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THE DEVELOPMENT OF COWORKER RELATIONSHIPS
THAT SUPPORT OR INHIBIT CONTINUOUS LEARNING

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
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The Ohio State University
1997

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Workforce Education & Lifelong Learning
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ABSTRACT

Previous studies have indicated that coworker relationships can be critical resources for employees' continuous learning, which is essential for effective performance. However, not all coworker relationships are equally supportive of continuous learning. It may be possible to create conditions that encourage employees to form more supportive relationships if the factors that influence such relationships are understood. Accordingly, the present study was undertaken to investigate how coworker relationships that support continuous learning and coworker relationships that undermine or inhibit learning develop in a workplace, and how characteristics of employees, their coworkers, and their work environments affect relationship development.

In the present study, data were collected from staff attorneys and other professional, managerial, administrative, and clerical employees of a state Attorney General. Sixty employees returned written questionnaires regarding their work and learning environments and coworker relationships. Twelve employees who indicated that they had experienced significantly learning-supportive and/or unsupportive coworker relationships were interviewed.

The study results suggest the following: (1) Supportive relationships form a network, not a pyramid. (2) The growth of supportive relationships is bounded by situational variables that make some types of employees more or less appealing and available as supportive coworkers. (3) Supportive coworkers across different settings use common behaviors but have different personalities. (4) Supportive relationships result from three sets of behaviors, of which help-giving may be the least critical. Striving to learn and improve may be the most critical. (5) Organizational climate forms the organizing circumstance for self-directed activity related to supportive relationships. (6)
Information flows are critical features of an organizational climate for learning-supportive relationships. Organizational climate affects not only how much is learned through coworker relationships, but also what is learned—and what is not. Higher level learning tasks may be neglected if the organizational climate favors immediate production over learning.

The study results suggest that networks of informal learning relationships can be important for continuous learning and improvement in organizations. A mode of learning through such networks warrants further attention and advocacy from scholars and practitioners within the disciplines of adult education and human resource development.
For Mike

and for our children
ACKNOWLEDGMENTS

I wish to thank first the men and women of the Attorney General organization who took time from their very busy schedules to participate in the study, and the Attorney General who permitted me to conduct the study and offer recommendations.

I thank professors David Stein, Kevin Freer, and Janet Henderson for their wisdom, professionalism, open-mindedness, and graciousness in extending help to me over the past several years. They have themselves been models of learning-supportiveness.

For their incredible patience, kindness, and cooperation in the course of this project, the members of my family have my unlimited and undying gratitude.

Finally, I wish to thank Ron Jacobs, my original mentor, teacher, and adviser at The Ohio State University, for encouraging me to join the Ph.D. program in the first place.
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Fields of Study

Major Field: Education:
Workforce Education & Lifelong Learning
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CHAPTER 1

INTRODUCTION

Problem Background: Supportive Coworker

Relationships as Resources for Continuous Learning

It is common today to hear or read of the need for continuous learning within work organizations (e.g., Nonaka & Takeuchi, 1995; Watkins & Marsick, 1993). Continuous learning is learning which takes place lifelong, in the period of initial career preparation and training, and thereafter without ceasing. It can entail acquisition of knowledge and skills possessed by other performers and construction of new understandings relevant to one's work throughout one's career. Continuous learning is needed for the creation and effective management of human knowledge, which is thought by many social scientists to be the most important resource available to economic actors today (Drucker, 1993; Quinn, 1992; Reich, 1991; Toffler, 1990). Continuous learning is needed within both private sector and public sector organizations in order to cope with challenges such as accelerating customer demands, increasing workloads, rapidly changing technologies, shortened product life cycles, shrinking budgets, emphasis on teamwork, downsizing and decentralization, and "global turmoil and competition" (Watkins & Marsick, 1993, p. 4). Employees need to learn continuously in order to insure their career well-being (Kiechell, 1994; Koonce, 1995; Young,
1995). Organizations need to learn continuously in order to survive and grow in Information Age economies (Senge, 1990; Watkins & Marsick, 1993). Customers and other stakeholders can be better satisfied when employees and their organizations learn continuously (Schonberger, 1990). In that sense such stakeholders, too, need continuous learning to take place in work organizations.

