Learning at Work: Case Studies in Non-School Education

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This article is the result of a three-year study of student interns, which investigated the experiences of newcomers in various work organizations. A learning narrative, it compares internships in two very different work settings: a furniture-making shop and an animal protection league. INTERNING, NON-SCHOOL EDUCATION.

In the basement workroom of a custom furniture shop, Jacob, the master cabinetmaker, instructed Mike, one of his apprentices, to assemble two drawers for a chest after reminding him to tuck his long hair up under his hat. As Mike began to lay the pieces out on a workbench, Jacob said, "I suggest you do it on the floor," but Mike stayed at the bench. The apprentice started by putting several pieces together and trying to hold them steady as he balanced and aligned them. Like a house of cards, everything tumbled apart—twice. Jacob came around behind him to watch, and Mike said, "I've been trying to figure out how to clamp this so it will stay together." Jacob did two things at once: He turned the drawer so it rested on its bottom, saying, "Have everything ready to go; fit it together first"; and he put the pieces together very quickly, showing Mike where to clamp them. As Mike turned the clamps, Jacob cautioned him, "Not too tight. There's such a thing as a mechanic's feel where it's just right." Then he walked off to resume the sanding job he had been working on. When Mike completed another segment of the drawer, he called to Jacob, "Is this right?" Jacob looked over and said, "You've got to measure now." He watched as Mike extended the tape measure along the drawer sides. "Say it out loud," he commanded. Mike called out, "33⅜, 33¾." Jacob challenged the second reading and measured it himself, discovering that Mike was right. He said, "Okay," then turned to direct Peter, another apprentice, to check to see that all the holes were filled in another drawer. Mike began on the second piece.

This scene represents one brief segment of activity that occurred about 12 weeks into an 18-week placement for one student in a big-city experiential education program. As presented here, it also represents a chunk of raw data for a particular form of educational ethnography. If, as Wolcott (1982) and Erickson (1982) suggest, we ought to be able to construct "learning narratives" about out-of-school situations, then we need to figure out ways for handling scenes like this one. In this article, I propose to describe and illustrate one method for doing just

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that: for locating and analyzing the educational features of the experiences of newcomers in the work place. One premise of such an approach is that all work place interaction may be analyzed productively along a set of specifiable dimensions and that learning narratives constructed along those dimensions may be developed to compare different sites. That is, by discovering certain features of a work environment and setting them against a broader ethnographic portrait, we can generate case studies of learning at work that may be compared with one another.

These concepts arise from a three-year study of student interns in 35 different sites used by one external learning program in a major American city. Among the work places we observed and compared were a hospital speech clinic and a community newspaper, an animal shelter and a curriculum development firm, a food cooperative and a labor union. We also studied two legislators' offices and three museums. At the outset, our purpose was to develop a conceptual framework for the study of educational encounters in environments outside of schools. While we understood that high school interns are hardly representative of full-time workers, we wanted to find out how newcomers in work organizations learn. The framework we generated has been reported extensively elsewhere (Moore 1981a, 1981b). The following is a brief explanation of the approach and a comparative educational analysis of two very different work settings.

The Approach

Erickson's (1982) call for learning narratives leaves open, to a large extent, the question of how one should structure those narratives. What dimensions of environments and interactions should we investigate? How should we organize the data and analysis? We started, as he did, from a basically interactionist perspective on the construction of everyday life in settings such as work places. We treated each placement as a microculture, as a system of interactions among particular people organized around particular conceptions of purposes, meanings, roles, and events. We saw each work site as dynamically bound together and created by people collaboratively using a system of knowledge—facts, skills, norms, world views, principles and conceptions of social relations (Berger and Luckman 1966). We wondered, along with Goodenough (1957), what participants needed to know and be able to do in order to be considered competent—and therefore, by extension, what newcomers needed to learn. From an educational perspective, our central problem was to discover and analyze the social process by which the newcomer to the workplace (in this case, the intern) was more or less systematically introduced into the definition, distribution, and use of that knowledge.

In a microcultural sense, one of the principal organizing features of the work place as a social environment is the "task," a segment of ac-

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tivity that accomplishes some portion of the organization's productive mission. Participants orient themselves toward those tasks. They formulate them more or less explicitly to one another and they hold one another accountable for the competent performance of certain tasks. Tasks are just the sort of thing that McDermott, Aron, and Gospodinoff (1978) look for in constructing an adequate ethnography. Since members of the work place display their conceptions of tasks to one another, and since they act them out overtly in their interactions with one another, tasks constitute an excellent handle for the observer-analyst trying to understand the nature and use of knowledge in the environment. There are, to be sure, other functions served by the various actions that make up the daily routine of the setting. But for our purposes, the focus on task as a consensually ratified, goal-directed, patterned sequence of activity provides us with an analytic tool that reveals many salient features of the interns' educational experience.

The description of that experience begins with detailed narratives of such events as Mike's assembling of the drawer. A structured set of questions, representing a form of "task analysis," is put to each of those events and, in the long run, to sequences of events. Such questions fall into two major categories: those which focus on the features of the tasks themselves and those which focus on the features of the social means by which the tasks get done.

