collected a document sample of student writing that contained cross-disciplinary feedback, coded it, assessed the fitness of my coding scheme, and analyzed the data.

COLLECTING THE DOCUMENT SAMPLE. I analyzed four years of cross-disciplinary teacher feedback provided on three collaboratively written report project drafts—the progress report covering the tillage management section of the final report, the progress report covering the nutrient management section of the final report, and the penultimate draft of the final report. Table 3.4 describes these drafts and identifies the number of drafts that each instructor provided feedback on in each year. For example, during 1998, Roberts assessed the drafts submitted by three student teams. Since each team submitted one draft for each assignment to each instructor, each team received feedback on each draft from three instructors. Ultimately, 95 drafts that I collected over four years comprised my sample of teacher feedback.
Table 3.4 Document Sample Collected Per Year and Per Instructor

<table>
<thead>
<tr>
<th>ASSIGNMENT DESCRIPTION</th>
<th>INSTRUCTOR</th>
<th>YEAR</th>
<th>YEAR</th>
<th>YEAR</th>
<th>YEAR</th>
<th>YEAR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>'98</td>
<td>'99</td>
<td>'00</td>
<td>'01</td>
<td>'98</td>
<td>'99</td>
</tr>
<tr>
<td>Students write a progress report after collecting soil and manure samples at the client's operation.</td>
<td>ROBERTS</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>The progress report identifies highly erodable land, hydric soils, and pest damage to crops.</td>
<td>POLITO</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Students write a progress report after analyzing soil and manure sample results.</td>
<td>SCHAFFER</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Students write a penultimate final report after collecting and analyzing their data.</td>
<td>KILLORN</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>This draft recommends tillage, nutrient, crop, pest, and technology management practices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>9</td>
<td>9</td>
<td>12</td>
<td>11</td>
<td>0</td>
<td>7</td>
</tr>
</tbody>
</table>

CODING THE TEACHER FEEDBACK DATA. After I collected my document sample, I compiled the teacher feedback data by first creating typewritten feedback scripts of each document. For instance, for each of the three tillage management progress reports assessed by Roberts in 1998, I created three feedback scripts—one for each of the student team drafts Roberts assessed. To assemble these scripts, I decided what did and did not constitute feedback. To do so, I identified the following features written by instructors on drafts as feedback:

- **Abbreviations/copyediting symbols** such as “frag.” (sentence fragment) or “cs” (comma splice)
- **Words** such as “delete” or “confusing”
- **Phrases** such as “nice introduction” or “more info”
- **Single sentences** such as “Where are the calculations for this?”
- **Multiple sentences** such as “You’re trying to cover HEL [highly erodable land] issues in this paragraph and also residue issues. The two should be separate paragraphs—or maybe even separate subsections.”
I did not include the following features written in the draft margins as feedback: “huh?” or “?” I did not consider these features to be feedback since they were often unaccompanied by explanatory text, and I often could not ascertain to which aspect of the students’ writing they referred. Similarly, I did not include the underlining or circling of sentences or word(s) in the text when these marks were unaccompanied by explanatory text.

To further ensure that all of the feedback items I identified in student documents were entered into the scripts as accurately as possible, I followed three principles. First, when marginal notations and copyediting symbols both instructed writers to revise a specific passage, I coded them collectively. Second, I did not code each feedback item simply by separately counting each sentence or phrase. That is, if two or more sentences elaborated on one issue, I coded that collection of sentences or phrases as one feedback item. For instance, Figure 3.2 illustrates that I coded a group of sentences in typewritten terminal feedback—which all elaborated the issue of using data to support the recommendations made—as one feedback item.

Similarly, in this section on the North Field you state that the soils are “relatively low in nutrient content.” Well, where are the actual data that support this claim? Where are the actual results of the soil tests? Won’t the clients want to have this information, rather than just accepting your word for it?

Figure 3.2 Multiple Sentences Coded as One Feedback Item

Third, one instructor, Dave Roberts, consistently wrote handwritten marginal comments—one or two words, phrases, or copyediting symbols—on student drafts and also included typewritten terminal comments attached to the drafts. During an interview, Roberts explained to me that the handwritten feedback reflected his first reading of the draft. He then used these initial comments to generate the typewritten feedback to students. Therefore, more often than not, the handwritten words and phrases became typewritten terminal feedback. In those instances, I collectively coded the marginal and terminal feedback. I illustrate this strategy by including an excerpt from one student team’s nutrient management progress report (Figures 3.3a) and an excerpt from the accompanying typewritten feedback attached to that report (Figure 3.3b). The marginal feedback item, “What about your analysis?,” in Figure 3.3a and the two terminal typewritten sentences in Figure 3.3b both refer to an
inattention to data analysis in the draft. In this case, I collectively coded the handwritten marginal feedback (Figure 3.3a) and the terminal typewritten feedback (Figure 3.3b) as one feedback item.

"Now that we are into week five of your study, we have some recommendations as to your nutrient management for the next two years. As we found in our initial interview, you are currently applying manure to your Hamilton county farm, knitting in anhydrous ammonia in the spring, and banding P and K on the Story county farm. After we received your soil test results, we have the following recommendations."

Figure 3.3a Handwritten Feedback on a Draft

At the end of the same paragraph, is "receiving" soil tests all you do? Remember, these guys are paying us a fair amount of money—they want action (analysis), not passive receptivity, right?

Figure 3.3b Typewritten Feedback on a Draft

After I completed the feedback scripts for the 95 documents in my sample, I coded each feedback item for source information and for assessment category. Table 3.5 shows the coding scheme that I used to code feedback items for source information. Specifically, I identified the year the document was written (1998–2001), the student team that wrote each document (14 teams total), the instructor (Roberts, Polito, Schafer, or Killorn) who provided the feedback, and the type of document (tillage management progress report draft, nutrient management progress report draft, or penultimate report draft).
Table 3.5 Coding Scheme (Source Information)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TEAM</th>
<th>INSTRUCTOR</th>
<th>ASSIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>A</td>
<td>Schafer</td>
<td>Tillage management progress report</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Roberts</td>
<td>Nutrient management progress report</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Polito</td>
<td>Penultimate draft of recommendation report</td>
</tr>
<tr>
<td>1999</td>
<td>D</td>
<td>Schafer</td>
<td>Tillage management progress report</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Roberts</td>
<td>Nutrient management progress report</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>Polito</td>
<td>Penultimate draft of recommendation report</td>
</tr>
<tr>
<td>2000</td>
<td>G</td>
<td>Schafer</td>
<td>Tillage management progress report</td>
</tr>
<tr>
<td></td>
<td>H</td>
<td>Roberts</td>
<td>Nutrient management progress report</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>Polito</td>
<td>Penultimate draft of recommendation report</td>
</tr>
<tr>
<td>2001</td>
<td>K</td>
<td>Killorn</td>
<td>Tillage management progress report</td>
</tr>
<tr>
<td></td>
<td>L</td>
<td>Roberts</td>
<td>Nutrient management progress report</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>Polito</td>
<td>Penultimate draft of recommendation report</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After I coded the teacher feedback data for source information, I coded the feedback items by assessment category (Figure 3.4). This scheme incorporated the four primary categories of *effectiveness of argument, quality of visual design/content organization, attention to sentence-level conventions, and attention to academic processes* and 19 subcategories (see Appendix B for coding examples of these subcategories).
EFFECTIVENESS OF ARGUMENT

Focus / Background feedback refers to the report's focus or about pertinent background information concerning the farm operation.

Audience feedback pertains to a potential audience reaction (positive or negative) or to a potential audience misunderstanding because of information contained or not contained in the draft.

Professionalism feedback pertains to report's professional appearance, refers to report professional tone or voice, or concerns the stance adopted by the writers in the report.

Conclusions / Recommendations feedback pertains to the way conclusions are communicated or to the way recommendations are communicated. (May also refer to possible ramifications of recommendations once they are implemented.)

Evidence feedback refers to the fitness of the agronomic principles and calculations that were used to provide evidence for the recommendations, pertains to the fitness of the methods or results that provide evidence for the recommendations; or pertains or to the evidence of the economic feasibility of the recommendations.

Social Acceptability / Environmental Impact feedback refers to the social acceptability and/or environmental impact of the recommendations.

QUALITY OF VISUAL DESIGN/CONTENT ORGANIZATION

Content Organization feedback pertains to the “up-front” organization of the recommendations, the organization of paragraphs, the consistency of headings and text, the use of forecasting, or the use of transitions.

Visual Aids / Attachments feedback pertains to the inclusion, usefulness, labeling, reference, or design of visual aids (tables, maps, figures) or attachments.

Document Design / Accessibility feedback refers to the way document design contributes to information accessibility.

ATTENTION TO SENTENCE-LEVEL CONVENTIONS

Insert word(s) suggests inserting word(s), deleting and inserting word(s), or moving word(s).

Delete word(s) suggests deleting word(s), pertains to the wordiness of text (but does not suggest corrections), or identifies weak repetition.

Word Choice feedback suggests replacing a word(s), pertains to usage, expression, style or unclear referent.

Active Voice feedback suggests eliminating passive voice or using active voice.

Grammar / Parallelism feedback identifies grammar error—parts of speech or errors in sentence construction—or identifies errors in parallelism.

Spelling feedback identifies spelling error or abbreviation error.

Punctuation feedback identifies punctuation error.

Source Citation feedback identifies an error in identifying the source or citation for information.

ATTENTION TO ACADEMIC PROCESSES

Work Completion / Communication feedback refers to the way the work students are completing (or have completed) is communicated in their report.

Performance Quality feedback refers to the quality of the report or to the quality of the students' performance on the report or in the class.

Figure 3.4 Coding Scheme (Assessment)
After I coded the teacher feedback data for source information and for these assessment categories, I identified the inter-rater reliability rating for my coding scheme.

**IDENTIFYING INTER-RATER RELIABILITY.** To obtain an inter-rater reliability rating for my coding scheme, I conducted two training sessions with an independent rater. After completing both training sessions, the rater coded 19% of the document sample (460 feedback items) for a 94.56% inter-rater reliability rating (Table 3.6).

**Table 3.6 Teacher Feedback Inter-Rater Reliability Rating**

<table>
<thead>
<tr>
<th># CORRECT</th>
<th>FEEDBACK ITEMS (TOTAL)</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>435</td>
<td>460</td>
<td>94.56</td>
</tr>
</tbody>
</table>

At each training session, I provided the rater with the coding scheme, (including examples and explanations), a set of practice feedback scripts to code, and photocopies of the actual student papers on which the feedback was written. The first training session enabled me to redefine my assessment categories in two critical ways. First, I examined my assessment categories and worked to more finely explain the distinctions between each category and to provide more useful feedback item examples that characterized each category. Second, I understood more precisely the ways I needed to contextualize the teacher feedback. That is, the feedback instructors wrote on student documents was provided in the context of the learning community and assumed a level of understanding in terms of agronomy and communication that an “outsider” (someone who did not participate in the learning community—either as a teacher, student, or researcher) could not possess. The bracketed text in Table 3.7 show examples of the ways I contextualized feedback items. Namely, I contextualized feedback by defining specialized agronomic vocabulary, defining specialized communication vocabulary, and providing pertinent background information about the farm or the client.
Table 3.7 Annotated Feedback Examples

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>ANNOTATED FEEDBACK EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEFINE SPECIALIZED AGRONOMIC VOCABULARY</strong></td>
<td>Is this total or just from manure? [i.e., Is this sum of your calculation of total nitrogen or the sum of your calculation just nitrogen from manure?] FNM99T14</td>
</tr>
<tr>
<td><strong>DEFINE SPECIALIZED COMMUNICATION VOCABULARY</strong></td>
<td>I suggested a simpler complimentary opening [opening sentence] because “we are pleased...” sounds a bit stuffy and regal. CTM98D13</td>
</tr>
<tr>
<td><strong>DESCRIBE FARM/CLIENT BACKGROUND INFORMATION</strong></td>
<td>The detail in the nematode section was nice and gave Victor [the client] valuable information he can use for planning. BTM98T18</td>
</tr>
</tbody>
</table>

ANALYZING THE TEACHER FEEDBACK DATA. I analyzed the data using the QSR N5 software (formerly known as NUD*IST) to identify (a) the number of feedback items in each assessment category and (b) the instructors who provided each feedback item. I worked with a statistician to conduct statistical analyses of these data (see Chapter 4 for a description of these analyses).

I used these strategies of data analysis and data collection (including those methods of observing the research site, interviewing participants, and collecting the document sample) to respond to my study's teacher feedback research questions.

* * * *

By characterizing my methodology—including my reasons for using a mixed methodology approach and for adopting a researcher-participant role—and by introducing my study's research questions and methods, I next present and analyze my project's findings. Specifically, in Chapter 4, I discuss my findings concerning the ways the four 356/309 instructors provided cross-disciplinary feedback on three of the report project drafts during my four-year study. Besides characterizing each instructor's feedback style, I also report my quantitative analysis of the feedback data. Furthermore, I use faculty interview data to illustrate instructors' perceptions about their feedback roles and responsibilities and the ways their uses of the disciplinary knowledge of agronomy and communication changed.
CHAPTER 4
FOUR TEACHERS, FOUR YEARS:
AN ANALYSIS OF CROSS-DISCIPLINARY TEACHER FEEDBACK

In the preceding chapters, I introduced my study's argument and characterized my research scope and approach. Specifically, I situated my study historically (in the context of recent communication-across-the-curriculum and learning community initiatives at Iowa State University), identified my research focus, and described the ways activity theory enabled me to analyze cross-disciplinary teacher feedback in useful and interesting ways. I then discussed how my study extends current feedback scholarship—particularly in terms of feedback styles, feedback patterns, and teacher feedback roles, as well as the ways disciplinary knowledge is communicated through feedback. I also characterized my methodology and the methods I used to collect and analyze my field notes, teacher feedback, and faculty interview data. Given this framework, in this chapter, I present the results of my four-year study of cross-disciplinary teacher feedback by responding to the following research questions:

• What feedback styles were exhibited by the Agronomy 356/English 309 instructors, and how did these styles change over time?
• What patterns emerged in the cross-disciplinary feedback during the study?
• What impact did teaching in 356/309 have on teacher feedback roles?
• What impact did teaching in 356/309 have on the ways disciplinary knowledge was communicated to students through the teacher feedback I examined?

To respond to these questions, I begin by discussing my analysis of the 356/309 instructors' feedback styles.

CHARACTERIZING THE FEEDBACK STYLES OF THE 356/309 INSTRUCTORS

I characterized the feedback styles of my instructor-participants by identifying and describing the following features of their feedback:
• *Mode of delivery* (i.e., whether the instructor used editing symbols, abbreviations, single words, phrases, complete sentences, questions, or paragraphs to convey feedback)

• *Word length* of the feedback

• *Marginal feedback and/or terminal feedback* (i.e., whether feedback was written in the margins of the draft or written as terminal feedback at the end of or appended to the draft)

Characterizing the instructors' feedback styles was important for two reasons. First, feedback scholarship shows that the ways instructors provide written feedback can vary widely—from editorial comments (i.e., signs and symbols directing writers to change text) to more elaborated feedback in the form of complete sentences and paragraphs. In my study, I wanted to clearly illustrate how the 356/309 instructors tended to respond to student writing. Second, I was also interested in identifying whether teacher feedback styles changed over time. Feedback research indicates that writing instructors tend to use the same types of generic conventions when they provide written feedback on student drafts (Smith 1997), and my longitudinal examination of the feedback styles of my instructor-participants did indicate that their styles changed in substantive ways only when time and workload management became critical issues. Specifically, I found that the feedback style of only one instructor (Dave Roberts) altered, and that the styles of the two other instructors (Tom Polito and John Schafer) remained relatively uniform. Analyzing these findings in light of my field notes and faculty interview data showed that the instructors' ongoing participation in 356/309 did little to alter their feedback styles. That is, while Roberts' feedback style did change during year four, this change was prompted by an increase in his administrative and other teaching duties and not solely by his participation in 356/309.

I next describe the feedback styles of the 356/309 instructors by identifying and characterizing the key feedback features indicated above and by including representative excerpts of the instructors' actual written feedback on students' report project drafts.

---

1 Since the fourth instructor (Randy Killorn) participated in the study for only one year, I was unable to identify similar trends in respect to his feedback style.
ROBERTS' FEEDBACK STYLE

During my study, Dave Roberts was the only faculty member to change his feedback style in a substantive way. During year four, Roberts indicated to me that additional administrative and teaching duties had influenced the amount of time he was able to devote to providing feedback about report project drafts. Consequently, while Roberts’ feedback style remained relatively the same during the first three years of my study, he altered his style during year four.

Specifically, during years one through three, Roberts’ feedback style was characterized by the use of both handwritten marginal feedback and typewritten terminal feedback. In his marginal feedback, Roberts tended to use editing symbols, abbreviations, single words, and phrases while in his terminal feedback, Roberts tended to use sentences and paragraphs. Figure 4.1 is an excerpt of the feedback Roberts produced on a nutrient management progress report draft written by Perry, Mitchell, and Jonathan during year two.2 This figure shows both the first page of the report draft, which contains Roberts’ marginal feedback (at left), and an excerpt from one page of Roberts’ terminal feedback provided on that draft (at right). Because Roberts used handwritten and typewritten feedback, the approximate word length of each feedback item tended to vary—from the editing symbols, abbreviations (“w.o.”), single words (“tone?”), and phrases (“put the rec here”) that characterized his marginal feedback to the lengthier complete sentences and paragraphs that characterized his terminal feedback. During years one through three, Roberts tended to use marginal feedback to identify the majority of sentence-level errors while he used terminal feedback to provide more substantive explanations about global issues of argument, document design, audience, organization, and overall student and/or document performance.

2 Each student name is a pseudonym that reflects the gender of the student-participant.
Your report represents an acceptable completion of the Progress Report assignment. There is considerable room for improvement with respect to both style and content. Below I provide some specific suggestions.

One major problem is that your first bullet point recommendation on not phrasing as a recommendation. Think about a reader's response to "In certain areas of your field, we noticed some soil erosion." OK, so what? Your point, of course, is that based on the soil erosion you observed, you recommend that they are contour planting in three ridge till systems. It is probably this same phrasing problem that causes the reader's clarity issues in the second line of the box. Does "this" take to soil erosion, contour planting, or channeling and runoff? Grammatically, it could be any one of the three.

The same kind of problem pops up in your fourth bullet point recommendation—it needs to be phrased as a recommendation. Can you see how to do this clearly and concisely by restating the statement you have now?

Another major problem in your report is a lack of specificity in your supporting discussions. Unlike (what should be) the first recommendation, for instance, you say that the ridge till system HIV uses "has definite economic advantages," but you never quantify those benefits. More importantly, you don't quantify how much contour planting might benefit those operations. I'm not asking for specific $ figures, necessarily, but you need to give at least some range, if this recommendation is going to be persuasive.

A different kind of specificity problem pops up in the text following your second recommendation. Here you suggest that HIV redesigns some waterways to follow SCS guidelines. What are those guidelines? You're supposed to be the expert— it's your job to provide the specifics, not just point to them. And (more to the point) toward some government program that they may have an diversion to anyway. And as for the reminding with costs and benefits, how much soil does this cost them? What kind of benefit will they accrue from doing what you recommend? Will it save some money in the long run? Will it keep the government off their backs? Will it be a positive effect on their yields?