Traditionally, organizations have facilitated continuous learning among employees by offering formal job training developed and delivered by human resource development (HRD) practitioners. Yet few, if any, organizations have sufficient resources to develop and deliver formal training in all areas where continuous learning among employees is needed. Fortunately, employees are not limited to learning through formal training alone. Rather, research suggests that the majority of employees’ continuous learning can occur informally through workplace experiences and interaction with coworkers and other persons (e.g., Zemke, 1985a, 1985b). Relationships that enable employees to learn continuously can be termed “learning-supportive relationships.”

Research does not suggest that all coworker relationships are equally learning-supportive. Rather, variations in coworker relationships appear to represent a continuum of supportiveness (Kram, 1985; Kram & Isabella, 1985). Some relationships have been shown to undermine or inhibit employees’ continuous learning rather than facilitate it (e.g., Larson, 1991; Lave & Wenger, 1991; Sacks, 1994; Suskind, 1994; Watkins & Marsick, 1993). Such relationships can be termed “unsupportive relationships.” Relationships with little positive or negative impact on employees’ continuous learning appear to occupy the middle of the relationship continuum. Relationships of that type can be termed “neutral relationships.”

If continuous learning is beneficial for employees, organizations, and their stakeholders, and if supportive relationships can facilitate continuous learning whereas unsupportive and neutral relationships tend not to, then clearly it is preferable that employees form learning-supportive rather than unsupportive or neutral relationships. By crafting and implementing appropriate interventions, HRD practitioners may be able to encourage employees to form more supportive relationships. In that way, human resource developers may bring about more dramatic improvements in
learning and performance than could be achieved through formal job training alone. As Watkins and Marsick (1993) note, "Human resource developers can extend their impact in almost exponential fashion by working with all employees to make self-managed learning more effective and by creating ways for people to share what they learn" (p. 21). To create effective interventions, however, HRD practitioners must understand the factors that drive employees to form or to avoid supportive relationships.

**Beyond Conventional Mentoring**

Human resource development theory and practice have focused particularly on the role of supervisors and other organizational superiors as mentors, models, trainers, and coaches for employee development (e.g., Graham, Wedman, and Garvin-Kester, 1994). However, research has suggested that other organizational members such as job-peers, subordinates, and coworkers who are internal customers and suppliers of employees can facilitate continuous learning and improvement, as well (Kram, 1985; Kram & Isabella, 1985; Zemke, 1985). Relationships with coworkers who are not organizational superiors or supervisors can be important resources for continuous learning, for several reasons:

- Such relationships can be less prone than relationships between employees and their organizational superiors or supervisors to problems involving lack of interpersonal trust and open communication (cf., Bartolomé, 1989; Kram, 1985; Rossi, 1996).
- Supportive peer and near-peer relationships can last as long as 20 or 30 years, whereas a conventional mentoring relationship between an employee and an organizational superior may last only three to six years (Kram, 1983, 1985; Kram & Isabella, 1985).
• In many cases, peers and near-peers are the only real source of the specific expertise to which employees must have access if they are to maintain or increase proficiency in their particular task areas (e.g., Rossi, 1996).

• In many cases, peers and near-peers are simply more available to each other than are supervisors and other organizational superiors who might serve as mentors, coaches or informal trainers (Kram, 1985; Kram & Isabella, 1985).

• Conventional mentoring relationships may be most valuable in the early stages of employees' careers, whereas relationships with peer and near-peer coworkers "seem to be important in all stages" (Kram & Isabella, 1985, p. 130).

These findings suggest that HRD practitioners should not limit their efforts to encouragement of conventional mentoring relationships only. Rather, they should look for ways to encourage learning-supportive relationships among coworkers in general—including all persons employed within an organization who may provide support for each other's continuous learning. Again, however, to be effective in this regard HRD practitioners must understand the factors that drive employees to form or avoid learning-supportive relationships with their coworkers.

Problem Statement

Conventional mentoring relationships have received considerable attention from researchers in human resource development and related fields (e.g., Galbraith & Cohen, 1995; Kram, 1985; Wunsch, 1994). In contrast, other types of learning-supportive and unsupportive workplace relationships have been less studied and are less well understood. Of the studies located for the review of literature in this study, only two (Kram & Isabella, 1985; Rickett, 1989) were undertaken for the primary purpose of investigating supportiveness in coworker relationships without limiting inquiry to conventional mentoring relationships. Those two were more focused on how supportive relationships function than on how and why supportive and unsupportive relationships develop.
Other studies located for the review were intended to study other phenomena—such as informal workplace learning—in which coworker learning relationships turned out to be important. The dearth of studies designed for the precise purpose of exploring the development of the various types of learning-supportive and unsupportive coworker relationships necessarily limits our understanding of the factors that drive employees to form such relationships.