Task features. First, we identify the "logical-technical" features of tasks: the various forms of knowledge and skill demanded of competent performers or the consensual definitions of the knowledge one must display in order to carry out the task in ideal fashion. These features are a cultural phenomenon amenable to anthropological analysis because they represent one aspect of the shared definition and use of knowledge in the social system known as the work place. Logical-technical demand features may relate to manual or physical skills (hammering a nail, milking a cow, carving a canoe) or cognitive skills (recalling the name of a tool, devising a category system for legislative files, constructing questions for a newspaper interview). They may also relate to relational or affective skills (presenting an image of confidence, being polite or assertive, reacting appropriately to clients' emotions).

The other category of task features we call "pragmatic," by which we refer to the meaning the task has within its social context, both for the individual and for the organization. For the environment, a given task may be crucial to the flow of work or may be peripheral, superfluous, or redundant. The task may depend on the completion of others, and others may in turn wait upon it. We call this feature "articulation." Performance of the task may be highly visible to the organization's public, or it may be done backstage. For the individual, performing the task well may carry a certain status or prestige. It may qualify one for more interesting, more rewarding, or more important work.

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Or it may lead to an expansion of one's role or a promotion. These pragmatic features of tasks, as well as the logical-technical features, figure into the ways a newcomer gets inducted into a particular activity.

Social means. This term refers to the actions of various participants through which tasks get "established"; that is, the intern gets information about the definition and meaning of the task, may receive some instruction in its performance, and discovers the criteria by which that performance will be judged. The term also relates to how tasks get "accomplished"; that is, the worker uses things, information, and other people to carry out the job. Finally, the term relates to how tasks get "processed"; that is, the worker receives monitoring or feedback on the performance and perhaps an opportunity to reflect on and redefine the task or reconstruct a strategy for getting it done.

The dimensions along which these social means may be analyzed include participants and their role relations. Who initiates a particular task? Who monitors the student's performance? Who takes part in the actual work process? What rights and obligations inhere in these various roles? Does the student intern, for example, have the discretion to revise or even reject the task as it is presented to her? The dimensions also include channels and means of communication: that is, how relevant information, knowledge, and feedback are passed back and forth—by direct verbal interaction, in writing, through the interpretation of messages implicit in objects, etc. They further include the use of space, time, and material objects and their transformation and pacing. The final dimension is patterns of activity (whether organized work, socializing, rituals or whatever). We look for implicit rules about the distribution of responsibilities, materials, and information; about the level of "demandedness" of given tasks—that is, whether interns may or must perform them; about accountability and the consequences of good or bad work.

In a sense, these "social means" features constitute the *pedagogy* of work experience, because they represent the choices participants make in shaping the intern's access to situated knowledge (Moore 1981a). On the other hand, the features of the tasks themselves may be thought of as the naturally occurring *curriculum* of work, because they represent the knowledge to which the newcomer gains access (Moore 1982). Those terms are mere conceptual devices, however. In fact, the educational process entails the interaction between those two components of experience: It is the social process by which the neophyte comes to participate in the definition, distribution, and use of some portion of the social stock of knowledge in the environment.

We extend the task analysis framework longitudinally to examine changes over time in the tasks the intern undertakes. Do they become more complex in a logical-technical sense, more important in a pragmatic sense? We also examine the social means by which the tasks are

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established, accomplished, and processed. Does the performance on given tasks improve? Does the student initiate more tasks? Does supervision occur less frequently? Is the intern more autonomous, responsible? In addition, we extend the framework vertically to encompass more levels of the student's experience: (1) task items (i.e., single pieces of work accomplishing a discrete but emically salient segment of the organization's mission, such as assembling a drawer); (2) task sets (i.e., connected series of task items that together constitute a coherent, higher level segment of the organization's mission, such as building a chest of drawers); (3) roles (sets of expectations, rights and obligations attached to a status position in which the student is placed relative to other members, such as apprentice cabinetmaker); and (4) environments or settings (those broad combinations of roles and statuses, activities and events, belief systems and ideologies that constitute the organizational systems within which the students work, e.g., the custom furniture shop). This broadened perspective avoids the narrow vision of simple task analysis, and acknowledges the fact that a newcomer learns not only about specific work processes but also gains more generalized information about complexes of roles and about the environment as a whole. Some of the latter types of activities may be picked up in actions not even directly related to tasks; thus, "off-task" episodes may be relevant to our analysis as well. Generally, we want to gather data concerning the access the intern gets to observing or participating in the use of the various forms of knowledge in the work place.

Our learning narratives, then, use this conceptual framework as a basis for the construction of educational ethnographies. One way to locate, describe, and analyze the intern's learning, according to this method, is to trace the *trajectory* of the student's career over time. In this way, we determine whether there are changes in the physical, cognitive, or relational demands of the tasks she encounters; whether those tasks become more important to the organization or to the student; whether she initiates more tasks, shows more authority or accepts more responsibility. Thus, the extent and nature of the intern's learning may be examined in relation to two basic dimensions: (1) the quality of the student's performance on the discrete tasks she encounters (Does she write better articles? Give better lectures? Hammer nails more solidly?); and (2) the nature of the tasks the intern handles and the roles she occupies.