Under WORK REMAINING, shouldn't you say that we have the soil and measure test results and see in the process of analyzing them? Wouldn't that be better progress than the rather lame "results not back from lab yet"? Another problem with that section is that it contains a blank paragraph even though you have definite tasks that you could use to break the information out into an accountable form. After all, our whole study

**Figure 4.1 Excerpt of Dave Roberts' Feedback on Nutrient Management Draft, Year 2**

During this period, however, Roberts altered his feedback style in that he did not consistently provide student teams with typewritten terminal feedback. For instance, while Roberts did provide typewritten terminal feedback on students' tillage management progress report drafts during that year, he did not provide terminal feedback on their nutrient management drafts or the penultimate drafts of their farm management recommendation reports. During this period, I found no distinct changes in the use, word length, or mode of his marginal feedback. However, given that Roberts' terminal feedback tended to be lengthier (and to elaborate on his marginal feedback), this feedback style change may have impacted the depth of detail and variety of examples students received on their project drafts during year four.

**Polito's Feedback Style**

Unlike Roberts, I did not observe Tom Polito altering his feedback style during my four-year study. During this time, Polito tended to use feedback that was often phrased as questions, short phrases, and single words (he used copyediting symbols less frequently than
Roberts). While Polito’s feedback style was characterized by mostly handwritten marginal feedback, he often included a two- to four-sentence terminal comment (also handwritten). Figure 4.2 is a one-page excerpt of the feedback Polito provided on the nutrient management progress report draft written by Perry, Mitchell, and Jonathan during year two, which shows Polito’s marginal feedback on page one of the draft. As Figure 4.2 indicates, his feedback was characterized by a frequent use of questions (“Where are the soil loss estimates for problem areas?”) and also by the use of phrases (“Page #’s?”) and statements (“This organization no longer exists!”). Polito’s marginal feedback tended to respond to both sentence-level conventions (e.g., spelling, wordiness, usage, and—at times—grammar and punctuation) and to more global issues of argument, document design, organization, audience, and overall student performance and/or document quality.

Figure 4.2 Excerpt of Tom Polito’s Feedback on Nutrient Management Draft, Year 2
SCHAFER'S FEEDBACK STYLE

Like Polito, I did not observe John Schafer altering his feedback style during his three-year participation in my study. While Schafer used mostly handwritten marginal feedback, he often included handwritten, two- to four-sentence terminal feedback as well. Figure 4.3 is a one-page excerpt of the feedback Schafer provided on the nutrient management progress report draft written by Perry, Mitchell, and Jonathan during year two, which shows Schafer’s marginal feedback on page one. As Figure 4.3 shows, Schafer’s feedback was characterized by the use of phrases (“Good idea”) and questions (“The pasture, too?” and “Where did you see it?”). Like Polito, Schafer tended to provide feedback in the form of questions.

In fact, my observational data suggest that Polito and Schafer’s use of questions in their written feedback was reflected in their use of a question-and-answer strategy in the classroom. That is, these Agronomy 356 instructors often interrupted their lectures during class with direct questions to students about the lecture material. (In fact, the instructors used this strategy so often that many 356/309 students mentioned this question-and-answer technique during their individual interviews with me. Overall, students told me that that this strategy differed greatly from conventional lecture delivery styles that they had been accustomed to in other courses.) To conclude, Schafer also tended to respond to sentence-level issues and more global issues of argument, audience, and organization. His terminal feedback often included statements pertaining to overall student performance and/or document quality, and of the four instructors in my study, I found Schafer’s penmanship the most difficult to decipher.
After you reviewed your acceptance of our proposal, we began a comprehensive study of your operation. After three weeks of examination and research, we have some preliminary suggestions concerning your tillage practices. We would like to inform you of our progress so far.

**WORK ACCOMPLISHED**

We have visually examined your fields while taking soil samples, and are currently awaiting results from the lab. As we examined the current conditions, we have some suggestions we would like to present:

- In certain areas of your fields, we noticed some soil erosion.

To combat this, we recommend contour planting using ridge-till. Using contour planting will slow erosion by preventing the channeling of water and runoff. This was observed on the Hamilton County farm on Clarion and Churro-Sedney soils (see Appendix A, map units 624C, 138B, and 1134C2). We found that the ridge-till program was currently being advantageous to your operation. Under the current economic situation, ridge tilling has definite economic benefit for your farm.

- To increase the efficiency of your waterways, we recommend you reshape and raise the waterways.

The current waterways are subject to erosion, and should be re-designed to current Soil Conservation Service guidelines for waterway slopes in Hamilton and Story counties. This will channel water away from your fields without causing further erosion. After reshaping the waterways, we recommend rerouting them as a combination of oats and bromegrass. The oats will provide a quick-growing cover crop to protect the slower germinating bromegrass. Both of these can be used as a source of feed for your cattle.

- To help combat waterhemp, we would like to suggest tilling the east side of the Hamilton county farm.

As we surveyed the field, we noticed considerable quantities of waterhemp and smaller amounts of foxtail. To help control this, we suggest fall tillage with a chisel plow and spring tillage with a field cultivator while incorporating herbicides. This will help control waterhemp and foxtail.

- We believe you may receive more benefit from entering your wet soils on your Story county farm in the Wetland Reserve Program. Because you are having difficulty attempting to raise crops in the northwest corner of the Story county farm, we believe you will receive more benefit from entering these soils into the Wetland Reserve Program. Since this area has hydro soils, you legally cannot improve or add additional tile. This will provide a guaranteed income from areas that are currently consuming your money, resources, and time returning nothing. See Appendix B, the hydro soil map for the field in question with the area of concern marked.

**Figure 4.3 Excerpt of John Schafer’s Feedback on Nutrient Management Draft, Year 2**

**KILLORN’S FEEDBACK STYLE**

Of the 356/309 instructors, Randy Killorn tended to provide the least number of feedback items per draft, and the feedback he did provide was generally less lengthy than that of his 356/309 colleagues. Killorn’s feedback style was characterized by handwritten marginal feedback and little terminal feedback. Figure 4.4 is a one-page excerpt of the feedback Killorn generated on a nutrient management progress report draft written by Dale, Larry, and Elvin during year four, which shows Killorn’s handwritten feedback on page one. As the figure indicates, Killorn used editing symbols, single words (“your?”), and phrases (“the crop’s residue remaining on the soil’s surface after planting”) to convey his feedback. Overall, Killorn’s feedback style is different than those styles of his 356/309 colleagues in
that Killorn tended to provide less feedback pertaining to global issues of argument, organization, or audience and more feedback about sentence-level conventions. However, while Killorn’s written style exhibited a lack of feedback pertaining to these global issues, his written style was not entirely indicative of the ways he responded to report project drafts.

TDR Consulting
Please send in reply with your

Date: October 17, 2001
1555X Ave
Ames Iowa, 50014

Dear [Name],

I am pleased to inform you that our proposal has been accepted and we are scheduled to meet with you next week. The major aspects of our plan that we are currently working on are:

- Examinining current tillage and residue management
- Determining efficiency of cover management
- Evaluating effectiveness of past management
- Determining impact of new technologies on your operation
- Determining current nutrient status of your soils

We are currently three weeks into our proposed ten-week study and we are pleased to inform you that we have come-up with some preliminary results for your operation. We have used this time to develop potential possibilities for your tillage practices that could be incorporated into your operation. Of these possibilities we have concluded the following:

1. Considering your current tillage practices, after planting, we have calculated your results

   - [Some specific calculations or results]

2. We have evaluated the results and have developed a plan for
   - Highly Erodible Land (HEL)

Study Results

The following is an evaluation of your current practices and the alternatives we propose.

**Calculation Result:** With the current tillage practices that are implemented on your farm, we have calculated the following results.

<table>
<thead>
<tr>
<th></th>
<th>Residue</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>60%</td>
<td>75%</td>
</tr>
<tr>
<td>Cover</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Field Cultivates X2</td>
<td>55%</td>
<td>60%</td>
</tr>
<tr>
<td>Soybeans Application</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Conventional Row Planting</td>
<td>90%</td>
<td>80%</td>
</tr>
<tr>
<td>Total Remaining</td>
<td>12%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Table 1** Results are calculated from information developed by SCS, EML, and University of Nebraska.

Figure 4.4 Excerpt of Randy Killora’s Feedback on Nutrient Management Draft, Year 4

Unlike the other 356/309 instructors, I found a discrepancy between Killorn’s written feedback style and the oral feedback style that he exhibited during each student team’s project draft revision session. That is, from year two to year four, the 356/309 instructors provided oral feedback in addition to their written feedback about two of the report project
drafts. Specifically, the instructors scheduled two oral revision sessions with each student team during the term—one session concerned the tillage management progress report draft and the other concerned the nutrient management progress report draft. Each of these face-to-face feedback sessions occurred after student teams had received written cross-disciplinary feedback from the 356/309 instructors about that particular progress report draft. As a group, then, the instructors met with each team to discuss the written feedback teams received on project drafts and to field questions teams had about this feedback. Unlike Roberts, Polito, and Schafer—whose oral responses to the student drafts tended to reflect their written feedback—Killorn's written feedback did not represent the depth and breadth of the oral feedback that he contributed during these face-to-face feedback sessions.³

Perhaps Killorn specifically planned his feedback strategy in this way—providing little written feedback about more substantive issues of argument, audience, and organization and thus saving that feedback for the face-to-face feedback sessions. However, my interview, observation, and feedback data do not support this conclusion. During my week eight faculty interview with Killorn (in which feedback styles and approaches were discussed), he made no mention of using the face-to-face sessions in this way. Likewise, in my observations of the oral revision sessions, I found no evidence to suggest that Killorn planned his feedback strategy thusly. For instance, Killorn did not frame his oral feedback with phrases that would suggest deliberate planning (e.g., "The reason I didn't provide written feedback on your draft about this issue is because I wanted to speak with your team face-to-face..."). Moreover, Killorn's written feedback on student drafts did not include similar evidence—written phrases that might suggest he was saving his feedback about more substantive issues for a face-to-face discussion.⁴

These analyses pertaining to the feedback styles of the 356/309 instructors provide a useful context with which to understand my subsequent feedback analyses. I continue by discussing the patterns I found in the cross-disciplinary teacher feedback.

³ For analyses of the ways instructors' written and oral feedback differ, see Jeffrey and Selting (1999) and Hodges (1997).

⁴ The scope of this chapter limits me from further examination of a comparison between the written and oral feedback Randy Killorn provided to 356/309 students; however, the observation and audio-taped data I gathered from these teacher-student team revision sessions are material for work beyond my dissertation.
IDENTIFYING PATTERNS IN CROSS-DISCIPLINARY TEACHER FEEDBACK

After characterizing the feedback styles of the Agronomy 356/English 309 instructors, I next describe the impact that faculty participation in 356/309 had on the ways instructors responded to three report project drafts—the nutrient management progress report, the tillage management progress report, and the penultimate draft of the farm management recommendation report—during the four years of my study. To begin, I describe the ways I focused my investigation of cross-disciplinary teacher feedback patterns, and then I discuss the challenges of conducting longitudinal feedback research. I conclude by presenting my statistical teacher feedback analyses and results.

FOCUS OF FEEDBACK PATTERNS INVESTIGATION

In this investigation, I chose to focus my analysis of cross-disciplinary teacher feedback patterns primarily on one broad feedback category—effectiveness of argument. Focusing my analysis on this category enabled me to speculate about how the ongoing participation in 356/309 impacted the instructors' abilities to provide feedback using their own disciplinary knowledge and using the disciplinary knowledge of their colleagues. That is, I was particularly interested in understanding how this ongoing collaboration may have influenced the ways the Agronomy 356 instructors responded to communicative and rhetorical issues and the ways the English 309 instructor responded to agronomic issues in students' report project drafts.

Investigating this, however, was not as straightforward as it initially seemed. Specifically, the feedback that the 356/309 instructors provided to students about their report project drafts could not be neatly separated into broad categories of agronomy feedback and communication feedback; instead, the feedback that the instructors provided tended to exhibit characteristics of both. So rather than try to generate distinctions between agronomic and

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5 As I noted in Chapter 3, I coded my feedback into 19 subcategories, and then I grouped these subcategories into the following four broad categories—effectiveness of argument, quality of document design and content organization, attention to sentence-level feedback, and attention to academic processes. (See Appendix B for definitions of subcategories and examples of coded feedback.)
communicative feedback where none existed, I decided to focus on this particular feedback quality in my analysis. That is, I chose to focus my investigation on the feedback category that most exhibited characteristics of both agronomic and communicative feedback: effectiveness of argument. Effectiveness of argument feedback pertained to the ways audience concerns were met, the use of background information, the professional tone and appearance of the document, the rhetorical delivery of conclusions and recommendations, the appropriate use of evidence, and the attention to societal and environmental concerns. Clearly, agronomic and communicative knowledge could not be neatly distinguished in this effectiveness of argument category; when instructors provided feedback about argument, they responded to agronomic and rhetorical issues.

Given this focus, I next discuss the challenges of conducting longitudinal feedback research, and I describe the ways I met those challenges.

**Challenges of Conducting Longitudinal Feedback Research**

The primary challenge of conducting longitudinal teacher feedback research is the notion that different students (in this case, different student teams) require more or less effectiveness of argument feedback depending on their performance on the drafts they submit. For example, during year one of my study, student team “A” may have generated a superior nutrient management progress report draft, which may have required little effectiveness of argument feedback while student team “B” may have generated a poor draft, which required copious feedback. What is particularly challenging about longitudinal feedback research, then, is the possibility that an entire year of student teams could have produced superior drafts (requiring little feedback) while another year of student teams could have produced consistently poor drafts (requiring copious feedback). Different student teams, therefore, in different years could have required drastically more or less input about argument effectiveness; thus, student team performance during one year potentially could have confounded my year-by-year analysis of effectiveness of argument feedback trends.

Responding to this challenge was difficult largely because of the type of research that I chose to conduct. That is, my study was naturalistic—not quasi-experimental; therefore, I could never wholly account for all of the differences and variables pertaining to student-team
performance from year to year. However, I argue that based on the following factors, the student teams in my study were similar enough to suggest that student-team performance probably was not the major factor contributing to the trends in effectiveness of argument feedback that I found:

- The majority of students who enrolled in 356/309 had similar backgrounds in college-level communication coursework.
- The students who enrolled in 356/309 showed no statistically significant differences in ACT English subject test scores or in grade-point-averages (GPAs).
- The faculty devised a student-team selection process to balance potential team performance.

**STUDENTS’ COMMUNICATION COURSEWORK.** I argue that students who enrolled in 356/309 had similar backgrounds in communication coursework, and that this similarity helped to balance potential team performance on report project drafts. Specifically, 356/309 enrolled only upper-level students (juniors and seniors) from the College of Agriculture. Given this, I found that the majority of students who completed 356/309 were agronomy, agricultural studies, or agricultural business majors and, therefore, had similar backgrounds in communication coursework.

To illustrate this point, Table 4.1 lists the communication courses that students in these three majors were required to complete for graduation. As this table indicates, students who majored in agronomy, agricultural studies, and agricultural business were required to complete coursework in the same four categories of communication instruction: composition (six credits), library instruction (.5 credits), speech (three credits), and written communication (three credits). The courses that students could enroll in to fulfill these requirements were the same for each category—except for written communication. That is, as Table 4.1 shows, agricultural studies majors could choose one of ten courses (offered in either the Journalism/Mass Communication or English departments) while agronomy and agricultural business majors were required to choose one of three courses—English 302, 309, or 314—to fulfill their written communication requirement.

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6 See Chapter 1 for a discussion of the differences between naturalistic and quasi-experimental research designs.
Table 4.1 Communication Requirements for Agricultural Studies, Agronomy (General Option), and Agricultural Business Majors*

<table>
<thead>
<tr>
<th>CREDITS (12.5 TOTAL)</th>
<th>REQUIREMENTS: DEPARTMENT, COURSE NUMBER, AND COURSE TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td>Composition</td>
</tr>
<tr>
<td></td>
<td>English 104 First-Year Composition I (3 credits)</td>
</tr>
<tr>
<td></td>
<td>English 105 First-Year Composition II (3 credits)</td>
</tr>
<tr>
<td>.5</td>
<td>Library Instruction</td>
</tr>
<tr>
<td></td>
<td>Library 160 Library Instruction</td>
</tr>
<tr>
<td>3.0</td>
<td>Speech</td>
</tr>
<tr>
<td></td>
<td>Agricultural Education 311 or Speech Communication 212</td>
</tr>
<tr>
<td>3.0</td>
<td>Written Communication</td>
</tr>
<tr>
<td></td>
<td>Agricultural Studies majors choose one course from this list:</td>
</tr>
<tr>
<td></td>
<td>Journalism/Mass Communications 201, 205, English 302, 303, 304, 305, 306, 309, 313, or 314</td>
</tr>
<tr>
<td></td>
<td>Agronomy majors choose one course from this list:</td>
</tr>
<tr>
<td></td>
<td>English 302, 309, or 314</td>
</tr>
<tr>
<td></td>
<td>Agricultural Business majors choose one course from this list:</td>
</tr>
<tr>
<td></td>
<td>English 302, 309, or 314</td>
</tr>
</tbody>
</table>

*Data taken from the following Iowa State University web sites, spring 2003:
http://www.agron.iastate.edu/rc/ug/ga.html
http://www.econ.iastate.edu/undergrad/agbus/major.html

Therefore, by the time they enrolled in 356/309, the majority of students had completed coursework in composition, library instruction, and speech; however, few students had completed their required written communication coursework. In fact, during their week one interviews with me, many students indicated that one of the reasons why they enrolled in 356/309 was to fulfill their three-credit written communication requirement (as Table 4.1 shows, English 309 was one of the courses that students could take to fulfill this requirement). In other words, given that many students took 356/309 to fulfill their written communication requirement, students who enrolled in these courses came to the learning community with relatively similar backgrounds in communication instruction.

To continue, I next illustrate that the 43 students who enrolled in 356/309 showed no statistically significant differences in two indicators of performance potential—ACT English
subject test scores and grade-point-averages (GPAs). To do so, I identified the students who enrolled in 356/309 during year one, year two, year three, and year four as separate populations. Then I worked with a statistician to use the Kolmogorov-Smirnov (K-S) test (Hollander and Wolfe 1973) to determine whether or not the test scores and the GPAs for each population were equivalent. Specifically, I compared students’ ACT scores and GPAs in the following four ways:

- year-one students to year-two students
- year-two students to year-three students
- year-three students to year-four students
- year-one students to year-four students

Comparing the student populations in these ways helped me to indicate (a) whether or not the potential student performance—in terms of ACT English subject test scores and GPAs—was significantly different from one consecutive year to the next and (b) whether or not the potential student performance altered significantly from the beginning of my study (year one) to the end of my study (year four).

Figure 4.5 plots the ACT English subject test scores for the year-one and year-two students. This figure graphically illustrates that the greatest difference between the cumulative distribution functions (CDFs) of these two groups occurred near ACT score 25. The K-S test then analyzed whether this difference was statistically significant. For the ACT scores data, the K-S test statistic was computed to be 28 (p > 0.1165 for 39). Therefore, the differences between the ACT English subject test scores of these two populations showed no statistically significant difference.

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7 The GPAs I used are those found on students’ records during the semester they were enrolled in 356/309. The ACT English subject test typically is administered to students the year before they enroll in college.

8 The cumulative distribution function is the probability that the variable (test score) takes a value of less than or equal to x.

