TACIT KNOWLEDGE TRANSMISSION IN THE TRAINING OF FIRST-YEAR COMPOSITION INSTRUCTORS

by

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CHAPTER 1

INTRODUCTION

Organizations work to preserve, create, and protect the knowledge they possess. In the "information age," knowledge management is a key concern for most large institutions. As Daft and Wieck (1984) suggest, the dominant organizational paradigms have always sought to analyze their environments with the highest degree of precision possible and tend to treat internal data (procedures, policies, regulations) as something to be catalogued. These paradigms also tend to view the markets or environments in which the organizations operate as something static. Such paradigms, however, focus only on the explicit components of knowledge identification, analysis, and transmission and often fail to perceive their environments as dynamic or even volatile when, in fact, they might be. As Baumard (1999) notes, the knowledge that can be expressed in words or numbers represents but the "tip of the iceberg." Organizations that can identify and harness this tacit dimension of knowledge are those that have a better chance to excel in any market or environment as these are organizations that can more fully utilize the expertise of their members. Indeed, the notion of "expertise" itself has changed in contemporary organizations. No longer is expertise defined as knowledge of a seemingly limitless array of options. Expertise actually involves reduced effort on the part of organizational problem solvers. Like chess masters, these experts or problem solvers consider far fewer alternatives than do the novices in an organization. Their knowledge of alternatives and outcomes is "tacit"—a term rather loosely defined in educational and organizational behavior scholarship, but which, for the purposes of this dissertation, I will define in two related fashions. First, tacit knowledge refers to that knowledge that cannot easily be

made explicit but can be transmitted and acquired through demonstration, practice and, analogy. Second, the term refers to that knowledge which only some of the members of an organization possess but which, if it were more widely disseminated, would lead to better outcomes for the organization. Knowledge management that seeks to understand and use the dynamics of knowledge, both tacit and explicit, can lead to competitive advantage and mastery even in extremely dynamic environments.

The study of tacit knowledge in organizations represents a paradigm shift in the study and understanding of organizations for two inter-related reasons. First, Tsoukas (2005) notes that traditional research and practice in organizational behavior has been antagonistic toward the lay or tacit knowledge that members of organizations possess. The prevailing view has been that organizations will prosper as this lay knowledge is displaced by insights from the social sciences. Managers and administrators were advised to move away from "intuitive" understanding of work procedures toward more explicit analyses of the practices of the organization. This traditional view of organizational analysis and knowledge management presupposes that a rigorous and, admittedly, homogeneous set of procedures will allow employees to "get on the same page" and reach optimal outcomes for the organization. Second, as Kisoski & Kisoski (2004) suggest, many managers and organizational theorists still hold a "modernist" view of knowledge, one that privileges positivism and scientific inquiry. For them, a focus on the explicit means that workers will be able to concentrate on the "objective" knowledge that all can share, on common perceptions of organizational problems.

But, as Baumard (1999) and others have demonstrated, such a view fails to account for the rich repository of knowledge that employees possess and the fact that much work

knowledge is “emic” (i.e., it is the knowledge of insiders, of experts in a particular domain of work). Organizations in dynamic environments place themselves at a disadvantage when they privilege the insights of the social scientists as such theorists and researchers are necessarily “outsiders” with an incomplete understanding of what goes on in particular organizations. As organizations encounter challenges from within their boundaries and from the contexts in which they operate, they must rely on the knowledge of their members to meet what are often organizational- or institutional-specific challenges in environments that resist explicit and immutable solutions.

First-Year Composition (FYC) programs at large universities across the country find themselves in just these sorts of dynamic and challenging environments. Rising enrollments in large states such as Texas, Florida, New York and California are forcing FYC programs to teach in class sizes previously considered unthinkable. Much of this increase in enrollments comes from students who would have had little opportunity to attend college in years past, those for whom English is a second language, students with special learning needs and requirements, and “nontraditional” and older students. Exacerbating the problems created by larger and more diverse enrollments is the fact that FYC has been traditionally taught by graduate students, instructors whose affiliation with a particular FYC program might only last from 2-4 years. Thus, English departments are asked to serve burgeoning freshman enrollments with instructional needs different (and more varied) from those freshman students brought to college in the past and to do so in a work environment characterized by an extremely high degree of “turnover.”

Several administrators and practitioners have attempted to meet this instructional challenge in very creative ways. Sweedler-Bown (1985), for example, suggests that FYC

programs that offer more explicit training in both grading rubrics and pedagogical approaches themselves will lead to greater consistency across that particular FYC program and, in turn, this will lead to greater efficiency in both grading and instruction. Ramage and Bean (1990) suggest that 60-student FYC classes are possible if a "Master Teacher" method is utilized. One experienced faculty member can delegate some of the instructional duties and a large portion of the grading to part-time instructors and graduate teaching assistants. They utilized such a method at Montana State University and demonstrated that the quality of writing on "exit" essays for students taught in large sections did not differ in quality from those written by a sample of "control" subjects (i.e., a group taught in more-or-less traditional fashion). Finally, Coppola (1999) suggests that a portfolio grading system will lighten the grading load for instructors and will engender greater student autonomy as writing students will choose which drafts they want graded. Such a system, she argues, frees the instructor to actually concentrate on teaching writing.

Such approaches as these above, while successful in many respects, fail to address certain aspects of the problems of instructing and responding to student work in such a dynamic environment as FYC. While the development of more explicit grading rubrics and instructional procedures (lesson plans, activities) can guarantee some degree of consistency within a program, Sweedler-Brown's suggestions tend to ignore the reality that FYC programs necessarily feature rapid "employee turnover" as those graduate students who serve as instructors and graders matriculate in a very short period of time. Training in such a setting, thus, becomes something that is ongoing and almost permanent and, of course, hours spent in formal training are hours that FYC

administrators and instructors cannot devote to instruction or in responding to student work. Additionally, there are limits to the consistency across a program that even the most explicit training can offer. Instruction and response to student work are practices or skills and mastering these skills requires opportunities to practice that formal training programs, no matter how rigorous, cannot offer.

The program at Montana State University described by Ramage and Bean resembles the "Master Teacher" approach utilized by university faculty across the country in large freshman sections of various content area courses (usually in humanities or social sciences). A tenure-track faculty member will delegate certain instructional responsibilities (and often all of the grading responsibilities) to graduate student teaching assistants. While this approach does distribute the workload, it cannot guarantee adequate training for teaching assistants in instructional approaches or responding to student work. Additionally, there are few mechanisms built into the program that ensure any degree of consistency in instructional practice or in responding to student work. Additionally, this approach has been featured for the most part in content-area courses. FYC teaches a skill and, although Ramage and Bean are cautiously optimistic about the effectiveness of the program, their results are admittedly quite preliminary and provisional.

Finally, Coppolla's portfolio approach effectively diminishes the grading an instructor would have to do in a large class but it also effectively diminishes the amount of feedback a student would receive. The "conventional wisdom" in FYC (e.g., Murray 1985) is that students who write frequently and receive frequent feedback on their efforts learn to write more effectively than those who do not. A portfolio approach cannot offer the necessary frequent feedback. While portfolio approaches do place the student in a

position of greater agency than he or she would have in a traditional writing class (i.e., the student decides which work he or she will submit to the instructor for feedback and grading), feedback from instructors is still relatively infrequent in such approaches.

The First-Year Writing Program at Texas Tech University has attempted to meet these instructional challenges (i.e., instructing and responding to student work in an environment featuring increasing enrollments and rapid instructor turnover) in a somewhat different manner. In the fall of 2002, the Texas Tech University first-year composition program implemented a major innovation in how it teaches writing to its 3000 first-year students. Called ICON (for "Interactive Composition Online"), this innovation uses locally written software (TOPIC) to support more “objective” (i.e., criterion-based) grading of essays and the ability to assign more frequent student writing. ICON submits all student writing to a grading pool consisting of the graduate part-time instructors who teach the courses (Classroom Instructors or CIs) and others who only respond to and grade student work (Document Instructors or DIs). Although there are differences between the English 1301 and 1302 courses, students revise two or three long essay drafts and write peer critiques and writing reviews (self-critiques) that coincide with each of the successively revised essay drafts. Each student essay draft is anonymously reviewed by at least two instructors through web browsers (this does not occur for the peer critiques and writing reviews which are graded and responded to by only one instructor). For each essay draft, the first instructor writes a comment, and both instructors submit number grades based upon criteria specific to the assignment. If the number grades are within eight points of each other, the draft receives an average of the two. If the grades are more than eight points apart, a third reading is automatically called

for. The fact that a piece of writing by a particular student is anonymously evaluated by an instructor who may be other than the instructor who teaches the particular student means that the criteria for effective writing must be shared among all instructors. This is designed to ensure consistent and coherent instruction across the program. The efficiencies in moving documents through the web allows the FYC program at Texas Tech to assign more frequent writing assignments, provide professional feedback for all of it, and yet not place a greater burden on the instructors. For example, in academic year 2002-2003, the FYC program served 4,394 students and graded and commented on 139,704 pieces of student writing, including 43,682 essay drafts and 58,189 peer critiques, an average of about 31 documents per student per semester.

In the three years since its inception, ICON (and FYC at Texas Tech University, for that matter) has undergone several changes in response to difficulties assessed by the FYC administrators as well as instructor concerns. For example, late in 2002, “radio buttons” were added to the interface to allow for easier grading of shorter drafts. In 2003, peer mentoring groups composed of an experienced instructor and 3 or 4 instructors of lesser but varied experience were formed. These groups began as a way to support grading during “peak” periods and have since developed into ways that instructors can discuss and share problems and concerns with ICON and the curriculum. In late 2003, the FYC administrators were able to assign various grading assignments to individual instructors to assist in efficient and timely grading of drafts. All the while the FYC curriculum, too, has been developing with several versions of custom textbooks being used in FYC classes. In 2004, instructors grading a “second read” (a draft for which they provided the second grade) were able to rate the quality of the first grader’s commentary

and the student who composed the draft was similarly able to rate how helpful he or she found the commentary. Finally, a chat room function was added to the grading interface so that instructors could communicate with each other as they graded in real time concerning concerns they might have with individual student drafts or challenges posed by responding to the present assignments.

While the developments described above are not an exhaustive list of the evolution of ICON, they all would indicate that ICON is built on the principles of User-Centered Design (UCD). The recursive nature of ICON and its development over the past three years in response to instructor concerns place its development squarely in the realm of UCD, as pioneered by Johnson (1998). According to Johnson, the development of either technology or of technological processes should place the user at the center of such development. Thus, this user-centeredness along with a belief that information should provide as many pathways for the user to follow as it can are the focal points of this approach. Johnson's view of development actually eschews rigid notions of technological determinism and instead concentrates on enabling the user to develop the agency he or she needs to use a particular tool. While Johnson's approach is admittedly more of a "top-down" design approach that depends upon expertise (as is that of ICON), others such as von Hippel (2005) favor more "democratic" or even communal approaches to the design process. Indeed, von Hippel's approach to design features an idea he terms the "innovation community" in which users participate on a more-or-less equal footing with designers and manufacturers in the development of any new software or application, a process Foray (2004) similarly calls "democratization in design." Approaches such as these are keenly aware that users will only follow those procedures that are easy-to-learn,

make some sort of intuitive sense, and / or provide them with a sense of agency or mastery and will have little interest in simply following procedures. Winsor (2000) found, for example, that technicians in an engineering firm virtually ignored the instructions that their supervisors wrote for them in favor of writing and using their own autonomously-written procedures. While Winsor and the other scholars discussed above do not deal specifically with the issue of tacit knowledge, there is for all of them a keen interest in and a concern for the way users actually perform tasks. All these approaches (including ICON) seek to scrutinize what the user does in the performance of his or her job and it would seem logical that this interest would extend to the tacit dimension of user knowledge.

Unfortunately, the UCD approach in itself is insufficient for the task of understanding, let alone disseminating, tacit knowledge for a variety of reasons. One cannot blithely ferret out tacit knowledge without first understanding that what often appear to be simple behaviors on the part of users actually mask a profound and necessary yet unarticulated knowledge. Thus, a developer or manger employing a UCD approach must be able to question the meaning of his or her own observations. What appears to "make no sense" to an expert might actually assist other users. Second, tacit knowledge appears paradoxical in nature. For example, Gourlay (2006) notes that, while tacit knowledge is touted as a source of innovation and change, it comes from the experiences and traditions of an organization and, as such, is essentially conservative. Similarly, there is the notion that, if tacit knowledge is made explicit, it thus ceases to be useful as it is when it remains tacit (Boiral 2002). Third, tacit knowledge is by itself extremely difficult to measure. Often, managers tend not to trust what seems elusive

(Arnulf 2005). Additionally, studying tacit knowledge is time-consuming as such research often involves the use of multiple measures. Finally, what makes the designer's or manager's job that much more difficult is the suspicion some users have of "experts." Lebowitz (2005) suggests that users often see their own expertise and their own ways of performing tasks as somewhat subversive to and at odds with the wants and desires of designers and mangers. They tend to perceive their own ways of doing things as the "right" ways and perceive any attempt to study their work habits as misguided and unnecessarily intrusive.

Yet, despite the challenges inherent in studying the creation and transmission of tacit knowledge within an organization, administrators and researchers who choose to ignore it do so at their own peril. As both Polanyi (1956) and Baumard (1999) suggest, the better part of individual and organizational knowledge is hidden. Organizations that can glean what people actually know and do (as opposed to what they think or suggest people do) are those that can prosper in dynamic environments. As Winsor's work (2000) suggests, members of an organization are going to do what makes sense to them in the completion of tasks often in spite of formal organizational policies that suggest other ways to accomplish tasks. Thus, it makes sense for an organization to learn how employees approach and accomplish their work. In the case of an FYC program like the one under discussion here (or, indeed, any large FYC program) the task of understanding what instructors actually do in the conduct of their jobs is especially urgent. While the FYC program at Texas Tech University with its innovative TOPIC / ICON system has the potential to make instructor behaviors more transparent, the challenges faced at Texas Tech are no different than those faced at other large public universities. As stated above,

freshman English courses are routinely taught by graduate students, instructors whose tenure at a university will last from 2-5 years in most cases. As Droege and Hoobler (2003) and Starke (2003) note, organizations that feature rapid turnover (like FYC programs) run the risk of losing accumulated organizational knowledge (both tacit and explicit) when key personnel leave. Further, these organizations run the additional risk of experiencing periods of "negative knowledge transfer" (periods during which an organization must regroup to regain lost expertise) when key personnel leave. In the environment in which English departments are asked to teach larger numbers of students with increasingly diverse needs, the challenge of understanding and transmitting this tacit instructional knowledge is especially important.

The present study, then, seeks to describe how tacit knowledge regarding grading and responding to student work is created and transmitted in an FYC program at a large Big XII university. Additionally, and perhaps a more important goal, this study seeks to explore what tacit knowledge actually entails in FYC and to suggest ways that we might define and measure its creation and transmission in large FYC programs. To conduct this study, I interviewed a sample of 20 graduate instructors over the course of a semester. Each instructor was interviewed three times. Their responses were subjected to grounded theory methods, specifically coaxial coding, for the purposes of interpretation and emergent theory design. The picture of knowledge transmission that emerges from the study relies primarily on the perceptions and understanding of those who actually work in the program. Because this study takes the view that knowledge transmission within a large organization or system is necessarily dynamic, the decision was made to eschew *a prori* definitions of and hypotheses about grading knowledge and instead allows the

instructors in the program to express their own understanding of the transmission of grading knowledge. Briefly, the findings that emerged from the interviews indicated that, although there are a number of features of the FYC program at Texas Tech University that instructors routinely use for the creation and transmission of grading knowledge, many instructors tend to concentrate on perceived “barriers” that lead them to be reluctant to share information.

CHAPTER II

ORGANIZATION OF THE DISSERTATION

The dissertation is comprised of five chapters. First, I will examine the literature on tacit knowledge from a variety of domains (philosophy of science, organizational behavior, education, and nursing). Although Polanyi's (1958) definition of tacit knowledge (i.e., knowledge which cannot be explicitly transmitted) has been expanded to include institutional or organizational knowledge that is difficult to disseminate (e.g., Baumard 1999), many of Polanyi's ideas about "procedural" knowledge continue to inform the present discourse. Indeed, the transmission of procedural knowledge is what organizations routinely grapple with. While organizational behavior is the discipline in which the study of tacit knowledge seems to have "found a home, "there are interesting explorations of the concept in a variety of disciplines. The literature ends with an exploration of two studies involving the training of FYC instructors that, while they don't identify tacit knowledge as a primary focus, beg the question regarding its role in the training of writing instructors.

The second chapter is an explanation of the methods used in the present study. As stated in the introduction, I used a combination of interviews and grounded theory coding. The chapter attempts to justify the choice of these qualitative methods as the most appropriate for the study. While tacit knowledge is, admittedly, difficult to measure, it is an "emic" (Pike 1954) type of knowledge and, as such, I argue that it is best studied via methods that allow the emergence of rich and nuanced data.

The third chapter presents the results of the study. Three emergent themes arose from the interview data. First, instructors are both uncertain about the place of FYC in

English studies, in general, and about the appropriateness of tacit knowledge in a discussion of FYC. Many of the instructors took the stance that knowledge in FYC is "incorrigible" (Lave 1988). That is to say, they tended to believe that there is only one correct way to grade and respond to student writing and that FYC is not a field where instructors and students "create" knowledge. Next, instructors tended to use those features of the Texas Tech FYC program that provided both immediate feedback and a "conversational" approach to knowledge transmission. Finally, instructors identified a number of reasons that they were hesitant to share knowledge with other instructors. Some of these reasons included fear of administrative consequences for "taking shortcuts," the individual and competitive nature of English studies (in terms of its scholarship), disappointment that the hybrid instructional system here is unfamiliar, and a perceived lack of commonality with their peers.

The fourth chapter presents the results of some interviews with tenure-track faculty at this institution and at others involving the emergent themes from the graduate instructor interviews are also presented and discussed. These instructors discussed the role of mentoring in training graduate instructors as well as departmental and institutional barriers to training new writing instructors more effectively.

Finally, the last chapter discusses the results in light of the challenges that large FYC programs across the country face and in light of issues such as the professional development of new instructors. Some recommendations for instructor training are presented.

CHAPTER III

LITERATURE REVIEW

In *Personal Knowledge* (1958), the philosopher Michael Polanyi suggested that there were two sorts of knowledge, explicit and tacit. Often explained via reference to his maxim, "We know more than we can tell," Polanyi called tacit knowledge this "ineffable domain of skillful knowing." Most of what we learn has components of both the explicit and the tacit but the acquisition of tacit knowledge requires a more committed and, paradoxically, explicit willingness to apprehend than does explicit knowledge. This willingness is especially paradoxical because the acquisition of tacit knowledge often happens unintentionally. Both teacher and student will be involved in a relationship much akin to that of a mentor and apprentice and, like the latter, the learning often takes place in a fashion tangential to what is being taught explicitly. Thus, commitment is necessary as tacit knowledge can only be transmitted through practices such as demonstration, analogy, and repetition and can only be acquired through repetition and practice. An example Polanyi uses involves the acquisition of the skill of bicycling:

> The principle by which the cyclist keeps his balance is not generally known. The rule *observed* by the cyclist is this. When he starts falling to the right he turns the handlebars to the right, so that the course of the bicycle is deflected along a curve towards the right. This results in a centrifugal force pushing the cyclist to the left and offsets the gravitational force dragging him down to the right […] he continues to keep himself in balance by winding along a series of

> appropriate curvatures […] But does this tell us exactly
> how to ride a bicycle? No. Rules […] are maxims […]
> They can be integrated into the practical knowledge of the art.
> They cannot replace this knowledge.

Thus, the explicit rules for riding a bicycle are perhaps necessary but ultimately insufficient to enable one to learn the skill. They are helpful only in conjunction with practice.

Indeed, the acquisition of tacit knowledge through practice is essential for any sort of mastery (e.g., connoisseurship). While Polanyi bemoaned that tacit knowledge does not possess the cachet that its explicit counterpart does, several other theorists have been quick to see its importance. Robert Sternberg, for example, views the acquisition of tacit knowledge as essential in teaching novice learners how to acquire knowledge in a particular domain. Sternberg terms such acquisition "learning how to learn" and likens it to the acquisition of wisdom. For Sternberg, the mastery of a particular skill aids in the acquisition of other related skills in ways we do not fully comprehend. Sternberg and Wagner (1994) note that tacit knowledge increases with a subject spending time in a particular setting and is a better predictor of performance in that particular setting than is IQ. Education and training, unfortunately, are organized around a closed system of selection and talent development that emphasizes intelligence in a narrowly defined way. Training, thus, often ignores a potential synthesis with creativity and wisdom. Theorists such as Polanyi and Sternberg see this lack as especially unfortunate since any sort of skill acquisition has the potential to not only enhance creativity in that particular skill domain but also in other disparate domains.

In the 1990s, explorations in tacit knowledge transmission and acquisition tended to take a different turn. Instead of continuing to study the acquisition of this knowledge by an individual learner, theorists influenced by Polanyi and Sternberg such as Bordum (2002) expanded the concept of tacit knowledge from something that happens between a mentor and apprentice to something that can (and needs to) occur within groups or organizations. Bordum considers the modern institution as a "learning organization" and considers the transmission and acquisition of tacit knowledge within that organization as its most important task. Similarly, Bird (1994) suggests that, when tacit knowledge is understood and transmitted at an individual or small working group level, it can then function as a catalyst for knowledge creation within an entire organization. For these theorists, the definition of tacit knowledge, then, has expanded to include not only that knowledge that is truly impossible to articulate but also those things that are unknown by members of an organization except for a select few who may be unaware themselves of how this knowledge might benefit the entire organization. One of the most important tasks, then, for a group or organization is the collection, archival, and dissemination of tacit knowledge within that group or organization.

One theorist and researcher often cited by those who study knowledge transfer in organizations is Jean Lave (1988; Lave & Wenger, 1991). An anthropologist who studied what she termed "situated learning," Lave dismissed the notion of apprenticeship per se in occupational groups. While her model of occupational learning favors the tacit dimension of knowledge transmission (as does the mentor-apprentice model), she believes that learning is a far more social affair. Newcomers to an occupation engage in "legitimate peripheral participation." That is, they are situated on the periphery of a work

group and master the work through formal (e.g., perusal of instruction manuals and procedures, individual mentorships) and informal means (e.g., observations, workplace discussions, and "gripe" sessions). Through these conduits and through immersion in the occupational milieu, these peripheral participants are moved into the mainstream of the occupational group where their experiences become part of the knowledge base that is then transmitted to a new cadre of peripheral participants. Lave studied diverse occupational groups ranging from butchers in US supermarkets to midwives in the Yucatan to tailors in West Africa. Additionally, she studied knowledge transmission in mathematics classrooms and via self-help groups such as Alcoholics Anonymous. For Lave, the term "apprenticeship" does not adequately speak to the social nature of tacit knowledge transmission. Instead, she and Wenger coined the term "communities of practice."

But, given this 50-year interest in tacit knowledge whether it occurs in individual or in social and occupational settings, it is somewhat surprising that there has been relatively little investigation of its effects in formal academic settings. Indeed, most of the empirical exploration of tacit knowledge has come from the field of organizational behavior. This is not to say that the concept of tacit knowledge is universally accepted in organizational analysis. Arnulf (2005) suggests that upper-level managers distrust the concept of tacit knowledge because of the inherent difficulty in measuring its effects. Indeed, Duguid (2005) recounts how the perception of knowledge in financial organizations has developed over the past 50 years. He suggests that economists, in particular, resisted the notion of tacit knowledge in favor of a more individualistic approach. For them, Polanyi's tacit knowledge was nothing more than uncodified

individual knowledge. Duguid suggests, however, that, over the past ten years, economists have begun to adopt Lave's "communities of practice" model that accepts the idea of both a tacit and a social dimension to knowledge. In financial, manufacturing, and knowledge-based organizations, tacit knowledge has become both a widely-accepted part of the field and something to be harnessed and utilized.

Other analyses of managerial resistance to the notion of tacit knowledge concern the ambiguities and paradoxes involved in an understanding of tacit knowledge. Gourlay (2006) suggests that one of the reasons tacit knowledge might be dismissed is that understanding it requires an acceptance of certain apparent contradictions. For example, on the one hand, tacit knowledge appears to be something gained via experience by the individual or at the organizational level yet there are those who suggest that we are predisposed toward certain types of tacit knowledge (e.g., Patel et al, 1998) thus minimizing the role of experience. Similarly, while theorists such as Baumard (1999) discuss the role of tacit knowledge transmission in innovation, others quite rightly note that tacit knowledge can also be the source of a rather stultifying conservatism for an organization (Argyris 1999). Indeed, the fact that tacit knowledge seems to spring from long-term experience and tradition, elements that can be considered "conservative," seems to complicate the argument that tacit knowledge is a source of innovation. Gourlay (2006), however, suggests that these ambiguities and contradictions themselves provide fertile subjects for research.

Finally, other analyses as to why upper-level mangers might be opposed to tacit knowledge, however, take a decidedly Marxian approach and include critiques of the "information economy" and the role of tacit knowledge within it. Parenthetically, Karl

Marx himself, in the unpublished sixth chapter of *Capital* (1977), argued that "real subsumption" of labor by capital would have to involve capital's appropriation of artisanal procedures (the knowledge workers have of how to perform their jobs) in order to intensify production. Taking another concept from *Capital*, Day (2001) suggests that "information" for post-moderns is viewed as a commodity. He suggests that, as we explore the development of the idea, "information" has moved from having the notion of imparting knowledge to our present-day understanding of it as something substantive. As a result, it is now understood as something that is subject to institutional and ideological control. Additionally, critiques of information themselves seem to follow an "aesthetic" that reinforces the commodification of information. These critiques never question the notion of information as knowledge, as something we can possess and control. As information (and the idea of information itself) becomes a commodity, there is: (1) an attempt by capital and management to "subsume" the knowledge that workers possess via computer surveillance, automation (or what Italian theorists such as Antonio Negri term "robotisation"), and other strategies that attempt to appropriate worker knowledge, and (2) a simultaneous distrust by management of any sort of knowledge or information that cannot be easily measured or possessed (Dyer-Witheford 2004). In other words, because tacit knowledge is, by definition, difficult to measure and codify, mangers will attempt to create situations in which automation arguably makes tacit knowledge unnecessary (although such a situation may be well-nigh impossible in certain industries) or will disregard its' dissemination altogether. Analyses such as these appear in disciplines and domains as distinct from each other as organizational behavior and treatises in Italian council communism. In the former, theorists such as Langdon Winner (1977) explore the

paradox created when organizations laud “autonomous” knowledge as the prime mover of progress and yet seek to undermine the creation of “grassroots” knowledge within the organization. In the latter (i.e., analyses by members of the Italian left) , Negri (1984), for example, suggests that, as automation transforms the face of capital into what its proponents call the “information society,” the role of “autonomous” knowledge (and here he refers to tacit or procedural knowledge originating with workers) in the workplace becomes smaller and smaller. Indeed, as historians such as Wright (2002) have noted, automation not only tends to transform artisanal work into something less “skilled,” but also tends to change the complexion of the labor force from something that possesses specialized knowledge into a class of “mass workers.”