The body of research reviewed for the present study, and particularly the studies by Kram (1985) and Kram and Isabella (1985) do suggest certain general propositions with regard to coworker learning relationships:

- Coworker relationships vary as to their levels of learning-supportiveness.
- Coworker relationships can change over time. Some coworker relationships become more supportive, whereas others remain static or may become less supportive.
- The character of a coworker relationship emerges from the feelings, beliefs, and behaviors of employees and their coworkers with regard to each other and with regard to other persons and things.
- Individual attributes such as level of education and experience may influence the feelings, beliefs, and behaviors of employees and their coworkers in various ways.
- Coworker relationships develop within varying organizational environments. Environmental elements such as workplace layouts, job designs and production methods, and personnel policies may create varying opportunities and incentives for coworkers to form supportive or unsupportive relationships.
- Level of learning-supportiveness is one aspect of the overall character of a coworker relationship. Interpersonal trust is another aspect, which is likely to be highly related to learning-supportiveness.

These propositions regarding coworker relationships are depicted in Figure 1.
If these propositions accurately describe the development of coworker learning relationships in general, then what are the specific feelings, beliefs, and behaviors, individual attributes, and features of organizational environments associated with the development of learning-supportive, unsupportive, and neutral coworker relationships? How do learning-supportive, unsupportive, and neutral coworker relationships develop over time in a work organization? Previous studies have provided incomplete answers. The present study was intended to address these questions. Results of the study, it is hoped, will bring researchers closer to a time when they may answer with confidence the question of ultimate interest to human resource development scholars and practitioners: Why do supportive coworker relationships arise in some cases but not others, and what can be done to increase the incidence of supportive relationships in a given workplace?
**Study Purpose**

The purpose of the present study was to create a model of the development of learning-supportive, unsupportive, and neutral coworker relationships in a work organization. The model was intended to identify the feelings, beliefs, behaviors and individual attributes of employees and their coworkers, and features of organizational environments that contribute to the formation of supportive, unsupportive, and neutral relationships. Propositions derived from the study and presented in the findings and concluding chapter of this study address those points.

The study was also intended to describe changes in relationships over time in order to identify typical stages in the development of supportive, unsupportive, and neutral coworker relationships. As described in the findings, however, the relationships at the organizational site where this study was conducted seem to be characterized by a lack of change over time.

**Research Questions and Approach**

For this exploratory study of the development of coworker relationships, a qualitative, retrospective interview approach was used. Employees from one organization who perceived themselves as having experienced one or more highly supportive or unsupportive coworker relationships were identified. In interviews, those employees were asked to identify and describe the development of a number of their supportive, unsupportive, and neutral relationships with coworkers. Those employees were also asked about coworkers whom they help to learn, or do not help. Data collection focused on the question, "How did the supportive, unsupportive, and neutral coworker relationships identified in the study develop within the employing organization?" The following subsidiary questions were addressed, as well:
I. What feelings, beliefs, and behaviors of employees and their coworkers were associated with the development of the supportive, unsupportive, and neutral coworker relationships identified in the study?

II. What individual attributes were associated with the development of the supportive, unsupportive, and neutral relationships identified in the study?

III. What features of the organizational environment were associated with the development of the supportive, unsupportive, and neutral relationships identified in the study?

V. What stages or phases of relationship development were constituted by changes in the identified supportive, unsupportive, and neutral coworker relationships over time?

The proposed study used a "constructivist" approach (Guba & Lincoln, 1994) to develop answers to these questions. That is, the study sought to juxtapose the varying perceptions of the study participants so that participants, the researcher, and readers of the study might achieve a better understanding of the various views and experiences people may have with regard to coworker relationships. It was hoped that this approach could position the study participants and others to take effective action which takes into account the diverse views of relationship stakeholders.