9 In the case of the K-S test, the greater the test statistic, the lower the p-value. That is, since the p-values report whether the two data sets differ significantly, the hypothesis that the two data sets are the same should be rejected if the p-value is small. In terms of my data, note, too, that the p-value I report is for a K-S test statistic of 39. That is, the table I used to determine my p-value began with a test statistic of 39; therefore, the p-value for my test statistic of 28 should be even greater than .1165.
Figure 4.5 Student ACT English Subject Test Score Cumulative Distribution Functions, Years 1 and 2

Figure 4.6 plots the GPAs for the year-one and year-two students. This figure indicates that the greatest difference between the CDFs of these two populations occurred near the 2.4 GPA. For these data, the K-S test statistic was computed to be 19 ($p > .1094$ for 39). Therefore, the differences between the GPAs of these two populations showed no statistically significant difference.
To summarize my findings for the remaining years, I simply provide the K-S test statistic and the $p$-value.\textsuperscript{10} Specifically, the following values indicate that potential student performance—as measured by ACT English subject test scores and GPAs—neither was significantly different from one consecutive year to the next nor from the beginning of my study (year one) to the end of my study (year four):

**ACT English Subject Test Scores**

- *Year 2 and Year 3.* K-S test statistic was computed to be 24 ($p > .1265$ for 44). Therefore, the ACT test scores of students between years two and three showed no statistically significant difference.
- *Year 3 and Year 4.* K-S test statistic was computed to be 11 ($p > .1138$ for 18). Therefore, the ACT test scores of students between years three and four showed no statistically significant difference.
- *Year 1 and Year 4.* K-S test statistic was computed to be 20 ($p > .1056$ for 45). Therefore, the ACT test scores of students between years one and four showed no statistically significant difference.

**GPAs**

- *Year 2 and Year 3.* K-S test statistic was computed to be 12 ($p > .1496$ for 12). Therefore, the GPAs of students between years two and three showed no statistically significant difference.
- *Year 3 and Year 4.* K-S test statistic was computed to be 32 ($p > .1015$ for 38). Therefore, the GPAs for students between years three and four showed no statistically significant difference.
- *Year 1 and Year 4.* K-S test statistic was computed to be 12 ($p > .1138$ for 18). Therefore, the GPAs for students from years one and four showed no statistically significant difference.

\textsuperscript{10} I included Figures 4.5 and 4.6 to clarify the function of the K-S test statistic and to illustrate how this statistic compares data. However, including line graphs for each of the following tests is unnecessary; instead, I provide the critical indicators of statistical significance—the test-statistic and $p$-values.
In the previous sections, I showed that students who enrolled in 356/309 tended to have similar backgrounds in college-level communication coursework and that the 356/309 students also exhibited no statistically significant differences in ACT English subject test scores or GPAs. I continue by describing the ways the student-team selection process helped to ensure that teams would be balanced according to their potential to perform effectively on report project work.

**STUDENT-TEAM SELECTION PROCESS.** The 356/309 instructors developed a process that was used during each of the four years of my study with the purpose of formulating teams that had approximately equal chances of succeeding. As I discuss in Chapter 3, the 356/309 instructors accomplished this by balancing the following factors per team:

- Agronomy and English courses previously taken
- Individual writing ability as demonstrated by a diagnostic writing sample administered during the first day of class
- Previous or current workplace and/or internship experience
- Farming experience
- Gender

That is, each team contained members who had some upper-division coursework in agronomy and English, fair to adequate writing ability, some workplace experience, some farming experience, and each team was gender-balanced when possible. And while no team-selection process could be entirely foolproof, the instructors continued using this process throughout my study, which helps to indicate that faculty perceived it as the most effective solution that they could formulate.

To summarize, then, I argue that the similarities in students’ communication coursework, the lack of statistically significant differences in students’ ACT English subject test scores and GPAs, and the team-selection process used by the instructors during each year of the study helped to indicate that student teams had relatively equal opportunities for success; therefore, student-team performance probably was not a significant contributing to the trends in effectiveness of argument feedback that I found.

To continue, I next discuss my findings by first describing the statistical and mathematical tests that I used to analyze this feedback. Overall, these analyses showed an
increase in effectiveness of argument feedback during years one through three and a decrease in effectiveness of argument feedback during year four. I use activity theory analysis to speculate about what may have influenced these feedback trends.

**Statistical Analyses and Feedback Results**

I next describe the chi-square test statistic I used to test for independence, and then I explain and illustrate the linear regression model I used to analyze my study's cross-disciplinary teacher feedback.

**Testing for Independence Using a Chi-Square Test.** I identified whether the \(x\) explanatory variable, time (i.e., the years of my study), and the \(y\) response variable, effectiveness of argument feedback, were statistically independent; to do so, I used a chi-squared \((\chi^2)\) test statistic. If I found that the variables were not independent, that would imply that an association did exist between the \(x\) and \(y\) variables. That is, there would be the implication that as time changed (as the study progressed), the effectiveness of argument feedback changed as well.

To begin, I first identified the observed frequency of effectiveness of argument feedback in each of the four years of data collection. In identifying the observed frequency, Table 4.2 shows the frequency of all feedback items that I coded as effectiveness of argument versus all of the other items that I coded in the remaining three broad categories of feedback.

**Table 4.2 Observed Frequency of Effectiveness of Argument Feedback, Years 1–4**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARGUMENT FEEDBACK</th>
<th>ALL OTHER FEEDBACK*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>254</td>
<td>206</td>
</tr>
<tr>
<td>2</td>
<td>662</td>
<td>401</td>
</tr>
<tr>
<td>3</td>
<td>241</td>
<td>91</td>
</tr>
<tr>
<td>4</td>
<td>431</td>
<td>380</td>
</tr>
</tbody>
</table>

*All other feedback includes feedback in these three categories: quality of visual design and content organization, attention to sentence-level conventions, and attention to academic processes.
Under the assumption of independence, I then used these observed frequency values to calculate the expected frequency. The expected frequency values for all four years of my study, shown in Table 4.3, were what I would expect to find if \(y\) (effectiveness of argument feedback) and \(x\) (time) were statistically independent.

Table 4.3 Expected Frequency of Effectiveness of Argument Feedback, Years 1–4

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ARGUMENT FEEDBACK</th>
<th>ALL OTHER FEEDBACK*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>273.9985</td>
<td>186.0015</td>
</tr>
<tr>
<td>2</td>
<td>633.1748</td>
<td>429.8252</td>
</tr>
<tr>
<td>3</td>
<td>197.7554</td>
<td>134.2446</td>
</tr>
<tr>
<td>4</td>
<td>483.0713</td>
<td>327.9287</td>
</tr>
</tbody>
</table>

*All other feedback includes feedback in these three categories: quality of visual design and content organization, attention to sentence-level conventions, and attention to academic processes.

Using the observed frequency values and the expected frequency values, I next calculated for the chi-square \(\chi^2\) statistic. (Once again, this statistic is a test for independence that shows how closely the expected frequency agrees with the observed frequency.) After calculating \(\chi^2\), I compared it to the \(\chi^2\) distribution value \((p = .05; 3df)\):

\[
\chi^2 = 44.123 \quad \chi^2 \text{ distribution value} = 7.82
\]

Under the assumption of independence, the \(\chi^2\) statistic (44.123) would exceed the \(\chi^2\) distribution value (7.82) only 5% of the time. Therefore, since 44.123 was much greater than 7.82, strong evidence existed against the \(y\) variable (feedback) and the \(x\) variable (time) being statistically independent. Thus, an association appeared to exist between effectiveness of argument feedback and time.

The \(\chi^2\) statistic tests only for independence, and I wanted to learn more about my study’s variables. To do so, I used a linear regression model to identify the direction of the association between \(x\) and \(y\).

---

11 To calculate the expected frequency, use the observed frequency values found in Table 4.2 and take the sum of each row multiplied by the sum of each column and divide by the sum of all rows and all columns.

12 I found the \(\chi^2\) statistic by squaring the difference between the observed and expected frequencies for each cell and then dividing that square by the expected frequency. After calculating this value for each cell, I summed these values.
Using Linear Regression to Identify the Direction of the Association. Linear regression is a mathematical model that describes the ways $y$ changed according to the value of $x$. In this sense, linear regression helped me to indicate the direction of the association between effectiveness of argument feedback and time. In generating a linear regression model for my data, I found that I needed to construct two models—one using effectiveness of argument feedback data from years one through four and the other model using these feedback data from years one through three—before I generated a model with statistically significant results. Generating the first model produced results indicating that there was negligible change in the percentage of effectiveness of argument feedback over four years. In thinking about these findings and about my faculty interviews and field notes, I suspected that this result occurred because of other factors that took place during year four—primarily the Agronomy 356 faculty personnel change. Generating a second model (using only the first three years of data), then, showed a statistically significant increase in the percentage of effectiveness of argument feedback from years one through three. In the following discussion, I further describe this second model and explain what these results indicated about the ways the 356/309 instructors provided cross-disciplinary feedback.

As Figure 4.7 shows, the linear regression model that used feedback data from years one through three produced a predicted regression percentage line that showed an increase in slope (95% confidence interval of the slope .051, .119) for the first three years of the study. Because of this increase, I drew a positive conclusion from the model; that is, I argued that the mean of $y$ (feedback) increased according to the value of $x$ (time). Also, notice that Figure 4.7 includes the total percentages of effectiveness of argument feedback that the 356/309 instructors provided for each of the four years. The figure shows that these percentages increased steadily during the first three years—from 55% during year one, 62% during year two, and 73% during year three—but then declined to 53%.
Figure 4.7 Linear Regression Model, Years 1–3, and Effectiveness of Argument Feedback (%), Years 1–4

In the following section, I discuss the primary factors that I believe led to these trends in effectiveness of argument feedback. To begin, I use activity theory to analyze the factors that I believe prompted (a) the increase in argument feedback during the initial three years of the study and (b) the decline in argument feedback during year four.

**INCREASE IN ARGUMENT FEEDBACK, 1998-2001.** Using activity theory as a framework for analysis (Figure 4.8), I believe that the instructors' participation and collaboration in 356/309 contributed to the increase in effectiveness of argument feedback during years one through three. Specifically, I argue that during this period, the 356/309 instructors shared disciplinary knowledge, learned from one another about the ways this knowledge complemented and extended their own, and developed keener insights about the structure of rhetorically situated agronomic arguments. Subsequently, then, because the instructors' knowledge of agronomic arguments grew, they were able to provide more feedback about the ways students wielded such arguments in their report project drafts.
Specifically, during years one through three, the 356/309 instructors' feedback activities did not alter substantively because the parameters of the assignment and the assignment’s rhetorical situation remained relatively unaltered during this period: students were asked to collect and analyze a variety of data at the clients’ farm operation, to analyze those data, and to present the clients with farm management recommendations that they could use. Therefore, the instructors continued to hone their skills in providing feedback to students about these particular report project drafts without having to adjust their feedback activities to a different type of assignment or to a wholly different rhetorical situation.

The collaboration among the faculty, which was facilitated by their commitment to substantively integrating 356 and 309, then led them to learn about and share their disciplinary knowledge with one another. For instance, while the Agronomy 356 instructors wielded agronomic arguments and had a wealth of experience making farm management recommendations, they could not fully articulate the variety of rhetorical strategies that typically underlie such arguments and recommendations. However, collaborating with Dave Roberts and integrating 356 with 309 gave the agronomy instructors more insight into the rhetorical structures and strategies of these arguments and recommendations. Similarly, while the English 309 instructor understood rhetoric and the ways communicative strategies were

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13 While the farm operation sites did change during this time (from the Hoven farm during years one and two to the Jacobson farm during years three and four), this change probably had little impact on students’ abilities to provide farm management recommendations. The farm sites were selected using the same criteria—primarily to provide students with opportunities to test their abilities to provide the farmer-clients with farm management recommendations they could use. Therefore, while the farm operations may have changed, the overarching assignment parameters and the learning outcomes that the instructors articulated for students did not.
employed in a variety of academic and workplace contexts, he had little experience working and communicating in a farm operation setting. Collaborating with the Agronomy 356 instructors allowed him to better understand the values and content of the agronomic arguments that were typically generated in this type of setting. Therefore, the 356/309 instructors’ knowledge of one another’s disciplines (and in particular, their understandings of rhetorically situated agronomic arguments) developed, and as this knowledge grew, the effectiveness of argument feedback that these 356/309 instructors provided on project drafts increased as well.

While an activity theory analysis shows that instructors’ ongoing collaboration during years one through three may have impacted the increase in effectiveness of argument feedback, changes in the subject position in the feedback activity system may have also been a critical factor in the decrease in effectiveness of argument feedback during year four.

**Factors Underlying the Decline in Argument Feedback, Year 4.** I argue that the decline in effectiveness of argument feedback occurred primarily because of changes in the subject (instructor) position of the 356/309 activity system. That is, at the end of year three, John Schafer retired, and during year four, Randy Killorn became the new co-teacher of Agronomy 356. To better understand the impact that this factor had on effectiveness of argument feedback, I begin by examining the percentages of feedback generated individually by Schafer and Killorn.

During year four, the percentage of effectiveness of argument feedback dropped to a study-low of 53% (down from 73% in year three). To illustrate the ways the Agronomy 356 personnel change may have impacted these feedback patterns, Table 4.4 compares the percentages of feedback that the veteran 356/309 instructor, John Schafer, and the new 356/309 instructor, Randy Killorn, provided in the categories of effectiveness of argument and attention to sentence-level conventions. (I focus on these two categories because the percentages from these two instructors in each category changed the most from year three to year four.)
Table 4.4 Effectiveness of Argument and Attention to Sentence-level Conventions Feedback (%), John Schafer (Years 1-3) and Randy Killorn (Year 4)

<table>
<thead>
<tr>
<th>Study Year</th>
<th>Argument Feedback (%)</th>
<th>Sentence-Level Conventions (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>67</td>
<td>13</td>
</tr>
<tr>
<td>Year 2</td>
<td>72</td>
<td>14</td>
</tr>
<tr>
<td>Year 3</td>
<td>79</td>
<td>6</td>
</tr>
<tr>
<td>Year 4</td>
<td>21</td>
<td>58</td>
</tr>
</tbody>
</table>

Specifically, Table 4.4 shows that during the first three years of the learning community, Schafer provided consistently high levels of effectiveness of argument feedback (67%, 72%, and 79%), and he provided relatively low levels of sentence-level feedback (13%, 14%, and 6%). During year four, Killorn’s percentage of effectiveness of argument feedback was low (21%) compared to Schafer’s three-year levels, and Killorn’s percentage of sentence-level feedback was much greater (58%) than that percentage Schafer tended to provide.

I believe that this teaching team change did impact the percentages of effectiveness of argument feedback that students received on their report project drafts during year four. To further explore this issue, the bar graphs below compare the percentages of effectiveness of argument feedback (Figure 4.9a) and the percentages of sentence-level conventions feedback (Figure 4.9b) that each instructor provided per year. Notice that in Figure 4.9a Killorn’s percentage of effectiveness of argument feedback was low compared to the percentage of argument feedback that each instructor provided during year four. Figure 4.9b also indicates that Killorn’s percentage of feedback pertaining to sentence-level conventions was greater than that provided by his 356/309 colleagues (including Dave Roberts, the 309 instructor).

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14 While learning community literature provides a wealth of information about ways to select teaching faculty for cross-disciplinary learning community initiatives (Gabelnick et al. 1990, Smith 1993, Shapiro and Levine 1999), few studies quantify the changes that occur when teaching teams are modified.
While the overall drop in effectiveness of argument feedback during year four appeared to be influenced by the (subject) change in 356/309 instructors, notice, too, that
both Roberts and Polito's percentages of effectiveness of argument feedback dropped during year four (while their levels of sentence-level conventions feedback rose). In other words, other factors—besides the faculty personnel change—appear to have impacted the frequency and type of cross-disciplinary teacher feedback provided during year four.

Specifically, I argue that two other factors influenced this decline in effectiveness of argument feedback. One factor that may have led to this decrease was the change in Roberts' feedback style during year four. I believe that during year four, by eliminating the typewritten terminal feedback on two of the three report project drafts, Roberts provided less effectiveness of argument feedback and more sentence-level feedback than he typically provided during years one through three. While I have not analyzed the impact of this feedback-style change statistically, Roberts did tend to elaborate on more global issues (in particular, effectiveness of argument) in his terminal feedback and to provide more feedback about sentence-level conventions in the margins of student drafts. Therefore, Roberts' change in feedback style—specifically, his decrease in typewritten terminal feedback—may have influenced overall feedback frequencies during year four.

Another factor that may have influenced this decline in effectiveness of argument feedback was a decrease in the frequency of veteran 356/309 faculty participation in one another's 356 and 309 classes. That is, during year four, Killorn regularly attended Roberts' English 309 course; however, during this same period, neither Polito nor Roberts regularly attended one another's English 309 or Agronomy 356 courses. During previous years, both Roberts and Polito attended these courses much more frequently. I believe, then, that the decreased attendance and participation in 356 and 309 by the veteran learning community instructors may have impacted their abilities to provide frequent, substantive feedback concerning effectiveness of argument in students' report project drafts. This conclusion suggests that even veteran learning community instructors—who may perceive themselves as being familiar with the disciplinary knowledge being taught in their colleagues' courses—still need a setting (like a classroom) in which they can continue to learn about and discuss that knowledge with others.

To summarize, analyzing the trends in effectiveness of argument feedback using activity theory indicates that during the first three years of 356/309, the instructors learned
from one another about the nature of rhetorically situated agronomic arguments. This increase in the instructors’ understanding may have prompted them to provide more feedback about the ways students wielded these types of arguments in their project drafts. I also argue that the changes in the teaching team during year four appeared to be one of the primary factors that led to the decrease in effectiveness of argument feedback during that period while other factors included a change in feedback style and decreased participation by the veteran 356/309 instructors in one another’s courses.

To continue my longitudinal analysis of cross-disciplinary teacher feedback, I next present my findings about teacher feedback roles and the ways the instructors’ ongoing collaboration in 356/309 may have impacted these roles and their feedback responsibilities.

**INVESTIGATING TEACHER FEEDBACK ROLES AND RESPONSIBILITIES**

To further characterize the impact that teaching in Agronomy 356/English 309 had on the feedback students received, I analyzed four years of faculty interview data. In my analysis of these data, I used activity theory (a) to characterize the instructors’ perceptions of their feedback motives/objects and (b) to describe the ways they articulated using the report project’s rhetorical situation as a feedback tool. This analysis enabled me to speculate about the ways the instructors’ ongoing collaboration in 356/309 impacted their feedback roles.

To begin, I first characterize the ways each instructor articulated his feedback motive/object, and then I describe the ways each instructor used the report project’s rhetorical situation as a feedback tool.

**INVESTIGATING FEEDBACK MOTIVE/OBJECT**

My analysis of the faculty interview data showed that the majority of the 356/309 instructors perceived their feedback motives (and the objects of their feedback activities) to be both academic- and workplace-based. Because of the nature of the report project, instructors’ feedback motives were necessarily influenced by both contexts; that is, the report project drafts were situated in an academic activity system (356 and 309) while much of the project’s content was drawn from a workplace activity system (farm operation). Therefore, I
found that each instructor’s prior and current experiences with these two types of systems (the classrooms and the farm) appeared to influence the motives they articulated for providing feedback and their perceptions of the objects of their feedback activity—the student drafts.