The tendency discussed above, of upper-level managers aiming to almost jealously possess information and distrusting / forbidding procedural knowledge that comes from workers themselves, is something, however, that some Marxist scholars decry as self-defeating for any organization. Lebowitz (2005), in his analyses of co-managed (capital and labor) factories in Venezuela suggests that a refusal to recognize and allow the creation and dissemination of tacit knowledge in the workplace impedes human development for the worker and is tantamount to organizational suicide for the company or organization. Conceicao, et al (2003) address such critics of tacit knowledge in another way. They suggest that many upper-level managers fail to understand three points. First, such critics fail to make a distinction between knowledge *about* the world (content) and procedural knowledge. Those who argue that any knowledge can be codified must admit that coding the second type is fraught with difficulty. Second, they argue that the dichotomy between codifiable and non-codifiable knowledge is problematic since it is

rare that a body of knowledge can be completely transformed into codified form without losing some of its original characteristics and that most forms of relevant knowledge are mixed in these respects. Third, they contest the assumption that codification always represents progress. For them, the development of innovative ways of transmitting knowledge of all sorts is the fundamental task of the organization, whether it occurs with or without codes.

Still, despite some misgivings that still persist, the concept of tacit knowledge and the exploration of tacit knowledge transfer receive increasingly warmer welcomes in the field of management and organizational behavior as our understanding of its benefits increases. Many researchers and practitioners, even those in "information" organizations and organizations that are undergoing various sorts of automation, are becoming interested in the benefits of tacit knowledge. In his landmark *Tacit Knowledge in Organizations*, Baumard (1999) suggests that, more often than not, recovery in a troubled organization or sudden success in an organization that had been previously mediocre has more to do with changes in knowledge management within that organization than it has to do with serendipity or inspired leadership. For Baumard, knowledge transmission within an organization follows one of four paths:

(1) *tacit to explicit*--knowledge that was more-or-less "common but unarticulated becomes explicit. Here, we can think of idiosyncratic ways of doing things within an organization that become organizational policy over time,

(2) *explicit to explicit*—explicit knowledge is remediated. For example, individuals who exchange information in telephone conversations can put that information into databases,

(3) *explicit to tacit*—as all the visual information within an organization is received and interpreted or internalized in much the same way by all the members of the organization, we can think of instances such as the demeanor of participants in a meeting as providing us with useful although unstated information regarding the meeting, and

(4) *tacit to tacit*—in the case of organizations that employ an apprenticeship model of knowledge transmission, we can think of an instance in which the resistance to make a procedure explicit is transmitted from worker to worker until it becomes part of the organizational culture.

Baumard provides an example of how the four sorts of knowledge transfer can enable an organization to achieve competitive advantage. One of the members of a product development team at the Matsushita Electric Company in Japan who was involved in the development of a bread-kneading machine apprenticed herself to the bakery at the Osaka International Hotel to learn the art of kneading. Although she could not articulate the head baker's manner of stretching the dough, she developed enough of an understanding so that, upon return to the company, she could make modifications to the machine. Baumard sees this as a four-stage process that corresponds to the four types of knowledge transfer listed above:

(1) *tacit to tacit*—she was socialized into the milieu of the bakery at the hotel and learned the head baker's technique,

(2) *tacit to explicit*—she translated the knowledge she had learned into a form of explicit knowledge she could communicate to the rest of the product development team,

(3) *explicit to explicit*—the knowledge of the product development team was translated into a manual and a set of procedures and, finally,

(4) *explicit to tacit*—the members of the product development team now have a greater understanding of the product development process, in general, because of their experiences in this particular project.

For Baumard, there is a tacit dimension to all organizational knowledge that must be understood and harnessed if that organization is going to prosper. While Baumard's work is frequently cited in empirical studies of tacit knowledge transfer, there are those theorists who take his work to task for its view of knowledge as a complex structure of rather finite information. Indeed, Foray (2004) suggests that tacit knowledge (especially in organizations undergoing or propagating new innovation) is so dynamic that "knowledge management, " per se, is not a task that can be handled by "experts." To capture and transmit this knowledge as it is created is (and must be) an *organizational* task. Stapleton and his colleagues (2005), for example, see the view of knowledge as a *thing* to be stored and transmitted (the view implicit in Baumard's work) as something that is less than human-centered. Systems thinking requires that we view the process of transfer as something of primary importance. The knowledge itself, (particularly) the often inexpressible tacit knowledge, is of secondary import. That said, Baumard's work

remains influential even as research in knowledge management adopts a more dynamic approach.

In fact, whether a more static or dynamic view of knowledge is constructed, others have found results that support many of Baumard's contentions. Durrance (1998) studied the formation of a relational database at Xerox Corporation in Palo Alto CA in which technicians were asked to reflect on practices that might be helpful for employees in other departments to master. These practices became part of a database that company employees could access. Certainly, entries from those technicians who were viewed by others as talented or trustworthy (names appeared with database entries so that users could ask follow-up questions) were seen as most useful. But, this method of translating tacit into explicit knowledge was found to be successful for Xerox.

Collis and Winnips (2002) note that, while many organizations feature training programs that provide explicit instruction on that organization's policies and procedures, few of them provide any sort of mechanism that offers information from the experiences of people within that organization. They see two dimensions to tacit knowledge: (1) a technical dimension involving "tricks of the trade" and (2) a cognitive dimension that involves ways of viewing problems and solutions that are peculiar to that organization or occupation. For Collis and Winnips, this first aspect of tacit knowledge can be addressed in a mentor-apprentice relationship though various scaffolding techniques. A mentor can divide the task that the apprentice learns into an appropriate number of sub-products. Via demonstration during the production of each subproduct, the apprentice can imitate the procedures and, over time, become more self-reliant in the production of each sub-product. The mentor can use information from the performance of each task to modify

the demonstration of the next sub-product, as needed. The second aspect of tacit knowledge transmission can, indeed, occur in settings where explicit knowledge is taught. Indeed, training in web-based environments can lend itself to this sort of tacit knowledge transfer as long as participants are guaranteed an opportunity to view the responses of others and a chance to reflect on their own performance. Still, scholars such as Udell (2005) caution that such software can become cumbersome and unwieldy. A primary goal for such software is that it should enable easy storage and retrieval of tacit knowledge.

While much of the research on tacit knowledge transfer involves the study of those conduits through which an organization allows for the transmission of tacit knowledge, a few researchers have studied the process of tacit knowledge transmission within an industry or between companies in the same geographic region. Lawson and Lorenz (1998) contend that firms in clusters such as California's Silicon Valley, Minneapolis' "Medical Alley" and the aerospace district in Toulouse, France routinely transfer tacit knowledge between themselves in both formal and informal ways. Employees of the firms in these districts routinely change positions bringing a degree of tacit knowledge from their old firms to their new employers. Also, these firms often provide subcontractors to other firms for special projects and will enter into agreements to collaborate on other special projects. The challenge, then, is not so much how to transfer such knowledge (as the transfer already occurs) but how to make the acquired tacit knowledge understandable and useful in a new organizational setting (Nelson & Winter, 1982). In their interviews with mangers in the Minneapolis medical cluster and the Cambridge (UK) high-tech cluster of companies, Lawson and Lorenz discovered that,

although mangers viewed this challenge as an ongoing one, the degree of "knowledge open-ness" (i.e., the view that knowledge is not proprietary) within the clusters allows multiple firms to be successful in their knowledge management endeavors.

Not surprisingly, this same pattern of tacit knowledge transfer also seems to occur between organizations in nations with more regulated economies as well. Harmaakorpi and Melkas (2005) studied a high-tech research cluster in Lahti, Finland. Even with rather stringent regulations on copyright and intellectual property, the Lahti cluster showed many of the same knowledge management features that Lawson and Lorenz found in their study of UK and US clusters. Indeed, companies in the Lahti cluster have developed formal databases open to other firms for the utilization of organizational and regional tacit knowledge. This degree of open-ness in terms of propriety knowledge, while powerful and somewhat ubiquitous across different societies, may be difficult to replicate in US firms that are not situated in regional clusters. In a related article, van Caenegem (2005) suggests that recent court cases in the US involving intellectual property seem to indicate that, although employees are free to migrate with and share the tacit and explicit knowledge garnered during previous employment, there are definite exceptions. Still, it seems clear that those companies that can harness the tacit knowledge new employees bring to them have an advantage over those that do not.

One area that has only recently begun to receive attention in studies of organizational behavior and tacit knowledge involves the relationship between knowledge management and employee turnover. While some of the landmark studies in the field concern Western European and Japanese firms (both of which feature little employee turnover) and regional clusters of firms in the same field. Turnover in such

cases seems a relatively negligible factor. Yet, Droege and Hoobler (2003) suggest that knowledge loss through turnover is a major problem in certain industries. Organizations that have no formal or informal knowledge transfer mechanisms in place put themselves at a competitive disadvantage. They suggest that collaboration within and across departments and opportunities for social interaction in the workplace are two very powerful ways to ensure that knowledge is not lost when an employee leaves the organization or, worse, when multiple employees leave. Indeed, Starke and his associates (2003) indicate that, upon the resignation or absence of key employees, an organization may go into a prolonged period of negative knowledge transfer in which replacement employees or those employees left behind create no new knowledge as they "get up to speed" in terms of organizational knowledge, both tacit and explicit.

Clearly, tacit knowledge transfer is seen as an important and salient topic in knowledge management and organizational behavior. It has not received anywhere near as much attention in the field of higher education even though one of its proponents, Robert Sternberg, is himself an educational psychologist and counts topics such as teacher training among his research interests. While Sternberg and Horvath (1995) have suggested that expert teachers have more in common with each other regardless of their content areas and have suggested that the role of tacit knowledge in facilitating this expertise in teaching is a fertile area for research, pedagogical research has been slower to respond to the challenge than has the field of organizational behavior. Somewhat surprisingly, nursing education is one domain that has afforded some degree of credence to the study of tacit knowledge transmission. Fox (1997) developed a paper-and-pencil questionnaire to determine what a group of nurse practitioner students and faculty

considered to be the most important skills for new practitioners to acquire. A confirmatory factor analysis on the results indicated that the portion of managerial decision making learned implicitly on the job is mainly accounted for by managing tasks and others. Suggestions for nursing education include teaching effective strategies for managing tasks, such as handling increased workloads, establishing priorities, and delegating responsibility. For our purposes here, however, it is most important to note that these duties are the ones most commonly transferred by way of mentoring in nurse practitioner programs.

Bruce and Suserud (2005) studied the role of tacit knowledge in developing expertise in emergency room triage and the "handover" process. They conducted interviews with six emergency room nurses to analyze the components of these very important processes. The handover occurs when ambulance personnel transfer a patient from their care to the care of an emergency room staff. Bruce and Suserud suggest that, as many handovers involve patients with very complicated and non-apparent medical conditions, the ability of the ER nurse to observe and ask the correct questions is pivotal. They see this ability as a tacit knowledge whose acquisition relies on observation of more experienced nursing staff, demonstration, and practice. Bruce and Suserud suggest that nursing programs and hospital training programs need to pay more attention to this rather critical area.

Paton (2005) discussed developing nursing education that moves beyond explicit curricula to something that provides instruction in those unexpected contingencies nurses encounter. Indeed, clinical instruction in nursing itself presents situations in which instructors encounter things that interrupt a smooth instructional flow. These situations

can themselves provide opportunities for students to learn skills that are not or cannot be taught explicitly. Paton terms these experiences “Unready to Hand” immersion, a term from Heidegger. Briefly, as Diedrich (2001) points out, a tool or a situation becomes “unready to hand” when its’ instrumentality breaks down to the point that more about the tool becomes obvious. Paton carried out a qualitative research project involving reflections on personal experiences from nurse educators. This was supplemented by structured interviews with other nurse educators. These situations in which the instructional flow is interrupted provide unique opportunities for educators to teach a “tacit” curriculum to student nurses, one that involves instruction in the ability to make rapid clinical judgments.

The use of reflection as a conduit for tacit knowledge in nursing has been studied by O’Callaghan (2005). She discusses the use of a standardized “diary” or questionnaire that students and nursing instructors can use to develop insight into incidents that occur in clinical instruction. Although such a diary might appear on the surface to be nothing more than a collection of reflections on discrete incidents, her study reveals something quite different. She shares, for example, an incident in her practice in which, in the interest of expediency, she allowed a student to do more than she was able. This suggested something about her (O’Callaghan’s) relationship with her clinical students that she may wish to modify. O’Callaghan suggests that an accumulation of these reflections can provide a conduit for tacit knowledge regarding one’s practice.

Although nursing education has been relatively quick to adopt the study of tacit knowledge, there are other domains in higher education (and, indeed, in elementary education) that have explored the concept as well. Spencer (1990) studied the difference

between tacit knowledge of words (intuitive knowledge of how to use words) and explicit knowledge of words (the ability to reflect on and discuss the definitive properties of words) and how both affect learning to read in kindergarten through second grade children. Over a year-long series of sessions, she found that tacit knowledge of spoken and written words develops concurrently with each other. Explicit knowledge of the spoken word only seems to develop after explicit knowledge of the written word. Thus, an abstract understanding of the concept of "word" seems to require tacit knowledge and operational practice of the concept.

Greenwood and Lowenthal (2005) suggest that using a case study methodology in social work is a superior way to research practice and to improve practitioner education. They suggest that a case study method that employs a more qualitative description of practice works better than one with a more "scientific" orientation. The frequent study of such descriptions by novice practitioners serves as a medium for the transmission of tacit knowledge. Social work students can use these case studies to develop a "working knowledge" of social work practice rather than a more-or-less rigid epistemology. Graduate education in this field is, indeed, one that might well benefit from improved mechanisms to facilitate tacit knowledge transfer as MSW programs typically employ adjunct faculty (usually practitioners with private practices or heavy responsibilities in the public sector) who may only work for a single semester. Such programs need to find ways to manage and transmit the considerable accumulated knowledge of these part-time transient faculty members.

In the fields of continuing education and adult education, the tacit knowledge gained from the life experiences of nontraditional (i.e., older) students has been shown to

yield great success. Toynton (2005) discusses both a continuing education and an undergraduate curriculum at the University of Sheffield (UK). Both programs use interdisciplinary approaches within monodisciplinary study and preliminary results indicate that such an approach allows older students to "tap into" life experiences (in a way that a single discipline cannot) and employ the tacit knowledge earned in a variety of different venues. Toynton points out that such approaches are initially quite uncomfortable and disconcerting to the older student (and to faculty and tutors) but the results thus far have been quite encouraging. Notably, programs such as the one at Sheffield that Toynton describes also employ "transient" workers (e.g., the graduate students who serve as tutors will work in the program for fewer than four years) and thus have the tripartite needs of: (1) teaching in such a way that older students can utilize the tacit knowledge gained from experience to learn new material, (2) enhancing tacit knowledge transmission so that graduate students employed as tutors can develop the skills they need quickly, (3) finding ways to collect and manage the knowledge such graduate student tutors both bring to and develop while in the program so that it can be transmitted to new tutors quickly and effectively. Of course, such approaches should be monitored carefully as they may place too much of an emphasis on tacit knowledge. Pill (2005) found, for example, that older graduate students in higher education at nine separate programs possessed good levels of tacit knowledge about professional development gleaned from both life experience and their graduate programs but, prior to writing their dissertations, had a rather poor grasp of the explicit knowledge in their field.

Nestor-Baker (2004) explored the successes of a large sample of scholars in a wide variety of academic fields. Her results suggested the existence of a tacit knowledge of

superior scholarly practice. The “top performers” she interviewed all had good time management skills and several strategies for dealing with the pressures of peer review and the politics of academic life. Not surprisingly, almost all of them suggested that there were other factors that led to their success. Many admitted that they had no conscious knowledge of “what it takes” for success in academia but talked at the same time about, “learning the ropes,” a paradox seemingly indicative of tacit knowledge transfer.

Still, as the assessment and grading of student work is a challenge for instructors at all levels, there is little in the way of research in the way tacit knowledge functions in these specific areas of academia. Standardization and norming in the assessment and grading of student work have been concerns at least since the advent of the large university. Tieje and his associates (1915) describe their efforts to ensure standardized instruction and grading in large Freshman Rhetoric classes at the University of Illinois. Relying on the consensus of all the instructors teaching in that program, all “themes” (compositions) were graded by teams of instructors who could not assign grades until all team members were in agreement. Although they acknowledge that their efforts in this regard were often criticized for “stifling originality” in their student writers, they argued that fairness and consistency in instruction and assessment far outweighed the concerns of their critics.

The work of Tieje and his associates described above represents an early attempt at “norming” in terms of the ways instructors in a specific program grade student work. Although this study and many that follow concentrate on explicit assessment criteria in grading student work, the transmission of tacit knowledge also plays a role in standardizing the ways that instructors grade. Sharkey (1996), for example, suggests that

assessment of student work should grow out of a mentoring relationship between student and teacher and a collaborative relationship between teachers. He argues that such a "high-touch" approach leads to greater understanding of content material on the part of students and leads to a greater degree of "fairness" in grading student work. Gordon (1995) makes a similar suggestion. To Gordon, faculty in a particular department need to continually assess their department's own assessment techniques to "unbundle" the assumptions behind the techniques. An ongoing critique such as this might serve to more closely tie assessment to pedagogy. For Gipps (1999), assessment is something that begins at a macrostructure such as at a department level. Given the social nature of assessment, it is not enough to concern ourselves with the assessment of students. Assessment of department standards and pedagogical practices should be an ongoing occurrence.

Assuming that approaches such as these are successful in developing assessment strategies that measure what students need to learn, there still exists the problem of how to impart these assessment techniques to instructors, particularly novice and adjunct instructors. Sonner and Sharland studied differences in grades assigned by adjunct and full-time faculty members in the business school of a small public university. She notes that such universities increasingly rely on adjunct instructors (and graduate students as teaching assistants, for that matter) as the use of such instructors keeps labor costs low for many cash-strapped schools. When other factors such as class size and whether or not an instructor holds a terminal degree were kept constant, Sonner and Sharland found that adjuncts do assign significantly higher grades than do their full-time counterparts. Although she suggests that adjunct faculty are hesitant to assign lower grades due to the

potential for student complaints and resulting loss of income, she also notes that adjunct instructors are “outsiders” and have limited access to information about department practices and, if you will, department “culture.” Full-time faculty members have multiple opportunities to share information regarding their courses, opportunities that adjunct faculty lack. Notably, Sonner and Sharland (1993) saw a similar pattern arise from comparisons between grades assigned by teaching assistants and full-time faculty in an introductory marketing class.

Kezim and his associates (2005) also studied faculty status (tenured, tenure track, and adjunct) and the grades assigned at a business school at a small northeastern private college. Adjunct instructors assigned significantly higher course grades than did their tenured and tenure-track counterparts. Two reasons are suggested for the discrepancy in grades: (1) adjunct instructors depend upon student evaluations for rehiring and so are loath to grade too strictly and (2) adjuncts have fewer opportunities to “norm” their grading practices with those of full-time faculty, assertions that have been supported elsewhere (e.g., Moore and Trahan, 1998). This phenomenon (i.e., higher average grades assigned by adjunct faculty) has been studied somewhat extensively in business schools in American universities. Zurita and his associates (2004) found that faculty status (adjunct vs. full-time) was a more powerful determinant of student grade than all other factors except for a student’s overall GPA.

The plight of adjunct instructors and teaching assistants, then, sheds some light on the need for instructors in a particular department to adopt a common view of assessment. While adjunct faculty may always be somewhat hesitant to grade in too rigorous a fashion, they do lack significant exposure to pedagogical practices (including grading)

within their departments. The relationship between developing common grading practices and tacit knowledge has been studied to some extent. Price (2005) studied just such a "community of practice" at a business school at a UK university but suggested that simply having such a "community" was not sufficient to enhance this sort of consistency. Without direction, it appeared that tacit knowledge transmission did not occur to any useful degree. She suggested that an explicit discourse regarding assessment must occur within such a community and that there should be an individual whose task it is to initiate and collect the results of such ongoing discourse.

Although it seems that business schools and other departments of higher education have begun, however tentatively, to embrace the notion of a relationship between assessment standards and tacit knowledge transmission, research in First-Year English Composition has been slower to investigate. This is not to say that grading standards have not been a concern in the field. For example, Sweedler-Brown (1985) sought to determine: (1) whether the amount of training and experiences instructors bring to the grading situation correlate with their judgments about the quality of an essay and (2) whether "the amount of training and experience affects the consistencies of their judgments." She had 26 graders of varying backgrounds in writing instruction and assessment (all were either instructors or graduate teaching assistants) grade 897 essay examinations. Each essay was graded on a one-to-six point holistic scale by two readers, neither of whom knew the identity of the other reader. Additionally, a sample of trainers (faculty members) from the university's writing program were assigned to grade those essays both holistically and on criteria such as sentence structure, syntax, and punctuation and mechanics. There was significant concord (as measured by Pearson product-moment

correlations) between first and second readers. Additionally, for those essays graded by the more experienced trainers, there was a high degree of concord between holistic scores and the scores that assessed an essay's sentence structures. Little relationship was found between holistic grades and the other factors (e.g., punctuation). Of greater interest, however, is the finding that an individual reader's training and experience do play a role in grading. The more experienced graders tended to assign lower holistic scores. Less experienced graders seemed "less critical" of the essays they graded. Because graduate programs typically feature a disproportionate number of novice graders (graduate students), this is seen as a concern for writing program administrators. Surprisingly, Sweedler-Brown's analyses seem concerned with the more experienced trainers. While inter-rater reliability (high concord between graders) is a goal of any program, this would be a relatively easy task with the trainers in Sweedler-Brown's study as most of them were tenured faculty. Most of the people tasked with grading are graduate students or non-tenure track instructors who will only work with a writing program for a relatively short period of time, both in Sweedler-Brown's study and in most universities. The goal of "better training" needs to address this reality and Sweedler-Brown does not.

A more ambitious approach to the problem of training First-Year Composition instructors on grading criteria comes from a study by Ramage and Bean (1990). The writing program at Montana State University features classes of 60 or more students and an instructional staff that is comprised of full-time faculty, part-time faculty, and "peer" graders. Their study details the enormous commitment in training that the MSU program has had to undertake to ensure consistency in pedagogical practice and in grading. Although the study did not explicitly concern itself with tacit knowledge transmission,

Ramage and Bean suggest that such an endeavor as theirs will not function effectively unless the "faculty" participants (and this includes the undergraduate graders) engage in those collaborative activities that have been shown to encourage tacit knowledge transmission in previous research (e.g., observation, writing samples of the essays instructors will teach and grade, etc.). The MSU program relied on skilled instructors and graders who could be trained quickly and, indeed, the collaborative training activities described by Ramage and Bean seem to suggest a high degree of tacit knowledge transmission.

To sum up, then, tacit knowledge transfer has been studied in a number of different organizational settings and has been shown to improve performance for organizations in dynamic environments (e.g., those whose needs change, those who experience rapid and frequent employee turnover). While FYC is certainly a dynamic environment, there has been little exploration of tacit knowledge transfer in that milieu. The present study, thus, seeks to study how tacit knowledge might be transmitted to the instructional staff in a large FYC program.

CHAPTER IV

METHODOLOGY

The investigation of tacit knowledge might well lend itself to an approach that allows this admittedly elusive concept to emerge from a particular milieu. Thus, the present study employs a grounded theory method (Glaser and Strauss, 1967; Strauss and Corbin, 1990). The term refers to the construction of a theory that is developed inductively from a corpus of data. This resulting theory should fit at least one dataset (i.e., one case) perfectly. Grounded theory contrasts with theories that are derived deductively (i.e., so called "grand theories" or traditional hypothesis creation), without the help of data, and which could therefore turn out to fit no data at all. While the notion of one solitary dataset fitting "perfectly" seems to fly in the face of scientific method (with its insistence on adequate sampling), it is a misreading to think that the one dataset would be an anomaly. The data from which such a theory might emerge are culled from a variety of subjects; the one best-fitting dataset or case simply provides the best explanation of the emergent theory. Because of what some would see as the "nebulous" nature of tacit knowledge (although I will address such a misreading later in this section), a combination of interviews and a grounded theory approach offers the potential of rich data and scientific rigor. A discussion of grounded theory and what it offers is, thus, warranted here.

Because of its interest in what are, at times, very singular datasets, we can suggest that grounded theory takes a case perspective rather than a variable perspective (although the distinction is often quite difficult to make in practice and is more reflective of the interests of grounded theory researchers). This means in part that the researcher takes

different cases to be wholes, in which the variables interact as a unit to produce certain outcomes. The variables, thus, are seen as facets of each case and are only of interest in this fashion. A case-oriented perspective such as this tends to assume that variables interact in complex ways, and is suspicious of simple additive models such as ANOVA with main effects only. Key to this case orientation is an interest in comparison. Cases with similar variables but different outcomes are compared to see where the key causal differences may lie. Similarly, cases that have the same outcome are examined to see which conditions they all have in common, thereby revealing necessary causes.