This structured investigation of the experience of a particular student in a particular setting must be placed in the context of a broader, quasi-ethnographic analysis of the environment as a whole. To understand the intern's integration into the stock of knowledge, one must try to understand the organization generally—its patterns of social relations and activities; its ideologies, definitions of values and facts and skills. The focus on tasks and work roles fits neatly into that

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broader enterprise because it asks questions about the shared conceptions of purposes, relations, procedures, and meanings that must underlie a good ethnography. That focus provides the tools for a particularly *educational* ethnography, but must be seen as emerging from a wider view of the organization as a small cultural system. The specifically educational issue is the process by which a newly hired worker or an intern is integrated into the knowledge-use constituting that system.

Many of our informants tended to judge the quality of a given internship site by looking at the full range of knowledge in use in the environment; they would say, for instance, "How could anyone *not* learn in a place as information-rich as a newspaper/museum/corporation?" Our framework accommodates that broader picture, but operates from the premise that the really important educational question is not simply "What is in the environment?" but "What is made effectively available to the student?" An information-rich organization may turn out to be a terrible educational environment if the intern is relegated to a role that bars her access to new knowledge. This is demonstrated in Case 2, below. That is why our approach insists on the examination of the entire process.

Case 1: Jacob Olsen's Furniture Shop

On a small, treeless street in an older neighborhood of the city, Jacob Olsen operates a custom furniture-making shop. An artist-craftsman in his mid-thirties, Olsen designs, constructs, and sells fine wood furniture: couches, tables, bookcases, cabinets, and so on. Over the past fifteen years, he has honed his skills as a cabinetmaker to the point where he refers to himself as a master.

Physically, his shop is simple and small. On the street level, the 15′ × 20′ front room serves as a display area where Jacob keeps some of his finished pieces before buyers pick them up, and where he mounts photos of some of his previous work. The tiny back room, his "office," is cluttered with mechanical drawings, books, papers, and other work-related materials. The main work area, reached through a trap door in the sidewalk out front, is in the basement. Lined with stacks of boards and piles of scraps, the room contains a couple of work benches and several power tools: radial arm saws, a lathe, etc. When someone is using the saws, the noise level is deafening; a rock station blaring on the radio adds to the din. Hand tools hang in the appointed places on the wall.

Olsen's operation is also fairly simple. A customer agrees with Jacob on the basic design of a piece, the price and the delivery date. Then Jacob draws mechanical designs specifying the dimensions and characteristics of each component. The production phase follows. Wood is purchased, cut to size, sanded, assembled, resanded, and finished. Finally, the customer picks up the furniture and pays for it.

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The people in the shop are organized into what Olsen calls a "pecking order," a hierarchy with the "master" at the top and the "apprentices" arrayed below him in levels based on their experience and skill. In the construction of a given piece, work is divided according to who is available on given days (each student intern attends roughly two days a week), and Jacob's judgment of who is qualified to handle particular tasks. His judgment emerges from interns' performances on what he calls "proficiency levels," a series of tests in which apprentices display their skill and knowledge in a progressively more difficult sequence of tasks and information. The stages include:

1. Test on tools. Proficiency on smooth sander. Perspective drawings. Report on Egyptian-Roman design.
2. Test on timber, abrasives and adhesives. Belt sander, radial arm saw. Report on Renaissance, Gothic, Baroque. Good mechanical drawing ability.
3. Test on joints, mortice and tenon by hand. Report on Rococo, Modern.
4. Report on carcase construction . . . mechanical of own design. Cut out and assemble cabinet. Router.
5. Complete job from mechanical. Finish. Knowledge of lumber prices, mills, etc. Dovetail by hand. Inlaying. Completion of complicated piece, including drawers and doors.

Beginners are assigned to sweeping the floors and may move on to more responsible and difficult tasks when they demonstrate care and skill at that one. No one gets to cut a piece of wood until Jacob is satisfied that he will not make major mistakes.

Ideologically, Olsen maintains a clear and forceful stance toward his apprentices and toward his work. He said repeatedly that he envisioned himself as a master craftsman and modeled his operation on the Renaissance shop. Social relations were defined clearly in terms of that model. Apprentices were there, he said, to do his bidding, to enhance his efficiency and, in the process, to learn the craft. He also insisted forcefully on the value and dignity of work and on a dedication to excellence in design and production. And he wanted his apprentices to take the same stance. "What I stress is that even if you're just cleaning the floor, you do it like you're building a fine cambriole leg. Whatever you do, you like do it your best," said Olsen. This dedication showed up not only in his rhetoric, but in his behavior. He did good work himself and demanded it—sometimes very vehemently—of his workers.

Mike, the student described at the beginning of this paper, began his semester-long internship with Jacob Olsen with virtually no knowledge or skill in cabinetmaking. Indeed, he was very vague about his choice of this placement: "I thought it was, you know, an interesting resource. I'm not really into woodworking, [but] I'm fascinated by things like this, so why not learn it?" said Mike. He was as interested in the shop as a business as he was in the process of cabinetmaking.