Therefore, what my subsequent analysis shows is the various and often unarticulated (to their 356/309 colleagues and students) ways in which the instructors were motivated to respond to student writing. Not only were these instructors providing feedback from different disciplinary perspectives (which was evident from the outset of my study), but the instructors’ primary feedback motives were based almost entirely on their prior and current experiences with these academic (356 and/or 309) and workplace (farm) systems. These findings also suggest that the nature of the writing assignment itself—in this case, the report project—dictated many of the ways in which the instructors responded to and perceived students’ writing.

I next characterize each instructor’s feedback motive—beginning with Dave Roberts—by including pertinent faculty interview excerpts15 and by describing the ways these articulated motives appeared to influence instructors’ perceptions of the object of their feedback activities—the student drafts.

**Dave Roberts’ Primary Feedback Motive/Object.** Dave Roberts’ interview responses indicated that his primary feedback motive was based on expectations for student performance that were academic. He expected students to use his feedback to improve their performance in academic- or school-based ways—that is, to perform well (or to improve) on specific writing assignments and to perform well in his course overall. During year one, for example, Roberts articulated that as a provider of feedback, he was motivated to...

> help them [the students] write a better paper next time and...to give them some sense of how successful they were in this particular communication. All the comments I write...are usually geared toward those two purposes. (Roberts 1998)

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15 Most of the faculty interviews used in this chapter were week eight interviews; in these cases, I have parenthetically designated instructor name and year. When other interviews were used (i.e., interviews conducted during week two or during week fourteen), I incorporated the week number into my parenthetical reference.
During subsequent years, Roberts appeared to be similarly motivated to provide feedback on report project drafts; he continued to articulate primarily academic expectations for student performance:

I need to give students an assessment of their performance on the particular document, I need to locate that performance in the course itself, and I need to give them suggestions for either making the document better (if there's a revision opportunity) or slightly more general directions for improving their writing in the long-term. (2000)

As this interview excerpt shows, even during year three (i.e., 2000), Roberts' feedback was still primarily motivated by academic-based performance outcomes. (Even while Roberts' use of "long-term" seems to speak to students' writing improvement beyond their current semester, Roberts' response still illustrates that the immediate feedback task—and his primary feedback motive—was primarily academic/school-based.)

As activity theory indicates, a subject's motive for engaging in an activity affects the ways that subject perceives the object of his/her activity. Since Roberts identified a primarily academic/school-based feedback motive, he also perceived the student drafts primarily as academic objects of his feedback activity. This feedback motive/object is particularly interesting given that Roberts did not always articulate that he perceived the project drafts solely as academic objects. That is, when Roberts spoke of students writing the report project drafts, he spoke of the drafts in workplace-based ways as well: students were "writing a real report for a real client" (1998). Students were engaged in an activity that reflected what they would do in the workplace: students were "actually doing something in th[e] class—a communication task"—that they would "reprise when they go out there on the job" (1998).

Basically, Roberts perceived the student drafts in (at least) two different ways. When Roberts perceived the drafts as objects of the students' writing activity, he perceived them in school- and workplace-based ways (Figure 4.10a), yet when these drafts became objects of his own feedback activity, he perceived them in primarily school-based ways (Figure 4.10b). In comparing these two activity systems, notice that Figure 4.10a contains features of both academia and the workplace. For instance, Roberts perceived the subjects as "students" who used school-based tools (e.g., the "assignment sheet") to help them complete the writing
activity. Yet while Roberts' interview data suggest that he perceived students' writing to be motivated in workplace-based ways, he never clearly articulated what types of rules (school or workplace?) or the type of community (school or the workplace?) that he perceived students belonging to when they engaged in this activity.

Because of the nature of Roberts' perceptions regarding his feedback motives and tool-use (both of which were more school- than workplace-based), I argue that Roberts probably perceived students' writing activities in primarily school-based ways as well. Given this, I argue that even though Roberts did not articulate them, he probably perceived the rules, community, and division of labor of students' writing activity in school-based ways.

**Tom Polito's Primary Feedback Motive/Object.** Unlike Roberts, Tom Polito's interview responses showed that his feedback motive was primarily based on the professional/workplace expectations that he had for student performance. That is, Polito wanted students to use his feedback to improve their performance on activities that he believed hinted at students' potential to succeed as agronomists and certified crop advisors (CCAs): specifically, "how well they [the students] are meeting those key criteria [agronomically sound, environmentally feasible, economically viable, and socially acceptable], and ...whether they are communicating those to me in a professional way" (Polito 1998). As this interview excerpt suggests, during the four years of the study, Polito
articulated equal concern for agronomic accuracy and communication effectiveness—both related in his view to helping students work toward achieving levels of professional performance:

[I want] to ensure that the science or the agronomy is correct and on target and that they [the students] are not making any serious or egregious errors that would in some way harm the producer. [I examine] not only [whether] the agronomic principles that they are using are correct and accurate, but also that they are communicating those principles effectively. (2000)

Polito perceived that providing students with feedback about ways to work and communicate professionally with clients helped to prepare students for the workplace: “I look at whether they are communicating those things [agronomically sound, environmentally feasible, economically viable, and socially acceptable] to me in a professional way. Maybe it is more to evaluate them on the professional side” (1998). Polito, more than his 356/309 colleagues, articulated that his feedback motive involved preparing students for the workplace.

Unlike Roberts, Polito did not articulate primarily school-based motives for providing feedback; instead, he was interested in evaluating students “on the professional side” (1998). However, during feedback, Polito did perceive student drafts as academic objects.

Specifically, the criteria—agronomically sound, environmentally feasible, economically viable, and socially acceptable—that Polito invoked to assess the drafts were criteria generated specifically for use in the classroom; however, Polito noted that these criteria were also useful for assessing students’ professional potential. The flexibility of these assessment criteria—that is, their ability to transcend the activity system of the CCA workplace (Figure 4.11a) and the activity system of the classroom (Figure 4.11b)—helped Polito to transcend these two activity systems himself when he provided feedback. That is, because these criteria had the potential to be as useful for students in 356/309 as they were for CCAs in the workplace, Polito could invoke the writing activity system of the CCA when he responded to student drafts.
While Polito perceived his feedback motive/object differently than Roberts, John Schafer perceived his feedback motive/object differently than both. I next analyze Schafer's dual feedback motive/object, which was characterized by both academic- and workplace-based factors.

**John Schafer's Primary Feedback Motive.** John Schafer explained that as an assessor of student writing, he wore "two hats"—one as an agronomy teacher and the other as the farmer client, and that his feedback motive was defined by each (Schafer 1998). In his teacher role, Schafer stated that his primary feedback motive was to evaluate the report's agronomic accuracy; to do so, he asked questions about the drafts such as these: "Does this make agronomic sense? Does it follow the [agronomic] principles? Have you violated some of the things we've talked about [in class]? Have you ignored certain things?" (1998). In his client role, Schafer tried to anticipate the ways the client would "react" to the report to assess whether or not the client would successfully understand and use the document—as a client, "if I do literally what these words tell me, is that really what you want me to do?" (1998). Schafer is the only instructor who articulated such specific perceptions of his feedback motives—motives that served to hold students accountable for both academic and workplace expectations. While his colleagues certainly did not disregard either of these, Roberts, Polito, and Killorn each primarily articulated that he was most responsible for one or the other.
By wearing "two hats" when he provided feedback, Schafer acknowledged that he used two different rhetorical situations as feedback tools: the rhetorical situation of the classroom (Figure 12a) and the rhetorical situation of the farm operation (Figure 12b). Therefore, as drafts written to satisfy the classroom rhetorical situation, students had to apply the agronomic principles that they learned in 356 in appropriate and accurate ways. As drafts written to satisfy the farm operation rhetorical situation, students had to communicate their application of these agronomic principles in ways that the farmer-client could best respond to and use. Notice, though, that although I believe Schafer's motive and tool-use changed when he wore his "client" hat to respond to student writing, (Figure 4.12b), I do not believe that the other components of his activity system—rules, community, division of labor—altered. Specifically, while Schafer's motive and tool-use changed, he was still engaged in a feedback activity system; therefore, the same rules, community, and divisions of labor apply to both.

By assuming this dual feedback motive, Schafer acknowledged both the situatedness of the report as academic discourse and its possibilities as a text that reached beyond the classroom. As academic discourse, the project drafts enabled Schafer to assess students' performance by considering how effectively the students applied their knowledge of agronomy in the context of a particular farm operation. In this use, the report constituted a complex academic exercise; such an exercise, however, only challenged students'
understanding of their science so far. Schafer also assessed students' abilities to reach beyond the classroom—that is, to effectively engage the audience by tailoring the project drafts (including the presentation of evidence, conclusions, recommendations) to suit the client's needs. Fully conceiving of the drafts as documents-in-use and assessing them as such was not a difficult task for Schafer; however, to do so he had to characterize them as documents with the potential to be used by readers beyond the classroom.

**Randy Killorn's Primary Feedback Motive.** When I asked Randy Killorn during our year-four/week-eight interview to describe what he perceived to be his responsibilities as an evaluator of student documents, he described the ways he engaged in the feedback activity itself. In doing so, Killorn explained that he provided feedback on students' project drafts by using a “multi-tiered approach” (Killorn 2001). First, he read the drafts (to “see whether I can read them at all”); then he provided feedback concerning “agronomic consistency” and logic, and then he responded to students' “obvious mistakes”:

> If I can read them [the drafts] and get some sense of what they’re saying, the next thing I do is evaluate them for agronomic consistency and do they make sense, and those sorts of things. The last thing I do is some editing, and those sorts of things that are very obvious mistakes. (2001)

In terms of overall motive, Killorn appeared to approach his feedback task as a reader who responded first to agronomic concerns (“consistency” and logic) and then to sentence-level issues (editing and “obvious mistakes”). Whatever Killorn's feedback motive, however, his collaboration in 356/309 appeared to have impacted this motive.

Killorn noted that he and his 356/309 colleagues “never really discussed [feedback] responsibilities”; however, he also stated that during his initial year with 356/309, his approach to feedback was to “back off—particularly on the…writing style kinds of things” (2001). Killorn stated that his rationale for “back[ing] off” was primarily because of the cross-disciplinary teacher feedback students received on their project drafts. Specifically, Killorn noted that since the 356/309 teaching team included Dave Roberts, an expert in providing feedback about writing, Killorn did not want to give students conflicting advice: “since we have a person [Roberts] who does that for a living, I don’t want my comments to be confused with something that an expert can do” (2001). Interestingly, while Killorn stated
that he “back[ed] off” on providing feedback specifically about “style,” the feedback data show that during year four he provided a greater percentage of feedback about sentence-level conventions than any other category (Table 4.5). Perhaps, for Killorn, providing 58% feedback about sentence-level conventions indicated that he did indeed “back off” (i.e., perhaps he typically provided a greater percentage of feedback about sentence-level concerns than the 58% that he provided during year four).

Table 4.5 Randy Killorn's Feedback By Category (%), Year 4

<table>
<thead>
<tr>
<th>FEEDBACK CATEGORIES</th>
<th>ARGUMENT</th>
<th>DOCUMENT DESIGN AND CONTENT ORGANIZATION</th>
<th>SENTENCE-LEVEL CONVENTIONS</th>
<th>ACADEMIC PROCESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARGUMENT</td>
<td>20.6%</td>
<td>19.7%</td>
<td>57.8%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

While Killorn noted that he perceived providing less feedback about writing “style,” he “back[ed] off” in other ways as well. Killorn indicated to his 356/309 colleagues during planning meetings the summer before the year-four semester began that his participation in the learning community would involve (what I term) passive collaboration. That is, Killorn characterized his participation in 356/309 during that initial year as one in which he would observe the learning community but would only suggest ways to modify its pedagogy and/or curriculum during the following year. Perhaps this passive-collaborator role may have influenced Killorn’s feedback activity as well. In other words, Killorn may have also decided to “step back and observe” the types of feedback that his colleagues provided before completely engaging in that activity during his initial year of participation with 356/309 (Polito, 2001, Week 2).

Clearly, this passive-collaborator role was one in which Polito and Roberts were also aware. For instance, during a year-four/week-two faculty interview that I conducted with Tom Polito, we discussed his perceptions of the new year-four 356/309 teaching team. Polito noted that he anticipated (and welcomed) the changes that Killorn could bring to 356/309: “I think that any time you bring in somebody new with new ideas it’s going to change, and I think Randy will bring that” (2001). However, Polito also noted that if changes to 356/309 were to occur, they would not be implemented during the current (year-four) term.
Specifically, Polito reflected Killorn's beliefs about his role in 356/309 when he noted that during Killorn’s initial year of participation with 356/309, his role would be to “step back and observe”:

I really think that if changes are implemented it’ll be more next year. I think Randy will kind of step back and observe this year and see how things are going and make more suggestions perhaps next year. (2001)

Likewise, during his year-four/week-two interview, Dave Roberts had a similar impression of Killorn’s role. Roberts believed that the new 356/309 teaching team would collaborate well together: Killorn “fits in seamlessly with Polito and me because we’re all … working this [i.e., 356/309] out together” (Roberts, 2001, Int. 1). Yet also like Polito, Roberts perceived that Killorn—during his initial year of participation—would be a passive collaborator: “My guess is he’s pretty laid back; he knows that he’s the junior partner, and he’ll pretty much go along as best he can with what Tom and I feel the need to do” (2001).

Interestingly enough, the “step-back-and-observe” role that Killorn assigned to himself during his first year of participation with 356/309 was quite different than the roles Roberts, Polito, and Schafer assumed during their first year of participation in 356/309. That is, during the first year of my study, when 356/309 was a new curricular initiative, a primary impetus for bringing together these courses was the notion that integrating them would improve students’ abilities to make rhetorically situated farm management recommendations. To help accomplish the integration, each instructor was expected to collaborate and participate fully in the initiative—not only to attend faculty meetings and participate in one another’s courses—but also to be forthright in their identification of perceived problems with 356/309, so that together the team could attend to and hopefully solve them. Killorn’s initial year of participation, however, came when 356/309 was no longer a new initiative. During year four, certain activities and practices had become established and routine (e.g., the ways the report project was co-assigned and co-assessed), and as a “junior member” of 356/309, Killorn wanted to learn about these activities first and make suggestions about change after an appropriate period of observation (in this case, a semester).

However, one sticking-point with Killorn’s passive-collaborator role was that the activities that had become established during years one through three were not the same
activities that Killorn observed during year four. These activities were different because Schafer obviously was no longer a part of the 356/309 teaching team. In a sense, Killorn was observing a learning community during year four that was very different from the one Polito and Roberts had helped to create during years one through three. Year four, then, proved to be a tremendous period of transition for the 356/309 learning community. Not only did the activities that had become routine alter because of Schafer's absence, but also because of the passive-collaborator role that he adopted as a new member of the learning community, the full and active participation of Killorn as a 356/309 co-instructor was compromised.

As I have shown, my analysis of feedback motive/object indicated that the instructors were influenced primarily by the academic (356 and 309) and workplace (farm) activity systems in large part because of the nature of the report project, which was itself influenced by both of these systems. I found that the instructors' prior and current experiences with these two types of systems influenced the motives they articulated for providing feedback and their perceptions of the student drafts. Because the instructors had very different experiences with these two systems their motives for providing feedback on the project drafts were necessarily very different as well.

I continue my discussion of the impact that collaborating in 356/309 had on teacher feedback roles by characterizing the ways each instructor used the rhetorical situation of the report project as a tool for providing feedback about students' project drafts.

**Investigating Use of Rhetorical Situation as a Feedback Tool**

Overall, I found that along with their ongoing collaboration in 356/309, the knowledge and skills that the instructors brought with them to the learning community appeared to most influence their uses of rhetorical situation as a feedback tool. In other words, the instructors' participation in a host of other activity systems (Figure 4.13) also affected the ways they provided cross-disciplinary feedback on report project drafts. Specifically, I found that three of the four instructors articulated using rhetorical situation as a feedback tool and that each of these instructors used this tool in ways that spoke to their experiences participating in a variety of workplace and academic activity systems (the fourth instructor did not articulate using rhetorical situation as a feedback tool). Roberts' experience
as a communication consultant in industry, Polito’s experience as an agronomist in Iowa, and Schafer’s experience as the farmer-client liaison for the 356/309 learning community (and for one of the clients who participated during the stand-alone 356 course) influenced the ways these instructors used this feedback tool, and, thus, the ways they provided cross-disciplinary teacher feedback on students’ report project drafts.

Figure 4.13 Constellation of Activity Systems Impacting Cross-Disciplinary Teacher Feedback

This finding suggests that while the project’s rhetorical situation was articulated to students as a relatively fixed and stable entity (through 356/309 assignment sheets and discussions in class and in lab), this rhetorical situation was, in fact, a malleable feedback tool that was perceived of and used by instructors differently—according to their experiences with a variety of academic and workplace activity systems. This analysis of the different ways in which the instructors used this feedback tool provides some indication of the varying perspectives and feedback roles that helped to shape the instructors’ responses to student writing. This finding, then, also raises questions about the potential usefulness of cross-disciplinary teacher feedback as a revision tool. That is, one of the primary ways in which
cross-disciplinary feedback differs from conventional teacher feedback is in its scope—cross-disciplinary feedback necessarily includes the perspectives (disciplinary and otherwise) of more than one instructor. Given this, further research needs to investigate whether the broader scope of cross-disciplinary teacher feedback tends to help or hinder students' abilities to read, interpret, and use this feedback to revise.

In examining the ways the instructors used rhetorical situation, I also discovered that this feedback tool played a role in enabling instructors to construct their authority as (communication and/or agronomy) experts in the classroom. The 356/309 instructors' knowledge of the report project's rhetorical situation—that is, their abilities to discuss the rules, norms, beliefs, and values that impinged upon that situation—was perceived as a critical factor in establishing and maintaining authority in the classroom. Not surprisingly, as the English 309 instructor, Roberts was less easily able to derive his authority from the report project's rhetorical situation—given his lack of experience working on a farm or with farmer-clients prior to his involvement with 356/309—while Polito, one of the 356 instructors with experience working as a professional agronomist, was more easily able to derive his authority from this situation. However, I also found that Roberts' lack of experience with this situation appeared to be one of the factors that motivated him to actively participate in 356/309 (e.g., he attended 356 courses, asked relevant questions during faculty meetings, visited the farm with students in their 356 lab).

While Roberts' interest in learning about the report project's rhetorical situation certainly was not the sole or determining factor in his active participation in the learning community, this point nonetheless raises broader questions about the nature of cross-disciplinary collaboration in curricular initiatives like these. Namely, identifying those curricular mechanisms (e.g., a willingness by all faculty to open their classes to teaching-team members, attendance at weekly teaching team meetings, and so on) that most encouraged or enabled Roberts to learn about this situation and identifying those mechanisms that may have hindered his abilities to learn could provide some guidance about how to foster meaningful cross-disciplinary instructor collaboration in curricular initiatives like these. And considering that Roberts' interests in learning about the project's rhetorical situation prompted him to engage his Agronomy 356 colleagues in discussions about this situation
(e.g., during 356 class, during faculty meetings), understanding whether the 356 instructors learned as well would help to suggest the ways in which Roberts' lack of knowledge actually helped the 356 instructors learn more about this rhetorical situation.

To begin, then, I next discuss these broad issues in my analysis of the ways the 356/309 instructors used the report project's rhetorical situation as a feedback tool.