An example of how a grounded theory approach might differ from a more "scientific" or deductive approach might be found in the following comparison. The dominant theory of memory for the latter part of the 20th century was Craik and Lockhart's (1972) "levels of processing" theory. The empirical data that supported this theory came out of experiments in which subjects would be asked to learn a series of rote items. Those subjects who were given more time to memorize the items or were asked to attend to a number of aspects about the list of items were better able to memorize the items than subjects who were not given these opportunities. The explanation for these differences was said to be in the "depth of processing." Subjects given more time or asked to perform different tasks with the list were thought to have "processed" the list more "deeply" and were, thus, able to memorize better than those not given those same tasks.

Consider, then, how a grounded theory approach might have looked at the same phenomenon. While similar tasks might be given to subjects, the "meaning" of those

tasks (e.g., deeper levels of processing) would not be suggested by the researcher. Instead, subjects might be interviewed regarding their experiences learning the assigned items. From this, a picture of the learning experience might be allowed to emerge. It might be that “depth of processing” is something that subjects do not identify. Perhaps, they will identify other variables that assist in learning and these identified variables might better suggest other more fruitful areas of research.

Thus, a grounded theory approach, particularly the way Glaser and Strauss initially conceived of it, consists of a set of steps whose careful execution is thought to "guarantee" a good theory as the outcome. Strauss would say that the quality of a theory can be evaluated by the process by which that theory is constructed, how skillfully the researcher can explain connections between variables. A more traditional hypothesis-driven approach (i.e., what we think of as “scientific” method) privileges the *a priori* quality of a particular theory even before any data is collected. In grounded theory emergent data are explored. According to Glaser, the researcher seeks to understand the theory or explanations implicit in the data. Haig (1995) suggests that a good grounded theory is one that is: (1) inductively derived from data, (2) subjected to theoretical elaboration, and (3) judged adequate to its domain with respect to a number of evaluative criteria. As such, he argues, it has its own sense of rigor and is not at odds with scientific method. In fact, because grounded theory researchers are themselves concerned with questions of validity and reliability (as much as those researchers who use “quantitative” methods), grounded theory is indeed scientific method. Pandit (1996) demonstrates how a grounded theory approach is inherently rigorous. In the following table, he depicts the phases and activities in a more-or-less typical grounded theory study.

The Process of Building Grounded Theory

PHASE	ACTIVITY	RATIONALE
RESEARCH DESIGN PHASE		
Step 1 Review of technical literature	Definition of research question	Focuses efforts
	Definition of a priori constructs	Constrains irrelevant variation and sharpens external validity
Step 2 Selecting cases	Theoretical, not random, sampling	Focuses efforts on theoretically useful cases (e.g., those that test and/or extend theory)
DATA COLLECTION PHASE		
Step 3 Develop rigorous data collection protocol	Create case study database	Increases reliability Increases construct validity
	Employ multiple data collection methods	Strengthens grounding of theory by triangulation of evidence. Enhances internal validity
		Synergistic view of evidence
	Qualitative and quantitative data	
Step 4 Entering the field	Overlap data collection and analysis	Speeds analysis and reveals helpful adjustments to data collection
	Flexible and opportunistic data collection methods	Allows investigators to take advantage of emergent themes and unique case features
DATA ORDERING PHASE		
Step 5 Data ordering	Arraying events chronologically	Facilitates easier data analysis. Allows examination of processes
DATA ANALYSIS PHASE		
Step 6 Analysing data relating to the first case	Use open coding	Develop concepts, categories and properties
	Use axial coding	Develop connections between a category and its sub-categories
	Use selective coding	Integrate categories to build theoretical framework
		All forms of coding enhance internal validity
Step 7 Theoretical sampling	Literal and theoretical replication across cases (go to step 2 until theoretical saturation)	Confirms, extends, and sharpens theoretical framework
Step 8 Reaching closure	Theoretical saturation when possible	Ends process when marginal improvement becomes small
LITERATURE COMPARISON PHASE		
Step 9 Compare emergent theory with extant literature	Comparisons with conflicting frameworks	
	Comparisons with similar frameworks	

Pandit's understanding of grounded theory is that it is composed of five increasingly recursive stages: a design phase, a data collection phase, a data ordering phase, an analysis phase, and a literature comparison phase. Note that conducting each phase

involves modifications to that phase's initial design and plan based upon what actually happens during that phase. Additionally, as in the case of Step #7, theoretical replication across cases often leads the researcher back to Step #2, the selection phase.

More and more a mainstay of social science research, grounded theory has been used to investigate a number of different areas. Strauss and Corbin (1990), for example, conducted interviews of hospital patients involving pain management. Important variables included the perception and alleviation of chronic or acute pain. Now, a more "scientific" or quantitative approach to studying pain management might take the format of Guzman (1999) in which chronic sufferers of low back pain were interviewed to see how often they sought treatment or missed work. Here, pain is viewed as a phenomenon (Bogan & Woodward 1998) that is relatively stable; either one is in pain or not. Similarly, one either misses work or goes. In a grounded theory approach, however, a skilled interviewer can explore various aspects of pain and their consequences. Because it is oriented according to individual cases, grounded theory begins with the assumption that pain might mean different things to different patients. Additionally, pain can be understood as having both intensity and duration. It also has consequences. When pain is of a certain duration or level, patients might cease certain activities and seek agents of pain relief. These agents themselves are quite varied. For some, drugs might provide relief. For others, exercise, rest, or physical therapy might be the answer. For still others, a combination might restore them to desired levels of activity or to lower-than-desired levels of activity. In grounded theory, interview data can give rise to a more nuanced understanding of the problem of pain than can a more traditional hypothesis-driven approach.

Additionally, while it is not part of the rhetorical "presentation" of grounded theory, per se, such research does seem to be based upon an "emic" understanding of events (Pike 1954). Simply put, these interpretations arise from of the understanding that the research subjects themselves have of events in their lives. The subjects then are seen as the sole arbiters of what something "means." An "etic" approach, on the other hand, privileges the researcher as the sole judge of an event. For ease of explanation, consider a phenomenon such as the discovery of ancient texts of a particular culture. Researchers employing an emic approach might well interrogate readers in that particular culture as to what insights they might glean from the text itself. Those employing an etic approach might concern themselves with the events surrounding the discovery itself and / or how scholars assess the newly-discovered text in light of other known texts. In a nutshell, emic accounts are those that are meaningful to the research subjects themselves while etic interpretations involve categories (usually couched in the form of a hypothesis) that are most meaningful to the researchers.

Another consideration here involves the differences between phenomena and data. According to Bogan and Woodward (1988; 1989) phenomena are relatively stable, recurrent general features of the world that we seek to explain." Phenomena include objects, states, processes and events, and other features. It is, therefore, more useful to characterize phenomena in terms of their role as the proper objects of explanation and prediction. Not only do phenomena give scientific explanations their point (without the detection of phenomena it would be difficult to know what to explain), they also, on account of their generality and stability, become the appropriate focus of scientific explanation (systematic explanation of more nebulous or ephemeral events would be

extremely difficult, if not impossible). For example, we can study such phenomena as BTU output because the unit of measurement is universally held (and, thus, stable).

Data, by contrast, are idiosyncratic to particular investigative contexts. They are not as stable and general as phenomena. Indeed, data provide the way we understand certain phenomena that may not be perceptually accessible. The importance of data lies in the fact that they serve as evidence for the phenomena under investigation. In extracting phenomena from the data, we often engage in data reduction using statistical methods. Generally speaking, statistical methods are of direct help in the detection of phenomena, but not in the construction of explanatory theories. An example might include Likert-scale questionnaires or interviews that seek to measure attitudes regarding specific events. One's attitudes or one's ideology are relatively stable but often unobservable except in specific contexts. The data generated by a questionnaire or interview help to provide evidence of the phenomena.

It is in the use of interview data as opposed to questionnaires or surveys that grounded theory appears to offer not only the possibility of dense and rich description of phenomena but also the opportunity for rigorous theory creation. Dunn and Swierczek (1977) argue that there is no more powerful combination of methods than that of interview and grounded theory as they allow a researcher to mine the "emic" aspects of data while pointing the way toward both theory creation and further research. Cutliffe (2000) suggests that, in their search for conceptually dense theory, grounded theory researchers can free themselves from the constraints that limit their use of creativity and tacit knowledge. By adopting a deliberate "mindfulness" in the conduct of their

interviews, researchers can actually generate more and better data by paradoxically "blurring and slipping" their methodology when it is appropriate. Additionally, while other forms of interviewing in qualitative research require that the researcher develop clinical skills in interviewing, grounded theory privileges the subject-matter knowledge that an interviewer brings to the research setting. It is far more important that the interviewer understand the subjects under discussion than it is for him or her to be a "skilled" interviewer. To understand what the subject says is far more helpful in instances of theory creation in more emic areas of knowledge.

Much of the research in tacit knowledge, however, seems to follow a more-or-less "scientific" and, thus, etic pattern. For example, Durrance (1998) studied the entries that technicians made to a relational database at Xerox Corporation. Implicit in the choice of her methodology is the assumption that tacit knowledge transfer obviously takes place via such a medium and, because of this, she limited her investigation to the entries compiled in that archive. Lawson and Lorenz (1998) assumed that tacit knowledge transfer takes place between firms within a particular industry and, thus, their study does not question whether or not transfer actually occurs nor explores the degree and types of transfer that may occur. Such studies, while valuable in the information they provide about knowledge transfer, employ methodologies that are somewhat inadequate for the present study. While the TOPIC/ICON system used in the FYC program at Texas Tech University employs a system that is arguably "automated," Valenti, et al (2003) suggest that grading in such systems still features a high degree of subjectivity on the part of the instructor. At best, grading involves experiential and aesthetic components (arguably tacit components) that are well-nigh impossible to quantify but may be understood via dialogue with an

instructor. Tacit grading knowledge is emic knowledge and, as such, requires a qualitative approach

Ambrosini and Bowman (2001) suggest that research in tacit knowledge assumes that such knowledge *does* take place but is so difficult to measure that most researchers either avoid questioning its existence or simply avoid it as a topic of research. They suggest that techniques such as conceptual mapping and interviews would seem the most logical ones for "operationalizing" tacit knowledge. The present study, then, follows their suggestions for a very considered emic approach to the question and provides opportunities for a group of First-Year Composition instructors to "make meaning" of how they acquired their knowledge of grading. If grading involved the memorization of rote tasks, measurement would be easy (e.g., Craik and Lockhart 1972). Because it is a complex matrix of knowledge, attitudes, and skills, however, great care must be exercised when attempting to study it. Such a study should allow instructors to consider how they acquired grading knowledge, should recognize that such knowledge is more suited to emic interpretations, and should involve the collection of rich and varied data to understand these complex behaviors. Also, because of the slow and deliberate approach to data that grounded theory employs, this qualitative method might well be the most rigorous method for this potentially rich store of data. Indeed, here it might be helpful to consider the methodologies used in two other studies of grading in large Freshman Composition classes to see what grounded theory can offer. Sweedler-Brown (1985) studied the effects of four hour training sessions on the holistic grading behaviors of a group of 26 instructors. Correlation coefficients and multiple regression analyses were performed on the scores that the trainers and instructors assigned the same sets of essays.

Sweedler-Brown found that “extensive” training seemed to result in greater inter-rater consistency and she suggested that these training sessions would allow inexperienced graders to assess the same factors that their more experienced counterparts did when grading freshman essays. While her study is impressive in its rigor, Sweedler-Brown makes several assumptions that may be unfounded. Hers is a “behaviorist” study. Instructors are exposed to training and output (consistency) is measured. We cannot, however, be certain that all instructors in the study are actually attending to the same aspects of the writing as the output measured here is simply the numbers on a holistic grading scale. Additionally, we cannot say with certainty whether it is training itself or simply practice and exposure that led to the significant inter-rater reliability she found. Follow-up interviews with her subjects might have allowed an emergent understanding of training to develop that could have either validated her explanation of training effects or allowed for a more nuanced understanding of its effects.

Similarly, Ramage and Bean (1990) discussed their experiences in administering large (i.e., 60 student) FYC classes at Montana State University. Here, student scores on an exit writing sample were used to support their contention that instructors can teach a large class as effectively as they can a much smaller one. However, the study, while fascinating, is little more than lore. Lore is, of course, valuable in enhancing our understanding of a particular subject but, unlike grounded theory, is often not analyzed and does not offer the opportunity for dynamic theory-building that grounded theory does. Ramage and Bean do not provide statistics regarding performance of students in large classes versus that of their counterparts in smaller classes. Additionally, while they suggest the importance of training, very little information on the training they provided is

offered. Words such as “effective,” similarly, are never defined. Unlike Sweedler-Brown’s study, Ramage and Bean do not offer a detailed explanation of the training their instructors received nor do they provide any explanation of how large class sizes affect that training. Here, too, interviews and observations of the actual instructors (and, perhaps, the freshmen in these 60-student classes) would have allowed a better assessment of “effectiveness” or allowed an alternative view of effectiveness. Arguably, while both Ramage and Bean’s and Sweedler-Brown’s studies provide interesting insights regarding the training of inexperienced instructors, both might have been strengthened through interviews and the opportunity for the instructors themselves to participate in an emergent understanding of grading knowledge and expertise.

Methodology of the Present Study

The present study, then, attempts to allow instructors themselves to offer an understanding of how the transfer of grading knowledge occurs in a large FYC program. Twenty volunteers volunteered to be subjects in the present study. All the participants are presently working as classroom instructors (CIs) or document instructors (DIs) in the Texas Tech University FYC program. They are evenly split in their responsibilities between grading drafts in ENG 1301 (the beginner’s course) and ENG 1302 (a more advanced composition course that focuses on argumentation and persuasive writing). Grading responsibilities range from two hours per week to twenty hours per week. Eleven females and nine males comprise the sample with a mean age of 27.6 years. Previous teaching responsibilities vary widely. Four subjects have had significant (i.e., over two years) teaching experience before matriculation at Texas Tech, with two of these having

additional teaching experience in non-academic settings. Three subjects are recently-admitted (Fall 2005) students in the English MA program and, thus, have only one semester's experience grading drafts. Questions ranged from asking them exactly how they graded student work, how they believe they learned to do so, attitudes about their work and a variety of other issues. All interviews were open-ended so as to allow each subject to express his or her views as they deemed appropriate. Additionally, following the analysis of the interview data from the graduate student instructors, I conducted four one-hour interview sessions with three tenure-track faculty in the TTU English Department during which I asked similar questions about the transmission of grading knowledge. Two of these instructors had worked closely with the FYC administrators, one was an Associate Professor specializing in British literature, and one an Associate Professor teaching creative writing. All are involved in working with graduate students and in teaching writing intensive courses. Their responses were analyzed in a manner similar to those of the graduate instructors and compared to the coding categories assigned the graduate instructors (see below for a discussion of axial coding in grounded theory). The purpose of these faculty interviews was to determine how much of the graduate instructors' perceptions about knowledge transmission were the result of inexperience. Additionally, a director of FYC at a mid-sized land-grant university in South Texas and the former department chair (now at a university in Missouri) were interviewed. The FYC program at this particular South Texas university was traditional in its approach; individual instructors were responsible for grading and responding to the work of their students only. This interview was conducted to determine how much of the perceptions of the TTU sample were impacted by their teaching in a hybrid system and

how much might be more-or-less universal (shared by instructors in many FYC programs).

All graduate student instructors were interviewed for one hour three times over the course of the Spring 2006 semester. As the primary researcher in this study, I conducted all the interviews and employed a "keyword" method of note-taking. While untrained in social science interview methods, my 5 years experience in Composition teaching allowed a good degree of familiarity with the subject matter and, as Cutliffe (2000) noted, familiarity trumps clinical skill in the performance of grounded theory interviews. Interviews included a 10-question protocol (See Appendix A) but were wide-ranging in scope and relatively unstructured so as to allow the subjects to explicate their understanding of the complex task of grading. These interviews comprised the first and third sessions for each subject. Additionally, part of the second interview involved a "think-aloud" technique in which the subject was asked to grade a piece of First-year writing and describe the process as they responded to and evaluated the writing. Extensive notes were recorded at each session. These notes were then analyzed via a system of coaxial coding (Strauss & Corbin 1990). Again, such a grounded theory approach refers to theory that is developed inductively from a corpus of data and involves an emic understanding of events that seeks to make implicit or tacit belief systems or knowledge more transparent. Unlike hypothesis testing which seeks to determine whether phenomena (including texts) fit predetermined categories, a grounded theory approach allows participants to exhibit or demonstrate what is meaningful to them regarding a particular subject. Here, the corpus of data includes the participants' own statements and assessments. After the data was collected, the interview transcripts were read by a team

of three researchers. These additional researchers included two doctoral students in English and a doctoral candidate in Education. Chenail (1997) suggests the use of multiple researchers in grounded theory as their readings of data help to challenge the interpretations of the primary researcher and help to keep his or her attention on the emergent data and away from potential preconceived ideas about the data. The researchers then "coded" each of the responses on each transcript. The specific method of axial coding (Strauss & Corbin 1990) is a process of relating codes (categories and properties) to each other, via a combination of inductive and deductive thinking. Descriptions of the particular codes used in the present study along with examples include:

Code	**Description**
Phenomenon	This is what in schema theory might be called the name of the schema or frame. Here, the researchers gave a descriptive name to the subject matter of each statement in a particular transcript. For example, if a subject remarked that grading introductory drafts was especially difficult, the researchers might code this statement as "difficulty of specific drafts."
Causal conditions	These are the events or variables that lead to the occurrence or development of the phenomenon. It is a set of causes and their properties. In the above example, a cause might be "unfamiliarity with draft criteria" if there is a statement in the transcript to indicate that this is what the participant stated.

Intervening conditions	These are mediating variables. At times there will be some overlap between these and causal variables. In our present example, these conditions might include “lack of time to learn criteria due to academic responsibilities.”
Actions Taken/ Features Used	The purposeful, goal-oriented activities that agents perform in response to the phenomenon and intervening conditions. In our present example, a participant might indicate that he or she “takes more time to grade” or “uses online communication tools to ask peers for suggestions about grading drafts.”
Consequences	These are the consequences of the action strategies, intended and unintended. A consequence in our example might be “failure to grade requisite number of drafts.”

To ensure a high degree of validity each of the three researchers coded all the interview transcripts. In the case that two of the three researchers disagreed on the particular code assigned each coded phenomenon, that particular piece of data was removed from the corpus. Roughly, two-thirds of the data obtained from the interviews was removed but, this is a percentage expected in grounded theory research (Strauss 1990). Indeed, as Lincoln and Guba (1989) suggest, one third of a corpus of interview transcripts is thought to be the norm after triangulating in a grounded theory context. From the remaining corpus of coded data, the researchers met to group the coded data into overarching

categories or “themes.” In the present study, 166 coded pieces of information provide the corpus that is divided into three major themes (see Appendix B)

Finally, supervisory rankings for each instructor’s commentary and student rankings of same were subjected to t-tests and multivariate analyses of variance (ANOVA). Although the present study is qualitative, these analyses were performed in order to triangulate the assessments of the researchers.

To recap the reasons, then, that this study employs an interview and grounded theory approach as opposed to a more deductive and hypothesis driven approach, we might state the following:

(1) Because grading involves both skill and aesthetic (i.e., tacit or procedural) components, it can be conceived of then as an emic activity (i.e., one that calls for practitioners to make sense of what they do),

(2) As grading seems to involve emic knowledge, we should assume that it is composed of variables that interact in complex ways, variables that would not lend themselves to easy and accurate measurement by simple additive statistical models,

(3) Interviews allow the subjects to describe their own experiences in mastering grading behaviors, and finally,

(4) A method of constant comparison and multiple means of triangulation (three readers and some quantitative measures) seem to offer the best potential for understanding how instructors learn, disseminate, and, ultimately, create knowledge about grading.

Additionally, while the study's focus is on the ways that instructors themselves perceive knowledge transfer taking place, questions regarding their understanding of knowledge per se and of barriers to knowledge transmission are also germane to this investigation.

CHAPTER V

RESULTS

Twenty subjects discussed the ways they saw knowledge about grading created and transmitted in the FYC program at Texas Tech University. Their interview responses were recorded (i.e., notes were taken) and then coded by three researchers. Of the 60 interview sessions, the researchers were able to reach concordance on 33 of those sessions (i.e., agreement on theme and coding categories) and, thus, these 160 pieces of information culled from these 33 sessions form the corpus of this study (Appendix B). These interview sessions dealt with three over-arching themes: defining tacit knowledge and tacit knowledge transmission, the conduits used for knowledge transmission, and barriers to tacit knowledge transmission. The results obtained for each of these themes will be discussed separately.

What was particularly remarkable about the content of the interview sessions was the somewhat negative tone in which many of the respondents cast their answers. Additionally, while the initial focus of the interviews was to obtain information about those conduits of the FYC program that people actually used to collect, transmit, and create knowledge, the most profound overarching theme that emerged was concerned with the barriers to tacit (or explicit) knowledge transmission identified by the subjects. This was particularly surprising given the numerous face-to-face and online opportunities afforded by FYC at Texas Tech for instructors to share information with each other.

Defining Tacit Knowledge

The first theme to emerge from the interview corpus has to do with the understanding the research subjects had of the concept of tacit knowledge and how

knowledge transmission might occur in FYC. In general, the subjects expressed little understanding of the concept. Some expressed a measure of disbelief in its existence while others stated that they could not see any relationship between tacit knowledge and FYC. Questioning the existence of tacit knowledge is not surprising, given the fact that there is some degree of disagreement over the existence of tacit knowledge (e.g., Arnulf 2005; Duguid 2005) or at least a skepticism concerning how it is defined given some of the apparent contradictions in the literature regarding tacit knowledge (Gourlay 2006). Almost half of the subjects surveyed (nine, to be exact) expressed doubt either that tacit knowledge exists or that there is a tacit component in grading knowledge. These nine subjects were all graduate instructors in literature and creative writing (five PhD students and four MA students) and, for all of them, tacit knowledge was an idea that they had had little exposure to. A typical comment (from a PhD student in literature with over three years of experience teaching FYC) was "We want to make our responses to students as explicit as possible. I don't see how we can do that if we're talking about something we can't measure." Another fairly typical response came from an MA student in creative writing who suggested that the idea of tacit knowledge was something that just didn't "make sense."

In a similar vein, two instructors (one a PhD student and the other an MA student in literature) took issue with the notion of instructors in a program creating knowledge of any sort, tacit or explicit, and transmitting it. Both suggested that the acquisition of grading knowledge is a sort of "go/no go" proposition. One instructor suggested that there is an "end point" to the acquisition of grading knowledge, that one either masters it or one doesn't. Both took issue with the notion that the grading behavior of people in

FYC evolves over the course of a semester. For these two instructors, there is no social construction of grading knowledge in the same way that there is in a field such as literary criticism. Both instructors suggested that FYC really hadn't changed much over time and that those who suggested that student needs have changed were simply attempting to imbue the field of Composition Studies with the "veneer" of scholarship. Indeed, the question of praxis vs. scholarship was one that emerged for many of the subjects. All but three of the instructors interviewed depicted FYC as "something you do" while their chosen field of scholastic endeavor (literature, technical communication) was "something you study." Interestingly, the four creative writers interviewed represented their coursework (whether it involved writing poetry or fiction) as something "academic" while FYC was never referred to as academic. To be fair, all instructors spoke of the value in teaching undergraduates to write well but, for the instructors in this study, FYC simply lacks the depth and rigor that other areas of English Studies possess.

This view of FYC as "procedural" knowledge and other areas of English Studies as content-based mirrors the scholarship surrounding tacit knowledge itself. As Mullins (2002) suggests, tacit knowledge is at odds with most contemporary explorations into the philosophy of learning. Because tacit knowledge seems to have found a home in the discipline of organizational behavior (and, to a degree in education, in the work of Robert Sternberg), it is often seen as lacking the rigor and depth that characterize other areas of study in the humanities. Indeed, there were those subjects in the present study who took a rather radical view of knowledge creation in English Studies itself. Three of the subjects understood any endeavor in English studies as involving the transmission of "ready-made" knowledge rather than the creation of "new" knowledge. For example, one

instructor, a PhD student in technical communication, described as “ridiculous” the perceived attempts within English Studies to “repackage” existing knowledge in novel ways. While the notion of pedagogy (however defined) as something that informs scholarship as a "transformation that takes place at the intersection of three agencies—the teacher, the learner and the knowledge produced” is widely accepted in English Studies (e.g., Salvatore 1996; McCurrie 2004), this was not a view unanimously held by the subjects in the present study. Another PhD student in technical communication, while admitting that such knowledge creation was a foundation of literary studies, suggested that FYC was a part of the domain of technical and professional writing and, as such, was a much more “practical” field. Thus, according to this instructor, imparting elements of “effective” writing such as grammar, spelling, and transitions was what the FYC program at Texas Tech University should be concerned with. While these two comments regarding pedagogy and knowledge creation in English studies are somewhat extreme, it is worth noting that there was almost unanimous confusion expressed by the subjects in the present study regarding the place of FYC in English studies. While all the subjects accepted that “teaching Freshman Comp is what you do,” none expressed any clearly-defined ideas regarding how or why FYC is exactly situated in the milieu of an English Department, at least in terms of its content knowledge. Those subjects who believed that FYC has a domain-specific body knowledge (four PhD students, three in technical communication and one in creative writing, and one MA student in literature) still referred to FYC as “what I do for money” or as a “means to an end,” while their coursework represented the “real” work in English studies.

The view expressed above, that composition studies is not about knowledge creation, reflects an epistemological disagreement within the field of composition pedagogy. Specifically, a number of the research subjects seem to express the view that any "instructions" regarding grading and the FYC curriculum mirror Jean Lave's (1988) observations about the "incorrigibility" of mathematical knowledge. Knowledge is said to be incorrigible when it is a-contextual and unchanging. For some of the research subjects, at least, the expectation that there is a "correct" way to teach FYC and grade drafts is a key assumption.