**Rationale and Significance**

Previous research in HRD has focused little attention on learning through coworker relationships. Attention has been focused instead on formal training design and on relations between organizational subordinates and superiors acting as mentors, trainers, coaches or—more generally—"leaders." Such research, although important, does not account for all influences on knowledge and skill development and performance improvement among employees. Formal training may account for just twenty percent of a typical employee's job-related learning (Zemke, 1985b).
Moreover, outcomes of training are not determined solely by formal design variables. Rather, the attitudes and actions of fellow trainees also influence training outcomes (Saxe, 1988; Rouiller & Goldstein, 1993). Mentors can be useful for the 80 percent or so of a typical employee’s learning which takes place “informally” (Watkins & Marsick, 1992), outside formal training. But many employees—perhaps most employees—do not have access to conventional mentors (Kram, 1985; Zemke, 1985a). Employees who have conventional mentors tend to rely on other coworkers for help with learning as well (Kram, 1985; Kram & Isabella, 1985; Zemke, 1985a).

The present study, by focusing on the development of coworker relationships that support or inhibit learning without limiting inquiry to conventional mentoring relationships or formal training settings, may enable HRD theorists to construct more useful models of the development of knowledge and skill and improvement of performance in work organizations. As a practical matter, the study may help human resource developers and organizational managers to remove environmental barriers that discourage learning-supportive coworker relationships and to create opportunities and incentives for the development of supportive relationships. The study may also aid the creation of training or tools such as self-assessment instruments that help employees to manage their relationships in ways that support learning, for the benefit of the employees themselves, their coworkers, their employers, and their customers and other stakeholders.

Assumptions

The present study was guided by several assumptions:

- Employees themselves are the most knowledgeable sources of information regarding the development of their relationships with coworkers.
- Employees serving as research participants would be willing to identify and describe their coworker relationships if appropriate confidentiality provisions were used.
• Employees might not be accustomed to thinking of their relationships as “learning-supportive” or “unsupportive” coworker relationships. Structured questioning procedures could help participants to identify and describe their relationships.

**Limitations**

The study was also subject to some limitations:

• The study involved participants from a single organization. This necessarily limited the range of environmental elements that could be examined in the study.

• The study focused primarily on one group of employees at the study site—highly educated, licensed professionals in non-management positions. Employees in other positions were included as participants, but the study design did not enable cross-job comparisons.

• University requirements for protection of human subjects barred the researcher from asking participants to identify their relationship partners. Therefore, it was not possible to compare the views of employee-learners and their supportive or unsupportive co-workers systematically (cf., Kram, 1985).

• Data collected for the study were employees’ *reported perceptions* of their relationship experiences. If intentional or unintentional misreporting occurred, that would affect the study results. Quality assurance procedures described in the methods chapter of this study were used to improve the trustworthiness of the study in this regard, but such procedures are not absolute guarantees against misreporting.

**Definition of Terms**

Terms used in the study are defined as follows:
• **Continuous learning:** Acquisition of existing knowledge and skills and construction of new understandings relevant to one's work throughout one's career (Watkins & Marsick, 1993).

• **Learning-supportive coworker relationship:** A relationship with a coworker which enables or encourages an employee's continuous learning, as perceived by the employee or the employee's coworker.

• **Level of learning-supportiveness:** The extent to which an employee is enabled or encouraged to learn continuously.

• **Neutral coworker relationship:** A relationship with a coworker which neither supports nor undermines an employee's continuous learning to a significant extent, as perceived by the employee or the employee's coworker.

• **Unsupportive coworker relationship:** A relationship with a coworker which undermines or inhibits an employee's continuous learning, as perceived by the employee or the employee's coworker.
CHAPTER 2

LITERATURE REVIEW

Organization of this Chapter

This review of literature is organized as follows: The first section considers the nature of human expertise. Expertise is a desired outcome of continuous learning. When employees learn, they can acquire and perfect expertise which, in turn, can help employees and their organizations to cope with the economic, social, technological, and other challenges of present-day work environments. Expertise was the initial topic of interest for the present study researcher. The shift in focus to supportive and unsupportive coworker relationships came about as a result of the present researcher's struggle to understand how expertise-development might occur in work settings. A review of the expertise literature, it is hoped, will help readers to understand why supportive coworker relationships can be uniquely useful resources for continuous learning.

The second section of the review describes active, continuous learning as the foundation for expertise development. The review raises questions as to how individuals find time, resources, and motivation to engage in continuous learning. The review suggests that cultural factors play a significant role in sustaining and enabling individuals' continuous learning.