**Dave Roberts' Use of Rhetorical Situation.** My analysis of Dave Roberts' faculty interviews shows that he used the report project's rhetorical situation as a feedback tool that helped him to pique students' interests in writing and, thus, to motivate them to write more purposefully in his class. The project's rhetorical situation, Roberts perceived, helped him to motivate students because of the "[r]eality" of the project; that is, students were "writing a real report for a real client" (Roberts 1998). Roberts believed that to complete the report project documents, students worked and communicated in ways not unlike the workplace: they were "actually doing something in the class—a communication task" that they would "reprise when they go out there on the job" (Roberts 1998). He perceived that because students performed actual agronomic work (i.e., they collected soil and manure samples at the farm operation, analyzed test results, and so on) and wrote about this work in rhetorically situated ways, students became more interested in their topic and were then more motivated to write.16

While Roberts perceived that the "reality" of the report project's rhetorical situation and its connection to the workplace motivated his students to write, these qualities of the project's rhetorical situation also complicated the ways Roberts constructed his authority (as a writing teacher and communication expert) in the classroom. Before his initial participation in 356/309, Roberts had many years of experience teaching a variety of stand-alone advanced communication courses, including technical communication, report and proposal writing, graphic communication, and professional editing. That is, Roberts engaged in many different types of school-based activity systems in which he was the sole instructor, and he brought his experiences in these systems with him when he collaborated in 356/309.

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16 My student survey results also showed that one factor that may have motivated students to enroll in 356/309 pertained to this issue—that is, the issue of writing about agronomic topics. I found that 23 of 43 students indicated on their pre-course survey (administered during week one of the semester) that one of the "three best things" about 356/309 concerned writing about "real-world experiences" (Earl, pre-course survey, 2001).
In these stand-alone courses, Roberts' authority in the classroom was not only linked to his experience as a writing teacher, but his authority also was linked to—and conveyed through—the rhetorical situations of the writing assignments he designed, assigned, and assessed. In his stand-alone writing courses, Roberts frequently assigned students case-based writing projects, which were drawn from his experiences as an industry communication consultant. By setting a writing project in the rhetorical situation of one of these workplaces—and assigning each student the role of industry communication consultant—Roberts provided students with what he perceived to be challenging communication problems to write about.

By designing and assigning case-based projects in these ways, Roberts constructed himself as not simply an academic authority about communication (as a writing teacher) but also as a workplace authority about communication (as an industry consultant). While these case-based writing projects enabled Roberts to show students that writing, speaking, and designing were critical workplace activities, he could also relate to students the specific ways he witnessed communication occurring in industry and—most important—the part he played (as an industry expert) in helping to solve actual workplace communication problems. That is, Roberts used his experiences working as a communication consultant in these workplace activity systems as a way to construct his authority in the classroom.

But while Roberts had actually participated in the activity systems of these workplaces as a consultant, his English 309 students never did. While students in these courses were assigned consultant-roles, they never actually engaged in many of the activities that communication consultants would perform. Instead of talking with workplace employees, examining actual workplace documents, or observing workplace writing practices, students were given information about the communication practices of this workplace (information that was necessary to complete their written projects) either through memos written by Roberts and/or through interviews conducted in the classroom in which Roberts (or another instructor who volunteered to participate) posed as an employee and responded to student questions about the communicating that occurred at that workplace. Therefore, while the rhetorical situations of Roberts' case-based writing projects were frequently based on actual workplaces and actual communication problems and issues,
students neither participated in these workplace activity systems nor engaged in many actual consultant activities. Moreover, students learned about the ways professionals communicated in these workplaces—not by experiencing the contexts themselves or by completing many of the activities that constituted these contexts—but through the narratives (in memo or interview form) given to them by their instructor. As a communication expert in industry (and in the classroom), then, Roberts regulated many of his students’ perceptions about communicating and working in industry. While Roberts bemoaned this fictive quality of the case-based projects, he perceived these assignments as one approach with which to illustrate to students the power of writing in the workplace and to enable them to think about communication (and to practice it) in rhetorically complex ways.

Given Roberts’ authority in the classroom as writing teacher/communication consultant and the critical role that rhetorical situation played in this construction, Roberts’ authority necessarily had to alter when he assigned a new writing project—the 356/309 report project—that was set in a relatively foreign (to him) rhetorical situation. Unlike Roberts’ case-based writing projects, the rhetorical situation of the report project was one not drawn from his own consulting experiences but instead was based on a farm operation workplace context that was relatively unfamiliar to him (but a rhetorical situation that was very familiar to the 356 instructors and to the majority of 356/309 students). Even though Roberts embraced the usefulness of the report project’s rhetorical situation (primarily because he believed it gave students the experience of “writing a real report for a real client”), this new rhetorical situation prompted Roberts to refashion the ways he constructed his authority as writing teacher/communication consultant in the classroom.

In 356/309, Roberts’ authority in the classroom could not benefit from his communication consultant experience in the same ways that it had in his stand-alone writing courses in large part because the report project’s rhetorical situation was unlike those of the banking and management activity systems in which he had experience working as a consultant. In reshaping his authority as an assessor of student writing, Roberts did not abandon the use of his consulting experiences; he continued to rely on them in the classroom through anecdotes he shared with students and through discussions he had with students about documents that he generated as a consultant. Overall, though, Roberts’ consulting
experiences were less meaningful to 356/309 students because they occurred in activity systems (e.g., banking or management workplaces) different than the one on which the report project’s rhetorical situation was based (i.e., a farm operation). What further compromised Roberts’ authority in 356/309 (particularly during year one) was that the majority of his students—many of whom were raised and worked on farms all of their lives—had more experience living and working in farm operation activity systems than Roberts himself did.

Given this, Roberts had to recast his authority in the 356/309 classroom—not by relying on his industry consulting experience as he had done in teaching 309 as a stand-alone course, but by linking his authority (and his expectations for students and his feedback motivations) to the classroom. He constructed his authority in academic-/school-based ways because he could not participate in the farm operation activity system as anything other than a writing instructor. For instance, while Tom Polito relied on his own past participation in similar farm operation activity systems (in which he worked as an agronomist) to lend additional credence to his authority as a provider of feedback in the 356/309 classroom, Roberts could not rely on his workplace experiences in the same ways. However, Roberts could focus on becoming an authority on the report project’s rhetorical situation, which he did through his active participation in 356/309.

That is, Roberts’s role as communication expert/assessor of student writing was first reshaped during the earliest planning stages of the learning community in which the three instructors (Schafer, Polito, Roberts) collaborated to coordinate 356 and 309 syllabi. While writing instructors may be perceived as taking the lead in integrating communication activities and assignments into cross-disciplinary initiatives, as the writing instructor in 356/309, Roberts did not assume this role. Instead, he joined a team of agronomy teachers who had already integrated communication into their standalone Agronomy 356 class—primarily through assigning the report project. Then when the instructors initiated the learning community, this collaborative, semester-long project became the primary mechanism they used to integrate the courses (see Chapter 3). This integration process, then, was not spearheaded by Roberts, and nor was it spearheaded by Schafer and Polito; instead this process was a collaborative, cross-disciplinary effort. That is, because of their different areas of expertise, the instructors relied on their collaborations with one another to integrate
356 and 309; Polito and Schafer looked to Roberts for effective ways to teach communication strategies to students to enable them to improve their report project drafts, and Roberts looked to Polito and Schafer for critical information about the rhetorical situation of the report project.

During year one of the study, then, Roberts immersed himself in activities that helped him to understand the report project’s rhetorical situation. For example, he attended the 356 classes, participated in class discussions, and accompanied students and the 356 instructors to the farm to observe the students collecting data for their report projects. Roberts also familiarized himself with the project’s rhetorical situation by discussing it with the 356 instructors during faculty meetings, by preparing students to write their report project drafts, and by assessing students’ written and oral work. By familiarizing himself with the details and complexities of the project’s rhetorical situation in these ways, Roberts refashioned his authority in the classroom as a writing teacher who was familiar with the communication activities linked to completing the report project.

Roberts’ authority in the 356/309 classroom—which was modified through his new knowledge of the report project’s rhetorical situation—did not necessarily mean that he participated in the activity system of the farm operation in the same ways that the 356/309 students or 356 instructors did. Members of both of these groups had been (or currently were or planned to become) active participants in other farm activity systems—as sons or daughters of farmers, as farmers themselves, as agronomists, as CCAs, as salespeople, or as researchers. Roberts, on the other hand, had only experienced a farm operation system through his participation in the 356/309 classroom—mainly by learning about these activities through the ways he assigned, taught, and used the rhetorical situation of the report project as a feedback tool. I argue that because Roberts did not learn about the farm operation activity system by engaging in activities on the farm (i.e., collecting soil samples, interviewing the client, writing the report drafts, presenting recommendations to the farmer) that what Roberts did learn about the farm was necessarily limited by the scope of the report project—and more specifically, by the scope of the project’s rhetorical situation.

While Roberts’s perceptions of his feedback responsibilities evolved to reflect his growing familiarity with the complexities of the rhetorical situation, Polito and Schafer’s
perceptions of their uses of the rhetorical situation remained relatively unaltered during their participation with the study. Throughout the study, both instructors perceived that they primarily used the project’s rhetorical situation as a means to improve students’ potential abilities to work as professionals.

**TOM POLITO’S USE OF RHETORICAL SITUATION.** For Tom Polito, the report project’s rhetorical situation was the springboard by which he assessed students’ potential as workplace professionals. He perceived that the project’s rhetorical situation afforded him an opportunity to assess how effectively students worked as certified crop advisors (CCAs) and recognized and met the challenges of communicating with the farmer client. For Polito, the work of collecting data, talking with the farmer, and writing project drafts were opportunities for the students to try doing the work of CCAs in the safe environment of the classroom: “I had told students...when we started this that if they’re going to make mistakes, let’s make them here [in 356/309].... Let them fail here so they can succeed later” (Polito, April 2000). This notion of the classroom as a safe environment for students to try new skills speaks to the differences between expectations for performance at work and the expectations for performance in school. In the workplace, error-free performance is expected while in school, errors are often “valued as opportunities to clarify a particular concept or teach a relevant skill” (Dias et al. 1999, 68). Polito’s beliefs about this use of the rhetorical situation made clear that he perceived students generating report project drafts as an activity that was situated in the classroom activity system and not in the workplace system of the farm.

Given this, however, the activity system of the workplace continued to impact the feedback that Polito provided and the ways he constructed his authority in the classroom. As an agronomy instructor, Polito had the authority to assess student performance in the ways that he did, yet his experience working as a professional agronomist made his feedback even more authoritative. Because Polito had worked in the activity system of an agronomy workplace he understood intimately the goals, roles, rules, and activities that constituted such systems. In this sense, many of the ways Polito used the project’s rhetorical situation as a feedback tool—and his professional/workplace-based feedback motives—could be traced to his past experiences as a professional agronomist in Iowa (and to his experiences as an agronomy undergraduate at Iowa State University):
A lot of us look at the shortcomings in our own education and try to overcompensate for them. [laughs] I think maybe that was part of it for me. I was never in a course that bridged the gap between the university and the world of work. It was like, okay, there's the door, you're out the door—dog eat dog—and you'd better survive. (Polito 1999)

As a former Iowa State undergraduate and then as an agronomist, Polito perceived that his education failed to prepare him satisfactorily for the agronomic and communicative challenges he faced in the workplace. His experience—going from college to career in this way—was similar to what many 356/309 students would face, so Polito used the project’s workplace-based rhetorical situation as a feedback tool to help students “bridg[e] the gap between the university and the world of work.” In doing so, Polito hoped to provide students with feedback that tested the ways they responded to the challenges of the project’s rhetorical situation. By challenging students enough, Polito believed that his students—once “out the door” and into the workplace—would have a better chance of meeting the challenges of working and communicating professionally.

**JOHN SCHAFER’S USE OF RHETORICAL SITUATION.** Unlike Polito or Roberts, John Schafer explained that his feedback motives were informed by two different rhetorical situations: (a) the rhetorical situation of the agronomy teacher using the project document to assess whether the recommendations were accurately supported by agronomic principles and (b) the rhetorical situation of the farmer using the project document to make management decisions. Schafer perceived that he assumed the roles of each audience when he provided feedback. In the role of agronomy teacher, Schafer perceived that he read drafts to assess whether students effectively wielded agronomic principles and whether students attended to issues that had been discussed in 356. For example, he assessed whether the students’ “thinking is logical, agronomically sound” (Schafer 2000). He also looked for students to accurately wield and support their recommendations:

When they claim to convert from elemental to oxide—have they have done it properly? When they claim that this amount of lime will solve their problem—is that in fact appropriate for the data that they have? (2000)
In the role of farmer client, Schafer read drafts in ways that he perceived the farmer would, and he provided feedback accordingly. For instance, Schafer assessed whether students recommended farm management practices in ways "that a client can understand," and he also examined the ways students "organize their thoughts [and] express themselves" (2000). Unlike Polito or Roberts, Schafer specifically stated that he perceived using two different rhetorical situations to inform his feedback. Roberts and Polito did not articulate their feedback responsibilities in this way even though both attended to the concerns of the farmer audience when they responded to project drafts.

Of the four instructors, Schafer most frequently stated that it was critical that the farmer-client be able to use the project drafts. Polito and Roberts certainly did not ignore this, but for Schafer this feature seemed to form the basis for his feedback role. In many of the same ways that Polito and Roberts' academic and professional experiences tended to inform their uses of rhetorical situation, Schafer's experience assuming one particular role during the time he and Polito co-taught Agronomy 356 as a stand-alone course (and a role that he reprised during the three years he participated in 356/309) impacted the ways he used rhetorical situation as a feedback tool. Specifically, Schafer acted as farmer-client liaison and took the lead on eliciting the collaboration of the farmers whose operations students used as the context for their report project. Schafer obtained the cooperation of both Victor Hoven and Bob and Eric Jacobson (Hoven Farms was the project site during years one and two of my study while Jacobson Farms was the project site during years three and four).

During each semester, the farmers' participation involved several hours of their time, and the farmers also allowed the 356/309 students and teachers to walk their fields and to collect manure and soil samples. In return for the farmers' time and for this access to their operation, the students provided their clients with management recommendations that could be implemented. Because Schafer was responsible for eliciting the farmers' initial collaboration and because he tended to communicate with them more frequently than either of his colleagues (e.g., in setting up times for students to visit the farm), Schafer may have felt a personal responsibility for giving the farmers outcomes that they could use (i.e., recommendations that they could implement). This sense of personal responsibility could
account for Schafer's particular attentiveness to the farmer-clients' needs when he provided feedback on student drafts.

More so than his learning community colleagues, then, Schafer clearly articulated feedback responsibilities in ways that involved responding to project drafts as if he were the farmer client. Moreover, Schafer's attentiveness to the needs of the client seemed to be affected, in part, by his responsibilities as the farmer-client liaison. Until now, research about the effects of incorporating actual clients from the workplace into school-based writing and speaking projects (Freedman and Adam 1994, Dannels 2000) have focused primarily on the ways students were impacted by the participation of such clients (e.g., the impact on students' writing and speaking abilities, the impact on students' acquisition of disciplinary knowledge, and so on). However, another fruitful avenue of investigation involves specifically examining the impact that such clients have on instructors and their pedagogy. In my study, Schafer's attentiveness to the farmer-client audience and to meeting the clients' particular needs appeared to substantively shape Schafer's feedback role.

Randy Killorn's Use of Rhetorical Situation. Unlike his 356/309 colleagues, Randy Killorn did not articulate using the report project's rhetorical situation as a feedback tool. When Killorn discussed his feedback responsibilities and the ways he generated feedback on students' project drafts, he did not refer to the project's rhetorical situation. Killorn's lack of an articulated use of rhetorical situation as a feedback tool may have been influenced by his lack of experience teaching the report project, his previous experiences using writing assignments in the classroom, and/or his role in 356/309.

First, by year four of my study, both Roberts and Polito had three years of experience using the report project as an assignment in 356/309. (And when Polito and Schafer had team-taught Agronomy 356 as a stand-alone course, the report project had also been an important fixture in that course's curriculum.) Perhaps this deep understanding of using the report project as a teaching tool, which had come from years of experience, had not been explicitly or sufficiently communicated to Killorn during his initial year participating in 356/309. In other words, the rules (i.e., the norms and conventions) of engaging in this activity had not been made explicit by Roberts and Polito to Killorn. Second, Killorn may not have had a great deal of experience using writing assignments (like the report project drafts)
in the classroom. Perhaps assigning and assessing the rhetorically situated project drafts in 356/309 was one of the first experiences Killorn had with providing feedback about extended writing assignments of this type. In this sense, Killorn may not have been able to bring past teaching or workplace experiences from other activity systems to bear on his feedback activity. Third, Killorn as a “junior member” of 356/309 and as an instructor whose primary role was to “step back and observe” during year four may have influenced the type and frequency of feedback that he provided. Perhaps his role had influenced him to provide feedback by primarily assessing student writing for agronomic “consistency” and logic and not for the ways the writing was tailored to the farmer audience or situated in the context of the farm operation.

Whatever factors may have contributed to Killorn’s articulated non-use of this particular feedback tool, my qualitative interview data help to confirm the quantitative feedback findings I discussed in the previous section. That is, Killorn’s low percentage (compared to his colleagues) of effectiveness of argument feedback (21%) makes sense given that Killorn did not articulate using rhetorical situation as a feedback tool. In other words, providing feedback about rhetorically situated agronomic arguments (i.e., what the effectiveness of argument category encompasses) would be difficult for Killorn to do given that he did not articulate using the project’s rhetorical situation as a feedback tool. Moreover, I wonder (in light of the tool-use data I have analyzed concerning the other 356/309 instructors) whether or not Killorn’s use of rhetorical situation will change. That is, during their multiple-year participation in 356/309, Roberts, Polito, and Schafer did not articulate substantive changes in the ways they used rhetorical situation as a feedback tool; given this finding, I speculate that Killorn’s feedback tool-use will not change as he continues to participate in 356/309.

In summary, then, this analysis of the use of rhetorical situation as a feedback tool shows that while the project’s rhetorical situation was articulated to students as relatively fixed, this rhetorical situation was a feedback tool that was used by instructors differently—according to their experiences with a variety of academic and workplace activity systems. And in examining the instructors’ uses of this feedback tool, I also discovered that
rhetorical situation figured into the ways many of the instructors constructed their authority as communication and/or agronomy experts in the classroom.

As I next discuss, each instructor perceived that he was affected in different ways by the cross-disciplinary collaboration of 356/309. I explore these differences and describe the ways they helped to characterize the teacher feedback that the instructors provided.

**EXPLORING CHANGE IN DISCIPLINARY KNOWLEDGE**

As I have indicated (see Chapter 3), the Agronomy 356/English 309 instructors collaborated in a variety of ways to integrate 356 and 309, and particularly during year one, instructors attended one another’s 356 and 309 courses and often contributed to and participated in class discussions and activities. Also, when I asked instructors during the final faculty interview of each semester whether they wished to participate in 356/309 the following year, their responses were always, “yes.” Given these levels of instructor collaboration and their overall enthusiasm for 356/309, I continued to wonder what impact faculty participation in this learning community had on the ways instructors communicated disciplinary knowledge to their students through cross-disciplinary teacher feedback. I next use my analyses of both feedback and feedback practices to speculate about this issue.