Two of the subjects were PhD students in Technical Communication and, while both of them were familiar with the concept of tacit knowledge, both expressed doubt about the utility of the concept in FYC. One suggested that grading and responding to student writing was probably an area where tacit knowledge does not exist. This particular subject had taught in the FYC program at Texas Tech for over three years and had over six years of instructional experience in non-academic settings. "I can see it in something that involves skill, something like sports, but I just don't think it operates in Freshman Comp.," he stated. The other subject (who had over two years teaching experience in another FYC program and three years at Texas Tech) suggested that, while a tacit component my exist in the acquisition of grading knowledge, its impact would be negligible in helping instructors to master "the art of grading." In fact, both of these subjects worried that, if FYC administrators did give any attention to tacit components of the grading process, the results would be detrimental for the FYC program. Both suggested that efforts to make grading criteria more explicit were key to a successful freshman writing program. Such a view (i.e., privileging the transmission of explicit

knowledge in writing courses) certainly reflects the focus in many writing programs. Stevens and Sterling (2004), for example, suggest that the creation of explicit grading rubrics should be the major task of any writing intensive course. Although these researchers call writing a "rich and complicated" endeavor, all recommend the construction of explicit and rigorous grading rubrics as they offer "more objective" feedback to students and allow instructors easy tools for assessment. Indeed, it seems as if a consideration of any tacit component of grading knowledge seems to run counter to both the prevailing wisdom in composition pedagogy and to the understanding of the subjects in this study. Again, such a view (i.e., one that privileges the creation of explicit grading rubrics seems to suggest that, for a number of the research subjects in the present study (as well as scholars in the field), there is an "incorrigible" aspect (e.g., Lave 1988) of grading knowledge. Additionally, this emphasis on explicit rubrics seems to mirror in some ways the call for "accountability" in public education.

All subjects interviewed expressed impatience with what they considered the ambiguity of the grading criteria in FYC at Texas Tech University. Those instructors with two years or less experience in the Texas Tech program decried the training sessions that administrators offer instructors as these sessions feature "too much time trying to build consensus" on specific grading criteria when the preference of these instructors would be for the administrators to "spell out" how criteria are to be interpreted. One instructor suggested that administrators claim to want instructors to arrive at consensus regarding interpretation of criteria but, in actuality, such consensus-building activities only mask the fact that the administrators themselves have little idea how the criteria are to be interpreted. Another instructor, a PhD student in technical communication, suggested that

something was “really wrong” with the FYC program when two instructors can write such “widely divergent” commentary when responding to the same student essay. Equally troubling to five of the subjects (two MA students in literature, three PhD students, one each in technical communication, literature, and creative writing) was the perception that, even though there is a high degree of agreement between first and second readers across the program in terms of the numerical grades each reader assigns, the disparities in written commentary seem to subvert any real agreement or norming. The ICON system at Texas Tech University allows two readers to assign numerical grades to each major student draft and, despite what the subjects in this study understood as good agreement in terms of numerical grades, differences in instructor commentary seemed troublesome to them. One of the PhD students explained that, “I don’t buy what the administrators say about students being exposed to different types of commentary. I think it just confuses them.”

That the subjects in the present study expressed a high degree of impatience with what they saw as inconsistent or poorly defined grading criteria seems fairly consistent with some of the literature on graduate students and personality traits. Onguewbuzie (1999), for example, has shown that graduate students tend to procrastinate over grading and performing tasks related to their own coursework (a finding that will be discussed in greater detail in my discussion of the second theme here) and that this procrastination is related to what he terms a “socially prescribed perfectionism.” People with this tendency often express anxiety over the rather high standards that they believe those in authority hold for them. Statements such as the one made by an MA students in creative writing (“They want us to teach students through our commentary but don’t tell us how.”) seem

indicative of this tendency. Similarly, all the MA students in the sample expressed some degree of anxiety over having to learn a system (TOPIC/ICON) that was so different than the ways in which they themselves were taught FYC (all the subjects in the present survey were taught FYC on "traditional" classrooms with one instructor responsible for classroom instruction and grading).. Additionally, Onwuegbuzie (1999) found that graduate students in general demonstrate a high degree of anxiety regarding anything that has to do with any writing that will be graded or assessed. Three of the PhD students (two technical communication and one creative writing) expressed discomfort with what they saw as the rather "scarce" feedback they received from writing program administrators on their grading commentary.

Another factor here might involve the rather complicated relationship graduate students in the humanities have with figures in authority (such as writing program administrators). Weaver and Qi (2005) suggest that graduate students often perceive faculty members as having "expert authority" over various academic domains. To the extent that this is true, these graduate students will tend to exhibit what these researchers term "passive withdrawal" from those tasks that require participation in the creation of "new" knowledge (such as, perhaps, responding to student writing and grading). The impatience expressed by the subjects in the present study over the perceived ambiguity of the tasks of grading and responding may be related to these subjects' beliefs and attitudes about authority. One PhD in creative writing expressed this same sort of displeasure by stating, "I'm never going to be an expert in composition. Why don't they (the administrators) just tell us what they want?" Weaver and Qi also suggest that faculty-student interaction builds confidence in graduate students and several of the comments

regarding a perceived lack of faculty/administrator interaction in the training process speak to the possible existence of such a variable. Twelve of the subjects in the study referred to themselves as "still learning the system" and all complained about what they perceived as the lack of interaction between graduate instructors and the administrators.

Conduits For Tacit Knowledge Transmission

Because FYC at Texas Tech University is a hybrid system (online and face-to-face features), there are, of course, many possible media through which knowledge may be transmitted. The subjects in the present study were asked about those features that they used most frequently and about those they saw as most useful for instructors in general. They were asked about all possible conduits for knowledge transmission, both formal and informal. One finding seems to warrant inclusion here, that of how the subjects viewed the formal FYC training sessions. Surprisingly, only two instructors (both MA students in literature) pointed to the formal training sessions (held once at the beginning of a particular academic semester and two or three times during a semester) as effective ways that they received information about grading. Most respondents either did not mention this feature as one they found particularly effective or expressed dissatisfaction with the feature. The sessions during the semester are moderate by the Assistant Directors of the FYC program (two PhD students who work as administrators in the program for a term of two semesters) and those individuals were seen as lacking expertise in FYC or in being unable to organize useful training sessions by a number of the interview subjects. A PhD student in literature expressed dismay that FYC administrators did not "care enough" to moderate these training sessions themselves. Letting these "student assistants" manage the training sessions was viewed as apparent disregard for training by the administrators.

Other subjects took a less extreme view but most expressed dissatisfaction with the more "formal" training features of the FYC program. Indeed, nine of the subjects called these features ineffective while three (including the PhD student mentioned above) actually criticized administrators for what these subjects believed was a lack of interest in training. Again, two MA students believed that the formal training was effective and informative.

The three features of the FYC program that most of the subjects in the present study reported using most often (and those aspects that were indicated as being most effective and most satisfying) were (in order of frequency with which they were reported): the "audit drafts" feature, the chat box that appears on the online grading interface, and the expertise of tutors in the University Writing Center. This first feature, the "audit drafts" feature is a way that instructors grading online can keep track of how many drafts they have graded as well as how their numerical grades compare with those of the other grader who grades the same draft. All the subjects interviewed reported using this feature as it allowed them to "norm" with other instructors. A typical explanation of how the feature was used was provided by an MA student in literature who described a "typical" grading session in which she would grade two or three drafts that had already received an initial grade. She would then access the "audit drafts" feature to compare the grades she had assigned to the initial grades awarded. If her grades were over five points under or over the initial grades given, she reported that she would "re-think" what she was doing.

The “audit drafts” feature was developed in the Fall of 2002 and, thus, is an early feature of the TOPIC/ICON system. Fred Kemp (2006) developed the feature in response to:

> claims that the then read-accounting system (which […] worked on percentages, not weekly deadlines) was cheating people […]. There has been from the first an inherent assumption of exploitation, no matter what the actual reasons might be. Most of the supervisor functions were written in fall of 2002 and spring of 2003, as we were assailed with a number of complaints presuming not just software glitches but chicanery in how we were working people […]. Any web application (a computer program that works on the web server CPU as opposed to a web file server that simply downloads html pages) is a shaky business because of all the operational links in the functional chain (browser, computer, network, server, server software, etc.). Applications that work on independent computers simply, blissfully, have to deal with their own CPU's. TOPIC had never handled thousands of users before and so it glitched repeatedly on some of the sophisticated but fragile accountability routines I had thought would take care of the read counts. The audit routine, in contrast, is a brute-force read from the actual student assignment records (which contain, of course, grader_id for first, second, and third reads). […] I created the new DI interface two years later, the one that showed a table of weekly deadlines, I simply did a brute force read from the assignment

> records themselves. In effect, the numbers that show in the DI table and the info that shows in audit drafts are drawn from the same process, which is why they agree. And it is rock solid because it comes off the bottom-line records themselves (Kemp. Email communication. 2006).

I include this lengthy explanation here as it seems to exemplify: (1) the User-Centered Design aspects of TOPIC/ICON and (2) the difficulties inherent in designing such a complicated system. Although the genesis of the "audit drafts" feature involved some degree of rancor between one administrator and instructors, its present usefulness is due at least in part to the fact that its development arose from an expressed need on the part of the users of TOPIC/ICON.

Yet, even with what would seem to be widespread acceptance and use of this feature throughout the program, three instructors admitted using the feature to "cheat" on the norming process. These instructors (one PhD student and two literature MA students) reported that they will often assign a grade to a draft for which they are the second reader but, before submitting that grade, they will read the first reader's grade on the "audit drafts" feature and adjust theirs accordingly. Although these three instructors were the only research subjects admitting to this practice, all suggested that they had seen other instructors do the same. These three instructors all referred to the practice as "cheating," explaining that the way the feature was "supposed to be used" was to enable an instructor to check his or her grades *after* they had been submitted and not beforehand.

A second feature used by all the subjects in the study was the "chat box" on the TOPIC grading interface. Appendix C shows a screen shot of the feature. Again, what

follows here is a rather lengthy explanation from Fred Kemp on the development of this feature:

> The chat box arose in summer of 2004 because a couple of grad students said they wanted a better way of talking about grading issues on the fly with people who were grading at the time. I had been trying to write a chat routine for seven or eight years, using some sophisticated ideas with javascript and downloaded routines and plugins, but everything I tried foundered on two things: the huge variety of computer systems and browser versions among grad students (many of whom don't update or upgrade at all), and our server's problems with javascript (as opposed to vbscript, a Microsoft product).
>
> Finally, in despair, I simply copied over a routine I had written for a class, a routine that I had called a "communal blog." A student would write a comment, it would be saved in a record on the SQL, and all these would be displayed in descending (reverse chronological) order in an SRC box on a page. Unlike a regular chat, the last comments were at the top instead of at the bottom, but nothing I could do could force a scroll to the bottom on a download (which occurs every 10 seconds, I believe). That's better, in a way, because to force a scroll would mean that every time the routine went to look for a new comment, it would scroll through all the previous comments. That would cause some

> consternation on the part of anybody trying the read the chat.
>
> A "real" chat box simply writes the new comment on the bottom line, but I didn't know how to do that. Now each new comment simply pops up at the top of the box.
>
> The initial display of the chat caused problems with some graduate students because their names were displayed if they happened to be grading at the time. When I expressed surprised that this actually mattered, I was told by a few that they didn't want us knowing when they were grading; big brother and all.
>
> Okay. I created a routine that allowed people to suppress the display of their names when they were online and grading.
>
> I've always thought it was a good idea to challenge authority as a habit, but to be rabid about it?
>
> So the way my chat routine works, it seems weird to have the latest comment at the top, but I found that people quickly got used to it. I got some email from grad students saying that this was a neat thing and thanking me for responding to their wishes in the matter (Kemp. Email communication, 2006).

Again, all the research subjects made use of a feature whose development was complex. On the one hand, Fred Kemp developed the chat feature in response to the wishes of “a couple” of graduate instructors and, thus, the feature can be viewed as an example of User-Centered Design. On the other hand, Kemp expresses dismay at the desire of other users to not to participate in the chat feature. At any rate, while four of the subjects (two

PhD students, one in technical communication and one in literature, and two MA students, one in creative writing and one in literature) stated that they found the feature "silly" or "pointless," all four admitted to reading the most recent sections of the archived chats to learn "if any grading criteria had changed" or "if there were difficulties other graders found that I might need to be aware of." Seven of the subjects in the present study were quite enthusiastic about the chat feature. Three MA students (two in literature and one in creative writing) referred to it as the most helpful feature of the online grading interface while two PhD students (one in creative writing and one in technical communication) referred to the feature as something that "humanizes" the online grading experience. Four of the subjects (3 MA students in literature, one in creative writing) all reported that they participated regularly in the online chats. The other subjects all seemed to prefer using the chat archive to learn what other instructors were doing. Five of the subjects (two PhD students—one in literature, one in creative writing—and three MA students in literature) expressed concern, however, that, because administrators know when instructors are grading and what they are chatting about, the feature is (in the words of one) "another level of surveillance."

The third most popular feature for knowledge transmission (eight of the subjects reported using it) was the University Writing Center. Administratively, of course, the University Writing Center is not part of the FYC program yet the pool of tutors is drawn from graduate English instructors for the most part and, indeed, the vast majority of clients are undergraduates in an FYC course. A PhD student in technical communication reported that she deliberately waits until the end of the week ("the last possible minute") to grade so that she can learn from writing center tutors how the FYC students who visit

the writing center interpret a particular assignment. Three of the subjects who reported making use of writing center personnel were themselves writing center tutors and all three reported that they were very likely to discuss grading criteria with their fellow tutors on an informal basis. The five other subjects all reported that they would like to work in the writing center as all of them felt that such an assignment would help them understand the FYC curriculum (and grading criteria) much more profoundly. Four of these subjects suggested that exposure to the problems undergraduates experience in responding to assignment criteria would help them understand these criteria more deeply. One subject, another PhD student in technical communication, reported that he will provide extra credit to students who visit the writing center if they report to their classmates the following week what they learned from tutoring. This instructor reported that he, too, used this information to modify his own grading.

Like the previously discussed conduit (i.e., the chat box feature), the utilization of writing center personnel involves the use of conversation for knowledge transmission and creation. As von Krogh, and his associates (2000) suggest, conversation is something that is both encouraged and "managed" by people in successful organizations. Unlike the chat box feature, however, those subjects who discussed assignments with writing center tutors engaged in more of what we naturally think of as "conversation" (i.e., face-to-face contact in a less-structured setting). Bordum (2000) views conversation as perhaps the most underutilized but potentially powerful conduit for tacit knowledge transmission. Similarly, participation in and observation of workplace conversations is a large part of Lave's (1993) model of legitimate peripheral participation and Brown and Duguid (1991)

suggest that more-or-less informal media such as conversation help participants to situate and ultimately understand the tasks they need to learn.

One potential conduit for tacit knowledge transmission that (somewhat surprisingly) few instructors reported using was that of the grading or "peer mentoring" groups. These groups were instituted in 2003 and, although their role and focus has developed between then and the present, the groups are composed of at least one more experienced instructor and several with less experience in FYC at Texas Tech or in general. The groups were tasked with meeting regularly to either (1) discuss issues such as the challenges faced in grading and responding to a particular assignment or (2) actually grade "collaboratively" in one of the computer classrooms so that members might "norm" their grading practices. The instructors in the present study who mentioned these groups routinely dismissed them as being rather ineffective. All but two of the subjects (both PhD students in technical communication) reported that their groups never met on a regular basis. An MA student in creative writing complained, for example, that the leader of her particular group made little effort to schedule meetings and, as a result, the group members made no attempt to attend when those few meetings were scheduled. An MA student in literature complained that, while her group began the Fall 2004 semester meeting regularly, the meetings were abandoned because members complained that they had "run out of things to talk about." The two instructors who instructors who reported meeting regularly did so because they perceived regular meetings as a program requirement but both reported "diminishing returns" over the course of a semester. One reported that, after four weeks, the group began to repeat the same topics with little resolution. The other instructor reported that the group meetings did little to enhance his own grading

knowledge although he reported that a couple of the novice instructors in his group seemed to show an improvement in grading performance over the course of the Fall 2004 semester. These findings are surprising given the fact that groups such as these are widely recommended as rather effective conduits for tacit knowledge transmission (e.g., Baumard, 1999; Bordum, 2000).

Barriers to Tacit Knowledge Transmission

By far, the most interesting theme that emerged from the data was that of perceived barriers to tacit knowledge transmission that are both idiosyncratic (peculiar to individual instructors) and inherent in the FYC program itself. Because FYC at Texas Tech University has so many conduits through which tacit knowledge can be transmitted (e.g., those described above as well as other features of TOPIC/ICON), these identified barriers are somewhat surprising in that the subjects in the present study discussed them at such great length. The barrier identified most often by the research subjects concerned the perception that the FYC program is, in reality, a "top-down" system that is nevertheless presented to instructors as one that is recursive and feedback oriented. Nineteen subjects expressed views such as this one expressed by a PhD student in technical communication: "They keep telling us that they want our input but they never listen to us. They already have their minds made up about how they believe things should be done." Another respondent, an MA student in creative writing, suggested that administrators are being less than genuine when they request input from instructors stating, "They know how the system is supposed to work so why don't they just tell us how to use it?" Views such as these were clearly the norm for the subjects in the present study and seemed to stand in stark contrast to the evolutionary characteristics of TOPIC and ICON and the

fact that its history and development do contain instances in which new features come about as a result of requests from instructors. This, however, is a feature that scholars such as Foray (2002) have written about rather extensively. She suggests that more-or-less "sophisticated" users (i.e., those who have some degree of computer literacy and / or some expertise in the subject matter in which they are using computers) will resist full participation in a system that appears to require compliance. She suggests that even those systems that do require "top-down" instructions will be better utilized if they have room for "democratization" (ways that users can modify procedures).

Almost paradoxically, the second facet of this particular theme was that instructors tended to feel as if they had no expertise at all and were, thus, unwilling to share their insights with other instructors or with the writing program administrators. Ten of the subjects in the present study expressed such a view and, interestingly, eight of these subjects also simultaneously suggested that it was the fact that TOPIC / ICON seemed to have no room for their input that caused them to balk at sharing any insights they might have. A PhD student in technical communication referred to TOPIC / ICON as "mysterious" and expressed the concern that, because it seems so complicated that he would "never have the time to learn it, to essentially take it for a drive and kick the tires." An MA student in creative writing (who, incidentally, possessed a rather high degree of programming knowledge) asserted that "sometimes the system seems like it's top secret." He went on to recount that, when he had asked questions about a particular feature, he was told that he "shouldn't worry about that." Another MA student in creative writing expressed the view that the administrators were "almost Machiavellian." She said, "They ask for your input but they don't give you the information you need to make your input

meaningful. Then, if you do suggest something, you're told that you don't know enough to make a suggestion." Others, such as this PhD student in literature, claimed that, "it would be too much trouble to learn the 'ins and outs' of the system anyway. I just wish they'd tell us what they want and be done with it." He expressed a great deal of hesitancy when asked if he shares any "tips" with other instructors, stating, "I'm on my own. I guess we all are." Given the negativity of statements such as these, it should be noted that, at the beginning of each semester, instructor input has been requested explicitly. Meetings and workshops have been arranged but, since 2003, instructor attendance has been spotty at best.

Just as Kinneavy (1971) lamented that composition as "the stepchild of English studies," lack of interest in FYC and uncertainty about whether FYC even belongs in an English department provided the next barrier to knowledge transmission between instructors. A PhD student in creative writing suggested that "I know composition is something I'll have to do in my first real job but I'm not all that interested in it." Similarly, other instructors saw teaching in FYC as a "means to an end." A PhD student in technical communication indicated that he was marking time teaching composition until he took the requisite courses that would let him teach the "cool stuff—web design, hypertext, and stuff like that." One MA student in literature expressed a similar lack of interest in composition studies but suggested that her interest might be kindled if "they put some readings in the course. That way it would seem more related to English." It should be noted here that FYC at Texas Tech has itself attempted to situate itself away from the "literature" faculty by placing itself under the aegis of technical communication within the department. The English department at Texas Tech University houses two

rather distinct programs: one in technical and professional writing and one in literature and languages (which includes creative writing). Students can earn MA and / or PhD degrees in either Technical Communication and Rhetoric (TCR) or in English, per se. The FYC program, which was under English, is now a part of TCR. Maxine Hairston (1992) hailed such moves as ways to establish a separate identity for Composition studies. Yet, at Texas Tech, neither English nor TCR students seem to differ in their attitudes about teaching FYC.

Also expressed was the fear of "doing something wrong" when teaching or grading drafts in FYC. A number of the instructors expressed great concern that they would "create third reads." Again, we should note that, when the numerical grades that two instructors assign a draft differ by more than 8 points, that draft goes to a third reader. An MA student in literature expressed "being afraid" that she was creating third reads. When asked what consequences she feared, she stated, "I don't know but in 5367—the training course—we were warned that we better not." Another instructor, a PhD student in technical communication, put his dilemma in fairly stark moral terms: "I feel like I'm cutting corners when I do things my way. I'm letting down the faculty and my students. I find ways to make my job easier because I have to but I'll never tell anyone because I'll feel ashamed." Another instructor, an MA student in literature, stated that she was hesitant to do anything that "wasn't explicitly stated even if it's not explicitly prohibited because I know I'll always be wrong." Again, when she was asked about what consequences she feared, her reply was that she wasn't sure, "but I don't want to find out." Another subject, a PhD student in technical communication stated that he didn't

"share anything novel" about how he graded on TOPIC / ICON because "it's important that I stay on their (the administrators') good side."

An interesting piece of information that emerged from these discussions involves a strategy that three of the subjects admitted using to avoid third reads on drafts. Although this was discussed above rather briefly, it warrants a closer look here. All three referred to the practice as "cheating" the system. After logging in to grade second reads, these instructors reported that they had found a way to use the "audit drafts" feature (discussed in greater detail above as a conduit for tacit knowledge transmission) to ensure that their numerical grades matched those of the first grader. They found a way that they could choose a draft to grade and then simultaneously open the audit drafts feature to see what grade had been assigned that particular draft. They would then assign that draft a score 1-2 points lower or higher than the one the first grader assigned. I inquired as to how widespread such a practice was and two of the subjects informed me that they knew "several" other instructors doing the same thing. These two instructors saw the practice as "wrong" but also as an effective way to "avoid punishment." Again, both were quite vague as to the punishment they were attempting to avoid.

Another barrier to tacit knowledge transmission that was expressed by a number of the instructors was that of disappointed expectations. Every subject in the study expressed some dismay that FYC at Texas Tech was "so different" than anything they had experienced either as students or as teaching assistants / instructors elsewhere. A PhD student in literature complained about how he felt "disconnected" while grading, that the fact that grading is performed online made the act of grading solitary and somewhat dissatisfying. When asked how he graded in a traditional class (as he had had experience

as an instructor in other settings), he replied that he graded papers alone but that "somehow it didn't seem as if I was alone." Another subject, an MA student in creative writing, complained that, because she was grading drafts by students that she didn't teach in the classroom, that the act of grading took on a "disembodied" character. A PhD student in technical communication spoke of how "strange" he found the experience of online grading: "I can give good feedback and good commentary to students but, because I don't know who they are, they don't seem real to me and I find myself writing in a very nasty, rude tone." An MA student in literature talked about how "monotonous" it was grading a sequence of online drafts. When asked to compare this experience to that of grading paper copies (he had some experience teaching high school English), he replied that "holding someone's actual paper makes it seem more real and more important." Another MA student in creative writing (who had worked a variety of part time jobs) likened grading online to telemarketing.

This disappointment of expectations is a subject of some scholarly interest in the field of organizational behavior. Ursula Huws (2005) discusses how the online world of work has disrupted our traditional expectations of certain occupations. She suggests that occupations can be seen as either "fixed," "footloose," or "fractured." Fixed jobs are more-or-less traditional occupations. We might bake bread or teach school or answer telephones in an office but we perform these jobs at a fixed location. In other words, we work at a bakery, a school, or an accounting firm and our work is located. These jobs feature other similar workers and have a "permanent" feel to them (often through benefits packages or the opportunity to advance within the organization). Those jobs she terms "footloose," however, may involve changing location every day ("temp work") or may

involve working online either for one company or as a contractor. These jobs are defined by the lack of one defined "workplace." Usually, these jobs are seen as sequential. We work one and move on to another. If such jobs are at a clearly-defined workplace, we do not form relationships with other workers because of the temporary nature of the work. Huws calls certain jobs "fractured" because they combine elements of both. A worker may "telecommute" or a consultant might provide advice to a firm overseas, the members of which he or she may never meet face-to-face. While "footloose" jobs have a disembodied character, they can be satisfying, according to Huws, because the workers do not expect such work to be permanent. "Fractured" jobs are often dissatisfying because their dual nature ultimately disappoints those workers who expect one or the other type of job. The subjects in the present study all expressed varying degrees of dissatisfaction (at least initially) with working in a hybrid instructional system. Many felt as if they were separated from other instructors by virtue of the fact that so much of the work is performed online.

Additionally, several of the subjects in the present study reported some reluctance to share grading (or instructional) knowledge with other instructors because of some sense of role confusion. All the subjects in the present study were both instructors and graduate students and, according to one, a PhD student in creative writing, "I need to do everything I can to protect my status in the department." He and others admitted that, because they were competing with other instructors for scholarships, special jobs, and other considerations (the grading reductions that came with various student assistantships), they were unlikely to share any useful information about job performance with others. An MA student in literature stated that, "if I find a way to do something

better, that makes me stand out. Why should I share it with people who compete with me?" The notion of instructors as competitors vying for scarce departmental resources was something expressed by eight of the subjects. A PhD student in technical communication admitted that, "I know it's wrong but I want to beat these people." An MA student in literature suggested that "keeping up with grading quotas makes me look good." Another MA student in creative writing suggested that he shouldn't care about helping others as "when we graduate, I'll probably never see them again."

Of course, scholars with a Marxian orientation have often critiqued the use of competition to keep order among employees (e.g., Lebowitz 2005). Yet, in the present case, the competition does not involve anything that occurs "on the job." Instead, the subjects identify competition for scholarships and fellowships in their roles as graduate students as affecting their willingness to share information with other instructors. As one Creative Writing PhD student put it, "I don't know how much my performance in the classroom or online enters into my chances for scholarships but I think that poor performance might hurt my chances." Despite the widespread perception (as discussed above) that FYC and graduate study are two separate things, subjects in the present study also tend to perceive a relationship between the two. It is this relationship that, in some cases leads to a reluctance to share information with other instructors.