Next, the review discusses four bodies of research as evidence of a cultural basis for individual learning and performance: cross-cultural or comparative cognition studies, educational intervention studies, biographical studies of highly accomplished individuals, and studies of learners'
interactions in workplaces and schools. The review suggests that an individual is more likely to be able and willing to engage in continuous learning which can support high-level performance if the individual has appropriate opportunities to interact with coworkers or other cultural co-participants who have some relevant expertise and who use learning-supportive behaviors.

Finally, the review identifies factors that may help to determine whether an individual in a work organization will have sufficient opportunities of the kind described above. The review discusses relationship factors, individual factors, and organizational/environmental factors in turn. The review relies on studies of learners' interactions in workplaces and schools, studies of the development of hierarchical mentoring relationships, and studies of self-directed adult learning to identify the general factors that may influence coworker relationship development.

This review is not an exhaustive survey of research in comparative cognition, mentoring, or any of the other major topic areas referenced in the review. The literature search for this review targeted studies that seemed most pertinent to issues of coworker relationships in workplace expertise development, especially studies published from 1985 onward. Readers accustomed to positivist, quantitative research should know that the studies identified in the literature search were predominantly qualitative and inductive. This review's lack of discussion of statistical hypotheses and tests, random sampling plans and other conventions of positivist research reflects the qualitative and inductive orientation of the reviewed studies. Furthermore, because each study typically produced multiple findings, a single study may be discussed at many points in the literature review.

A summary of some of the studies examined for this review is provided in Table 1.
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<td>Comparative Cognition</td>
<td>Mistry &amp; Rogoff, 1985</td>
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<td>Okagaki &amp; Sternberg, 1991</td>
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<td>Ed. Intervention</td>
<td>Fowler, 1990</td>
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Table 1
Studies Examined for this Review

*Table continues on next page.*
| Accomplished Performers                  | Bloom, 1985                   |
|                                      | Ericsson, Krampe, &           |
|                                      | Tesch-Römer, 1993             |
|                                      | Fowler, 1986, 1990            |
|                                      | Garmezy, 1991                 |
|                                      | Gustin, 1985                  |
|                                      | Howe, 1990                    |
|                                      | Kalinowski, 1985              |
|                                      | Monsaas, 1985                 |
|                                      | Roe, 1952, 1953               |
|                                      | Sloane & Sosniak, 1985        |
|                                      | Sloboda, 1991                 |
|                                      | Sosniak, 1985a, 1985b         |
|                                      | Subotnik, 1992, 1993a,        |
|                                      | 1993b, 1994                  |
|                                      | Terman & Oden, 1959           |
|                                      | Trost, 1993                   |
|                                      | Weisberg, 1993                |
|                                      | Woodward, 1989                |
|                                      | Zuckerman, 1977               |
| Underachieving Performers            | Butler-Por, 1993              |
|                                      | Freeman, 1993                 |
| Informal Learning/Learners'          | Clasen & Brown, 1986          |
| Interactions in Schools, etc.        | Cuellar, 1982                 |
|                                      | Fordham & Ogbu, 1986          |
|                                      | Hatano & Inagaki, 1993        |
|                                      | Holland & Eisenhart, 1990     |
|                                      | McDill, Meyers, & Rigsby, 1967|
|                                      | McDill & Rigsby, 1973         |
|                                      | Steinberg, 1996               |
|                                      | Suskind, 1994                 |
|                                      | Willis, 1981                  |

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<th>Informal Workplace Learning</th>
<th>Billet, 1993</th>
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<td>Cahoon, 1995</td>
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<td>Howe, 1991</td>
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<td>Non-profit org. managers</td>
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<td>Hutchins, 1993</td>
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<td>Keller &amp; Keller, 1993</td>
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<td>Kilcoyne &amp; Volpe, 1991</td>
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<td>Marsick &amp; Watkins, 1991</td>
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<td>Orr, 1990</td>
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<td>Photocopy technicians</td>
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<td>Rossi, 1996</td>
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<td>Nurses</td>
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<td>Russet, 1991</td>
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<td>Community coll. instructors</td>
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<td>Sacks, 1994</td>
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<td>Software developers</td>
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<th>Self-Directed Adult Learners</th>
<th>Tough, 1979</th>
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| Supportive Functions in Coworker Relationships | Rickett, 1989 | Clerical/support staff |
|                                               | Kram & Isabella, 1985 | Managers and professionals |

| Mentoring | Kram, 1985 | Managers |
|           | Zemke, 1985a |

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<th>Org. Climate</th>
<th>Rouiller &amp; Goldstein, 1993</th>
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Table 1