To begin, I characterize three of the 356/309 instructors’ perceptions about the ways their collaboration in the learning community impacted their feedback—I begin with John Schafer (the instructor whose feedback activity appeared to be least affected by this collaboration) and I continue with Dave Roberts and Tom Polito (whose feedback activities appeared to be most affected by their collaboration). Then I conclude by analyzing the ways the four 356/309 instructors did and did not share disciplinary knowledge across disciplines.

**SCHAFER’S PERCEPTIONS OF FEEDBACK AND DISCIPLINARY KNOWLEDGE**

In assessing student writing, Schafer seemed the least affected—when compared to his colleagues—by his interaction with the other discipline involved in the learning community. For instance, when Schafer’s 356/309 colleagues were asked to describe the ways their feedback approaches changed because of their participation in the course
integration, Polito noted that he had a “better appreciation for the things that need to be [in the reports]...from a writing standpoint” (Polito 1999), and Roberts believed that he was able to “pick up issues with respect to the content” that he “usually [did not] pick up” or that he would “ignore in a regular 309” class (Roberts 1998). Unlike his colleagues, Schafer did not indicate similar changes in his own approach. When I asked him about the ways his responsibilities changed as an assessor of student writing, Schafer instead summarized what he perceived to be Roberts’ feedback role: “We now have Roberts to share and maybe take the lead in these [feedback] responsibilities.... Hopefully it makes our job easier because he’s done a better job than we ever could of preparing the students” (Schafer 2000). Schafer responded differently to this question than Polito and Roberts; while they specifically focused on the ways their responsibilities changed, Schafer focused his response on the ways his colleague altered the dynamics of the entire learning community’s feedback process.

The reasons why Schafer did not articulate a change in his understanding of the professional communication discipline or notice differences in his own feedback approach were not clear from the interview data. My observations of the 356/309 classrooms, however, indicated that while Schafer did attend and participate in Roberts’s English 309 course, he did so less frequently than Polito or Killom. And when Schafer was in attendance in the 309 course, I observed that he often used this class-time to multi-task. For instance, Schafer frequently used this time to assess student papers from his multiple-section, first-year soil science course. Less time in class (and less time spent actively engaged in the 309 class while he attended) may have led to less understanding of the communicative strategies and principles that Roberts discussed in the course. Also, Schafer did not frequently attend communication-across-the-curriculum faculty workshops. In other words, Schafer’s lack of attendance at these AgComm-sponsored workshops may have impacted his abilities to perceive the integrative possibilities of the 356/309 learning community. (Interestingly, Polito—who did articulate changes in his feedback responsibilities because of his collaboration in 356/309—regularly attended these workshops.)

Ultimately, Schafer did not articulate his reaction to the integrative nature of the learning community in ways similar to those stated by his 356/309 colleagues. However, interview and observation data show that Schafer was perceived by his colleagues as an
active, critical member of the teaching team. Therefore, in this case, the value placed on instructor collaboration cannot be equated with an instructor’s articulated change in understanding or practice.

**ROBERTS’ AND POLITO’S PERCEPTIONS OF FEEDBACK AND DISCIPLINARY KNOWLEDGE**

Unlike Schafer, both Roberts and Polito perceived that their abilities to provide feedback about agronomy and communication (respectively) changed; that is, from year to year, Roberts perceived that he was better able to provide certain types of relevant agronomic feedback, and Polito perceived that he improved his abilities to provide certain types of communication feedback. My analysis of the faculty interviews also shows that Roberts appeared to be much more confident in his perceived abilities to provide agronomic feedback than Polito was in his perceived abilities to provide communication feedback. I believe that Roberts’ more confident articulation may have stemmed from the type of knowledge that he perceived himself better able to provide, and I argue that Polito’s hesitancy may have stemmed from his beliefs about the nature of collaboration and disciplinary expertise. To discuss these points, I begin by describing Roberts’ articulation of the ways he perceived his feedback abilities improving.

**ROBERTS’ PERCEPTIONS OF FEEDBACK/DISCIPLINARY KNOWLEDGE.** During his four-year collaboration with 356/309, Roberts continued to perceive that his abilities to provide relevant agronomic feedback improved. During each subsequent year of my study, Roberts articulated increased confidence in his abilities to provide students with feedback about matters of agronomic content. In fact, by year three, Roberts perceived a difference between the ways he provided feedback about student writing in his stand-alone English 309 course and in the 356/309 learning community:

If you look at a set of consulting proposals from my regular [stand-alone] 309 and the consulting proposal from 309/356 you would still find my characteristic tone, abbreviations, and probably my characteristic points of emphasis [in the feedback that I provide]. But you will also find me much more willing and able to raise content issues in very specific ways in the agronomy [356/309] reports. (Roberts 2000)
Roberts' perceptions of the differences between the feedback he provided in his stand-alone 309 course and in 356/309 were primarily a result of a better understanding of the disciplinary knowledge that the 356 instructors brought to the learning community. That is, Roberts perceived that his participation in the learning community—and his collaboration with the 356 instructors—allowed him to be not only "much more willing" but also "much more...able" to provide selected feedback about agronomic content.

Most interesting, however, is that Roberts also believed that responding to issues of agronomic content in these ways made him a better provider of feedback—and made the cross-disciplinary teacher feedback that students received more effective. For example, on one student draft during year three, Roberts noted that he intentionally provided feedback in ways similar to the feedback he believed Polito and Schafer would provide. By coordinating his feedback thusly, Roberts argued that students would be more persuaded to revise:

[When I provided feedback on this draft] I was trying in my own mind to coordinate with the things that I know Schafer and Polito would also be hitting. For example, we all nailed them [the students] on the same things.... We all said, "You just can't say this you have to support it. You have to tell why." ...I don't mean that we were meshing one-hundred percent, but this is the third time that we have done this [learning community] together.... (2000)

Roberts perceived that if students received cross-disciplinary feedback from multiple instructors identifying many of the "same things," students would be even more convinced of the importance of revising those particular areas of their drafts. Roberts' belief that he and the agronomy instructors responded to the "same things" in student drafts also reflected the ways he perceived using the rhetorical situation of the report project to inform his feedback. That is, during the early weeks of year one, Roberts had little knowledge of the workplace of the farm operation in which the 356/309 report project's rhetorical situation was set. However, Roberts actively participated in 356/309 during that initial year, and, therefore, he

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17 While testing this belief was beyond the scope of my dissertation, in my subsequent study about collaborative student revision I plan to investigate whether providing complementary feedback (i.e., feedback in which all three instructors respond similarly to the same issue in a student draft) prompted students to revise, and whether students revised less frequently when they were given contradictory feedback (i.e., feedback in which two or more instructors contradicted the feedback of the other(s) about the same issue in a student draft).
learned a great deal about the rhetorical situation in which the report project was set. In doing so, Roberts perceived that he was able to provide more feedback about agronomic content.

For the most part, Roberts’ faculty interviews showed a relatively confident articulation of his abilities to provide certain types of agronomic feedback. In analyzing Polito’s faculty interviews, however, I found that he appeared to be more hesitant in acknowledging his perceived improvement in providing certain types of communication feedback.

**Polito’s Perceptions of Feedback/Disciplinary Knowledge.** Like Roberts, Polito’s first acknowledgment of feedback-change came relatively early in my study—during the year-two faculty interviews. Specifically, when Polito responded to the ways he perceived his feedback responsibilities changing as a result of his participation in the learning community, he noted that he had a “better appreciation” for features of students’ “writing:”

[Since] I started listening and sitting in on Dave’s lectures [in English 309], I think I have a better appreciation for the things that need to be there [in the students’ drafts]. So I think by sitting in and essentially taking his course I can do a little better job evaluating some things on the periphery, but I don’t pretend to do as good a job as evaluating the communication, the writing, the grammar, as he does. (Polito 1999)

In this excerpt, Polito acknowledged a perceived improvement in his abilities to “appreciate” what “needs to be there” in student drafts, and when I asked him to explain what he meant by “evaluating some things on the periphery,” his response showed a hesitancy to claim any kind of communication expertise:

On more of a superficial basis I have an idea of what should be there—to the extent that it needs to be there and the quality of what’s there from a writing standpoint—[but] I don’t feel as well qualified to comment to the students on that. But certainly in general terms I’m better able to handle that than I was before. (Polito 1999)

During this year two (1999) interview, then, Polito acknowledged the perceived differences in his own feedback activity after having attended Roberts’ English 309 course. Yet Polito was also hesitant to claim any real command over providing communication feedback. He does note, however, that he perceived that he had become “better able to handle” this kind of feedback than he was “before.”
Much like his responses during year two, Polito’s interview during year three continued to acknowledge an improvement in his abilities to provide communication feedback (his response was still qualified—with “perhaps”):

I think I’m probably responding differently because I’ve sat through Dave’s [English 309] course, and as a result of that I’ve learned quite a little bit about communication strategy, perhaps. (Polito 2000)

Another interesting point about this year three interview excerpt is Polito’s use of the term, “communication strategy,” which perhaps speaks not so much to the “writing, the grammar” that he identified during year two but instead seemed to indicate that he was describing more rhetorical issues or strategies rather than simply sentence-level conventions.

These faculty interview data indicate that Roberts and Polito perceived changes in the ways they provided feedback to students—namely, in the ways that each instructor provided feedback about agronomic (Roberts) or communicative (Polito) feedback. These interview data, in part, corroborate not only the quantitative findings that showed increases in effectiveness of argument feedback but also my conclusion that these increases in feedback were impacted by the 356/309 instructors’ improved understanding of the nature of rhetorically situated agronomic arguments. To conclude this particular discussion, I speculate about the reasons why Roberts appeared relatively confident in the ways he articulated his perceived feedback change and why Polito appeared more hesitant to make similar claims about his feedback.

In short, I believe that because of the similarities in the report project from year to year, Roberts was able to trace his improved understanding of specific agronomic concepts. That is, many concepts—particularly those pertaining to certain aspects of nutrient and tillage management—were critical components in students’ report project drafts from year to year. In this sense, Roberts may have familiarized himself with many of these, and he was then able to self-assess whether or not his feedback was on-target. (Roberts could assess his feedback by asking the 356 instructors during faculty meetings or by addressing this issue in a student team revision session.) And as I discuss in the subsequent section, Roberts’ knowledge of agronomic concepts appeared to extend mostly to those that were critical to the
students' report project drafts (and even then some specific types of agronomic knowledge still escaped him).

Polito, on the other hand, may have been more hesitant to articulate his abilities in providing communication feedback in part because of his beliefs about collaboration and disciplinary expertise. Specifically, when I asked him about what he anticipated learning from his participation in 356/309, Polito noted that what he learned was that he "did not need to be an expert in everything" (2001). That is, Polito's articulated beliefs about expertise included the following—identifying those areas in which he was not expert (but in which he needed the guidance of an expert), seeking people who were experts in those areas, and collaborating with them on ways to integrate their expertise with his:

[T]here are other people out there who are experts in the areas that you need, and if you tap the right ones, they can bring that in, and you don’t have to become the expert…. [C]ollaboration and integration in general…has reiterated for me the value of seeking the input of other experts or professions. (2001)

Polito's articulated beliefs about expertise, then, tended to indicate that he did not want—nor believed that he needed—to become an expert in providing communication feedback on students' report project drafts. Instead, integrating Roberts' expertise with his own (and with the expertise of his 356 colleagues) was, to him, equally useful.

But while Roberts and Polito articulated changes in the ways they provided feedback (primarily because of their participation in 356/309 and their increased understanding about agronomy and communication), disciplinary boundaries were neither always integrated nor disciplinary knowledge always shared or learned. Specifically, all four 356/309 instructors acknowledged that certain types of knowledge (communicative and agronomic) were the domain of disciplinary experts.

**Maintaining Disciplinary Boundaries**

Certain types of disciplinary knowledge appeared not to have been readily shared or learned by either the 356 or 309 instructors. These particular types of disciplinary knowledge included knowledge about certain communicative features (specifically feedback pertaining to sentence-level conventions such as grammar, punctuation, usage, and so on) and
knowledge concerning the ways agronomic calculations were included and derived in report project drafts.

Specifically, the 356 instructors perceived that by providing feedback about sentence-level conventions they potentially detracted from—or even confused—the expert feedback that they believed students would receive from Roberts. For example, Schafer stated that while Roberts’ collaboration did not “diminish” his own feedback responsibilities, he acknowledged that as agronomy teachers, he and Polito did not “have [the] kind of experience and training that Roberts has” (Schafer 2000). Similarly, as I indicated above, Killorn stated that he “back[ed] off” on providing feedback on “writing style” because he did not want his feedback “to be confused with something that an expert” (i.e., Roberts) could provide (Killorn 2001). Likewise, Polito noted that while he was able to recognize when a sentence “seem[ed] awkward,” he was hesitant to provide students with feedback because Roberts “can do the students a lot more good [with his feedback] than I can with mine” (Polito, 1999). Interestingly enough, the agronomy professors were not alone in remaining unchanged about certain aspects of their feedback responsibilities and about maintaining disciplinary boundaries. As the 309 instructor, Roberts—while increasingly confident about providing feedback concerning certain aspects of agronomic content—did not feel confident about providing feedback that pertained to more rule-bound agronomic knowledge, especially calculations: “I still don’t know how to do the calculations to figure out the amount of phosphorus you should put on a soil if it tests very low” (Roberts 1999).18

Given these perceptions, I believe that the 356/309 instructors were less willing to provide feedback about features of student drafts that they perceived to be particularly rule- or principle-bound in discipline-specific ways. However, my analysis of the feedback itself shows that the majority of the 356/309 instructors frequently provided feedback about the more rhetorical aspects of the drafts concerning effectiveness of argument. Indeed, unlike the

18 As I noted above, unlike his agronomy colleagues, Polito articulated a difference between this type of sentence-level feedback (pertaining mostly to grammar, punctuation, and so on) and what he identified as “communication strategy” (Polito 2000). Polito was the only agronomy instructor who articulated a difference between providing feedback about sentence-level conventions and providing feedback about the kind of rhetorical strategies at which “communication strategy” seems to hint.

19 Roberts’ response is particularly interesting given that he has an undergraduate degree in mathematics.
calculations and sentence-level conventions, these rhetorical features were not perceived of as the exclusive disciplinary territory of either field by the majority of the agronomy and English instructors in my study. Instead, these instructors perceived themselves as equally responsible for providing rhetorical feedback. From this analysis I conclude that incorporating complex and rhetorically situated writing assignments into linked or clustered courses can help to facilitate cross-disciplinary instructor collaboration and can enable instructors to break down disciplinary boundaries in meaningful and productive ways.

* * *

In this chapter, I have characterized feedback styles, identified feedback trends, analyzed teacher feedback roles, and traced the ways disciplinary knowledge was communicated to students through cross-disciplinary teacher feedback. I next draw conclusions about these findings and discuss their implications. I conclude by identifying three areas for further research.
CHAPTER 5
INCORPORATING CROSS-DISCIPLINARY TEACHER FEEDBACK INTO THE CLASSROOM: CONCLUSIONS, IMPLICATIONS, AND FURTHER RESEARCH

In Chapter 1, I indicated that two of my initial purposes for conducting this longitudinal cross-disciplinary teacher feedback study were to enable the learning community instructors to better understand their feedback activities (so that they could continue to improve as individual instructors and as a teaching team) and to address the paucity of research pertaining to cross-disciplinary teacher feedback. Keeping these purposes in mind, in this chapter I synthesize my findings and discuss the pedagogical, methodological, and theoretical implications of my study. I conclude by outlining several areas for further research that extend my work in useful, interesting ways.

Before I begin, note that in my review of feedback literature (Chapter 2) I found no published longitudinal research that investigated cross-disciplinary teacher feedback—which makes the discussions in this chapter important not only for instructors (those who teach in writing courses or in courses across the disciplines) but also for communication-across-the-curriculum, learning community, and feedback scholars. And while I believe that the following conclusions and implications are useful for teachers and researchers alike, they should be taken in context. That is, given my study’s mixed-methodology approach, and my use of a naturalistic research design, I cannot claim that my findings are generalizable in the sense that the concept is used in experimental research. However, I do believe that the conclusions and implications I discuss below can inform the ways instructors choose to incorporate cross-disciplinary teacher feedback into their classrooms. And since my study focused on an upper-level, communication-across-the-curriculum learning community that used a paired-courses structure, my conclusions are necessarily targeted toward similar types of curricular initiatives.

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1 In experimental research, generalizability is defined as “the power to extend the causes and effects of one experiment to other groups, other treatments, and other criteria like the ones in a given experiment” (Lauer and Asher 1988, 171).
To begin, I briefly outline my study's major findings; then I identify and describe the ways I responded to the research questions that I posed in Chapter 1.

**CONCLUSIONS AND IMPLICATIONS:**

**STYLES, PATTERNS, ROLES, AND DISCIPLINARY KNOWLEDGE**

Investigating the patterns of cross-disciplinary teacher feedback and analyzing instructors' perceptions of their feedback motives and tool-uses during a four-year period helped me to show the ways that agronomic content and rhetorical process knowledge were integrated in the feedback that students received on three co-assigned and co-assessed report project drafts. Specifically, I found that instructors' ongoing collaboration and participation in Agronomy 356/English 309, particularly during the first three years of my study, enabled instructors to share disciplinary knowledge with one another and to learn more about the nature of rhetorically situated agronomic arguments. I also quantified the impact that a change in teaching team personnel had on the frequency of effectiveness of argument feedback during year four. Second, I found that the 356/309 instructors tended to provide feedback about the rhetorical aspects of agronomic argument and that, unlike knowledge pertaining to agronomic calculations or sentence-level conventions, providing feedback about these rhetorical features was not perceived of as the exclusive disciplinary territory of either field. From this analysis, I conclude that assigning and assessing complex, rhetorically situated, argument-based writing assignments in cross-disciplinary initiatives can foster meaningful instructor collaboration and enable instructors to share and learn disciplinary knowledge from one another.

To further discuss my results, I next re-state my research questions, summarize my findings and conclusions, and discuss their implications.

**FINDING 1. FEEDBACK STYLES**

When I investigated the Agronomy 356/English 309 instructors' feedback styles, I asked the following research question: What feedback styles were exhibited by the 356/309 instructors, and how did these styles change over time? To respond to this question, I
examined several features of the instructors' feedback, and I found that this feedback exhibited a range of styles; the instructors incorporated editing symbols, single words and phrases, questions, whole sentences, and paragraphs into their feedback. Three of the four instructors (Dave Roberts, Tom Polito, John Schafer) provided relatively substantive marginal and terminal feedback, and I found that one of the instructors (Randy Killorn) showed considerable differences between the ways he provided written feedback (which was brief and arhetorical) and oral feedback (which was relatively substantive agronomically and rhetorically). During my four-year study, I also found that the 356/309 instructors’ feedback styles remained relatively unaltered; the only change that I observed was in the English instructor’s feedback style during year four—due largely to an increase in his other teaching and administrative duties.

Given these findings, I suggest that changes to teacher feedback styles are not made solely by incorporating cross-disciplinary teacher feedback into the classroom. I argue that because the instructors individually executed cross-disciplinary teacher feedback—that is, they did not collaborate with one another when they responded to students’ drafts—the instructors’ feedback styles remained relatively unaltered. In other words, while the content of cross-disciplinary teacher feedback was influenced by the instructors’ collaboration in 356/309 (e.g., by attending one another’s classes, by co-teaching 356, by discussing pedagogy and student performance during faculty meetings, by collaborating on ways to coordinate syllabi and selected activities and assignments, and so on), teacher feedback styles did not appear to be directly impacted by these collaborative activities.