Another barrier to tacit knowledge transmission that subjects identified was that of the "split" between instructors whose graduate study involved technical communication and those who studied literature or creative writing. Nine of the subjects reported that this was a barrier that discouraged the sharing of information. A PhD student in technical communication said, "I guess these people are all right but I have nothing in common

with them. One of them told me what she was doing for her thesis and it was all I could do to keep from rolling my eyes." An MA student in creative writing stated that she had nothing in common with the students in technical communication because she perceived them as "nothing more than practitioners." Indeed, those subjects studying literature or creative writing tended to see those in technical communication as less "scholarly" than themselves. Those in technical communication were seen as caring less about the students whose work they responded to than they were about the TOPIC interface. Conversely, those in technical communication tended to view their counterparts in literature or creative writing as somewhat impractical in outlook and somewhat "other-worldly." A PhD student in technical communication expressed the view that, "I don't know how studying 'food in modernist literature' helps anyone."

It should be noted here that, at the time these interviews were conducted, faculty in the TTU English Department were exploring the possibility of moving technical communication faculty (including FYC) to the Communication Studies Department. Four of the students in literature and creative writing (3 MA and one PhD) saw in these discussions further justification for their estrangement from instructors in technical communication. An MA student in literature stated, "They don't see Composition as English! Maybe they should just go." One MA student worried how such a move would affect her work in FYC. She wondered, "Does that mean I'm out of a job?" Whatever the merits of moving FYC away from its traditional moorings in the English Department, the subjects in the present study (in literature and creative writing) saw in these discussions a reinforcement of their suspicions that FYC might not enjoy a "best fit" in English studies

and a justification for their reluctance to share information with their colleagues who are studying technical communication.

Another split that the subjects in the present study perceive is that of practitioner vs. scholar and this perception also seems to lead to some reluctance to share information with other instructors. One MA student in literature suggested that her cohorts in creative writing were "practitioners. They don't care about content; they only care about teaching format to students." An MA student in creative writing, however, saw things quite differently stating, "I care about helping students use writing to help them explore. The technical communication people just want to teach students how to fool around on the internet." Indeed, of the five students who mentioned this "split," all perceived themselves as "scholars" and derided others as practitioners. Unfortunately, all five indicated that, because of this perceived split, they would be unwilling to share information with mere "practitioners."

The interviews revealed some distrust between student instructors and administrators but there was also the perception (expressed by five of the subjects) that the student Assistant Directors in the FYC program led to reluctance to share information. Every semester, graduate students are invited to apply for a position as Assistant Director in FYC. These positions last for one year and provide the student with practical experience in the administration of a writing program. Ideally, these Assistant Directors serve as a liaison between FYC administrators and graduate student instructors but, for at least five of the subjects in the present study, these students are viewed with suspicion and serve as another justification for instructors not sharing information with each other. A PhD student in technical communication stated that, "They'll probably

report back to the Composition faculty if I screw up. I don't tell them anything." An MA student in creative writing referred to the two Assistant Directors serving at the time of the interviews as the "Comp Faculty's boys." An MA student in literature described the postings one of the Assistant Directors had made to an English Department listserv as evidence that they weren't "one of us." She suggested that, because of the reduction in grading workload that the Assistant Director position features, people who hold the positions, "forget about the problems we have and seem more concerned with toadying."

Attempts in various workplaces to create these liaison positions have often met with mixed success. On the one hand, Peter Senge, et al (1999) describe how employees can be identified and utilized as agents of innovation in organizations. Bordum (2000) suggests that these liaisons can be the catalysts for tacit knowledge transmission. On the other hand, Antonio Negri (1971) suggests that, when such positions were created in the Italian automobile industry during a time of great innovation in the factories, rank-and-file auto workers often refused to interact with those workers management had designated as specific management-labor liaisons.

Another barrier to knowledge transmission identified by the subjects in the present study involves the perception of surveillance in FYC. Twelve of the subjects identified surveillance as perhaps the most negative aspect of the FYC program for them. Much data is captured and collected via the online grading in TOPIC / ICON and much of this data is archived. Additionally, instructors perceive that, even popular features of the grading interface such as the "chat box" described above allow administrators to "watch" when an instructor is grading online. As one MA student in creative writing stated, "They don't trust us so they're always watching." Another subject, an MA student in literature

complained that, when he suggested to one of the FYC administrators that a particular type of data they were collecting was worthless and might give an inaccurate representation of instructor grading performance was told that, “We’re going to collect it anyway. We might need it.” This instructor saw this reported interaction as indicative of a lack of trust between administrators and instructors. “They feel as if the more data they collect, the more power it gives them,” he said. Because of what they perceived as inordinate degrees of surveillance, two instructors (one PhD in creative writing and one in literature) refused to allow an FYC administrator to videotape their classrooms. Both admitted that they would have liked to have shared particular lessons with other instructors but, because they did not trust FYC administrators’ use of the video, they had to refuse. “It might be paranoia,” one of them said. “But, who knows? They’ll see something on the video and give me a hard time about it.” The other suggested that, “the less of a trace I leave, the better it is for me.” In terms of a popular feature such as the “chat box,” one instructor, an MA in literature, stated that, “I’ll read it but I dare not participate in any chats. I don’t know what they do with the transcripts of each chat.” Wright (2000) and Negri (1971) have written at length about workplace surveillance and the suspicious atmosphere these practices can create. Unfortunately, because grading in the FYC program at TTU is performed online, permanent records of instructors’ grading performance are necessarily created. While all of the instructors who suggested that this is a barrier to their willingness to share information agreed that online grading by its very nature leaves “traces,” all suggested that much of the development of the program contains increasing levels of surveillance.

In a similar context to that of disappointed job expectations and surveillance, four of the instructors (two PhD students, one in literature and one in technical communication and two MA students in literature) suggested that the "automated" nature of TOPIC / ICON was, at times, so off-putting to them that they simply "did their jobs" and refused to share any information, a task that would require extra effort according to them. "It's so strange and so impersonal. I never expected that grading would look like this, "one of the PhD students explained. All four of these subjects believed that responding to student work should be a more "humanistic" activity and that responding to student work online robbed the task of its necessary human characteristics. The PhD student in technical communication admitted that such a complaint sounded strange coming from someone who was interested in online teaching but he suggested that, "perhaps online grading is not appropriate technology for this setting." One of the MA students recalled her own experiences in FYC and suggested that when she received a "hand-graded" hard copy of an essay draft from her instructor, the numerous comments written in ink suggested to her that the instructor "cared enough to pick up my paper and engage with it." Marxian literature is replete with critiques of automation. In *Capital, Vol. 1* (1957), Marx himself suggested that automation led to demands for workers to "produce more" as it simultaneously alienated them from the product of their labor, a critique echoed by these four subjects in a somewhat tangential manner. Of course, Negri (1971) wrote much about resistance to automation in the Italian automobile industry. While this particular theme did not emerge with the same frequency as those of job expectations and surveillance regarding FYC, it is related to these themes and, as such, bears mentioning here.

Finally, role confusion (the fact that the instructors in the present study are both students and instructors) created some degree of reluctance to share information with other instructors. While the competitive aspects of graduate study (competing for finite resources in scholarships and fellowships) were discussed at some length above, here the instructors referred to problems of time constraints. Four of the instructors (one PhD in creative writing, 2 MA students in literature and one in creative writing) all suggested that they might be willing to share information with other instructors but that such sharing would involve "extra effort." One of the MA students complained that, "While that'd be nice, I barely have time for my course work as it is now." None of the four instructors who identified this barrier believed that there were any mechanisms in place that allowed easy and effective transfer of information. When asked about the FYC training sessions as possible conduits for information transfer, two of the instructors remarked that, "nobody really pays attention in such meetings." All four identified time as a barrier to information sharing and all four admitted that, if they had to choose between spending time on instructional duties or academics, they would not hesitate to choose academics.

Emergent Themes

The picture that emerges from the interviews is not without its contradictions, but it would be a reasonable assessment of the data to suggest the following interpretations. First, much disagreement exists regarding both the nature of composition study and practice and the place of composition in the English Department. The subjects in the present study voiced uncertainty about whether FYC even belonged under the umbrella of English Studies. Additionally, there was fairly widespread disagreement about whether

or not FYC and composition studies, in general, was an incorrigible realm of knowledge and, thus, whether any information transfer (other than top-down) need to or could potentially occur. Unlike other areas of the discipline, the notion of social construction of knowledge in FYC seemed a controversial one for these instructors.

Next, the conduits for knowledge transmission identified by the instructors all involved features that either provided immediate information (e.g., the "audit drafts" feature) or allowed instructor-to-instructor contact in an apparently unmediated space (the "chat box"). This is especially paradoxical as instructors know that the chat box provides administrators with an opportunity for surveillance. Additionally, writing center tutors provided another source of information that is essentially peer-to-peer and unmediated by administrators. It is this lack of supervision or mediation, real or apparent, that seems to distinguish their choice of conduit. Formal meetings and training sessions were not identified as effective vehicles for information transfer.

Finally, most of the interviews dealt with barriers to knowledge transmission. Some of the subjects expressed distrust of the FYC administrators. The perception of few common scholarly interests between instructors was viewed as another reason instructors do not share information with each other. Fear of negative consequences for any novel use of TOPIC / ICON was identified as another reason instructors tend to (in the words of a PhD student) "lay low." The competitive nature of graduate study—instructors competing against one another for scholarship and fellowship resources—was also identified as a barrier to information transfer. Students suggested that they hesitate to provide helpful advice to other graduate instructors that they are competing with.

Disappointed expectations (i.e., to use Huws' terminology, FYC at Texas Tech is a "fractured" job) left other instructors reluctant to share information with each other.

A series of interviews with various faculty members at both Texas Tech and other institutions were conducted for validation purposes. Onwuegbuzie (1999) suggests that graduate students, because they are novices in the academic profession, often understand the profession in ways that are fraught with contradictions. It is certainly possible that much of the distrust voiced by graduate instructors represents an early stage in professional development. It is also quite possible that there are aspects of the system at TTU that encourage reluctance to share information, even given the features of the FYC system that would seem to encourage such information transfer. Additionally, although the present study explores the perceptions and attitudes of instructors at one particular university, the results obtained here may really suggest something inherently problematic in the training of FYC instructors in whatever institutional setting. These were some of the issues explored in a series of one-hour interviews with three tenure-track English faculty at Texas Tech and two such faculty members at the University of Texas at San Antonio and the University of Missouri at Kansas City, respectively.

As a postscript, analyses of variance were performed on the supervisory and student commentary rankings for all the subjects in the present study. No significant difference between average rankings for either 2004 and 2005 on variables such as gender, age, experience, whether or not an instructor was in the classroom or simply online, or as to whether they instructed in English 1301 and English 1302.

CHAPTER VI

FACULTY INTERVIEWS

Because of the negative tone of many of the interviews with graduate instructors, a decision was made to interview tenure-track faculty both at Texas Tech University and at other institutions. The reasons behind this decision were two-fold: first, all the faculty interviewed had much experience teaching writing intensive courses and were, of course, conversant with the problems inherent in training new instructors; second, because of their expertise, these faculty members might serve to triangulate the responses of the graduate instructors; and, finally, they might be able to offer guidance regarding why the graduate instructors spent more of their interview time discussing barriers to knowledge transmission. In other words, was the negative tone of the graduate instructors a function of their own lack of expertise in teaching and in professional development (and, thus, understandable and perhaps necessary)? Or, did the complaints signal more systemic problems in the training of graduate instructors?

Three faculty members at Texas Tech were interviewed. All were tenure-track and all had experience in teaching writing intensive courses. The first of these interviews was a member of the Composition faculty. He had most recently taught the graduate-level course that prepares new instructors to teach FYC. For him, the hybrid nature of FYC at Texas Tech offered great potential.” There is much more that we can do with TOPIC / ICON,” he said. “For example, we can stream video and offer instructor-student chats.” He expressed great excitement about using TOPIC / ICON to support teaching FYC and other writing courses at a distance. When asked about why he believed that the subjects in the present study did not share his enthusiasm, he very candidly suggested that, “they

don't feel a part of anything that goes on." He decried the lack of emphasis that FYC places on actual face-to-face classroom teaching. "We put them in a classroom and then we don't see them again until the semester is over." When asked about possible explanations for the negative attitudes expressed toward grading, this faculty member suggested that "TOPIC / ICON is a top-down system. There is very little room for instructor input and development." He opined that, because graduate instructors had so little input in using and developing what he believed was an innovation, they would almost necessarily have little use for it. When asked if he believed that instructor complaints might reflect the fact that these instructors were essentially novices and had little to compare their teaching and grading experiences to, he said, "somewhat."

An interesting aspect of this interview concerned this faculty member's ideas regarding the incorrigibility of the FYC curriculum. "We use the textbook way too much," he said. "Unfortunately, when problems arise in the interpretation of the assignments or, when we want to change an assignment, we can't change the textbook. We have to rely on word of mouth to the instructors. Not always effective." His suggestion was to dispense with the textbook and put the entire curriculum online. If assignments needed to be modified, they could be modified according to course needs and instructor consensus during weekly or bi-monthly curriculum meetings. He suggested that this was a way to "practice" the social construction of knowledge and to understand the provisional nature of knowledge in very practical terms.

Another instructor interviewed was a tenured associate professor in British literature whose undergraduate and graduate courses were all writing-intensive. While she admitted that she had very little understanding of the particular features of FYC at

Texas Tech, she knew that there was some dissatisfaction expressed by the graduate students she mentored. “I understand some of the pedagogy and it makes sense, “she said, “But, I think that there is too little emphasis on classroom teaching in this new system. It would make better sense if students were allowed to gain expertise in a more-or-less traditional model—teaching and grading your own students—and then, perhaps moving into the new system. It seems as if all they (the FYC administrators) care about are grading quotas. We don’t equip students to teach.” She did, however, suggest that “graduate students are always going to complain anyway” but added that the saw very little mentoring occurring in the present system and that it was such mentoring that needed to occur before a graduate instructor could be successful (or, at least, feel successful) in any innovative system.

The topic of mentoring was one that occupied much of our interview. For this faculty member, mentoring is viewed in the very traditional sense of the word; a novice works with a more experienced teacher. She felt that such a relationship was perhaps the only way to train new instructors as a more thorough treatment of all sorts of instructional matters could be taught in greater detail (syllabus design, lesson plans, etc.). When asked how much of this really occurs in a typical mentoring relationship, she laughed and replied, “Well, that’s the ideal, anyway.” She admitted that FYC was a “different animal” but voiced her concern that the psychological needs of novice graduate instructors were ignored under the way FYC trains new instructors. Mentoring, for her, was as much about providing emotional support for novices as it was about transmitting information and skills.

This view of mentoring was echoed by a tenured faculty member who specialized in creative writing. “We teach writing by ‘workshopping’ what people have written,” he said. Admittedly, he knew that creative writing and FYC serve two rather different populations and have far different purposes but stated, “However, writing is writing. There are common elements in every writing class.” He expressed being troubled by some of the complaints he has heard from his graduate students in creative writing who teach in FYC. In terms of what he had heard about grading, he wondered about instructors having to grade so quickly and in an online environment. He liked the idea that FYC assignments at Texas Tech were criterion-based as “that makes them easier to grade.” Still, he believed that student writing was only being graded in a most superficial manner. He saw instructor training in FYC as “inadequate” and complained that, “when we get them—when they teach literature or creative writing later in graduate study—they have so many bad habits to unlearn or they are just lost. In any case, we need to show them how to teach and what to look for when they’re grading.” He saw the grading of student work as something that had an aesthetic component that could not be addressed via grading on the TOPIC / ICON system. When asked how an instructor might transmit this “aesthetic sense” via commentary to an undergraduate, he admitted that such an endeavor probably fell within the realm of tacit knowledge. “You have to work with new instructors, encourage them, answer their questions.” When asked how one might do that in the context of large FYC classes, he admitted, “I have no answers. I just think it’s a waste of talent to put some of our promising graduate students in FYC.” Pressing him on this answer, I asked who would teach FYC if “promising” graduate students in English do not, he replied that that was not his concern.

An interview was conducted with a tenured professor at the University of Texas at San Antonio. A full professor, former department chair, and a former director of their FYC program, she was willing to discuss the challenges UT-San Antonio faces in teaching FYC and in training graduate instructors to teach in their program. The program serves a university with over 27,000 students. Fully 57% of their students come from groups traditionally underrepresented in higher education. Because of the military installations in San Antonio, the university has a large number of "nontraditional" students (undergraduates over the age of 25). As part of a growing institution, the English Department at UTSA faces the same challenges as other similar departments. Namely, they seek to provide FYC services to a growing and increasingly linguistically diverse undergraduate population. Not surprisingly, they provide these services with an instructional staff of 15 adjunct and non-tenure track instructors and approximately 15-20 graduate student instructors. They offer instruction in a more-or-less traditional manner with each instructor responsible for grading the work of his or her classroom. Class sizes average about 25 students per class although, lately, some instructors have been combining their efforts and offering portfolio assessments with two instructors reading and responding to student work. In 2004, however, the two required freshman composition courses migrated away from English to a "freshman success department" that includes other "core" courses such as freshman algebra. Instructors from the English Department still staff these courses.

Because UTSA admits a number of transfer students (from community colleges and other institutions) who matriculate already having taken the required FYC courses, this faculty member suggested that the need there may not be as pressing as what we

experience at Texas Tech. Nevertheless, she was concerned that, if present trends continue (and they are likely to), creative approaches to teaching FYC would take on a much greater urgency at UTSA. The trends she saw emerging included a number of incoming freshmen from households in which English was not the primary language, college students who represented the first members of their households to attend college, and older students returning to college after a protracted absence. These groups create challenges for instructors whose expectations and pedagogical practices are more appropriate for more "traditional" incoming freshmen. Additionally, she worried that, as enrollments increased, more would need to be done to provide adequate FYC instruction.

She commented on some of the findings from the present graduate instructor subjects by admitting that she was not surprised. "We see the same things here. There is a real reluctance on their part to let go of what worked for them in the past when they themselves were students," she said. She suggested that there is a rigidity of thought evinced by new graduate students that seems understandable. "These are successful students and they want to transmit the techniques that made them successful to their students," she explained. "But, they don't realize that they are exceptional in their love for language and that their students probably don't share that same passion." Additionally, she admitted that these graduate instructors tend to fear new information and the acquisition of new skills. "I see it in the courses I teach. You mention theory and they resist. They tell you, 'But we just want to read these great books.' It is not until they get to the PhD level that many are willing to explore the many diverse approaches that make up the field of English studies," she suggested.

Another barrier to implementation of innovative approaches in FYC that she saw at UTSA came from the non-tenure track instructors who teach the courses. She suggested that, because their positions seem tenuous in that they are tied to enrollments, they are unwilling in many cases to suggest anything that might involve "doing more with less." According to her, this is disheartening for a number of reasons. First, their reluctance means that it will become more and more difficult to serve burgeoning enrollments. Second, these instructors represent the "institutional memory" of FYC at the university and would ideally be those who could guide necessary changes. Finally, all the full-time non-tenure track instructors had taught at UTSA for an average of 7 years and, if enrollments either plateaued or continued to increase, they would be likely to continue their employment. Yet, she suggested that, because they perceived themselves as "working at the pleasure of the department" (even though they no longer actually answer to the English department), they were invested in maintaining the status quo. Additionally, because FYC is no longer under the aegis of the English Department there, directions from tenure-track English faculty are viewed as little more than suggestions.

This faculty member, then, felt that the prospect of any innovation in teaching FYC at her university was likely to be "too little too late" as neither graduate students nor non-tenure track instructors were committed to any innovation. For the graduate students, this lack of commitment seemed to stem from an inherent conservatism and rigidity in their thinking and, for the non-tenure track instructors, it seemed to be the result of fear ("if they find a way to do more with less, maybe I'll be out of a job. At least that's what I think they're thinking"). Additionally, she believes that, even when FYC was the direct responsibility of the English Department, tenure track faculty had little interest in these

courses. Her concern is not that the university will be unable to serve those students needing FYC ("If push comes to shove, of course we'll do something.") but, instead that, because the university will react to these needs, they will lose the opportunity to create a better solution.

Finally, the Chancellor of the University of Missouri at Kansas City was interviewed. The Chancellor had worked for a variety of institutions in roles ranging from English Department Chair (at three universities), Dean, and Provost (at UT-San Antonio) up to managing an entire university. He voiced the same concerns about FYC as did his former colleague at UTSA. "We are mandated by the state legislature to admit the sorts of students who, in the past, would never have had the opportunity to attend college. Unfortunately, we have to provide first-year education in mathematics and English by relying on novice graduate instructors. The people who are least likely to spearhead any sort of innovation are the ones that we increasingly call upon to do so, "he explained. He suggested that, because English instructors, in general, and graduate students, in particular, shun innovation, university administrators tend to rely on technology as a "quick fix" to pedagogical challenges. They feel as if the can't often rely on those who will teach FYC because they believe that these instructors will "automatically" resist change. "What happens then, "he explained, "is that we essentially throw technology at the problem and hope something will work. What would be better would be to find a way to get instructors on board and have them find the most appropriate solution to these challenges?"

Emergent Themes

Because the interviews with the five faculty members only lasted one hour each, there was far less data to code and, indeed, the coding that occurred here did not require the same rigor as did the data from the graduate instructors. Nevertheless, a few themes did emerge. First, four of the five faculty members interviewed expressed concern that, due to the challenges of offering FYC at large universities, graduate instructors were not mentored in ways that they needed to be. All these faculty subjects believed that mentoring of some sort was essential for graduate instructors to develop expertise, to develop as professionals in higher education, and, not least important, for the "mental health" of these novice graduate instructors. All, however, identified barriers to providing adequate and appropriate mentoring including workload constraints, lack of interest on the part of tenure track faculty, and graduate instructors themselves being unaware of the need for and unwilling to participate in a structured mentoring relationship.

Another emergent theme related to the need for mentoring involved faculty perceptions of graduate instructors as novices in terms of their professional development. Indeed, the theme of mentoring appeared to go hand-in-hand with the status of graduate instructors as "apprentices." All five faculty members tended to agree that graduate instructors have extremely limited perspectives about working in a university setting and "rather unreal" (in the words of one faculty member) expectations about workload and (in the words of another) "just what it is that English departments do."

Finally, all faculty members interviewed expressed some uncertainty about whether or not FYC was best situated in English Studies. One of the interviewees had actually overseen such a move (i.e., an FYC program moving out of an English Department) and

was guardedly optimistic about such a move. The other faculty interviewees simply wondered whether FYC in an English Department was the "best fit." All, however, agreed that graduate students in English would probably be best-equipped to teach FYC in any setting.

CHAPTER VII

DISCUSSION

To summarize, the emergent themes that arose from the graduate student interviews included: (1) a general disagreement about the place of FYC in English Studies and whether or not knowledge creation / transmission exists in FYC; (2) a preference on the part of graduate instructors to use those conduits for knowledge transmission that allow for personal contact (either online or face-to-face) and / or that provide immediate access to the information and, finally; (3) the existence of personal and institutional barriers to knowledge transmission (those aspects of FYC that are perceived to discourage the sharing of information between instructors). The faculty subjects also wondered about the place of FYC in English Departments but were far more concerned about the need for adequate and appropriate mentoring of graduate instructors. Many of the views expressed by the graduate instructors regarding barriers to information transmission were seen by faculty as representing an early stage of professional development or even an early adult stage of psychosocial development.

Certainly, the results of the present study are quite different than what I expected at the outset. My intention was to explore those conduits that allow for the transmission and creation of tacit knowledge about grading in a large FYC program. Given that TOPIC and ICON allow for a systematic look at those aspects that instructors in any FYC program utilize to gain information, my expectation was that the interview subjects would discuss the actual process of knowledge transmission. It was somewhat surprising, then, that most of the interview subjects chose to discuss perceived barriers to knowledge transmission and that only three conduits for knowledge transmission (out of the many

program features in TOPIC / ICON) received significant discussion. Strauss and Corbin (1990) note, however, that one of the strengths of a grounded theory approach is that it allows some rather surprising information to emerge as the approach allows subjects to express their own understanding of events. Thus, our discussion focuses on the barriers identified by the research subjects. I want to consider, then, what a discussion of perceived barriers to knowledge transmission might tell us about the role of tacit knowledge in FYC and about tacit knowledge transmission in general. The results allow us, then, not only to look at tacit knowledge in FYC but, also allow us to use FYC as a "lens" through which we might explore various aspects of tacit knowledge itself. On the other hand, one thing I think important to explore is the notion that a discussion and exploration of the perceived barriers to tacit knowledge transmission might help to better define what we mean by tacit knowledge in the context of FYC.

At this point in the discussion, I think it is fair to offer two observations about the results. First, while it may be tempting to look to the hybrid delivery system TOPIC / ICON employed at Texas Tech as the source of or the reason for the perceived barriers to tacit knowledge transmission, it is important to consider that faculty and administrators in other programs and at other universities identified many of the same phenomena discussed by the present research subjects. Second (and I will return to this idea later in the discussion), perhaps there is a temporal aspect of tacit knowledge transmission. Perhaps, the present subjects were so involved in the rather messy business of creating and transmitting grading knowledge that they would not have been able to perceive that knowledge was being created or transmitted. Perhaps, it just takes time.

Initially, it might be interesting to consider what the results of the present study tell us about tacit knowledge in general. I argue that, even with the interest in tacit knowledge expressed in the domain of organization behavior, most organizations have a paradoxical, if not a conflicted view of knowledge itself. Take, for example, the expressed view of information at Texas Tech University. First-Year Composition at Texas Tech (and, indeed, at any large university) involves a series of procedures based upon a few shared assumptions. As Kikoski & Kikoski (2004) suggest, administrators in any field (even those in education who might take be attracted to post-modern or post-process approaches to writing pedagogy) still adhere to the "modern" organizational paradigm. Such a view presupposes a number of things:

(1) learning should be constructed according to the structure of the scientific method; "hard" data is analyze to explain the problems of an objective and immutable world;

(2) language is held to be most effect when it is linear, when it "accurately" represents objects, persons, and events; thus, as a genre in such an organization, instructions and procedures are privileged;

(3) there is a focus on the physical world; analyses will tend to be those of a quantitative type;

(4) there is a focus on the individual; individuals are the "discoverers" of knowledge and the creators of successful enterprises;

(5) expertise is privileged; there will be a hierarchy of those who know and those who do not;

(6) administrators are problem-solvers; their goal is to restore homeostasis to an organization that is "out of balance;" and

(7) there is one correct answer to a problem.