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Yet, over the course of the term, Mike engaged in a series of activities that exposed him to a great deal of new knowledge. By the time we observed the scene continued below, he had progressed almost to the fourth proficiency level.

> Mike began right in on the second drawer. He collected the pieces and then told Jacob that he was missing one. Olsen told him to make two more—"That one's not worth a tinker's damn!" Mike said he would look around for another one and then maybe he'd only have to make one. He looked around for awhile, and then went to the wood pile and picked out a plank. He compared the piece he was going to replace with the new one. Then he held up the plank and asked Jacob, "What is this? Just oak?" Olsen said, "Red oak." Mike brought the plank over to his workspace and then started wandering. He picked up a tape measure and then continued to roam around the room. Jacob asked him what he was doing. Mike said he was looking for a pencil. Olsen chided him, "A cabinetmaker gets $17.50 an hour, and you spend it looking for a pencil?" . . . Mike measured and marked with his pencil on the plan; after he had set off the proper dimensions, he cut the plank with the table saw. Meanwhile, Olsen was sanding a couch. He occasionally looked over as Mike cut the boards. Mike also cut a groove in each piece on the other table saw. He once again gathered all the pieces for the second drawer together and cleared a space on the bench. He fit several pieces together, then took them apart and deepened the grooves . . . Again, he started assembling all the pieces. Then he declared, "These boards are all warped!" Olsen said, "Yeah, I know." Mike got the glue and clamps; he spent perhaps ten minutes trying to fit the wood together and clamp it. The pieces tumbled apart five times, but only once did Jacob look over. Finally, Mike called another apprentice over and asked him to help hold the pieces. Mike reglued the first side and then handed the glue to Philip. Philip hesitated and Mike nodded toward the corner of the drawer. The two apprentices put their ends together and Mike put the clamps on both sides. Then he began hammering one corner of the drawer; he called to Olsen, "How do I get this corner up?" Jacob told him to put the clamp on the other way. Mike started to move the clamps, then asked Olsen if he would hold the pieces. "Certainly," Jacob said; but he actually moved the clamps himself while Mike held them. . . . When he was finished, Olsen went back to glue a piece on the couch.

Let us examine this whole scene as a task episode and then place it in the broader context of Mike's learning trajectory. "Assembling a drawer" represents one task item in the task set called "building a chest." In terms of logical-technical demands, the task requires primarily manual skill: putting the pieces together, using the proper clamps in the proper way with enough dexterity and speed, then attaching them before they fall apart. Mike had to perform a procedure involving an understanding of the ultimate goal and steps to getting there. He had to know the component materials and tools and ways of getting the help he needed at the right moment. He also had to know or learn about the criteria by which his performance would be judged: accuracy, speed, efficiency, not wasting time at $17.50 an

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hour. In pragmatic terms, the task carried some status, since it represented one of the higher-level proficiencies, and thus placed Mike above some other apprentices. He could, for instance, solicit Philip's help and give him instructions on gluing. Moreover, the task constituted one of the absolutely central activities of the shop: actually building furniture. Olsen needed the job done, correctly and fairly quickly. Last, Mike needed to do the work in such a way as to put minimal demands on Jacob's attention. Different jobs could be worked on simultaneously in the shop, and apprentices had to know when they could interrupt the master.

The social means by which the task got done demonstrate some interesting features of the shop as a learning environment. First, Jacob explicitly initiated the task for Mike, specifying precisely what had to be done. In subsequent steps, Jacob assumed that Mike knew what came next. The structure of the overall task, once set in motion, carried the competent worker along without persistent reminders. But the nature of the task was always governed ultimately by the master. He knew just what needed to be done, and the apprentice could either get explicit instructions or follow implicit demands. Second, Mike worked on the task basically by himself. Jacob watched sporadically from a distance but intervened only when Mike sought his help. If Mike had been fully competent to do the work, Jacob would simply have continued at his own task. The functional division of labor in the shop allows each worker to do a discrete job as long as they are coordinated by some overall plan. Interaction is necessary only when one worker doesn't know the job well enough, and requires instruction or monitoring, or when the task requires two sets of hands. Significantly, Jacob was always available at the crucial moments when Mike needed guidance or help. Jacob's work, though separate, was interruptible.

So the establishing phase counted on both explicit directions from the master and pre-existing knowledge on the part of the apprentice. The accomplishing phase proceeded basically as a solo performance with occasional guidance and assistance from the master and another worker. The processing phase ran through all the others and took several forms. One critical feature of such manual tasks is that the product provides its own feedback, assuming one knows the criteria by which to assess it. Thus, Mike could check on the drawer as he worked on it to see if his performance was adequate. He could run his finger along the edge to check for flushness, measure to check for squareness, and look to check for appearance. Jacob's feedback to the apprentice was normally tacit. As long as Mike made no mistakes, he said nothing; if he goofed, Jacob said something—vigorously. Thus, the fact that Olsen did not intervene in this scene except when Mike asked for help could indicate that the intern was performing adequately. Since it was also clear that Mike knew when he needed help, and did indeed solicit it, overt feedback was not apparently necessary. Jacob provided two

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good educational resources for the apprentice: the time to experiment and struggle on his own to solve a perplexing problem and ready assistance as needed.

