

Chapter 1

Knowledge Management and First-Year Composition

Organizations work to preserve, create, and protect the knowledge they possess. In the “information age,” knowledge management (KM) 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 tend, however, to view the markets or environments in which the organizations operate as something static and tend to focus only on the explicit components of knowledge identification, analysis, and transmission. Thus, they often fail to perceive their environments as dynamic or even volatile when, in fact, they might be. And, here, when considering the difference between static and dynamic models of organizations, it makes sense to consider the differences between tacit and explicit knowledge. As Baumard (1999) notes, the knowledge that can be expressed in words or numbers represents nothing but the “tip of the iceberg.” Organizations that can identify and harness a more 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. Expertise can be seen as something distributed throughout an organization. The knowledge that decision-makers rely upon is “tacit”—a term rather loosely defined in educational and organizational behavior scholarship, but which, for the purposes of this book, 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 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 KM 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, many managers and organizational theorists still tend to 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. Tacit knowledge, from this standpoint, seems a distraction for workers and presents a danger that individual employees might go their own ways, to the detriment of the organization. Such a positivistic approach privileges the insights of management experts and of the knowledge gained through techniques such as job analyses, time-and-motion studies, or surveys.

But, as Baumard (1999) and others have demonstrated, this view fails to account for the rich repository of knowledge that employees possess and the fact that much work knowledge is “emic”. That is, it is the knowledge of insiders or experts in a particular domain of work (Maybin 2013). Organizations in dynamic environments place themselves at a disadvantage when they

privilege the insights of the social scientists and management experts over those of their own employees 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 (i.e., tacit knowledge). Kmetz (2015), thus, suggests that capturing such knowledge is vital for organizational survival.

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 enrollment 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 (and, more and more, by adjunct or contingent faculty), instructors whose affiliation with a particular FYC program might only last from 1-4 years. Thus, English departments are asked to serve burgeoning freshman enrollments with instructional needs different (and more varied) from those that freshman students brought to college in the past and to do so in a work environment characterized by an extremely high degree of “turnover.” But, as, Fidalgo, et al (2015) argue, turnover is a problem that is quite amenable to being framed as a problem involving tacit knowledge transfer.

Several administrators and practitioners have attempted over the years to meet this instructional challenge in some very creative ways. Sweedler-Bown (1985), for example, suggests that an FYC program that offers 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 a dynamic environment like 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 and many non-tenured instructors work on contracts that might last for only a single semester. 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 skills and mastering these skills requires opportunities for practice and for the transmission of tacit knowledge about grading that formal and traditional 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 for how to respond to student work. Additionally, there are few mechanisms built into the program that ensure any degree of consistency in instructional practice or in grading. Additionally, this approach has been featured for the most part in content-area courses. Again, we have to remember that FYC teaches skills 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 cuts down on 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), formal written feedback from instructors is still relatively infrequent in such approaches.

Knowledge management strategies from the corporate world have been around quite a while (although it was not until the 1980s and 1990s that there was widespread interest) and their success in various “knowledge industries” such as software development and healthcare would seem to offer some promise toward addressing the challenges faced in general education courses that serve large numbers of undergraduate students and utilize novice instructors. But, Jones and Sallis (2013) note that higher education has been extremely slow to adopt techniques and strategies that have shown themselves to be effective in the private sector and in government and other nonprofit organizations. Scholars such as Laal (2011) suggest that KM strategies from the private sector might, indeed, be transferred more easily to the realm of higher education than one might think. Some disciplines such as nursing have explored these strategies but, to date, FYC faculty and the humanities, in general, in general have shown little interest in this area. Still, there have been some initiatives to address the changing needs of universities seeking to instruct ever larger numbers of students in FYC and other general education courses.

The First-Year Writing Program at Texas Tech University 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 rather novel manner. In the fall of 2002, the Texas Tech University first-year composition program implemented a major innovation in how it taught writing to its 3000 first-year students. Called ICON (for "Interactive Composition Online"), this innovation used locally written software (TOPIC) to support more “objective” (i.e., criterion-based) grading of essays and the ability to assign more frequent student writing. The ICON system involved submitting all student writing to a grading pool consisting of the graduate part-time

instructors who taught the courses (termed Classroom Instructors or CIs) and other instructors who only responded to and graded student work (Document Instructors or DIs). Although there were differences in focus between the English 1301 and 1302 courses, students in both courses revised three or four long essay drafts and wrote peer critiques and writing reviews (self-critiques) that coincided with each of the successively revised essay drafts. Each student essay draft was anonymously reviewed by at least two instructors through web browsers. For each essay draft, the first instructor provided a comment, and both instructors submitted numerical grades based upon criteria specific to the assignment. If the number grades were within eight points of each other, the draft received an average of the two grades. If the grades were more than eight points apart, a third reading was automatically called for. The fact that a piece of writing by a particular student was anonymously evaluated by an instructor who might have been someone other than the instructor who teaches the particular student meant that the criteria for effective writing had to be shared among all instructors. These shared criteria were designed to ensure consistent and coherent instruction across the program. The efficiencies in moving documents through the web were designed to allow 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 (TTU).

Between 2002-2005, ICON (and FYC at Texas Tech University, for that matter) underwent several changes in response to difficulties assessed by the FYC administrators as well as from 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 developed into places where instructors could 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, developed 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 suggest that ICON was built on the principles of User-Centered Design (UCD). The recursive nature of ICON and its development over that three-year time frame in response to instructor concerns places it squarely in the approach 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 is possible 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 was the case with 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.” All of these approaches suggest 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. Users are seen as having 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 and of 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 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). Also, tacit knowledge is by itself extremely difficult to measure. Often, managers tend not to trust what seems elusive (Arnulf, et al 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." Shah and Kitzie (2012) suggest 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 managers. They tend to perceive their own ways of doing things as the "right" ways and perceive any attempt to study and interpret 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 (1958) 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 made 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 instructors whose time at a university will last from 2-5 years in most cases (or less, in the case of contingent labor). As Droege and Hoobler (2003) and Starke, et al (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 these key individuals 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.

My dissertation, then, sought to describe how tacit knowledge regarding grading and responding to student work was created and transmitted in an FYC program at Texas Tech University. Additionally, and perhaps a more important goal, it sought to explore what sorts of tacit knowledge actually exist 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 emerged from the study relied primarily on the perceptions and understanding of those who actually work in the program. Because this study took the view that knowledge transmission within a large organization or system is necessarily dynamic, the decision was made to eschew a priori definitions of and hypotheses

about grading knowledge and instead allowed the instructors in the program to express their own understanding of the transmission of grading knowledge. In other words, instead of doing the research with a preconceived notion of what might be found, I decided to study tacit knowledge inductively. As a result, 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 used for the creation and transmission of grading knowledge, many instructors tend to concentrate instead on perceived “barriers” that led to reluctance to share information.