This set of assumptions seems at odds with current trends in writing pedagogy. There seems a genuine dissonance between the notions that "scientific" management (and I would argue here that this includes criterion-based assignments as a way to deal with the dynamic environment of FYC) and pedagogies that involve the social construction of knowledge (e.g., Kent 1999). If we accept that the needs to FYC students continue to evolve as the make-up of freshman classes changes, then we must assume that our pedagogical strategies must themselves evolve. These strategies can (and should) be socially constructed and, thus, there is a role for tacit knowledge in this paradigm. Indeed, TOPIC and ICON at Texas Tech University contain so many features that make the transmission of information easy that, by not fully exploring the use of these features, we run the risk of missing new practices that might enhance the acquisition of sound and effective pedagogical practices and we risk leaving ourselves unable or at least slow to respond to the needs of our undergraduate writing students. With this apparent conflict between what we know about writing (that it is situated and socially constructed) and how we approach pedagogy (that it is explicit, incorrigible, and criterion-based), there is little wonder that much of the subject matter of the interviews dealt with confusion about knowledge, per se, and barriers to tacit knowledge transmission. I suggest that FYC programs such as the one at Texas Tech might do well to begin thinking of themselves as

"knowledge organizations" and considering the role tacit knowledge plays in effectively teaching our undergraduates.

Given the discussion of barriers to tacit knowledge transmission, then, by both research samples (graduate instructors and faculty), one might ask if, indeed, tacit knowledge "matters" in FYC or, alternately, if it does, whether writing program administrators can effectively harness it in any systematic manner. While I certainly believe that knowledge organizations ignore tacit knowledge at their own peril, it is certainly a question that some in academia might express letter interest in. Still, I think it a reasonable question for administrators to grapple with. Part of the answer here concerns itself as much with how we define tacit knowledge in FYC as it does with who is creating and transmitting this knowledge. Perhaps, it is easier to begin our discussion with the latter concern and ask ourselves what we know about these graduate instructors. Indeed, adequately defining the concept of tacit knowledge in this or any other context is the far more difficult task. Howells (1996) suggests that, because tacit knowledge is both a concern and a creation of dynamic environments, there is a "drift" that occurs in terms of how it is defined. In other words, there is more to tacit knowledge than the simple transfer of procedural information. Bundled together with this procedural or task information are concerns about technology, media, and institutional matters. Thus, I will begin the discussion here with an exploration of what we know about graduate instructors (those involved in the knowledge transfer) and save concerns about the definition of tacit knowledge in humanities departments for later in this chapter.

First, although there is some evidence to suggest that younger graduate instructors in the humanities are precisely the type of students who would enjoy teaching in hybrid

environments such as TOPIC / ICON, Dede (1995) suggests that the picture is not so clear and is perhaps counterintuitive. Indeed, the traits of narcissism and introversion that we often associate with graduate students in their 20s might counteract with their extreme rigidity of outlook to produce a "suboptimal" outcome in such environments. Dede does suggest that the creation of a "virtual culture" in such environments is essential for encouraging effective performance but, beyond some suggestions involving environments such as "Habitat," there is little here in the way of any concrete suggestions. However, it may not be the nature of the technology itself that ensures success and satisfaction for graduate students. Wang and Newlin (2000) suggest that there may be personality differences between graduate students who might be attracted to online education (as a student or worker) and those who would not. They suggest that the former exhibit a greater locus of control, a generalized belief regarding one's personal efficacy. Such people are characterized as internally motivated, maintaining a belief that performance outcome is contingent on their own behaviors. Liu, Lavelle and Andris (2002) suggest that changes in locus of control can occur as a result of students' participation in online learning. Yet, even they maintain that success in online environments is determined to a great degree by fairly permanent personality characteristics.

Given some evidence, then, to support the contention that there are differences between those students attracted to online education and those who are comfortable with more traditional approaches, the question can be raised as to whether English departments who teach in particular ways (e.g., hybrid delivery systems, distance education) might be well-advised to recruit students sympathetic to or attracted to their

preferred mode of instructional delivery. But, as Wang and Newlin (2000) note, we might shortchange the other expectations of the particular academic department (e.g., in research and scholarship) if recruitment is too heavily tied to one particular aspect of English department life, no matter how important that aspect might be. Clearly, we run the risk of losing potential scholars in English studies if we privilege too heavily those aspects of any FYC program that are technologically-based or "innovative" in other ways. Consider, for example, Coppolla's (1999) discussion of resistance to multiple reader portfolios.

Other researchers suggest that we can, indeed, create environments conducive to satisfaction for graduate students in the humanities, particularly in settings where they must take courses or work online. For example, Picciano (2002) found that satisfaction and performance in online environments were correlated positively with perceptions of the quantity and quality of interaction. More than these variables, however, Picciano suggests that the creation of a "social presence" online for students in their 20s in order can help to achieve a high degree of satisfaction and superior performance. To that end, he suggests online chats and "internet cafes" where graduate students can meet "virtually" away from a course- or workspace to discuss aspects of their work. He suggests these cafes be unmoderated as much as possible to achieve maximum results. Similarly, Rovai and Jordan (2004) suggest that hybrid environments (half face-to-face and half online) seem to create better outcomes than purely online environments. Yet, as FYC at Texas Tech employs a hybrid instructional delivery system and possesses features such as the chat box that arguably assist in the creation of online "presence," one

must ask why such a high degree of dissatisfaction was expressed by the subjects in the present study.

Some of the dissatisfaction expressed in the present study may have less to do with technological issues and more to do with how the personality variables these instructors manifest interact with the technology. There may be, as Basu and Weil (1998) suggest, a danger during periods of innovation of conflating knowledge transfer with technology transfer. Still, assuming that TOPIC / ICON represents a technology that improves certain aspects of instructor grading and allows workload challenges to be more easily met, there are still factors in the personality make-up of graduate students that warrant discussion. Friedman (2004) found that graduate students in the humanities typically exhibit many of the following traits: thinking introversion, response bias, altruism, autonomy, complexity, and theoretical orientation. While all are valuable traits for success in higher education, particularly for success as scholars and researchers, these traits might tend to inhibit success as an instructor for some graduate students. Indeed, Rushton (1982) found that those attributes that determined success as an instructor (liberal, sociable, showing leadership, extraverted, nonanxious, objective, supporting, non-authoritarian, non-defensive, intelligent, and aesthetically sensitive), were diametrically opposed to the traits that were correlated with success as a researcher (independent and non-supportive). Paulsen and Wells (1998), similarly suggested that graduate students in the humanities, while less likely to hold "naïve" beliefs about the certainty of knowledge, also showed some disdain for "applied" knowledge, believing that it is either trivial or facile. Thus, incongruence between one's role as a student and one's role as an instructor may account

for some degree of the dissatisfaction and the barriers to knowledge transmission expressed in the present study.

A related explanation may be found in Holland's Theory of Vocational Choice (1973). Briefly, Holland suggested quite simply that people are drawn to work environments that fit their personality types and outlooks. The central premise of the theory is that vocational and educational stability, satisfaction, and success are contingent on the congruence or "fit" between individuals' personality types and their work or educational environments. Holland's theory and the associated instruments used to assess the personality types of individuals and the nature of their work and educational environments have been widely used by researchers and counselors in their efforts to assist individuals select work and educational environments in which they have the greatest likelihood of persistence, satisfaction, and success. Holland's research suggests that "bad fit" between a graduate student's personality and their environment is perhaps (next to financial concerns) the biggest predictor of attrition in doctoral programs.

Indeed, as Lindholm (2004) suggests, while those who are drawn to academic work typically learn about the work through a series of classroom experiences, what attracts them has little to do with the actual work of teaching. Those who pursue careers in higher education report that they do so because they are seeking to fulfill an inherent personal need for autonomy and independence, a talent for understanding particular concepts, issues or phenomena within their respective fields and an increasing, often externally-reinforced, sense that their talents would be well-suited to the culture and demands of academic work. Paradoxically, they learn about scholarship and research in the very classroom settings in which many have no particular interest in working. Yet, as Huws

(2006) suggests, disappointed expectations about what a job entails are a powerful source of employee dissatisfaction and resistance. In the case of TOPIC / ICON, because it looks so different from "traditional" models of instructional delivery, there may be an increased risk of having it become the source of these disappointed expectations. The very "fixedness" of the classroom and the instructor's office become the things that new instructors associate with the job because these settings provided the initial experience they had with the field of higher education. Indeed, Huws suggests that putting work that was either traditionally face-to-face or was performed using an older technology might actually increase a sense of precariousness that workers feel about their jobs. While TOPIC / ICON is certainly "liberating" in that it allows instructors to perform grading tasks at whatever hours seem convenient to them, it may be the very "asynchronicity" of the grading that creates an atmosphere in which traditional occupational boundaries are not fixed and, therefore, the entire enterprise appears threatening to novice instructors. Returning to Holland's theory, then, for many novice instructors, TOPIC / ICON might look like a "bad fit" because it features few of the associations that new instructors expect.

Knowing the somewhat contradictory preferences and approaches (and their personality traits, perhaps) of those drawn to advanced study in the humanities, the question becomes one of how to create different job expectations for novice graduate instructors. The MA and PhD programs at Texas Tech University feature a recruitment program that brings potential graduate students to campus during the month of April prior to their fall matriculation. A more extensive and realistic preview of grading and instructional responsibilities might serve to make the hybrid delivery system seem less

foreign when new graduate instructors finally take on instructional duties in the fall semester. Faculty in the various sub-disciplines (creative writing, literature, technical communication) might participate in these previews to create the impression that this "strange" hybrid system is, indeed, a feature of graduate life at the university. While such previews might dissuade some potential candidates from attending, perhaps those who agree to attend will do so with greater knowledge (and perhaps some facility in) the instructional delivery system.

The fact that TOPIC / ICON liberates new instructors from traditional grading concerns and allows them the autonomy to integrate grading into their personal schedules as they see fit may potentially create another set of problems for novice graduate instructors: isolation and incongruity. Golde (2005) studied a sample of graduate students in the humanities at Midwestern State University and, in a series of interviews with these students, identified six emergent themes that might lead to attrition in these programs. While perceptions about the strength of the job market and personality conflicts with one's advisor were seen as important risk factors for attrition, incongruence between job expectations and the reality of being a graduate instructor was the risk factor most often identified. Students in the humanities were often surprised to discover two aspects of graduate student life. First, many are surprised to learn that knowledge is represented differently at the doctoral level than it is at the Bachelor's or Master's level. There is the expectation that doctoral students "create" knowledge while those at earlier levels acquire and transmit knowledge. For many students, this transition is something they are ill-prepared to do. Second, students are often quite surprised to learn that they are not simply entering a field of scholarly endeavor. They are actually training to enter a profession

and, for some of Golde's subjects, this created a powerful sense of incongruity. (This expectation of "professional development" is a subject I will return to later in this discussion). Not surprisingly, these factors are of less concern for graduate students in the "hard" sciences as the laboratory experiences they encounter as an undergraduate are in many key ways similar to those they will participate in as graduate students . Similarly, the laboratory seems to be a far more intimate setting offering more mentoring opportunities.

The experience of structural isolation seems to also be a factor that leads to some degree of dissatisfaction for the current subjects. Gillingham, et al (1991) suggest that isolation is a powerful determinant of both satisfaction and attrition for graduate students in a variety of domains. The subjects in the present study suggested that they saw little in common between themselves and their peers, especially between those peers in a different sub-discipline of English studies. Additionally, these subjects perceived themselves as competing individually with their peers for scholarships and fellowships. Knowing that graduate students in the humanities are often motivated by the opportunity to engage in individual study, the findings of Gillingham and her associates might seem somewhat counterintuitive. If individual scholarship is what motivates graduate students in the humanities, one might think that structural or social isolation would play little role in attrition. Yet, because graduate students must adapt to life as students and as workers (often with different demands and expectations for these roles), social and structural isolation seems a factor that cannot be ignored. Here, it seems warranted to discuss these two different but related sources of isolation in greater detail, particularly in terms of how they are manifest and reinforced by the FYC program at Texas Tech.

Social isolation here refers to the perception that graduate instructors have of themselves as being: (1) part of a rigid hierarchy in which they perceive themselves in a management-labor relationship, and (2) as atomistic elements in a larger context. In the first case, Carter (2005) has argued eloquently for a change in how graduate student "labor" is represented. Yet, the expectation of graduate students entering into a mentoring relationship in graduate study provides a powerful and (I would argue) relatively intractable perception. Allen, et al (1997) suggested that the opportunities inherent in particular career fields (higher education, for one) for mentoring provide a powerful attraction for people with particular personality characteristics. In other words, those who expect to be mentored will gravitate toward those fields that present themselves as featuring mentoring relationships. In the case of FYC at Texas Tech, I would argue that, because graduate instructors perceive the program as a rigid hierarchy (with "incorrigible" directives and procedures), there is a high degree of disappointment. Again, this finding is quite paradoxical as graduate instructors seem to simultaneously welcome rather well-defined procedures as they complain about the lack of mentoring relationships in the FYC program. Daugherty and Funke (1998) showed that new instructors in an online delivery system (distance learning) decried the perceived lack of support they received from more experienced instructors. Further, they worried that online instructional delivery might also lead to isolation (rather than dialogue) on the part of their students, concerns that are remarkably similar to those expressed by the subjects in the present study.

Of course, teaching and research are two separate domains for graduate students, each with a separate set of expectations. Yet, there seems to be a rather marked tendency

for the subjects in the present study to conflate the two. Additionally, the very features that might make grading on TOPIC / ICON more attractive than more "traditional" single-grader or even multiple grader portfolio methods might be those things that lead to a sense of isolation between instructors. New instructors (and certainly those in the present study) bemoan what they perceive as a lack of guidance from administrators and more experienced cohorts. And, although TOPIC / ICON provide features such as the "chat box" that allow instructors and administrators to consult with each other, it is possible that new instructors require more of a "high touch" approach. Now, it may be important here to define what we mean by mentoring. Monaghan and Lunt (1992) define mentoring, thusly:

(1) It exists in a work or an organizational context,

(2) It is a relationship between two adults,

(3) There is an element of "power dependency" (i.e., one participant in the relationship has greater knowledge and possesses more institutional power), and;

(4) It is concerned with on-the-job practice.

Levinson, et al (1978), however, argue that, while mentoring is a phenomenon of the workplace, it is not solely concerned with practice. They suggest that mentoring must be viewed as arising from a need for transition in that particular work context. Novices must be encouraged to make the transition to positions that feature greater responsibility. Thus, mentoring is a formal process with the acquisition of knowledge represented as a series of well-defined steps. Again, this is a subject I will return to later in this chapter.

I suggest that, although the FYC program at Texas Tech provides much information related to grading and instructional tasks, the lack of what they perceive as a mentoring relationship is one felt keenly by many of the subjects in the present study. This sense of isolation seems to create a good deal of confusion about such things as whether knowledge can actually be created in FYC. Despite the popularity of approaches such as LeFevre's (1987), instructors express that they remain uncertain about the possibilities of social construction in FYC because of the isolation that is a by-product of working in TOPIC / ICON. This is especially unfortunate as the system has much to offer as far as knowledge creation in FYC is concerned. This sense of isolation in conjunction with the personality traits and approaches novice graduate instructors manifest runs the risk of leaving TOPIC / ICON untapped as far as its capabilities are concerned. More of a concern, however, is that, without something that approximates mentoring, potentially skilled graduate instructors may not have the opportunity to teach FYC to the best of their abilities and to create new knowledge and understanding in the field.

But, mentoring is a time-consuming and often tedious process. University English departments are dynamic venues. Not only are these the places where the instructional challenges of FYC are encountered, but faculty and students face other challenges related to the several roles both must play. Faculty members teach other graduate and undergraduate courses and engage in research and scholarship (and often administrative) endeavors. Graduate students teach, take courses of their own, and engage in independent scholarship. There are expectations of departmental service for both. This is a reason that, in many fields such as nursing, there are "contract mentors," (Monaghan and Lunt, 1992). These are mentors who, in recognition of the time-consuming nature of mentoring,

receive work release considerations for their mentoring duties. Such "contracts" may be well-nigh impossible at English departments at large state universities. Still, by not mentoring novice instructors, we run the risk of short-changing them and the undergraduates we ask them to instruct.

A possible solution to the problem comes out of the work of Lave (1988) and Lave and Wenger (1991). While recognizing the power inherent in the mentoring relationship, Lave herself views the representation of knowledge in such a traditional relationship as incorrigible. As stated previously, "incorrigibility" has no pejorative connotation in this context but instead refers to knowledge that is immutable and acontextual. We think, for example of an equation such as 2+2=4 as incorrigible. We believe that, in every instance, the understanding represented by the equation is shared because it represents something "proven." Lave, however, complicates this understanding of mathematics but that is beyond the scope of this study. In this vein, mentors transmit "incorrigible" or "correct" ways of performing tasks, they teach the rules of the game. While an apprentice-mentor relationship ensures that an apprentice will in many cases acquire those tacit components of a particular job that are associated with mastery in that occupation, Lave and Wenger believe that such a relationship features inherent limits in how it represents knowledge. Because the relationship is dyadic, there are few opportunities for knowledge creation, the sort of creation that takes place in larger and more dialogic groups. And yet, novices cannot engage in dialogue as if they were peers simply because they do not possess the requisite knowledge.

Lave and Wenger suggest an approach they term "legitimate peripheral participation." Such an approach combines the intimacy of mentoring (and its

opportunities for tacit knowledge transmission) with the rigor of formal employee training. Here, novices enter the work group and are given a series of specified expectations for performance as novices. There are a series of progressions they must go through in order to reach "mastery." At each step they are instructed by and engage in dialogue with those who have mastered the novice expectations and with those who have greater experience in the occupation. Thus, after a novice is no longer a novice, he or she is expected to "mentor" those novices who enter after they do. At each progressive step, a worker will act as both trainer and student and, as that worker progresses toward mastery, he or she is expected to share their insights regarding what has been learned. In that way, Lave and Wenger suggest that the ongoing dialogue is where knowledge creation occurs.

This approach is seen in a variety of settings and provides powerful results in terms of goal attainment and knowledge creation. For example, Lave and Wenger studied Ghanian tailoring guilds and found that the process leads to progressive improvements in the way clothing and blankets are created. They argue that such a process is at work in self-help groups such as Alcoholics Anonymous where novices work with sponsors and in the group and are themselves expected to sponsor other novices after one year's sobriety. Again, members engage in structured and (somewhat) public dialogue about their insights with the goal of helping other recovering alcoholics to achieve successive milestones in their sobriety.

A more current application of the process can be seen in the nationalization of the oil industry in Venezuela. Lebowitz (2006) reports that, under a system of co-management between labor and management, new workers are mentored by both "knowledge workers" and production workers" and are expected to master their own

particular jobs and learn about how the factory itself is managed. He reports that such an approach has already led to improvements in production in an industry where large profits are now disbursed into various social programs. Many of these innovations have come from the production workers themselves as they are now expected to participate in refinery and factory procedures. Instead of rapid and potentially anarchic "democratization," workers are provided with the tools by which they can become "co-managers" in logical steps.

Would such an approach work in FYC? Wenger (2003) suggests that dynamic environments with rapid (and expected) turnover are those that seem to benefit from the approach as they can maximize tacit knowledge transmission and creation. Knowing what we know about novice graduate instructors, an approach that promotes autonomy while offering a degree of peer mentorship might lead to a higher degree of willingness on the part of novices (and more experienced instructors) to create and share grading and other instructional knowledge. Indeed, FYC at Texas Tech for the 2006-7 academic year has instituted many of the features of legitimate peripheral participation with non-tenure track instructors leading training sessions and more experienced graduate students leading online and face-to-face discussions. While it is far too soon to make any assessment of the quality of the work produced, grading backlogs are fewer and instructors are participating in the modification of assignments and grading criteria. These features of legitimate peripheral participation are those that Senge (1999) suggests turn workers into transmitters and creators of innovation and that Lebowitz (2005) suggests lead to a greater willingness on the part of workers to share insights and innovations as they create a sense of "ownership" in the outcomes of the work process.

Perhaps, this is what is required to encourage the transmission of tacit knowledge in a dynamic environment such as FYC at Texas Tech and, indeed, in many large FYC programs. The second question alluded to at the beginning of this chapter, however, still remains unanswered. Namely, how do we define tacit knowledge in FYC? If it is simply a series of procedures for delivering instruction, then perhaps these approaches are sufficient. Rushton (1982) and Friedman (2004) point out that, given the role conflicts experienced by graduate students (student and instructor), an approach that privileges one role over the other runs the risk of encouraging a higher degree of attrition. Indeed, Golde (2005) reports that nationally 40% of doctoral candidates in the humanities fail to complete their programs. Perhaps, if we concentrate on the transmission of instructional procedures alone, we are still at risk for high rates of attrition. Here, we might do well to explore what we mean by tacit knowledge in FYC and, indeed, in other organizational and institutional contexts. In other words, we must consider if tacit knowledge, per se, involves only procedural and "task-specific" knowledge or whether it contains a more global sense of "practice."

Searle (1969) suggests that knowledge can be understood by considering two different sorts of "facts," one that he terms "brute" facts and, the other, institutional. An example of a "brute fact" might be something along the lines of "I weigh 175 pounds." An institutional fact might include a statement such as "Representative Smith was convicted of obstruction of justice." The latter depends upon an understanding of the rules of an institution, of certain constitutive rules. To describe Representative Smith's legal troubles as a series of brute facts gives rise to a picture of irregularities. To understand the workings of our legal system, however, along with the values that

"underlie" that system is to enhance our understanding of what Smith actually did and the consequences of his action. Now, a problem with Searle's analogy here is that our legal system is comprised of a series of rather explicit rules. Additionally, his model presupposes a degree of intentionality. When Smith took the oath of office, he stated that he intended to abide by the explicit rules of the legal system. Obstruction of justice is a charge levied against Smith that can be understood as a violation of a matrix of rather transparent rules. What Searle fails to account for in this dichotomy between brute and institutional facts is the unmistakable notion that institutional facts are often tacit. For example, Searle's model fails to account for how we understand a "fact" such as "Representative Martinez was named to no committees because she lacks the necessary collegiality." We cannot explain Martinez' failure to be named to a committee by referring to brute facts and, yet, "collegiality" cannot be explained by explicit institutional rules. So, while Searle's model does suggest Lave's distinction between incorrigible facts and social practice, it cannot entirely account for all the complexity inherent in the subject matter of the present study, that of graduate instructors acquiring, transmitting, and creating grading knowledge in the context of a dynamic FYC program. There are rules and procedures, certainly, and there are features of the program that graduate instructors must learn but there is so much more.

One of the concepts that may be lacking in an understanding of knowledge creation and transmission in an organizational setting is that of the "everyday." Roberts (2006) defines the "everday" as a space that is both "daily" and contingent, hegemonic and dynamic. It includes the non-explicit assumptions and practices of the organization or institution but does not dismiss the agency of the members of the organization. It is at

once an adherence, conscious or unconscious, to the practices of the organization as well as an understanding that practice in the organization is evolutionary and organic. While critiques such as those of Gramsci (1971) focus on the hegemony of the everyday, Roberts suggests that the everyday provides an organizing principle; it is in the context of these practices and assumptions that practice itself evolves. But, it is the notion of exactly how we come to share the everyday that is lacking here and this notion can only provide us with a partial understanding of what must comprise the knowledge, tacit or otherwise, that we ask instructors to create, transmit, and acquire.

Perhaps some of the difficulty inherent in defining tacit knowledge in the case of our graduate instructors in the present study arises from a need to assess the work of humanities departments in universities. Billett (2006) suggests that work such as that performed by university faculty can be best understood in relational terms. That is, there is an ongoing relationship between individual and social agency and suggestions. It is in this relationship that a constant negotiation between the social suggestion and individual intent takes place. As the faculty member seeks a balance in the negotiation, organizational knowledge is created. We can understand successful innovation in this way. Those innovations that employees appropriate in a particular work setting would seem to be those that arise from a consideration of the social suggestions and needs of the organization. Innovation without such a consideration is based solely on individual agency and is often destined for failure. For Billett, this is particularly true in educational settings in which the work is truly what he terms “relational.” By relational in this context, he refers not solely to the fact that relationships are created between participants

(students, fellow faculty, etc.) but that the work itself stems from a relationship between individual and social agency.

Perhaps, it is time to reconsider the work of the university. I argue that the dynamic environment in which universities find themselves is paving the way to a sort of paradigm shift. Those departments in which graduate instructors perform the bulk of freshman instruction must begin to conceive of themselves as "knowledge organizations." Enrollments will not decline and graduate instructors will continue to be transient. These departments must find ways to capture pedagogical information as it is created and transmitted. It is these departments that might well benefit from becoming "communities of practice" (Lave, 1988). But, understanding the need for such a transformation is problematic unless we can unpack the rather troublesome notion of "practice."

Lately, there has been much scholarship on the notion of practice, which unfortunately, at times, tends to conflate "practice" with "tacit knowledge" and "social organization." At times, these terms are often used synonymously. Nicolini, et al (2003) suggest, however, that, from a phenomenological point-of-view, such conflation is understandable. Using Wittgenstein's concept of *dasein* or "being-in-the-world" as a starting point, they assert that language (both explicit propositions and speech acts) is as much a part of practice as any other type of action within a given practice. In the case of carpentry, the propositional knowledge of how to make a table, while different from the practical or tacit knowledge of "making a chair," coexists with the tacit knowledge and is similarly socially constructed within the domain or the practice of carpentry. Additionally, these two sorts of knowledge are as much a part of the practice of carpentry

as is the procedural knowledge of when to use a hammer and when to use a saw. And, yet, as Turner (1994) suggests, practice is often difficult to see and elusive to define because it is composed of these dynamic elements. Thus, according to Turner, an assessment of the social and individual aspects of practice is often hard to assess.