This conclusion is also supported by the one change in feedback style that I did observe. Roberts’ change in feedback style during year four appeared to be influenced by specific activities that impinged upon the ways he individually executed his feedback activity. In other words, because of his additional teaching and administrative duties during year four, Roberts changed his feedback style by providing no typewritten terminal feedback on two of the three report project drafts. This finding suggests that feedback style—in this case, the frequency of terminal feedback—can be influenced by activities beyond the immediate classroom. Moreover, my conclusion also reinforces that providing frequent, substantive feedback is a time-consuming activity and also helps to emphasize the
importance of two factors—adequate time and a manageable workload—in enabling instructors to respond to students' writing in substantive ways.

FINDING 2. FEEDBACK PATTERNS

In my investigation of the cross-disciplinary teacher feedback itself, I asked the following research question: What patterns emerged in the cross-disciplinary teacher feedback during my four-year study? To respond to this question, I conducted quantitative and statistical analyses of four years of cross-disciplinary teacher feedback that the Agronomy 356/English 309 instructors produced on three report project drafts. Overall, these analyses indicated that feedback pertaining to effectiveness of argument was more frequently provided by the 356/309 instructors than all of the other categories of feedback including quality of visual design and content organization, attention to sentence-level conventions, and attention to academic processes. In fact, I found a statistically significant increase in effectiveness of argument feedback during years one through three (percentages of this feedback rose from 55% in year one, 62% in year two, to 73% in year three) while during year four, I discovered that the percentage of argument feedback dropped to a study-low of 53%.

By using activity theory as a framework for data analysis, I conclude that the instructors' participation and collaboration in 356/309 contributed to the increase in effectiveness of argument feedback during the initial three years of my study. Specifically, I believe that during this period the instructors shared disciplinary (i.e., agronomic and rhetorical) knowledge with one another, and they then learned from one another about the ways this knowledge complemented and extended their own disciplinary knowledge; in doing so, the instructors developed keener insights about rhetorically situated agronomic arguments. And because the instructors' knowledge of agronomic arguments grew, the instructors were then able to provide more frequent feedback about the ways students wielded such arguments in their report project drafts. I also speculate that the decrease in effectiveness of argument feedback during year four was due in large part to a personnel change in the teaching team. However, I also believe that other factors contributed to this decline including the change in Roberts' feedback style during year four (he provided no
terminal feedback on two of the three report project drafts) and a decreased frequency in Roberts' participation in Agronomy 356 and Polito's participation in English 309. That is, during the initial three years of the learning community, Roberts and Polito participated more regularly in one another's classes than they did during year four; their decreased levels of participation during year four may have impacted their abilities to respond to issues of argument in students' report project drafts.

These conclusions suggest, first, that highly integrated cross-disciplinary courses, which incorporate cross-disciplinary teacher feedback in substantive ways throughout the semester, not only can foster instructor collaboration but also can enable instructors to share disciplinary knowledge and to learn from one another. Second, these conclusions also suggest that explicit changes in the ways faculty collaborate—for example, faculty personnel changes—and more implicit changes in the ways faculty collaborate—for example, decreased attendance and participation in one another's classes—can impact the type and frequency of feedback that students receive. Therefore, while instructors who participate in communication-intensive learning communities for several years may perceive less of a need to attend one another's classes as frequently as they did during the early years of their collaboration (perhaps, in part, because they believe they have adequately familiarized themselves with the material their colleagues teach), my study suggests that one important factor in instructors' abilities to continue to integrate domain-content and rhetorical process knowledge in their teacher feedback is regular participation in their colleagues' courses.

**Finding 3. Feedback Roles**

To investigate teacher feedback roles, I asked the following research question: What impact did teaching in Agronomy 356/English 309 have on teacher feedback roles and responsibilities? In responding to this question, my activity theory analysis of the faculty interview data showed that the 356/309 instructors perceived their feedback motives (and the objects of their feedback activities) to be both academic- and workplace-based. I also found that three of the four instructors (Roberts, Polito, and Schafer) articulated using rhetorical situation as a feedback tool and that these instructors used this tool in ways that spoke to their experiences participating in a variety of academic and workplace activity systems beyond
356/309. For example, both Roberts’ and Polito’s experiences in academic and workplace activity systems other than 356/309 impacted the ways they used rhetorical situation as a feedback tool while Schafer’s experience as the 356/309 farmer-client liaison also appeared to influence his use of this feedback tool. The fourth instructor, Randy Killorn, did not articulate using rhetorical situation as a feedback tool, which helps to corroborate his lower percentage of effectiveness of argument feedback (as compared to his 356/309 colleagues). I also found that the report project’s rhetorical situation played a role in enabling instructors to construct their authority as experts in the classroom, and, in particular, I found that during year one the English 309 instructor’s lack of experience with this rhetorical situation motivated him to participate actively in 356/309 in order to learn about the report project’s farm-operation rhetorical situation.

From these findings I conclude that the nature of the report project dictated, in large part, the instructors’ perceptions about their feedback roles and the ways they perceived students’ writing. In other words, because the project drafts were situated in an academic activity system (356/309) and the drafts’ content was derived from a workplace activity system (farm), the instructors’ feedback motives were influenced by both types of systems. These findings also indicate the various (and often unarticulated) factors that motivated instructors to respond to student writing—many of which were based on instructors’ experiences with a variety of activity systems beyond the 356/309 classrooms. These findings also suggest that while the project’s rhetorical situation was articulated to students as relatively fixed and stable, this situation, in fact, was perceived and used by instructors in many ways. And also the English 309 instructor’s interest in learning about the report project’s rhetorical situation (as a way to help him establish and maintain authority in the classroom) raises questions about the ways cross-disciplinary curricular initiatives can enable productive faculty collaboration. That is, Roberts’ abilities to learn about the report project’s rhetorical situation from his 356 colleagues was facilitated by several curricular mechanisms, which included a positive attitude about attending one another’s 356 and 309 courses and weekly faculty meetings.
FINDING 4. DISCIPLINARY KNOWLEDGE

To investigate the ways in which disciplinary knowledge—both agronomic and communicative—impacted cross-disciplinary teacher feedback, I asked the following research question: What impact did teaching in Agronomy 356/English 309 have on the ways disciplinary knowledge was communicated to students through the teacher feedback I examined?

When I traced the ways the 356/309 instructors' perceived changes in their own feedback activities as a result of their collaboration in the learning community, I found that one of the instructors (Schafer) perceived little change while two of the instructors (Roberts and Polito) perceived that their abilities to provide feedback about agronomy and communication (respectively) changed. That is, from year to year, Roberts perceived that he was better able to provide certain types of relevant agronomic feedback while Polito also perceived that he improved his abilities to provide certain types of communication feedback. Faculty interview data and quantitative feedback data also indicate that certain types of disciplinary knowledge (i.e., mainly rhetorical knowledge) were communicated and shared across disciplinary boundaries while other types of knowledge (e.g., agronomic calculations and sentence-level conventions), which were perceived to be particularly rule- or principle-bound, were not shared.

First, these findings help to illustrate that participation in a communication-across-the-curriculum learning community can enable instructors to change their perceived abilities to provide feedback about knowledge. Second, these findings also help to indicate that the rhetorical features of students' writing were not perceived of as the exclusive disciplinary territory of either field; instead, each instructor believed himself to be equally responsible for providing rhetorical feedback. Therefore, I argue that incorporating complex and rhetorically situated writing assignments into linked or clustered courses can help to facilitate cross-disciplinary instructor collaboration and can enable instructors to break down disciplinary boundaries in meaningful and productive ways. These findings reinforce that providing cross-disciplinary teacher feedback about argument-driven, rhetorically situated writing tasks enables instructors (who engage in ongoing and active collaboration) to share knowledge and to learn from one another.
To conclude my discussion, I identify those areas of further research that would complement and extend my study.

**FURTHER RESEARCH**

Investigating the ways in which cross-disciplinary teacher feedback was constituted in Agronomy 356/English 309 and what this feedback activity helped to reveal about this communication-across-the-curriculum learning community opens up a number of avenues for further research. Below I discuss three of these areas: (a) students’ uses of cross-disciplinary teacher feedback to revise, (b) the uses for activity theory as a tool for instructor reflection, and (c) the impact of the farmer-client’s *ethos* on student recommendations.

**STUDENTS’ USES OF CROSS-DISCIPLINARY TEACHER FEEDBACK TO REVISE**

Given the various ways the instructors articulated their feedback motives, perceived the object of their feedback activities (i.e., student drafts), and used rhetorical situation as a feedback tool, the ways in which students used cross-disciplinary teacher feedback to revise is an important area for further research. One goal of such a study, then, would be to characterize how the 356/309 students used (i.e., read, interpreted, and implemented) cross-disciplinary feedback to revise drafts of their report project documents. Because cross-disciplinary feedback differs from conventional feedback in its quantity (feedback is received from multiple instructors—not just one) and its scope (feedback is received from different disciplinary perspectives), these students faced challenges unlike those of students who use conventional feedback to revise their drafts. In other words, the quantity and scope of cross-disciplinary teacher feedback further complicates two longstanding research issues in both feedback and revision scholarship—whether students actually *use* the feedback they receive to revise their writing and whether students use this feedback to revise their writing in *substantive* ways. In this regard, research that investigates students’ uses of cross-disciplinary feedback is critical.

To address these issues, I plan to analyze the revisions of student teams who enrolled in Agronomy 356/English 309 during the four years of my study—in all, 14 three-
four-member teams (43 students). To build on my cross-disciplinary teacher feedback findings, I plan to focus on the revisions that these teams made to the same three report project documents that I used in my feedback study. I am also interested in how frequently teams used feedback from their agronomy and/or English instructors and what this frequency suggests about why teams used certain instructors or certain disciplinary perspectives to revise. I am also interested in exploring the impact that complementary and contradictory cross-disciplinary teacher feedback had on student revisions. That is, I want to identify whether students more frequently revised when they were given complementary feedback (when two or more instructors responded similarly to the same issue in a draft) and the ways in which students’ revisions were impacted by contradictory feedback (when two or more instructors responded in contradictory ways to the same issue in a draft). These latter two issues are important to my study because they speak specifically to the potential benefits and challenges of implementing cross-disciplinary teacher feedback in the classroom.

**ACTIVITY THEORY AS A TOOL FOR INSTRUCTOR REFLECTION**

Although I use activity theory in my study as a tool for analyzing my feedback data, I believe that further research would help to show other possible uses for activity theory. In this research, I propose studying the use of activity theory as a heuristic to help instructors reflect on their feedback practices and to enable them to coordinate their cross-disciplinary teacher feedback. I hypothesize that when instructors analyze their feedback practices using activity theory they can become more aware of the ways that “contextual factors” influence the feedback they provide to students (Anson 1998, 304).

This notion of “contextual factors” is an important one in current feedback scholarship. Many feedback scholars (Anson 1998, Hillocks 1982, Straub and Lunsford 1997) believe that a critical stumbling block in providing substantive feedback to students (and in conducting feedback research) is the belief in a one-size-fits-all approach to teacher

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2 These “contextual factors” include “curricular timing” (Anson 1998, 306) (i.e., Is the instructor providing feedback about a first-draft or a final draft?) and the “influence of [the instructor’s] personal belief” (i.e., what personal or professional values shape teacher feedback?) (311) along with the “influence of rhetorical and situational goals” of the feedback (i.e., what assignment goals were students to have met, and what knowledge of the students’ past performance influence feedback?) (312).
response; that is, that one ideal feedback principle can be applied to any feedback situation. In reality, these scholars argue, the feedback that instructors generate is “richly contextual, highly context-dependent, and widely varied” (Anson 1998, 302). To help instructors acknowledge this complexity, then, and to enable them to identify, manage, and reflect on the ways various “contextual factors” may impinge upon their feedback and feedback practices, scholars suggest that “more effective approaches” are needed “for drawing to the surface, in both personally meaningful and collectively useful ways, the complexities involved in” providing feedback (317). Therefore, given this need, I propose studying the ways activity theory may help instructors to “draw to the surface” or reflect on those “complexities” that comprise their feedback activity and the ways this theory could also help instructors to coordinate their cross-disciplinary feedback by having them share their responses and analyses with members of their teaching team.

Specifically, this research would study the ways in which instructors used a worksheet that I devised, “Feedback Worksheet: Reflecting on Your Feedback Activity,” as a heuristic for feedback reflection and coordination of cross-disciplinary teacher feedback; this worksheet is comprised of three sections (see Appendix C for complete worksheet):

- **Part I** describes the background information about activity theory that instructors will need to understand in order to complete the rest of the worksheet.
- **Part II** helps instructors to identify and reflect on many of the “contextual factors” of their feedback activity.
- **Part III** helps instructors to identify and reflect on the ways their experiences in other activity systems may impinge upon their feedback activity.

The study would investigate the ways in which using this worksheet enabled the instructors to reflect on their feedback activities and helped them to coordinate cross-disciplinary teacher feedback with their colleagues.

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3 This worksheet is useful for instructors who teach in communication-across-the-curriculum learning communities or for instructors who teach in conventional, stand-alone courses.
**Impact of the Farmer-Client’s Ethos on Student Recommendations**

While the focus of my cross-disciplinary teacher feedback study was on the Agronomy 356/English 309 instructors, I am also interested in investigating other aspects of the learning community. In particular, I want to understand the impact of the farmer-client’s *ethos* on the ways students articulated their written and oral farm management recommendations. That is, the majority of students who enrolled in 356/309 came from farm families. In these cases, the students—in their roles as Certified Crop Advisors (CCAs)—were responsible for advising the farmer-clients on the most effective ways to manage aspects of their farm operations. For example, student teams could have recommended that farmers alter aspects of the ways they dealt with nutrient, tillage, and/or pest management issues, and students also may have recommended that farmers implement new technology (e.g., machinery or computer software) to enable them to manage their farm operation more efficiently and/or economically.

Given these expectations, I found that students often had difficulty assuming their roles as CCAs—specifically in adopting an authoritative stance in both their written drafts and oral presentations. For example, in my preliminary analyses of students’ report project drafts, I found that students’ written recommendations (particularly those found in the tillage management drafts, which were written early in the semester) were, more often than not, articulated using the passive voice. Tracing whether or not students altered this type of voice construction (e.g., whether or not they changed to an active voice) may help to indicate one of the ways students began to adopt more authoritative stances in writing their recommendations to the farmer-client. Also, in my preliminary analyses of the students’ oral, face-to-face presentations to the farmer-client, which took place during the last week of the semester at the farmer’s home, I sometimes found that student teams could be “talked out” of their recommendation by the farmer-client (even though that recommendation was typically well supported by agronomic, economic, social, and/or environmental evidence).

I believe that studying the impact of the farmer-client’s *ethos* on the ways in which students articulated their written and oral recommendations and tracing whether their stances changed during the semester (by investigating students’ written and oral work) would help to indicate how effectively students were able to adopt the roles of CCAs in the report project.
assignment. Understanding the challenges to students who adopt these types of roles would extend scholarship pertaining to the uses of workplace-based writing projects in the classroom (Petraglia 1995) and would enable instructors who use these projects in their classrooms to help students meet the challenges of successfully completing them.

Having identified three avenues for further research, I conclude by briefly reiterating my findings pertaining to feedback styles, feedback patterns, feedback roles, and disciplinary knowledge.

• Feedback Styles. In my study, I found that three of the four instructors' feedback styles were characterized by relatively substantive marginal and terminal feedback and that the fourth instructor, who tended to provide less frequent marginal and terminal feedback than his colleagues, was also the only instructor who exhibited considerable differences between the ways he provided written and oral feedback. Overall, the instructors’ feedback styles remained unaltered; I observed only one change (during year four) in one instructor’s feedback style—due mainly to an increase in his other teaching and administrative duties. These findings help to indicate that substantive changes in feedback style cannot be accomplished simply by incorporating individually executed cross-disciplinary teacher feedback into the classroom; in this case, the issues of time and workload management instead appeared to impact feedback styles.

• Feedback Patterns. My statistical analysis of four years of cross-disciplinary teacher feedback on drafts of three report project documents showed that feedback pertaining to effectiveness of argument was provided more frequently by the 356/309 instructors than all other categories of feedback including quality of document design and content organization, attention to sentence-level feedback, and attention to academic processes. In fact, I found a statistically significant increase in effectiveness of argument feedback during years one through three (from 55% in year one, 62% in year two, to 73% in year three) while during year four, I discovered that the percentage of argument feedback dropped to a study-low of 53%. Primarily, I attributed this increase in argument feedback to the
instructors’ ongoing participation in one another’s 356 and 309 courses during years one through three. I also argue that the decline in argument feedback during year four was mainly a result of a change in teaching-team personnel; this decline also may have been impacted by a modification in one instructor’s feedback style and by a decline in the veteran instructors’ participation in one another’s 356 and 309 courses during this period.

- **Feedback Roles.** By using activity theory to analyze my field notes and faculty interviews, I found that the instructors perceived their feedback motives (and the objects of their feedback activities—the students’ drafts) to be both academic- and workplace-based. My investigation indicated that the instructors’ motives were influenced by a variety of academic and workplace activity systems—not just the systems of 356 and/or 309. Given these motives, three of the four instructors also articulated using rhetorical situation as a feedback tool; their uses of rhetorical situation also were influenced by their participation in a variety of academic and workplace activity systems. While the majority of the instructors used this feedback tool, one of the instructors did not articulate using it. However, this instructor’s apparent non-use of rhetorical situation did corroborate his lower percentage of effectiveness of argument feedback (as compared to his learning community colleagues). In other words, I argue that in this case providing effectiveness of argument feedback was difficult for this instructor given that he did not articulate using the report project’s rhetorical situation as a feedback tool.

- **Disciplinary Knowledge.** My analysis of feedback and faculty interviews helped me to characterize the ways the instructors perceived using agronomic and communicative knowledge to respond to students’ writing. Specifically, I found that one of the agronomy instructors perceived little change in the ways he provided feedback as a result of his participation in the learning community while two of the instructors (the English instructor and another agronomy instructor) perceived that their abilities to provide feedback about agronomy and
communication altered. That is, from year to year, the English instructor perceived that he was better able to provide certain types of relevant agronomic feedback while one of the agronomy instructors perceived that he improved his abilities to provide certain types of communication feedback. Faculty interviews and feedback data also indicated that the instructors tended to perceive that certain types of agronomic and communicative knowledge—which were specific to the rhetorically situated agronomic arguments featured in students' report project drafts—were not the sole disciplinary territory of either the English or agronomy instructors. Therefore, this rhetorical knowledge was shared across disciplinary boundaries. However, other types of knowledge, which were perceived by the instructors to be particularly rule- or principle-bound (e.g., agronomic calculations and sentence-level conventions), were believed to be the exclusive territory of disciplinary experts and were not shared. These findings suggest that while certain types of knowledge may not be shared by instructors in cross-disciplinary initiatives, co-assigning and co-assessing rhetorically situated, argument-based writing projects can enable instructors to collaborate with one another and to integrate domain-content and rhetorical process knowledge in the feedback that they provide to students about their writing.
APPENDIX A

HUMAN SUBJECTS RESEARCH DOCUMENTATION
Information for Review of Research Involving Human Subjects
Iowa State University
(Please type and use the attached instructions for completing this form)
Agronomy 356/English 309 Integrated Course Project

1. Title of Project

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are protected. I will report any adverse reactions to the committee. Additions to or changes in research procedures after the project has been approved will be submitted to the committee for review. I agree to request renewal of approval for any project continuing more than one year.