How, then, was curriculum manifested in this interaction? Several kinds of knowledge were used by participants to organize their behavior. On the level of facts, Mike's work engaged him with knowledge about types of wood ("Oak?" "Red oak."), machines (two types of table saws), items of furniture (the details of a chest of drawers). In this particular task episode, he did not use information about the history of cabinetmaking, about design, about finishing, about business. On the level of skill, he was asked to perform a procedure demanding considerable manual dexterity, utilizing several types of materials and implements. Clearly, his competence in each of these was not complete. He had things to learn. On the level of values, he had to display a certain degree of speed and quality. On the level of relations, he was expected to do his work alone when he could and to know when and how to seek appropriate assistance. Given that Jacob was working on another job at the same time and yet needed the drawer assembled correctly and soon, the level of demandedness of the task was rather high. Mike had to do it or suffer the consequences. If his demands on Jacob's time had been too great, or if he had committed costly errors in terms of time or materials, Mike's utility as an apprentice might have been diminished. Under those circumstances, Jacob had been known to throw apprentices out. But by that time, Mike had progressed to the fourth level of proficiency, and Jacob had every reason to believe that he could master the task.

This scene constituted only one brief segment of Mike's experience in Jacob's shop over the course of the internship, but it fairly represents the way the student came to engage various aspects of the stock of knowledge there. The trajectory of Mike's career in the furniture shop can be described as a steadily rising curve. Over time, he moved from a status and level of knowledge as a lowly apprentice sweeping the floor, through intermediate stages of performing specific discrete tasks for the master and under his immediate supervision, toward a position of some responsibility and skill. By the time he left the shop, Mike was handling some rather complex jobs for Jacob—finishing pieces, inlaying, even ordering wood. Moreover, he was clearly in a position of some superiority over other apprentices. He ordered them to do things and taught them new skills.

We can analyze the "natural curriculum" of Mike's experience—the broad forms of knowledge he encountered, engaged, and displayed over the term—in relation to two major categories: building furniture and building craftsmanlike attitudes and values. Under the former were such technical information and skills as knowing types of woods and finishes, knowing the names and techniques of use of various tools, creating and assembling different furniture pieces. Building fur-

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niture also required broader conceptual models of the production process: knowing the sequence of operations through which one creates a chest of drawers, for instance. Jacob made sure that the apprentices knew where each task item fit in the overall flow of work. Under the latter category were pride in one's work, a sense of dignity and integrity, and a capacity for working with precision, speed, and excellence. Jacob modeled and demanded the display of these values about the craft of cabinetmaking.

Jacob Olsen's shop seemed to be one of the most systematically educational internship sites that we studied. The social organization of human, informational, and material resources in the environment appeared to have worked effectively to engage the student with the forms of knowledge just described. Several features of the environment bear mention. First, Jacob actually needed the interns. Once he made the decision to expand his business beyond what he could do himself, it was in his interest to make sure that the apprentices learned and did a great deal. Second, he acted out, as well as articulated, a philosophy of work based on quality and dignity. He was indeed a living example of the Renaissance master. Third, Olsen had rationalized his pedagogical strategy to an extent unusual among field supervisors we observed. His "proficiency levels" provided a sensible sequence of work skills through which an apprentice could progress and constituted explicit checks of those skills before workers could take on particular tasks. Fourth, there is something in the nature of cabinetmaking as a craft that lends itself to the apprenticeship model of instruction. The fact that the production process has a certain inherent logic of its own creates the possibility of leading the learner through that sequence in rational ways. Each discrete skill could be demonstrated more or less independently of the others. Apprentices could be taught successive work skills as they arose in the course of producing the furniture. Then the learners could work on the skills as necessary. The fact that individual pieces were constantly being designed, started, worked on, and finished generated ample repetitive opportunities for entry and practice.

The social organization of the production process provided sufficient resources for the learner as well. All necessary materials were available when required. Time was available for apprentices to work diligently on a particular task, although reality pressed on them somewhat. Expert assistance was almost always nearby, in the person of either Jacob or an advanced intern. The work force was tested and labeled in terms of skill levels so that appropriate tasks could be assigned to those who could handle them. In this context, scenes like the drawer assembly episode could occur frequently. Apprentices could be inducted smoothly and efficiently into new tasks, building on their previously acquired skills and knowledge. While we witnessed no instances of great leaps in learning on the order of Helen Keller's

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epiphany at the well (cf. Erickson 1982), these successive task episodes incrementally built Mike's base of knowledge. This left him far more competent as a cabinetmaker at the end than he had been at the beginning.

Case 2: The Animal Protection League

The second case illustrates some of the ways a potentially rich environment can thwart educational opportunities for interns. The Animal Protection League (APL) serves as an adoption agency for placing pets in homes. It also provides low-cost medical care for animals in a clinic based in its four-story headquarters in a former warehouse downtown. Unlike the ASPCA, the APL does not pick up strays off the streets, nor does it destroy unwanted animals. Adoption is really its key function.

