

# **Chapter 2**

## **Literature Review**

When the research described in this book was conducted, there was very little published in the way of exploring tacit knowledge in higher education, let alone humanities and English departments. Although things have changed somewhat over the past decade, the study of tacit knowledge in the university seems to have made its way only into certain departments. Chugh, et al (2015), for example, discuss knowledge transfer, in general (and from the perspective of a school of engineering) but, humanities departments have been slow to investigate the process. Thus, the discussion that follows here attempts to take insights from disciplines that have been friendlier to the notion of tacit knowledge and suggest how they might be used in FYC.

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.

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 and his

co-authors, for example, view 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, et al (2005) suggest 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 uncoded 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 managers 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 sixth chapter of *Capital* (1906), 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-modern thinkers 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-Witthford 2004). In other words, because tacit knowledge is, by definition, difficult to measure and codify, managers 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 to distrust or forbid procedural knowledge that comes from workers themselves is something, however, that scholars in a variety of different disciplines (and of different ideological stripes) decry as self-defeating for any organization. Conceicao, et al (2003) address such critics of tacit knowledge by suggesting 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, Baumard's view is sometimes seen as surprisingly static in its approach. 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 still 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 through 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 software such as this 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 managers in the Minneapolis medical cluster and the Cambridge (UK) high-tech cluster of companies, Lawson and Lorenz discovered that, although managers 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 discussed in a previous chapter here, 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. Tiejie 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 Tiejie 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 (1990), 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 Nussbaum (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.