Indeed, both "practice" and "tacit knowledge" seem to have an embedded character that even the most sophisticated scholarship in tacit knowledge and organizational behavior tends to overlook. This difficulty can be viewed as analogous to the problem we experience when we attempt to understand an object apart from the language we use to describe it. The thing described is so closely bound to the things that explain that we may begin to doubt that we have an explanation at all. In a related sense, and similarly, tacit knowledge and practice are themselves intertwined with each other and with the things we use to describe them. Gomez, et al (2003) describe knowing and practice as arising from day-to-day experiences, both individual and social. To separate practice from experience and from the context in which it occurs is every bit as impossible as attempting to separate knowledge from practice.

Of course, this view of embodied knowledge (and embodied practice is not universally shared. Turner (2002) argues that social constructionist approach and the related concept of embodied knowledge are themselves arguments based too heavily on analogy as the source of their epistemology. He suggests as well that attempts to define these concepts are conflated with the notion of *habitus* which itself resists the attempt to provide a purely social and contextual explanation to practice. For Turner, practice has far less to do with shared experience than it does with the idiosyncratic habits of individuals. To whit, there is too little emphasis on the cognitive dimensions of practice

and this lack is inherently problematic. Still, theorists such as Bell (2005), while allowing for the problems in drawing the line between individual and shared experience, point to the successes that organizations experience when they adopt an embodied view of knowledge and of practice.

It stands to reason, then, that tacit knowledge in a humanities department might also have an embodied character and might itself be inseparable from practice in these departments. Tacit knowledge, whether understood from an individual or departmental standpoint, would seem to include the practices of those who work in English and other humanities departments. The management of tacit knowledge must include what we can call "professional development," the expectations that go along with working in higher education. The English department at Texas Tech has instituted a formal program in professional development that is mandatory for all new graduate students and I argue that this is a step in the right direction. This program features participation by faculty in all the sub-disciplines and features small group discussions. The program might be a place that instructional duties could be discussed in a manner that approximates some of these proposed features of legitimate peripheral participation that FYC has already implemented. Juggling the responsibilities associated with these conflicting roles (scholarship and pedagogy, graduate student and instructor) means success as a graduate student and as a faculty member some time in the future. Perhaps, tacit knowledge in this context needs to include not simply how to perform the instructional duties expected by the organization but also how to be a member of the institution. English departments exist in the context of "the academy." Faculty members share a set of values and attempt to

meet the challenge of a set of expectations. Perhaps, it is this highly contextual and embodied knowledge that we should seek to transmit to novices in English departments.

Indeed, much of the literature in tacit knowledge transfer and creation seems to give the impression that the implementation of such programs and the development of certain conduits is an easy "fix" for a dynamic institution. Such strategies fail to address just how contextually-bound tacit instructional knowledge really is. And, there is another rather naïve assessment that much of the empirical and theoretical scholarship in tacit knowledge seems to make. Baumard (1999) and Bordum (2000), among others, are enthusiastic in their assessment of tacit knowledge conduits. The experience at Texas Tech, however, suggests that the transmission of tacit knowledge is an all-too-human endeavor, one that features a degree of conflict. Future scholarship might do well to address what might be a necessary degree of such conflict in tacit knowledge transmission. Additionally, future research might address the temporal aspects of tacit knowledge transmission. Studies such as those performed by Collis & Winnips (2002) seem to suggest the potential for long-term value for any organization that seeks to undertake projects involving the management of tacit knowledge. Indeed, their suggestions regarding the creation of "best practices" archives argue for the view of knowledge management as something that should be a part of any organizational strategic plan. Yet, there is very little empirical research that follows these knowledge strategies over time. Future research for any organization should explore the effects of long-range knowledge management strategies. For FYC as well, we must consider knowledge creation and management as a long-range process in much the same way that certain industries consider these tasks. It may be too soon to offer an assessment just as we may

become focused on the inherent difficulties in the process and fail to see areas in which progress is attained. First-Year Composition programs might do well to take the "long view" and study the transmission of instructional knowledge over time. We know that harnessing tacit knowledge makes a difference in other organizations. We must take a measured and long-term approach to evaluate its potential in First-Year Writing.

Finally, let us consider the possible significance of exploring tacit knowledge in FYC for Writing Program Administrators. With enrollment trends continuing to increase and reliance on technological solutions (such as TOPIC / ICON) to meet these challenges, the study of knowledge management in FYC programs, whether it involves the creation of archives, the exploration of new media or simply the use of the most effective face-to-face practices for knowledge transmission, might well be a fertile area for scholarship and a means of allowing FYC programs to meet the challenges in such a dynamic educational environment. Baumard (1999) and Bordum (2000) suggest that we ignore the potential of tacit knowledge at our own peril. Perhaps, it is time to explore and exploit its value in higher education, in general, and FYC, in particular. Indeed, further research on this particular dataset will seek to: (1) replicate the interviews during Spring 2007, and (2) obtain objective measures of grading performance for the research subjects for triangulation purposes.

APPENDIX A

General Interview Protocol-10 Questions

(1) What is your current classification (MA, PhD)? Which specialty are you in (e.g., creative writing)?

(2) Which course are you presently teaching in, 1301 or 1302?

(3) How long have you taught FYC here at Texas Tech?

(4) Have you taught a course here other than the one you teach presently?

(5) Have you taught in any other academic or non-academic settings? Where?

(6) Have you taught, graded or scored composition papers online before? Where?

(7) Are you presently teaching in the classroom or are you a Document Instructor?

(8) Describe a typical grading session. Where do you grade? When? How regularly?

(9) What are some of your concerns about your duties here?

(10) What are some of the strengths of FYC here?

APPENDIX B

Corpus--Axial Codes with corresponding themes and subthemes emerging from the interviews. All coded items included here reached a concordance level of two out of three coders.

(1)Code	**Description**
Phenomenon	Doubts about tacit knowledge
Causal conditions	Unfamiliar with term due to background in literature
Intervening conditions	No coursework in any subject that privileges tacit knowledge
Actions Taken/ Features Used	Uncertainty about knowledge=sharing no action taken
Consequences	Uncertainty about the present interview

PhD Literature
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(2)Code	**Description**
Phenomenon	Need for explicit grading rubrics
Causal conditions	Unfamiliar with FYC grading
Intervening conditions	No exposure to knowledge creation/social construction
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(3)Code	Description
Phenomenon	Seek explicit rubrics
Causal conditions	Unfamiliar with term due to background in literature
Intervening conditions	No coursework in any subject that privileges tacit knowledge; belief that grading is “go/no go” proposition
Actions Taken/ Features Used	Uncertainty about knowledge=sharing no action taken
Consequences	Uncertainty about the present interview

PhD-Literature
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(4)Code	Description
Phenomenon	Need for explicit grading rubrics
Causal conditions	Unfamiliar with FYC grading; doubt that grading evolves over time
Intervening conditions	No exposure to knowledge creation/social construction
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA-Literature
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(5)Code	Description
Phenomenon	Tacit Knowledge makes “no sense”
Causal conditions	Unfamiliar with term due to background in literature
Intervening conditions	No coursework in any subject that privileges tacit knowledge
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken
Consequences	Uncertainty about the present interview

PhD-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(6)Code	Description
Phenomenon	Need for explicit grading rubrics
Causal conditions	Unfamiliar with FYC grading
Intervening conditions	No exposure to knowledge creation/social construction
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions; avoidance at meetings that ask for input
Consequences	Look to administrators for guidance

MA-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(7)Code	Description
Phenomenon	Doubts about tacit knowledge
Causal conditions	Unfamiliar with term due to background in literature
Intervening conditions	No coursework in any subject that privileges tacit knowledge
Actions Taken/ Features Used	Preference for coursework in literature as opposed to teaching duties
Consequences	Uncertainty about the present interview; disinterest in FYC

MA-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(8)Code	Description
Phenomenon	Need and desire for explicit grading rubrics
Causal conditions	Unfamiliar with FYC grading
Intervening conditions	No exposure to knowledge creation/social construction
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Literature
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(9)Code	Description
Phenomenon	Need for explicit grading rubrics
Causal conditions	Unfamiliar with FYC grading
Intervening conditions	No exposure to knowledge creation/social construction
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Literature
Theme-Defining Tacit Knowledge
Subtheme-Doubt or Disbelief

(10)Code	Description
Phenomenon	Disinterest in FYC
Causal conditions	Belief in lack of rigor in FYC; Doubts about place of FYC in English Studies
Intervening conditions	Belief that TK does not exist in FYC
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken
Consequences	Uncertainty about the present interview; do the minimum amount of work necessary in FYC

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-No tacit component to FYC

(11)Code	**Description**
Phenomenon	Disinterest in rhetorical component of FYC
Causal conditions	Interest in grammar
Intervening conditions	Knowledge creation/social construction believed to be a function of "academic" studies only
Actions Taken/ Features Used	Rely on drop-down grammar menus exclusively while grading
Consequences	Focus on grammar while grading

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-No tacit component to FYC

(12)Code	**Description**
Phenomenon	Disinterest in FYC
Causal conditions	Unfamiliar with concept of TK due to background in literature
Intervening conditions	No coursework in any subject that privileges tacit knowledge
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken
Consequences	Uncertainty about the present interview; avoidance of work in FYC above the minimum

PhD-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-No tacit component to FYC

(13)Code	Description
Phenomenon	Need and preference for explicit grading rubrics
Causal conditions	Belief that FYC does not belong in technical communication
Intervening conditions	Belief that FYC is the domain of literary studies and "soft" sub-disciplines
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-No tacit component to FYC

(14)Code	Description
Phenomenon	Doubts about tacit knowledge
Causal conditions	Unfamiliar with term due to background in literature
Intervening conditions	No coursework in any subject that privileges tacit knowledge
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken
Consequences	Uncertainty about the present interview

MA-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-No tacit component to FYC

(15)Code	Description
Phenomenon	Belief in TK in other fields, not in FYC
Causal conditions	Lack of exposure to FYC theory and pedagogy
Intervening conditions	No exposure to knowledge creation/social construction in FYC
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for explicit guidance

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-Tacit Knowledge exists but not in FYC

(16)Code	Description
Phenomenon	Belief in TK in other fields, not in FYC
Causal conditions	Background in traditional FYC classrooms
Intervening conditions	Lack of exposure to FYC theory and pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken
Consequences	Uncertainty about the present interview

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-Tacit Knowledge exists but not in FYC

(17)Code	**Description**
Phenomenon	Impatience with ambiguous grading criteria
Causal conditions	Unfamiliar with FYC grading
Intervening conditions	No coursework in FYC theory and pedagogy
Actions Taken/ Features Used	NA
Consequences	Look to administrators for guidance; avoidance of meetings that ask instructors to interpret criteria

MA-Literature
Theme-Defining Tacit Knowledge
Subtheme-Inappropriateness of "consensus," need for explicit direction

(18)Code	**Description**
Phenomenon	Avoidance of meetings that ask instructors to interpret criteria
Causal conditions	Lack of coursework in social construction-based pedagogy
Intervening conditions	Lack of interest in FYC
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken
Consequences	Uncertainty about the present interview; do "just enough to get by" in FYC

PhD-Literature
Theme-Defining Tacit Knowledge
Subtheme-Inappropriateness of "consensus," need for explicit direction

(19)Code	**Description**
Phenomenon	Need for explicit grading rubrics; impatience with "widely" divergent commentary
Causal conditions	Belief in "rigor"
Intervening conditions	Explicitness works in other teaching venues
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-Inappropriateness of "consensus,"need for explicit direction

(20)Code	**Description**
Phenomenon	Need for explicit grading rubrics; impatience with "widely" divergent
Causal conditions	Lack of expertise in FYC
Intervening conditions	NA
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken
Consequences	Often writing "minimal" commentary

PhD-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Inappropriateness of "consensus," need for explicit direction

(21)Code	**Description**
Phenomenon	Impatience with differences in instructor commentary
Causal conditions	Background in traditional FYC classrooms
Intervening conditions	NA
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Literature
Theme-Defining Tacit Knowledge
Subtheme-Inappropriateness of "consensus," need for explicit direction

(22)Code	**Description**
Phenomenon	Impatience with differences in instructor commentary
Causal conditions	Background in traditional FYC classrooms
Intervening conditions	NA
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Uncertainty about the present interview; Look to administrators for guidance

MA-Literature
Theme-Defining Tacit Knowledge
Subtheme-Inappropriateness of "consensus," need for explicit direction

(23)Code	**Description**
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; first time in classroom
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(24)Code	**Description**
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; first time in classroom
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(25)Code	Description
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; first time in classroom
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(26)Code	Description
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; first time in classroom
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA-Literature
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(27)Code	Description
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; limited teaching experience
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(28)Code	Description
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; limited teaching experience
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA-Literature
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(29)Code	Description
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; limited teaching experience
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA-Literature
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(30)Code	Description
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; limited teaching experience
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(31)Code	**Description**
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; limited teaching experience
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA-Creative Writing
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(32)Code	**Description**
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; limited teaching experience
Intervening conditions	No opportunity (as yet) to learn theory / pedagogy
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

MA-Literature
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(33)Code	**Description**
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; limited teaching experience
Intervening conditions	Don’t understand theory / pedagogy of TOPIC / ICON
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Technical Communication
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(34)Code	**Description**
Phenomenon	Lack of FYC Knowledge
Causal conditions	Unfamiliar with FYC grading; limited teaching experience
Intervening conditions	Don’t understand theory / pedagogy of TOPIC / ICON
Actions Taken/ Features Used	Uncertainty about knowledge-sharing, no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Literature
Theme-Defining Tacit Knowledge
Subtheme-Limited Expertise Leads to reluctance to share knowledge

(35)Code	**Description**
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded
Consequences	Confidence in norming

PhD-Technical Communication
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(36)Code	**Description**
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Technical Communication
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(37)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Technical Communication
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(38)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(39)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(40)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(41)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(42)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(43)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(44)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Need for immediate feedback in grading; fear of creating third reads
Actions Taken/ Features Used	Use of audit drafts early in grading session (after 1-3 drafts graded)
Consequences	Confidence in norming

PhD-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(45)Code	**Description**
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(46)Code	**Description**
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(47)Code	**Description**
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(48)Code	**Description**
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(49)Code	**Description**
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(50)Code	**Description**
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(51)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(52)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(53)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(54)Code	Description
Phenomenon	Use of audit drafts feature
Causal conditions	Allows for norming of numerical grades
Intervening conditions	Use of audit drafts feature
Actions Taken/ Features Used	Allows for norming of numerical grades
Consequences	Need for immediate feedback in grading; fear of creating third reads

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-audit drafts

(55)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Technical Communication
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(56)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Technical Communication
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(57)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Technical Communication
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(58)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(59)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(60)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(61)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(62)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(63)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(64)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(65)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(66)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(67)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(68)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(69)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(70)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(71)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(72)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(73)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(74)Code	Description
Phenomenon	Use of “chat box” feature
Causal conditions	Need to know grading concerns immediately
Intervening conditions	Feeling of isolation, not knowing what other graders face
Actions Taken/ Features Used	“chat box” referred to throughout grading session
Consequences	Ability to modify grading practices as needed

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-use of “chat box” feature

(75)Code	Description
Phenomenon	Obtain information from University Writing Center personnel
Causal conditions	Need to see the actual problems students experience in responding to assignment criteria
Intervening conditions	Isolation from students
Actions Taken/ Features Used	Weekly informal discussions with writing center personnel or with students using writing center
Consequences	Learn how students actually respond to criteria

PhD-Technical Communication
Theme-Conduits of tacit knowledge transmission
Subtheme-Use of University Writing Center

(76)Code	Description
Phenomenon	Obtain information from University Writing Center personnel
Causal conditions	Need to see the actual problems students experience in responding to assignment criteria
Intervening conditions	Isolation from students
Actions Taken/ Features Used	Weekly informal discussions with writing center personnel or with students using writing center
Consequences	Learn how students actually respond to criteria

PhD-Technical Communication
Theme-Conduits of tacit knowledge transmission
Subtheme-Use of University Writing Center

(77)Code	Description
Phenomenon	Obtain information from University Writing Center personnel
Causal conditions	Need to see the actual problems students experience in responding to assignment criteria
Intervening conditions	Isolation from students
Actions Taken/ Features Used	Weekly informal discussions with writing center personnel or with students using writing center
Consequences	Learn how students actually respond to criteria

PhD-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-Use of University Writing Center

(78)Code	Description
Phenomenon	Obtain information from University Writing Center personnel
Causal conditions	Need to see the actual problems students experience in responding to assignment criteria
Intervening conditions	Isolation from students
Actions Taken/ Features Used	Weekly informal discussions with writing center personnel or with students using writing center
Consequences	Learn how students actually respond to criteria

MA-Creative Writing
Theme-Conduits of tacit knowledge transmission
Subtheme-Use of University Writing Center

(79)Code	Description
Phenomenon	Obtain information from University Writing Center personnel
Causal conditions	Need to see the actual problems students experience in responding to assignment criteria
Intervening conditions	Isolation from students
Actions Taken/ Features Used	Weekly informal discussions with writing center personnel or with students using writing center
Consequences	Learn how students actually respond to criteria

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-Use of University Writing Center

(80)Code	Description
Phenomenon	Obtain information from University Writing Center personnel
Causal conditions	Need to see the actual problems students experience in responding to assignment criteria
Intervening conditions	Isolation from students
Actions Taken/ Features Used	Weekly informal discussions with writing center personnel or with students using writing center
Consequences	Learn how students actually respond to criteria

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-Use of University Writing Center

(81)Code	Description
Phenomenon	Obtain information from University Writing Center personnel
Causal conditions	Need to see the actual problems students experience in responding to assignment criteria; view writing center personnel as “experts”
Intervening conditions	Isolation from students
Actions Taken/ Features Used	Weekly informal discussions with writing center personnel or with students using writing center
Consequences	Learn how students actually respond to criteria

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-Use of University Writing Center

(82)Code	Description
Phenomenon	Obtain information from University Writing Center personnel
Causal conditions	Need to see the actual problems students experience in responding to assignment criteria
Intervening conditions	Isolation from students; lack of experience
Actions Taken/ Features Used	Weekly informal discussions with writing center personnel or with students using writing center
Consequences	Learn how students actually respond to criteria

MA-Literature
Theme-Conduits of tacit knowledge transmission
Subtheme-Use of University Writing Center

(83)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve as much anonymity as possible
Consequences	Do not know what my peers are doing

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(84)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve as much anonymity as possible
Consequences	Do not know what my peers are doing

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(85)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve as much anonymity as possible
Consequences	Do not know what my peers are doing

PhD-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(86)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Participate in as little as possible
Consequences	Do not know what my peers are doing

PhD-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(87)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(88)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(89)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(90)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(91)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(92)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(93)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(94)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(95)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(96)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(97)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(98)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(99)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(100)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(101)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Distrust FYC administrators when they claim to want input
Intervening conditions	TOPIC / ICON seen as top-down systems with “incorrigible” procedures
Actions Taken/ Features Used	Seek to preserve anonymity
Consequences	Do not know what my peers are doing; job is tedious

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perception of TOPIC / ICON as “top-down” system

(102)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input
Actions Taken/ Features Used	Simply follow procedures as written
Consequences	Makes my work seem unimportant as I can’t participate as fully as I might like

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(103)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input; TOPIC / ICON represented as “mysterious”
Actions Taken/ Features Used	Simply follow procedures as written; do as I’m asked
Consequences	Makes my work seem unimportant as I can’t participate as fully as I might like; I’m convinced that I don’t know enough

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(104)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input
Actions Taken/ Features Used	Simply follow procedures as written
Consequences	Makes my work seem unimportant as I can’t participate as fully as I might like

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(105)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Does not see a way to have any impact on modifying TOPIC / ICON
Intervening conditions	TOPIC represented as very sophisticated
Actions Taken/ Features Used	Simply follow procedures as written
Consequences	Makes my work seem unimportant as I can't participate as fully as I might like

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(106)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input
Actions Taken/ Features Used	Simply follow procedures as written
Consequences	Makes my work seem unimportant as I can't participate as fully as I might like

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(107)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input
Actions Taken/ Features Used	Simply follow procedures as written
Consequences	Makes my work seem unimportant as I can't participate as fully as I might like

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(108)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input
Actions Taken/ Features Used	Simply follow procedures as written; often do just the minimum
Consequences	Makes my work seem unimportant as I can't participate as fully as I might like

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(109)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input; I am often told that things can't be changed because I do not understand the system
Actions Taken/ Features Used	Simply follow procedures as written; often do just the minimum
Consequences	Makes my work seem unimportant as I can't participate as fully as I might like

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(110)Code	Description
Phenomenon	Avoid sharing information
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input; I am often told that things can't be changed because I do not understand the system
Actions Taken/ Features Used	Simply follow procedures as written; often do just the minimum
Consequences	Makes my work seem unimportant as I can't participate as fully as I might like

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(111)Code	Description
Phenomenon	Need for explicit grading rubrics
Causal conditions	Lack of expertise in hybrid systems
Intervening conditions	TOPIC / ICON do not look as if they permit input; I am often told that things can't be changed because I do not understand the system
Actions Taken/ Features Used	Simply follow procedures as written; often do just the minimum
Consequences	Makes my work seem unimportant as I can't participate as fully as I might like

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Perceived lack of expertise in using TOPIC / ICON

(112)Code	Description
Phenomenon	I treat FYC as a part time job
Causal conditions	Lack of interest in FYC
Intervening conditions	Failure to see FYC as a part of English studies
Actions Taken/ Features Used	NA
Consequences	Little effort goes into my job

PhD-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Lack of interest in FYC, uncertainty about the place of FYC in English studies

(113)Code	Description
Phenomenon	I put relatively little effort (but much time) into FYC
Causal conditions	Perception that FYC doesn't seem like part of English studies
Intervening conditions	Lack of interest
Actions Taken/ Features Used	NA
Consequences	I just do enough to get by

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Lack of interest in FYC, uncertainty about the place of FYC in English studies

(114)Code	Description
Phenomenon	I put relatively little effort (but much time) into FYC
Causal conditions	Lack of interest
Intervening conditions	No graduate courses that show how FYC is actually part of English studies
Actions Taken/ Features Used	NA
Consequences	I do just the minimum

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Lack of interest in FYC, uncertainty about the place of FYC in English studies

(115)Code	Description
Phenomenon	I put relatively little effort (but much time) into FYC
Causal conditions	Lack of interest
Intervening conditions	No graduate courses that show how FYC is actually part of English studies
Actions Taken/ Features Used	NA
Consequences	I do just the minimum

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Lack of interest in FYC, uncertainty about the place of FYC in English studies

(116)Code	Description
Phenomenon	Avoidance of doing “something wrong”
Causal conditions	Fear of consequences
Intervening conditions	Importance of avoiding “third reads”
Actions Taken/ Features Used	Use “audit drafts” to make certain second read score same as first read score
Consequences	Reluctance to share anything novel

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Fear of doing the “wrong thing”

(117)Code	Description
Phenomenon	Avoidance of doing “something wrong”
Causal conditions	Fear of consequences
Intervening conditions	Importance of avoiding “third reads”
Actions Taken/ Features Used	Use “audit drafts” to make certain second read score same as first read score
Consequences	Reluctance to share anything novel

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Fear of doing the “wrong thing”

(118)Code	Description
Phenomenon	Avoidance of doing “something wrong”
Causal conditions	Fear I’m “letting the administrators down”
Intervening conditions	Personal standards
Actions Taken/ Features Used	NA
Consequences	Follow directions explicitly; don’t ask questions

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Fear of doing the “wrong thing”

(119)Code	Description
Phenomenon	Avoidance of doing “something wrong”
Causal conditions	Fear about consequences
Intervening conditions	Perceptions of other instructors who were “slapped down”
Actions Taken/ Features Used	NA
Consequences	Avoid being noticed

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Fear of doing the “wrong thing”

(120)Code	Description
Phenomenon	Reluctance to share information with other instructors
Causal conditions	Disappointed expectations about job; doesn’t seem like academic job
Intervening conditions	TOPIC / ICON so different than what I have experienced
Actions Taken/ Features Used	NA
Consequences	Do the minimum

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Disappointed expectations about job

(121)Code	Description
Phenomenon	Reluctance to share information with other instructors
Causal conditions	Disappointed expectations about job; doesn't seem like academic job
Intervening conditions	TOPIC / ICON so different than what I have experienced
Actions Taken/ Features Used	NA
Consequences	Do the minimum

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Disappointed expectations about job

(122)Code	Description
Phenomenon	Reluctance to share information with other instructors
Causal conditions	Disappointed expectations about job; doesn't seem like academic job
Intervening conditions	TOPIC / ICON so different than what I have experienced
Actions Taken/ Features Used	NA
Consequences	Do the minimum

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Disappointed expectations about job

(123)Code	**Description**
Phenomenon	Reluctance to share information with other instructors
Causal conditions	Disappointed expectations about job; doesn't seem like academic job
Intervening conditions	TOPIC / ICON so different than what I have experienced
Actions Taken/ Features Used	NA
Consequences	Do the minimum

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Disappointed expectations about job

(124)Code	**Description**
Phenomenon	Reluctance to share information with other instructors
Causal conditions	Disappointed expectations about job; doesn't seem like academic job
Intervening conditions	TOPIC / ICON so different than what I have experienced
Actions Taken/ Features Used	NA
Consequences	Do the minimum

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Disappointed expectations about job

(125)Code	Description
Phenomenon	Refusal to share information with other instructors
Causal conditions	Competition over scholarships and fellowships
Intervening conditions	Role confusion—graduate instructors compete with each other; competition “spills over” into work
Actions Taken/ Features Used	NA
Consequences	Refusal to share information

PhD-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Competition for scholarships