The organizational structure of the agency is considerably more complex than that of Jacob Olsen's furniture shop. An executive director takes overall control of carrying out the policies of a self-perpetuating board. Under the director are several divisions, each with a separate function. The clinic, led by a veterinarian, offers the medical services. The shelter, or kennel, houses animals awaiting adoption. The financial office raises and disburses funds. Public relations creates campaigns to encourage people to turn their unwanted pets over to the agency rather than abandon or kill them and solicits prospective adoptive families. Last (and, as we shall see, conceivably least) is the Office of Volunteers and Special Projects (VSP).

Helen Donnelly, who heads the VSP division, describes her job in two categories: recruiting, training, and utilizing volunteers in a variety of functions around the agency; and running several special projects intended to spread knowledge of the APL's work around the community. Among the latter have been a bank promotion in which volunteers took animals to a local bank branch to try to encourage patrons to adopt them, a street fair program in which rolling cages and agency literature were taken to block parties, and appearances at local schools and nursing homes to give talks on grooming and animal care.

Most of the people who work at APL are paid: veterinarians, technicians, clerical workers, publicity agents, administrators. Helen supervises roughly forty volunteers who come from three basic groups: wealthy older women of what Helen calls the "society matron" variety; outpatients from local mental institutions who participate as a form of occupational therapy, and high school students. Within the staff, according to Miss Donnelly, there are marked strata of power and prestige, as well as pay. The executive director maintains a firm hand over the whole organization, working closely with the directors of the various divisions. Below those directors is a sharp drop-off to the clerical staff and the technicians in the clinic and kennel. The latter, she claims, are underpaid and powerless. This affects their relations with volunteers.

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During the period we observed APL, interns worked in two different settings. For the first six weeks, they participated in the City Bank promotion, and moved weekly from one branch to another. During the latter half of the term, they worked at the agency's headquarters. An overview of the activities they engaged in gives us an entry into the analysis of the pedagogy and curriculum of their placement experiences. At the bank, the students' work fell into two categories: "caring for the animals" (playing with them, cleaning cages, walking dogs, grooming pets, etc.); and "dealing with the public" (answering questions about animals and the agency, encouraging people to adopt pets, filling out adoption forms, taking photos of adopters, etc.). After the drivers delivered the caged animals to the bank in the morning, the students got the pets ready, set up tables with brochures and forms, and then essentially hung around doing what needed to be done. They socialized with the animals, tried to attract customers' attention, and gave out information. When the dogs looked nervous, they took them for walks. Toward the end of the day, they cleaned the cages and prepared the animals for the trip back to the kennel. In the numerous slow periods, the volunteers chatted with each other, consulted with Helen about procedures and animal care, and went out to lunch.

Here are field notes describing one segment of activity (or nonactivity) for Dara, one of the interns we observed.

> . . . Things don't seem too busy. Dara is alone at the "hospitality desk." There is also another desk, and the adoptions are done at both. The forms are there, as well as the brochures on pet care, etc. Dara tells me that she was asked to stay at the desk until Kathy (Helen Donnelly's paid assistant) gets back. The hospitality desk is Kathy's territory, and she's out at lunch. Dara has been asked to stay there because there's a little bowl for contributions. She says she's been doing "a lot of little things." She had one adoption on the first day, but no others. She has a cat with her, and when several people stop and ask her about it, she tells them its pedigree. Then Dara goes out to lunch herself. When she gets back an hour later, she picks up the cat she was playing with and starts cuddling it again. Later, she saunters over to the other table and sits down with the cat in her arms. Another volunteer claims that Dara is always that way. She comes in, picks up a cat and walks around with it all day. The implication is that Dara does no real work. This woman then suggests to Dara, "Why don't you put her back in the cage so that someone else can see her and adopt her, if you're not going to?" Bronwyn (another intern) comes to the table and observes that the dogs need to be walked and asks if someone can do it. Dara and two other volunteers are near the table. Dara looks around at the other two, and one of them gets up to go. Dara goes on cuddling the cat.

Once the bank promotion ended, the students returned to the APL headquarters. They did three types of work there. First, they took care of the animals in the kennel: cleaned cages, socialized, walked dogs, and groomed. Second, there was a class of activity they called "paper-

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work": collating printed materials, and stuffing envelopes for mailings. And third, there were "special projects": irregular tasks invented either by Helen or by the volunteers. These things would serve some purpose outside the regular flow of work. One, for instance, involved a student's creating a poster of a sad little dog in the snow. Helen thought Publicity might use it in an advertising campaign, although this did not occur while we were there.