Rebecca Burnett August 26, 1998
Typed name of principal investigator Date Signature of principal investigator

3. Signatures of other investigators Date Relationship to principal investigator

4. Principal investigator(s) (check all that apply)
  Faculty ☐ Staff ☐ Graduate student ☐ Undergraduate student

5. Project (check all that apply)
  Research ☐ Thesis or dissertation ☐ Class project ☐ Independent Study (490, 590, Honors project)

6. Number of subjects (complete all that apply)
  6 # adults, non-students 10 # ISU students 5 # minors under 14 5 # minors 14 - 17

7. Brief description of proposed research involving human subjects: (See instructions, item 7. Use an additional page if needed.)

(a) Using the Agronomy 356/English 309 course as our research site, we want to examine the ways this integrated course approach affects students' perceptions/expectations, processes, and performance. We hope to utilize several different methods to accurately triangulate our data: classroom observations, attitude- and discourse-based student and faculty interviews, student surveys, and an examination of revision and final drafts of students' documents to track and evaluate their performance.

(b) Research subjects were selected because of their participation in the integrated course: three (3) faculty teach the course, ten (10) students are enrolled in the course, three (3) farmers are the clients. Both students and faculty will be observed during a lab class once a week. In order to gauge students' attitudes, processes, and performances throughout the semester, each student and faculty member will be interviewed three times during the semester. The farmer clients will be interviewed twice. Also, a survey will be administered to students near the beginning and end of the semester. (See attached survey instrument.) No incentives, compensations, or follow-up techniques will be used to obtain data from subjects.
8. Informed Consent:  
- Signed informed consent will be obtained. (Attach a copy of your form.)  
- Modified informed consent will be obtained. (See instructions, item 8.)  
- Not applicable to this project.

9. Confidentiality of Data: Describe below the methods you will use to ensure the confidentiality of data obtained. (See instructions, item 9.)

Confidentiality of students and farmer participants will be ensured. All names will be changed in any publications or presentations.

The faculty confidentiality cannot be protected because they will be participating as co-authors on some of the resulting publications.

10. What risks or discomfort will be part of the study? Will subjects in the research be placed at risk or incur discomfort? Describe any risks to the subjects and precautions that will be taken to minimize them. (The concept of risk goes beyond physical risk and includes risks to subjects' dignity and self-respect as well as psychological or emotional risk. See instructions, item 10.)

The subjects will not be under any physical or emotional risk.

11. CHECK ALL of the following that apply to your research:
- A. Medical clearance necessary before subjects can participate
- B. Administration of substances (foods, drugs, etc.) to subjects
- C. Physical exercise or conditioning for subjects
- D. Samples (blood, tissue, etc.) from subjects
- E. Administration of infectious agents or recombinant DNA
- F. Deception of subjects
- G. Subjects under 14 years of age and/or
- H. Subjects in institutions (nursing homes, prisons, etc.)
- I. Research must be approved by another institution or agency (Attach letters of approval)

If you checked any of the items in 11, please complete the following in the space below (include any attachments):

Items A-E Describe the procedures and note the proposed safety precautions.

Items D-E The principal investigator should send a copy of this form to Environmental Health and Safety, 113 Agronomy Lab for review.

Item F Describe how subjects will be deceived; justify the deception; indicate the debriefing procedure, including the timing and information to be presented to subjects.

Item G For subjects under the age of 14, indicate how informed consent will be obtained from parents or legally authorized representatives as well as from subjects.

Items H-L Specify the agency or institution that must approve the project. If subjects in any outside agency or institution are involved, approval must be obtained prior to beginning the research, and the letter of approval should be filed.
<table>
<thead>
<tr>
<th>Last name of Principal Investigator</th>
<th>Burnett</th>
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</thead>
</table>

### Checklist for Attachments and Time Schedule

The following are attached (please check):

12. **X** Letter or written statement to subjects indicating clearly:
   - a) the purpose of the research
   - b) the use of any identifier codes (names, #’s), how they will be used, and when they will be removed (see item 17)
   - c) an estimate of time needed for participation in the research
   - d) if applicable, the location of the research activity
   - e) how you will ensure confidentiality
   - f) in a longitudinal study, when and how you will contact subjects later
   - g) that participation is voluntary; nonparticipation will not affect evaluations of the subject

13. □ Signed consent form (if applicable)

14. □ Letter of approval for research from cooperating organizations or institutions (if applicable)

15. **X** Data-gathering instruments

16. Anticipated dates for contact with subjects:

<table>
<thead>
<tr>
<th>First contact</th>
<th>Last contact</th>
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<tbody>
<tr>
<td>08/31/98</td>
<td>12/18/98</td>
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</table>

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:

Not applicable. Our discipline requires that original tapes and instruments be retained.

18. Signature of Departmental Executive Officer

<table>
<thead>
<tr>
<th>Date</th>
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Department or Administrative Unit
English Dept.

19. Decision of the University Human Subjects Review Committee:

- [ ] Project approved
- [ ] Project not approved
- [ ] No action required

<table>
<thead>
<tr>
<th>Patricia M. Keith</th>
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<tbody>
<tr>
<td>Name of Committee Chairperson</td>
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<td>Date</td>
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</table>
INFORMED CONSENT MEMO TO STUDENTS

August 26, 1995

To: Students in English 309 and Agronomy 356
From: Rebecca Burnett
       Julie Zeleznik
Subject: Participation in Assessment and Evaluation of English 309 and Agronomy 356

Purpose: We would like to invite you to participate in the assessment and evaluation of English 309 and Agronomy 356 during the Fall 1995 semester. The integration of these two courses is a milestone for ISU, and we want to identify what works and what might be changed when the two courses are offered again. We are interested in three things:

- your perceptions and expectations
- your problem-solving, collaborative, and communicative processes
- your performance

Time and Place: You will be asked to do the following things that will take approximately two hours total during the semester:

- complete a short-answer survey that will take about 15 minutes, once in August and again in December
- participate in three interviews, one in August or September, one in October, and one in December or January, each taking no more than 30 minutes and conducted in an office in Agronomy or Ross

Data: In addition to the survey and interviews mentioned above, we plan to collect the following information:

- copies of your assignment drafts and final papers
- course grades for 309 and 356

Participation and Confidentiality: You will not be identified by name in any presentations or publications about these courses. We will respect your confidentiality by changing your name. Of course, your participation will be very helpful to the project, but your participation is voluntary. Nonparticipation will not affect your course evaluations.

I have read the memo describing this project and fully understand the nature of this work and the nature of my participation.

I voluntarily agree to participate in the assessment and evaluation being conducted by Rebecca E. Burnett and Julie Zeleznik of Iowa State University.

I understand that my confidentiality will be preserved. I may withdraw from participation at any time.

Name (Print) __________________________ Date ____________
Signature ___________________________ Phone ___________ Email Address ____________
Address _________________________________
INFORMED CONSENT MEMO TO FACULTY

August 26, 1998

To Faculty Teaching English 309 and Agronomy 356 (Polito, Roberts, Schafer)

From Rebecca Burnett
Julie Zeleznik

Subject Participation in Assessment and Evaluation of English 309 and Agronomy 356

Purpose: We would like to invite you to participate in the assessment and evaluation of English 309 and Agronomy 356 during the Fall 1998 semester. The integration of these two courses is a milestone for ISU, and we want to identify what works and what might be changed when the two courses are offered again. We are interested in three things:

- your perceptions and expectations of the courses and the students
- your comments about students' problem-solving, collaborative, and communicative processes
- your assessment of the students' performances

Time and Place: You will be asked to participate in three interviews that will take less than two hours during the semester, one in August-September, one in October, and one in December-January, each taking no more than 30 minutes and conducted in an office in Agronomy or Ross.

I have read the memo describing this project and fully understand the nature of this work and the nature of my participation.

I voluntarily agree to participate in the assessment and evaluation being conducted by Rebecca E. Burnett and Julie Zeleznik of Iowa State University.

I understand that my confidentiality will be preserved. I may withdraw from participation at any time.

Name (Print) ____________________________ Date ____________________________

Signature ____________________________ Phone ____________________________ Email Address ____________________________

Address ____________________________
INFORMED CONSENT MEMO TO FARMERS

August 26, 1998

To Farmer Clients for English 309 and Agronomy 356 (Hassebrocks)

From Rebecca Burnett
Julie Zeleznik

Subject Participation in Assessment and Evaluation of English 309 and Agronomy 356

Purpose. We would like to invite you to participate in the assessment and evaluation of English 309 and Agronomy 356 during the Fall 1998 semester. The integration of these two courses is a milestone for ISU, and we want to identify what works and what might be changed when the two courses are offered again. We are interested in three things:

• your perceptions and expectations of working with students
• your comments about students' interaction with you
• your assessment of the students' performances

Time and Place. You will be asked to participate in two interviews that will take approximately one hour total during the semester, one in September and one in December or January, each taking no more than 30 minutes. The interview will take place on your farm at a time convenient to you.

Participation and Confidentiality. You will not be identified by name in any of the presentations or publications about these two courses. We will respect your confidentiality by changing your name. Of course, your participation will be very helpful to the project, but your participation is entirely voluntary.

I have read the memo describing this project and fully understand the nature of this work and the nature of my participation.

I voluntarily agree to participate in the assessment and evaluation being conducted by Rebecca E. Burnett and Julie Zeleznik of Iowa State University.

I understand that my confidentiality will be preserved. I may withdraw from participation at any time.

Name (Print) Date

Signature Phone Email Address

Address
Date October 1, 2000

To Prof. Patricia Keith

From Prof. Rebecca E. Burne
Department of English

Julie M. Zeleznik, Research Assistant
Department of English

RE Addendum to Human Subjects Form

In September 1998, you approved our research study, "Agronomy 356/English 309 Integrated Course Project." For the 2000-2001 academic year, we would like to extend this research study.

We wish to access the following information from 19 students who enrolled in Agronomy 356 from 1993–1997:

- ACT score (upon admission to ISU)
- Transfer status
- Advanced Writing courses (English 302, English 309, English 314) taken previous to or concurrent with enrollment in Agronomy 356
- Course grades for English 104 and English 105
- Classification (during semester beginning enrollment in Agronomy 356)
- GPA (during semester beginning enrollment in Agronomy 356)
- Agronomy 356 course grade

We will ensure the confidentiality of the participants (a) by not including participant names in any publications or presentations and (b) by accessing information for a selection of students who enrolled in Agronomy 356 from 1993 to 1997 and not for the approximately 75 total students who enrolled in Agronomy 356 during those years.

While we propose to extend our research study in this way, both the purposes of our study and the data collection tools remain the same.
APPENDIX B

FEEDBACK CODING DEFINITIONS AND EXAMPLES
FEEDBACK CODING DEFINITIONS AND EXAMPLES

Argument Effectiveness is comprised of the following coding subcategories:

- **Focus / Background** refers to the report’s focus or concerns pertinent background information about the farm.
  
  **Example**
  
  There is also a focus problem, because you only mention “solutions to the problems” when in fact the major focus of this study is identifying opportunities to improve an already-strong operation. BTM98D1

- **Conclusions / Recommendations** pertains to the way conclusions are communicated or the way the recommendations are communicated. (May also refer to possible ramifications of recommendations once they are implemented.)
  
  **Example**
  
  What are his [the client’s] tillage practices? ITM00J

- **Evidence** refers to the fitness of the agronomic principles and calculations that are used to provide evidence for the recommendations; pertains to the fitness of the methods or results that provide evidence for the recommendations; or pertains or to the evidence of the economic feasibility of the recommendations.
  
  **Example**
  
  Prove it. Give [the client] numbers. Without them you expect him to accept this on faith. You have not worked with him long enough for him to take you on faith. DPD99J

  **Example**
  
  Nice, but it doesn’t tell me how you arrived at your N[itrogen] rec[ommendation]s. EPD99T

  **Example**
  
  You are not convincing! Where is the dollar comparison between the two systems? How much less fertilizer is needed and does that offset the increased sampling costs? EPD99T

Attention to audience is comprised of the following coding subcategories:

- **Audience** pertains to a potential audience reaction (positive or negative) or to a potential audience misunderstanding because of information contained or not contained in the draft.
  
  **Example**
  
  When you make a statement such as “High residue coverage in the fall helps protect your soil...” you should probably preface it with “As you know” to avoid insulting your audience. Can you see why? ATM98D

  **Example**
  
  Will your client understand this sentence? JTM00J

1 The all-caps number/symbol code following each final draft example indicates from which draft the example comes.
• **Professionalism** pertains to report's professional appearance; refers to report professional tone or voice; or concerns the stance adopted by the writers in the report.

  **Example**
  Your maps have some orientation info now, and you referenced them satisfactorily in the text, but do you think they look professional? Would you really send your client maps with hand-scribbled info? What will these maps do for our firm's credibility? ETM99D 18

• **Social Acceptability / Environmental Impact** refers to the social acceptability and/or environmental impact of the recommendations.

  **Example**
  How much is the erosion loss without contouring? How much will that be reduced by contouring? BPD98J 45

Quality of visual design is comprised of the following coding subcategories:

• **Content Organization** pertains to the “up-front” organization of the recommendations, the organization of paragraphs, the consistency of headings and text, the use of forecasting, or the use of transitions.

  **Example**
  I like the way you start with a kind of general recommendation (and an explanation of why), followed by the summary table of application rates. It provides an up-front view of some of the major pieces of this section of your report. JNM00D 36

  **Example**
  This is a very long paragraph in which you jump from soil tests to manure, to one rate in year one, to variable in year 2, from N to P to K, to lime etc. Break this up so I can follow it. BPD98J27

• **Visual Aids / Attachments** pertains to the inclusion, usefulness, labeling, reference, or design of visual aids (tables, maps, figures) or attachments.

  **Example**
  How about a table showing manure produced and manure used? DPD99J53

• **Document Design / Accessibility** refers to the way document design contributes to information accessibility.

  **Example**
  You list the products and then you give the reasons. You force the reader to keep flipping pages. BPD98J38

Attention to sentence-level features is comprised of the following coding subcategories:

• **Insert** suggests inserting word(s), deleting and inserting word(s), or moving word(s).

  **Example**
  Insert. APD98T4

• **Delete** suggests deleting word(s), pertains to the wordiness of text (but does not suggest corrections), or identifies weak repetition.

  **Example**
  Sentence is too long! EPD99T53

• **Word Choice** suggests replacing a word(s), pertains to usage, expression, style or unclear referent.

  **Example**
  Is it next to a river? Proper word is ponding. FTM99J4
• **Active Voice** suggests eliminating passive voice or using active voice.
  
  **Example**
  Lose the passive voice expressions. CTM9ID4

• **Grammar / Parallelism** identifies grammar error—parts of speech or errors in sentence construction or identifies errors in parallelism.
  
  **Example**
  Don’t end a sentence with a preposition. BPD98T1

• **Spelling** identifies spelling or abbreviation error.
  
  **Example**
  Spell out [1st]. DPD99D150

• **Punctuation** identifies punctuation error.
  
  **Example**
  Punctuation error. DPD99D156

• **Source Citation** identifies an error in identifying the source or citation for information.
  
  **Example**

Attention to classroom processes is comprised of the following coding subcategories:

• **Work Completion** refers to the way the work students are completing (or have completed) is communicated in their report.
  
  **Example**
  In your list of tasks yet to be completed, I don’t think you should include the first one (analysis) because it’s actually being done as you write the report and you should have results soon. By including it there, you make it look as though you’ve done less than you actually have. ATM9ID27

• **Performance Quality** refers to the quality of report or to the quality of the students’ performance on the report or in the class.
  
  **Example**
  Thanks for a very clean and readable report. ATM98D30
APPENDIX C

FEEDBACK WORKSHEET
FEEDBACK WORKSHEET: REFLECTING ON YOUR FEEDBACK ACTIVITY

PART I. BACKGROUND AND DEFINITION OF TERMS

Activity theory\(^2\) conceives of context as activity-driven and tool-mediated. To analyze an activity as such, eight primary components constitute the *activity system*: subject, object, motive, tools, community, rules, division of labor, and outcome (Figure 1).

![Activity System Diagram](image)

Figure 1. Activity System (Engeström 1987)

These activity system components form the basis for the questions that you will be asked in Part II:

- **Subject.** The subject is the person who completes the feedback activity (you!).
- **Object.** The object is the focus of your feedback activity; the "problem space" at which your activity is targeted (Engeström 1987, 67).
- **Motive.** The motive for providing feedback is your impetus for the "direction" of the activity (67).
- **Tools.** The tools you use to complete this activity are material (e.g., a computer or pen; assignment sheet) or discursive (e.g., writing).
- **Community.** The community in which you complete this activity is composed of members who hold a common interest in the object of the activity.
- **Rules.** The rules help to determine the manner in which the activity is carried out; rules can be tacitly or explicitly stated.
- **Division of Labor.** The division of labor in the feedback activity regulates who completes certain tasks in that system.
- **Outcome.** The outcome is the result of the feedback activity. The outcome can be either material (e.g., a physical object) and/or conceptual (e.g., knowledge).

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\(^2\) This social learning theory was initially articulated by cultural psychologist Lev Vygotsky (1978) and further developed by Alexei Leont'ev (1981) and Yrjo Engeström (1987).
PART II. IDENTIFY AND DESCRIBE YOUR FEEDBACK ACTIVITY SYSTEM

DIRECTIONS. Respond to each numbered item below by using the prompts following each italicized activity system component.

1. **Subject.** Insert your name here.

1. **Motive.** Describe your motives for providing teacher feedback.

1. **Tools.** List the types of material, discursive, and conceptual tools that you use to provide feedback.

1. **Object.** Given your motives, describe the characteristics of the object of your feedback activity—the student drafts.

1. **Rules.** List the rules—both explicit and implicit—that you follow when providing feedback.

1. **Community.** Identify the individuals and/or groups who are most affected by your feedback activity.

1. **Division of Labor.** Describe the power structure of this community as it relates to this feedback activity.

1. **Outcome.** Discuss the outcomes that you believe will result from your feedback activity.
PART III. IDENTIFY AND REFLECT ON RELATED ACTIVITY SYSTEMS

Activity theory is not only a useful analytical tool with which to characterize the features of an individual feedback activity system (Part II), but also to show the ways different activity systems relate to and impact one another. In this section, identify and describe the other systems (contexts) that most influence your feedback activity.

DIRECTIONS. Identify those activity systems that most affect the ways you provide feedback to students. Characterize and/or provide examples of the impact of these activity systems on your feedback. (You do not need to respond to each question; identify only those systems that most affect your feedback.)

1. How have the experiences you have had in courses that you have taught (or courses that you are teaching, or the courses you took as a student) affected the feedback you provide?

2. How have the experiences that you have had in workplace/industry activity systems affected the feedback you provide?

3. How have the experiences you have had in university activity systems (e.g., department(s) in which you teach, committees on which you are a member) affected the feedback you provide?

4. How have the experiences you have had in personal systems (e.g., family, civic or sports organizations to which you are affiliated) affected the feedback you provide?

5. How have the experiences in other systems (not mentioned above) affected the feedback you provide?
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