(126)Code	Description
Phenomenon	Refusal to share information with other instructors
Causal conditions	Competition over scholarships and fellowships
Intervening conditions	Role confusion—graduate instructors compete with each other; competition “spills over” into work
Actions Taken/ Features Used	NA
Consequences	Refusal to share information

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Competition for scholarships

(127)Code	Description
Phenomenon	Refusal to share information with other instructors
Causal conditions	Competition over scholarships and fellowships
Intervening conditions	Role confusion—graduate instructors compete with each other; competition “spills over” into work
Actions Taken/ Features Used	NA
Consequences	Refusal to share information

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Competition for scholarships

(128)Code	Description
Phenomenon	Refusal to share information with other instructors
Causal conditions	Competition over scholarships and fellowships
Intervening conditions	Role confusion—graduate instructors compete with each other; competition “spills over” into work
Actions Taken/ Features Used	NA
Consequences	Refusal to share information

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Competition for scholarships

(129)Code	Description
Phenomenon	Refusal to share information with other instructors
Causal conditions	Competition over scholarships and fellowships
Intervening conditions	Role confusion—graduate instructors compete with each other; competition “spills over” into work
Actions Taken/ Features Used	NA
Consequences	Refusal to share information

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Competition for scholarships

(130)Code	Description
Phenomenon	Refusal to share information with other instructors
Causal conditions	Competition over scholarships and fellowships
Intervening conditions	Role confusion—graduate instructors compete with each other; competition “spills over” into work
Actions Taken/ Features Used	NA
Consequences	Refusal to share information

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Competition for scholarships

(131)Code	Description
Phenomenon	Refusal to share information with other instructors
Causal conditions	Competition over scholarships and fellowships
Intervening conditions	Role confusion—graduate instructors compete with each other; competition “spills over” into work
Actions Taken/ Features Used	NA
Consequences	Refusal to share information

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Competition for scholarships

(132)Code	Description
Phenomenon	Need for explicit grading rubrics
Causal conditions	Unfamiliar with FYC grading
Intervening conditions	No exposure to knowledge creation/social construction
Actions Taken/ Features Used	Uncertainty about knowledge-sharing no action taken; favors features that lead to most explicit directions
Consequences	Look to administrators for guidance

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Competition for scholarships

(133)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(134)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(135)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(136)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

PhD-Technical Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(137)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(138)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

PhD-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(139)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(140)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(141)Code	Description
Phenomenon	Refusal/ reluctance to share information with other graduate instructors
Causal conditions	Little in common with other instructors
Intervening conditions	Split between English and Technical Communication in the same department
Actions Taken/ Features Used	Little co-mingling
Consequences	Information not often shared

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Little in common with other instructors

(142)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Distrust of Assistant Directors
Intervening conditions	Perception that Assistant Directors “lose touch” with peers
Actions Taken/ Features Used	NA
Consequences	Little information shared

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Distrust of Assistant Directors

(143)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Distrust of Assistant Directors
Intervening conditions	Perception that Assistant Directors “lose touch” with peers
Actions Taken/ Features Used	NA
Consequences	Little information shared

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Distrust of Assistant Directors

(144)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Distrust of Assistant Directors
Intervening conditions	Perception that Assistant Directors “lose touch” with peers
Actions Taken/ Features Used	NA
Consequences	Little information shared

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Distrust of Assistant Directors

(145)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Distrust of Assistant Directors
Intervening conditions	Perception that Assistant Directors “lose touch” with peers
Actions Taken/ Features Used	NA
Consequences	Little information shared

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Distrust of Assistant Directors

(146)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Distrust of Assistant Directors
Intervening conditions	Perception that Assistant Directors “lose touch” with peers
Actions Taken/ Features Used	NA
Consequences	Little information shared

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Distrust of Assistant Directors

(147)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(148)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(149)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

PhD-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(150)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(151)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(152)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(153)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(154)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(155)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(156)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(157)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(158)Code	Description
Phenomenon	Reluctance to share information
Causal conditions	Perceived surveillance
Intervening conditions	Little understanding of reasons for surveillance
Actions Taken/ Features Used	NA
Consequences	No behaviors to draw attention to self

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-Surveillance

(159)Code	Description
Phenomenon	Reluctant to grade online for long periods of time
Causal conditions	Perception of online interface as cold and impersonal
Intervening conditions	No experience with online grading; online grading seems at odds with “humanities”
Actions Taken/ Features Used	Limited grading time; tendency to wait until “last minute” to grade
Consequences	Limited time online

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-TOPIC / ICON as “automated”

(160)Code	Description
Phenomenon	Reluctant to grade online for long periods of time
Causal conditions	Perception of online interface as cold and impersonal
Intervening conditions	No experience with online grading; online grading seems at odds with “humanities”
Actions Taken/ Features Used	Limited grading time; tendency to wait until “last minute” to grade
Consequences	Limited time online

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-TOPIC / ICON as “automated”

(161)Code	Description
Phenomenon	Reluctant to grade online for long periods of time
Causal conditions	Perception of online interface as cold and impersonal
Intervening conditions	No experience with online grading; online grading seems at odds with “humanities”
Actions Taken/ Features Used	Limited grading time; tendency to wait until “last minute” to grade
Consequences	Limited time online

PhD-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme-TOPIC / ICON as “automated”

(162)Code	Description
Phenomenon	Reluctant to grade online for long periods of time
Causal conditions	Perception of online interface as cold and impersonal
Intervening conditions	No experience with online grading; online grading seems at odds with “humanities”
Actions Taken/ Features Used	Limited grading time; tendency to wait until “last minute” to grade
Consequences	Limited time online

PhD-Technical Communication
Theme-Barriers to tacit knowledge transmission
Subtheme- TOPIC / ICON as “automated”

(163)Code	Description
Phenomenon	Minimal participation in FYC activities
Causal conditions	Large workload as a graduate student
Intervening conditions	Time management concerns
Actions Taken/ Features Used	Preference given to academic work
Consequences	Limited opportunities to transmit or acquire information

PhD-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme-Difficulty in managing student and instructor duties

(164)Code	Description
Phenomenon	Minimal participation in FYC activities
Causal conditions	Large workload as a graduate student
Intervening conditions	Time management concerns
Actions Taken/ Features Used	Preference given to academic work
Consequences	Limited opportunities to transmit or acquire information

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme- Difficulty in managing student and instructor duties

(165)Code	Description
Phenomenon	Minimal participation in FYC activities
Causal conditions	Large workload as a graduate student
Intervening conditions	Time management concerns
Actions Taken/ Features Used	Preference given to academic work
Consequences	Limited opportunities to transmit or acquire information

MA-Literature
Theme-Barriers to tacit knowledge transmission
Subtheme- Difficulty in managing student and instructor duties

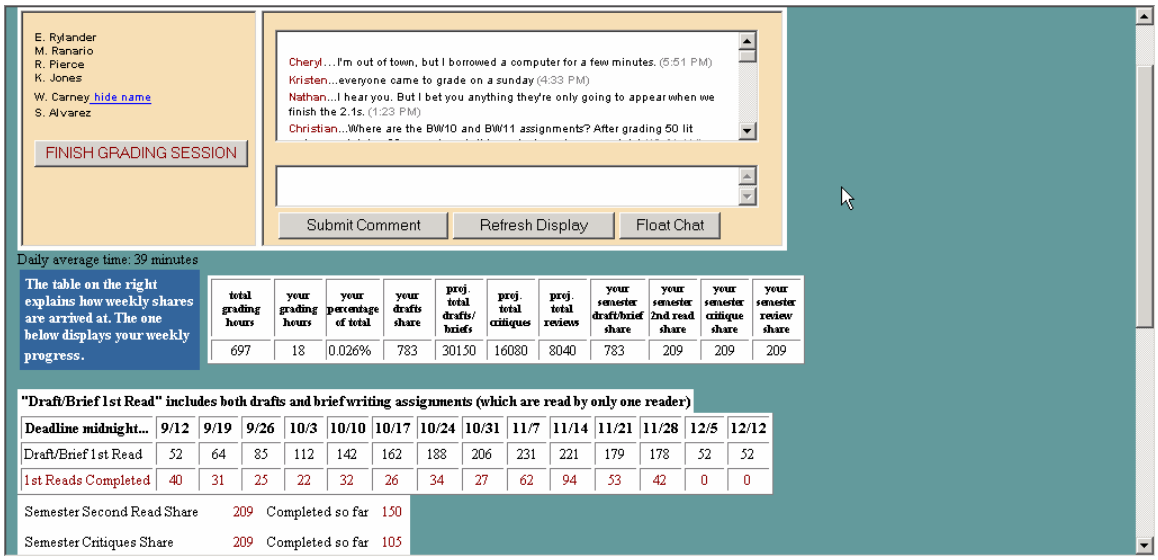
(166)Code	Description
Phenomenon	Minimal participation in FYC activities
Causal conditions	Large workload as a graduate student
Intervening conditions	Time management concerns
Actions Taken/ Features Used	Preference given to academic work
Consequences	Limited opportunities to transmit or acquire information

MA-Creative Writing
Theme-Barriers to tacit knowledge transmission
Subtheme- Difficulty in managing student and instructor duties

APPENDIX C

Screen Shot of the TOPIC / ICON Grading Interface

Chatbox Feature



The screen shown here shows both the chatbox function and some records of the work this instructor has completed.

REFERENCES

Allen, T.D**.,** Poteet, M.L., & Burroughs, S.M. (1997). The mentor's perspective: A qualitative inquiry and future research agenda. *Journal of Vocational Behavior, 51*, 70-89.

Ambrosini, V. & Bowman, C. (2001). Tacit knowledge: Some suggestions for operationalization. *Journal of Management Studies, 38*, 811-829.

Argyris, C. (1999). *On organizational learning*. New York: Blackwell.

Arnulf, J., Dreyer, H., & Grenness, C. (2005). Trust and knowledge creation: How the dynamics of trust and absorptive capacity may affect supply chain management development projects. *International Journal of Logistics, 8*, 225-236.

Basu, S. & Weil, D. (1998). Appropriate technology and growth. *Quarterly Journal of Economics, 113*, 1025-1054.

Baumard, P. (1999). *Tacit knowledge in organizations*. Thousand Oaks (CA): Sage.

Bell, C. (2005). Wise organizations. In J. Courtney, J. Haynes, & D. Paradice (Eds.), *Inquiring organizations: Moving from knowledge management to wisdom*. (pp.229-271). London: Idea Group.

Billett, S. (2006). *Work, Change and Workers*. Dordrecht (NE): Springer.

Bird, A. (1994). Careers as repositories of knowledge: A new perspective on boundaryless careers. *Journal of Organizational Behavior, 15*, 325-344.

Bogan, J. & Woodward, J. (1988). Saving the phenomena. *Philosophical Review, 97*, 305-352.

Bogan, J. & Woodward, J. (1989). Data and Phenomena. *Synthese, 79*, 393-472.

Boiral, O. (2002). Tacit knowledge and environmental management. *Long Range*

Planning, 35, 291-317.

Bordum, A. (2000). From tacit knowing to tacit knowledge: Emancipation or ideology. *Critical Quarterly*, 44, 50-54.

Brown, J.S. & Duguid, P. (1991). Organizational learning and communities of practice: Toward a unified view of working, learning, and innovation. *Organization Science, 2*, 40-57.

Bruce, K. & Suserud, B.O. (2005). The handover process and triage of ambulance-borne patients: The experiences of emergency nurses. *Nursing in Critical Care, 10*, 201-209.

Carter, L. (2005). Rhetoric, markets and value creation: An introduction and argument for a productive rhetoric. In. L. Carter (Ed.) *Market matters: Applied rhetoric studies and free market composition*. (pp.1-66). Creskill (NJ): Hampton.

Chenail, R. (1997). Keeping things plumb in qualitative research. *The Qualitative Report*, Available: http://www.nova.edu/ssss/QR/QR3-3/plumb.html

Collis, B. & Winnips, K. (2002). Two scenarios for productive learning environments in the workplace. *British Journal of Educational Technology, 33*, 133-148.

Conceicao, P., Heitor, M. & Lundvall, B. (2003). *Innovation, competence building, and social cohesion in Europe: Towards a learning society*. Northhampton (MA):Elgar.

Coppola, N. (1999). Setting the discourse community: Tasks and assessment for the new technical communication service course. *Technical Communication Quarterly, 8*, 249-267.

Craik, F. & Lockhart, R. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior, 11*, 671-684.

Cutliffe, S.H. (2000). *Ideas, machines, and values: An introduction to science, technology, and society studies*. Lanham (MD): Rowman & Littlefield.

Daft, R.L. & Weick, K.E. (1984). Toward a model of organizations as interpretive systems. *The Academy of Management Review, 9*, 284-295.

Daugherty, M. & Funke, B. (1998). University and faculty perceptions of web-based instruction. *Journal of Distance Education, 13,* 21-39.

Day, R. (2001). *The modern invention of information: Discourse, history, and power*. Carbondale (IL): Southern Illinois University Press.

Dede, C. (1995). The evolution of constructivist learning environments: Immersion in distributed virtual worlds. *Educational Technology, 35,* 1-13.

Diedrich, L. (2001). Breaking down: A phenomenology of disability. *Literature and Medicine, 20,* 209-230.

Duguid, P. (2005). "The art of knowing:" Social and tacit dimensions of knowledge and the limits of the community of practice. *The Information Society, 21*, 109-118.

Droege, S.B. & Hoobler, J.M. (2003). Employee turnover and tacit knowledge diffusion: A network perspective. *Journal of Managerial Issues, 15*, 50-64.

Dunn, W.N. & Swierczek, F.W. (1977). Planned organizational change: Toward grounded theory. *Journal of Applied Behavioral Science, 13*, 135-157.

Durrance, B. (1998). Some explicit thoughts on tacit learning. *Training and Development, 52,* 24-29.

Dyer-Witheford (2004). Species-Being Resurgent. *Constellations, 11*, 476-491.

Foray, D. (2004). *The economics of knowledge*. Cambridge (MA): MIT Press.

Fox, C. (1997). A confirmatory factor analysis of the structure of tacit knowledge in

nursing. *Journal of Nursing Education, 36,* 459-466.

Friedman, A.A. (2004). The relationship between personality traits and reflective judgement among female students. *Journal of Adult Development, 11,* 297-304.

Gillingham, L., Seneca, J., & Taussig, M. (1991). The determinants of progress to the doctoral degree. *Research in Higher Education, 32,* 449-468.

Gipps, C. (1999). Socio-cultural aspects of assessment. *Review of Research in Education, 24*, 355-392.

Glaser, B. & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Hawthorne (NY): Aldine.

Golde, C. (2005). The role of the department and discipline in doctoral student attrition: lessons from four departments. *Journal of Higher Education, 76*, 669-700.

Gomez, E., Quesada, J. & Kintsch, W. (2003). Latent problem solving analysis as an Explanation of expertise effects in a complex dynamic task. *Proceedings of the 25th Congress of the Cognitive Science Society, 25*, 940-946.

Gordon, E. (1995). Culture and the sciences of pedagogy. *Teachers College Record, 97*, 32-46.

Gourlay, S. (2006). Toward conceptual clarity for "tacit knowledge:" A review of empirical studies. *Knowledge Management and Practice, 4,* 60-69.

Gramsci, A. (2005). *The Prison Notebooks*. New York: International Publishers.

Greenwood, D. & Lowenthal, D. (2005). Case study as a means of researching social work and improving practitioner education. *Journal of Social Work Practice, 19,* 181-193.

Guzman, J. (1999). Capturing health care utilization after occupational low-back pain:

Development of an interviewer-administered questionnaire. *Journal of Clinical Epidemiology, 52*, 419-427.

Haig, B. (1995). Grounded theory as scientific method. *Philosophy of Education*. Available: http://www.ed.uiuc.edu/EPS/PES-Yearbook/95_docs/haig.html.

Hairston, M. (1992). Diversity, ideology, and teaching writing. *College Composition and Communication, 43*, 179-193.

Harmaakorpi, V. & Melkas, H. (2005). Knowledge management in regional innovation networks: The case of Lahti, Finland. *European Planning Studies, 13*, 641-659.

Holland, J.L (1973). *Making vocational choices: A theory of careers*. Englewood Cliffs (NJ): Prentice-Hall.

Howells, J. (1996). Tacit knowledge, innovation, and technology transfer. *Technology Analysis & Strategic Management, 8*, 91-106.

Huws, U. (2005). Fixed, footloose, or fractured: Work, identity, and the spatial division of labor. *Monthly Review, 57*, 23-39.

Johnson, R. (1998). *User-centered technology: A rhetorical theory for computers and other mundane artifacts.* Albany (NY): State University Press.

Kent, T. (1999). *Post-process theory: Beyond the writing process paradigm*. Carbondale (IL): Southern Illinois University Press.

Kezim, B., Pariseau, S.E., & Quinn, F. (2005). Is grade inflation related to faculty status? *Journal of Education for Business, 80*, 358-363.

Kikoski, C.K. & Kikoski, J.F. (2004). *The inquiring organization: Tacit knowledge, Conversation and knowledge creation: Skills for 21st century organizations*. Westport (CT): Praeger.

Kinneavy, J. (1971). *A theory of discourse: The aims of discourse*. Englewood Cliffs (NJ): Prentice-Hall.

Lebowitz, M. (2005). The knowledge of a better world. *Monthly Review, 57*, 1-11.

Lave, J. (1988). *Cognition in practice: Mind, mathematics, and culture in everyday life.* Cambridge (UK): Cambridge University Press.

Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge (UK): Cambridge University Press.

Lawson, C. & Lorenz, E. (1999). Collective learning, tacit knowledge, and regional innovative capacity. *Regional Studies, 33*, 305-317.

LeFevre, K.B. (1987). Invention as a social act. Carbondale (IL): Southern Illinois University Press.

Levinson, D., Darrow, C., Klein, E., Levinson, M. & McKee, B. (1978). *The seasons of a Man's life.* New York: Knopf.

Lincoln, Y. & Guba, E. (1989). *Fourth generation evaluation*. Newbury Park (CA): Sage.

Lindholm, K. (2004). Pathways to the professoriate: The role of self, others and environment in shaping academic career aspirations. *Journal of Higher Education, 75*, 603-635.

Liu, Y., Lavelle, E. & Andris, J. (2002).Experimental effects of online instruction on locus of control. *USDLA Journal*, Available: http://www.usdla.org/html/journal/JUN02_Issue/article02.html

Marx, K. (1974). *Capital, Vol. 1*. Trans. E. Paul. New York: Dutton.

McCurrie, M. (2004). From the edges to the center: Pedagogy's role in redefining English departments. *Pedagogy*, *4*, 43-64.

Monaghan, J. & Lunt, N. (1992). Mentoring: Person, process, practice and problems. *British Journal of Education Studies, 40*, 248-263.

Moore, M. & Trahan, R. (1998). Tenure status and grading practices. *Sociological Perspectives, 41*, 775-782.

Mullins, P. (2002). Pierce's abduction and Polanyi's tacit knowing. *Journal of Speculative Philosophy*, 16, 198-224.

Murray, D. (1985). *A writer teaches writing*. New York: Houghton-Mifflin.

Negri, A. (1984). *Marx oltre Marx*. South Hadley (MA): Bergin & Garvey.

Nelson, R. & Winter, S. (1982). *An evolutionary theory of economic change*. Cambridge (MA): Belknap.

Nestor-Baker, N. (2004). Knowing when to hold 'em and fold 'em: Tacit knowledge of place-bound and career-bound superintendents. *Journal of Educational Administration, 40*, 230-256.

Nicolini, D., Gherardi, S., & Yanow, D. (2003). Toward a practice-based view of knowing and learning in organizations. In D. Nicolini, S. Gherardi, & D. Yanow (Eds.), *Knowing in organizations: A practice-based approach*. (pp.3-31). London: M.E. Sharpe.

O'Callaghan, N. (2005). The use of expert practice to explore reflection. *Nursing Standard, 19*, 41-47.

Onwuegbuzie, A.J. (1999). Statistics anxiety among African American graduate students: An affective filter? *Journal of Black Psychology, 25*, 189-209.

Pandit, N. (1996). The creation of theory: A recent application of the grounded theory method. *The Qualitative Report*. Available: http://www.nova.edu/ssss/QR/QR2-

4/pandit.htm

Patel, V.L., Arocha, J.F., & Kaufman, D.R. (1998). Expertise and tacit knowledge in Medicine. In R. Sternberg & J. Horvath, Eds. *Tacit knowledge in professional practice* (pp.75-99). Mahwah (NJ): Erlbaum.

Paton, B. (2005). Sustaining self: Moving beyond the unexpected realties of teaching in practice. *Nursing Inquiry, 12,* 51-59.

Paulsen, M. & Wells, C. (1998). Domain differences in the epistemological beliefs of college students. *Research in Higher Education, 39*, 365-384.

Picciano, A.G. (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous Learning Networks, 6*, 21-41.

Pike, K.L. (1954). *Language in relation to a unified theory of the structure of human behavior.* The Hague (NE): Mouton.

Pill, A. (2005). Models of professional development in the education and practice of new teachers in higher education. *Teaching in Higher Education, 10*, 175-188.

Polanyi, M. (1958). *Personal knowledge: Towards a post-critical philosophy.* Chicago: University of Chicago Press.

Price, M. (2005). Assessment standards: The role of communities of practice and the scholarship of assessment. *Assessment and Evaluation in Higher Education, 30,* 215-230.

Ramage, J. & Bean, J. (1990). Teaching writing in large classes: Seven years later at Montana State University. *ADE Bulletin, 97*, 18-25.

Roberts, J. (2006). *Philosophizing the everyday: Revolutionary praxis and the fate of*

cultural theory. Ann Arbor (MI): Pluto.

Rovai, A. & Jordan, H. (2004). Blended learning and sense of community: A comparative analysis with traditional and fully online graduate courses. *International Review of Research in Open and Distance Learning, 5,* Available: http://www.irrodl.org/content/v5.2/rovai-jordan.html

Rushton, J.P. (1982). Moral cognition, behaviorism, and social learning theory. *Ethics, 92*, 459-467.

Salvatore, M. (1996).Conversations with texts: Reading in the teaching of Composition. *College English, 58*, 440-454.

Searle, J.R. (1969). *Speech acts: An essay in the philosophy of language*. London: Cambridge University Press.

Senge, P., Kleiner, A., Roberts, C., Ross, R., Roth, G., & Smith, B. (1999). *The dance of change: The challenges of sustaining momentum in learning organizations.* New York: Doubleday.

Sharkey, S. (1990). An approach to organizing the undergraduate social science major around learning outcomes. *Teaching Sociology, 18*, 472-481.

Sonner, B. & Sharland, A. (1993). Grading differences between graduate teaching Assistants and faculty members in the introductory marketing class. *Journal of Marketing Education, 15*, 44-49.

Spencer, B. (1990). The development of the young child's concept of word: A longitudinal study. *Reading Research Quarterly, 25*, 66-67.

Stapleton, L., Smith, D. & Murphy, F. (2005). Systems engineering methodologies, tacit knowledge and communities of practice. *AI & Society, 19*, 159-179.

Starke, F.A., Dyck, B. & Mauws, M.K. (2003). Coping with the sudden loss of an indispensable employee. *Journal of Applied Behavioral Science, 39,* 208-228.

Sternberg, R. & Wagner, R.K. (1994). *Mind in context: Interactionist perspectives on human intelligence.* New York: Cambridge University Press.

Stevens, D. & Sterling, A. (2004). *Introduction to rubrics: An assessment tool to save grading time, convey effective feedback, and promote student learning*. VA: Stylus.

Strauss, A.L. & Corbin, J.M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park (CA): Sage.

Sweedler-Brown, C.O. (1985). The influence of training and experience on holistic essay evaluations. *The English Journal, 74,* 49-55.

Tieje, R.E., Sutcliffe, E.G., Hillebrand, H.N., & Buchen, W. (1915). Systematizing grading in freshman composition at the large university. *The English Journal, 4,* 586-597.

Toynton, R. (2005). Degrees of disciplinarity in equipping mature students in higher education for engagement and success in lifelong learning. *Active Learning in Higher Education, 6,* 106-117.

Tsoukas, H. (2005). *Complex knowledge: Studies in organizational epistemology*. Oxford (UK): Oxford University Press.

Turner, S. (1994). *The social theory of practices: Tradition, tacit knowledge, and presuppositions.* Chicago: University of Chicago.

Turner, S. (2002). *Brains, practices, relativism: Social theory after cognitive science. Chicago*: University of Chicago Press.

Udell, J. (2005). *Building SOA (service oriented software) your way*. Info World, 37,

20-28.

Valenti, S., Neri, F. & Cucchiarelli, A. (2003). An overview of current research on automated essay grading. *Journal of Information Technology Education, 2,* 319-330.

van Caenegem, W. (2005). Inter-firm migration of tacit knowledge: Law and policy. *Prometheus, 23,* 285-306.

von Hippel, E. (2005). *Democratizing innovation.* Cambridge (MA): MIT Press.

von Krogh, G., Ichijo, K., & Nonaka, I. (2000). *Enabling knowledge creation: How to unlock the power of tacit knowledge and release the power of innovation*. New York: Cambridge.

Wang, A. & Newlin, M. (2000). Characteristics of students who enroll and succeed in web-based psychology classes. *Journal of Educational Psychology, 92,* 137-143.

Weaver, R. & Qi, J. (2005). Classroom organization and participation: College students' perceptions. *Journal of Higher Education, 76,* 570-601.

Wenger, E. (2003). Communities of practice and social learning systems. In D. Nicolini, S. Gherardi, & D. Yanow (Eds.), *Knowing in organizations: A practice-based approach.* (pp.76-99). London: M.E. Sharpe.

Winner, L. (1977). *Autonomous technology: Technology out of control as a theme in political thought.* Cambridge (MA): 1977.

Winsor, D. (2000). Ordering work: Blue collar literacy and the political nature of genre. *Written Communication, 17,* 155-184.

Wright, S. (2002). *Storming heaven: Class composition and struggle in Italian Autonomist Marxism.* Ann Arbor (MI): Pluto.

Zurita, G. & Nussbaum, M. (2004). A constructivist mobile learning environment supported by a wireless handheld network. *Journal of Computer Assisted Learning, 20*, 235-243.