An examination of the tasks and social means dimensions reveals some of the educational features of the interns' experiences at APL. One crucial aspect of the tasks students undertook was their extremely low level of demandedness. Dara, as we have seen, managed to do virtually nothing during her time at the bank other than cuddle a cat and chat with people. Although other volunteers sometimes expressed annoyance at her apparent laziness, Helen, as supervisor, never told her point-blank to perform a task or chastised her for not doing one. Significantly, Helen told us both in her initial interview and in subsequent conversations that she regarded the student-interns as regular volunteers. Her strategy for working with volunteers was essentially to discover and utilize skills they brought with them to the agency. That is, she encouraged people to do what they wanted and what they were good at, but did not see herself in a position to tell them to do anything in particular.

Those tasks that students did manage to perform demanded rather low levels of knowledge or competence. None required any particular manual or cognitive skill. Anyone could walk dogs, pass out literature, or clean cages. There were two fairly complex aspects of the work: relating to bank customers and making decisions about the suitability of prospective adopters. The former demanded some degree of conversational skill, some knowledge of the history, function and operation of the League, and some conception of the care and feeding of animals. The latter demanded an understanding of the APL's criteria and procedures for judging potential pet owners.

Most of the work, then, required no skill or information that a high school student would not already possess. The parts of the task that did demand more were not really very difficult. One could learn enough in reading a couple of pamphlets or talking briefly with Helen to answer virtually any questions from patrons about the League or the animals. Tasks could be avoided or at least shared if one did not want to take them on.

The tasks were established in general terms by Helen at the inception of the bank promotion. She told volunteers to clean the cages, walk the dogs when they needed it, or try to talk the customers into adopting. Occasionally she modeled the procedures so an interested volunteer could learn the dimensions of the work by observing her or Kathy. She left them to initiate each portion of the task, relying on them to recognize and act on the need for a specific piece of work. The

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tasks were then accomplished by single individuals in most cases, working for a brief period. Sometimes they accompanied each other in walking dogs or chatted with patrons in pairs. The materials, time, and space required for these jobs were readily available. The volunteers needed neither permission nor help to get access to them. Processing was virtually absent. Helen occasionally expressed her appreciation to a volunteer who did something unusual and thanked people in general but profuse terms for their help. But she never provided explicit feedback on the quality of a particular performance or suggested new ways of construing the task. Although she was encouraging and grateful, she took an essentially laissez-faire stance toward supervision. The tasks were easy enough to require neither instruction nor feedback. Because she did not believe in pushing volunteers to work, Helen did not even hold interns like Dara accountable for lack of effort.

Back at headquarters, the same stance toward volunteers shaped the establishing, accomplishing, and processing of tasks. Here though, an additional factor entered the educational picture. Volunteers at APL functioned in a segment of the organization distinct from that of the paid staff, who were themselves strongly divided according to power and prestige. The line between the volunteers and the professional workers, it turned out, severely limited the educational opportunities for the students. Both the upper and lower levels of the staff resisted letting the interns take on pragmatically significant or substantively complex roles. Several incidents from our observations and interviews demonstrate that fact. Bronwyn and Jack, two interns, were sent down to the first-floor adoptions desk at headquarters one day to see if the staff would induct them into that process.

> We had been handling a lot of adoptions at the bank (Bronwyn told us), and Helen thought we were capable of doing it. She sent us down one afternoon to find out what the procedure was in-house, and about filling out release forms and what not. We went down to find out about all this and they (the staff) looked at each other and said, "Oh, we're supposed to show you?" They were not receptive at all. They showed us the information and then they kind of looked at us like, "Now what are you going to do with this?" and they even said, "Well, you're going to have to get here very early if you're going to do this." We said, "Well, we're here by 9 AM," and they said, "Okay, well, you know," and they never asked for our services after that. Once I asked them if they needed my services and they said, "No, we've got it under control." And I didn't feel that I needed to be more pushy.

Another time, the executive director ordered Helen to dismiss a volunteer who had had the temerity to challenge a kennel worker's feeding schedule for the cats. He would brook no interference with the paid staff. As it happened, Helen convinced him not to follow through, because the volunteer was a major contributor to the agency.

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And Bronwyn, the student intern, was told in no uncertain terms by the director of the clinic that he did not want interns in his department. Moreover, the volunteers were forced to do their "paperwork" in a small, out-of-the-way room on the top floor, where they never came into contact with regular paid workers. Thus, the interns were cut off from the segments of the organization where interesting, challenging, and important work was done by several means: official policy, tacit resistance, and spatial segregation.

The tasks left to the volunteer corps were pragmatically peripheral and low-status, as well as logically and technically undemanding. Their exclusion from the "real" work of the organization resulted, we believe, from two sets of factors. First, the upper echelons of the administrative and medical staffs regarded the volunteers as a source of contributions for the agency, a way to make givers feel useful and occupy their time. They regarded volunteers as incompetent nuisances, best used in performing busywork in out-of-the-way places. There was no support at that level for integrating the students into the legitimate functions of the agency. Second, both observations and interviews suggested that the lower-level staff workers may have resisted the possibility of the volunteers' taking on more advanced work because they viewed it as a threat to their own positions. The scene with Bronwyn and Jack at the adoptions desk, for instance, reveals a reluctance among paid staff to let "outsiders" take on work that, although far from technically or conceptually difficult, was their "turf." The chance that the administration would discover that unpaid volunteers could handle the jobs for which they were paid appeared to heighten the status anxiety of the line staff. That anxiety in turn led those workers to block interns from access to their role knowledge.

The upshot of the structural and functional isolation of the volunteer corps, including the students, was that the learning trajectories of the interns we watched were basically flat. In their first days at the bank promotion, they performed or avoided tasks that were simple in a manual and cognitive sense, mildly challenging in a relational sense, and pragmatically peripheral. None of the tasks presented much of an opportunity or demand for learning. One can walk a dog or clean a cage only so well. The social means in use did not give the students access to much new knowledge. Establishing was relatively haphazard and informal, and required little instruction. Accomplishing was desultory and voluntary, and processing was nearly nonexistent. At the end of the term, the students were performing virtually the same tasks as at the beginning, and they were still cut off from the more difficult and important work of the paid staff.

As a learning environment, the Animal Protection League represented a frustrating paradox. One the one hand, plenty of interesting knowledge and skill was used in various segments of the organization. Veterinarians displayed considerable knowledge about medicine and

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animal care, technicians about handling and grooming, administrators about management practices. But certain features of the League as a social organization—as a context for everyday interaction—conspired to keep the students from engaging most of this potential curriculum. The hierarchical and lateral division of labor, the system of beliefs among administrators about the utility of volunteers, and the wariness of lower-level technicians and clerks all worked to bar the interns and other volunteers from the full range of knowledge in use in the agency.

Concluding Remarks

The form of learning narrative represented in these two cases reveals a great many of the educational features of newcomers' experiences in the work place. It enables us to compare and contrast such experiences: to determine, for instance, the learning trajectories of the respective interns. It helps us to identify the cognitive, manual, and relational demands of various task episodes and to trace the ways participants organize human, informational, and material resources to get the work done and to afford neophytes access to knowledge. Moreover, this kind of investigation helps us discover some of the factors that make one social context suitable for learning and another inhospitable.

These factors represent cultural phenomena, amenable to ethnographic analysis, because they are more than quantifiable "variables" in the environment. They are social practices organized around more or less shared conceptions of roles, activities, and processes. Those practices display the knowledge underlying them both to participants, and, if they watch carefully, to observers. And it is the induction of newcomers into those practices and their underlying knowledge that constitutes the basic process of education. These questions about tasks, learning trajectories, and microcultures serve to systematize our investigation and comparison of that process in different environments.

In the first case described in this article, we saw that Jacob Olsen's conception of his business as a Renaissance guild shop and his functional reliance on the productivity of the apprentices enhanced the educational quality of the setting. He saw himself as the master craftsman and the interns as learners of his craft. He needed them to be good at his work. Therefore he organized his and their activity in such a way as to move them systematically and incrementally into a complex body of knowledge and skill. At the Animal Protection League, we discovered that divisions among the levels of the organization revealed in a broader ethnographic portrait suggested reasons for the apparent dearth of learning opportunities for volunteers. Directors didn't really want them around, and technicians found their presence threatening. As a result, interns learned little.

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One might argue that this last statement—APL interns did not learn much—is premature and narrow-minded. In a critique of an early draft of this paper, Jeffrey Shultz (personal communication 1984) observed:

> It seems to be the case that little was learned related to the tasks that were carried out by the organization. But isn't it possible that interns learned something about the structure of bureaucratic organizations; or about the role of volunteers in such organizations in a capitalistic society . . . or other things like that?

Certainly the setting was selected as an internship in the first place because one of the school's resource coordinators believed that there were substantial segments of interesting and useful knowledge in use in the environment. Our form of educational analysis of work experience, however, goes beyond a narrow focus on tasks alone. As mentioned above, it includes a view of "task sets," "roles," and the environment as a whole. The question, from this perspective, is whether the APL interns got access to any of the more general knowledge in use at those levels of the organization. The answer, I submit, is no. If one traces the full scope of activities and interaction in which the interns participated, it becomes apparent that they got access to very little systematic or complex knowledge about, for instance, the bureaucratic structure of the League. To be sure, they were situated *in* that structure; but that is not the same experience as learning how that structure operates, how various roles articulate with one another, how communication functions. Bronwyn and Jack certainly encountered an important feature of the bureaucracy in their attempt to work at the adoptions desk. But they never got encouragement or help in understanding that episode. They came away believing that the staff did not want them around.

My point, again, is more general than that one scene. It is that the central *educational* question in the work place is not whether rich forms of knowledge are in use in the environment, but rather whether and how newcomers like interns get *access* to that knowledge: how they encounter it, take it in, are called upon to display it, get to work on it and even transform it. Learning about bureaucratic structure, for instance, requires more than merely being in one. It requires engaging that structure, participating in it and assessing the way it accommodates that participation, ideally even reflecting on the experience. The method of educational analysis proposed and illustrated in this paper calls for detailed examination of the putative learner's experience with both situated and generalizable knowledge. The imaginative use of this approach might help practitioners and analysts of work place education to understand more fully what aspects of new workers' experiences constitute education, and what factors in their environment contribute to their learning.

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Notes

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