The Nature of Human Expertise

Initially, researchers predicted that excellence in a small number of general reasoning processes would constitute human expertise. However, a large body of research has since shown that extensive, specialized knowledge and specialized skill—not generalized good thinking—are largely responsible for the superior performance of experts in various domains. Reviews of this research are provided by Ericsson and Charness (1994), Glaser and Chi (1988) and Holyoak (1991). Reviews from an adult education/human resource development perspective are provided by Cervero (1988, 1992).
The knowledge of an expert is not formal or academic knowledge only—or even primarily. Rather, it is a "repertoire" of themes, images, understandings, meanings, expectations, actions, and techniques (Schön, 1983) that are derived from and exquisitely well-adapted to the expert’s real-life task situations (Holyoak, 1991).

Part of an expert’s knowledge is procedural. For an expert warehouse assembler, expert knowledge includes knowledge of ways to fill an order using the fewest steps possible (Scribner, 1985). For an expert nurse or paramedic, it includes ways to create a sense of possibility for a very ill patient (Benner, 1984) or to intubate a bleeding one (Larson, 1991). For an expert writer, composer or other problem solver working in an ill-structured domain, expert knowledge includes ways to achieve better results by escalating task goals, reshaping one’s understanding, and revising one’s work so that goals can be met (Scardamalia & Bereiter, 1991). (Non-experts, on the other hand, seem to "know" the opposite—i.e., that reconceptualizations and revisions are bad [Carey & Flower, 1989].)

Another part of an expert’s knowledge is knowledge of what things are and how things happen. Such knowledge can enable an expert to select a procedure which produces superior results. For example, an expert nurse or physician will recognize a pattern of subtle physiological changes that may signal the coming of a heart attack in an elderly patient or respiratory distress in a premature baby (e.g., Benner, 1984). This understanding can enable the expert to choose a more appropriate medical intervention. An expert fireground commander will recognize a pattern of sudden quieting and intensifying of roof heat which may signal that a burning building is about to collapse (Klein, Calderwood, & Clinton-Crocco, 1986). An expert electronics repair technician will recognize a pattern of shorts and open connections that signal damage to a power cord (Lesgold & Lajoie, 1991). A performer with such expert knowledge can take appropriate action. In contrast, performers who lack such expert knowledge will be unable to vary their actions appropriately in varying situations (Hatano & Inagaki, 1993).
Case studies illustrate the role of extensive, specialized knowledge in the accomplishments of eminent performers. Woodward's encyclopedic knowledge of chemistry fueled his tremendous accomplishments in organic synthesis, for example (Woodward, 1989). Case studies of Picasso, Mozart, the Wright brothers, Watson and Crick (discoverers of the double-helix structure of DNA), and other eminent persons indicate that extensive domain knowledge was an important factor behind their creative achievements—it was a much more important factor than people commonly realize (Weisberg, 1993). Case studies of striking accomplishments by less celebrated persons point to the critical role of knowledge as well (e.g., Hunter, 1990; Sloboda, 1991).

Extensive knowledge can be beneficial because it is likely to capture many subtle but significant variations among problem settings, persons, objects, and so forth. It is likely to capture variations in the patterns of connection among domain artifacts. Variety can help a performer to construct a more useful representation of a problem or task, and thus perform more effectively and efficiently (Spiro, Feltovich, Jacobson, & Coulson, 1991a, 1991b). Lack of variety can do the opposite. For example, novices in electronics repair and medicine may mistakenly "see" each new case as an instance of whichever malady they have most recently learned about because they are not sufficiently acquainted with alternatives (Lesgold & Lajoie, 1991).

Again, however, it is extensive knowledge attuned to real-life task situations—not simply formal or academic knowledge—which tends to be most important. Thus, among copier repair technicians, experts may be better distinguished by their knowledge of customers' usage patterns than by their knowledge of electronics per se (Orr, 1990).

Evidence for the importance of task situation-specific knowledge can be found in the fact that performers in the same overall domain or industry, but in different task situations, use knowledge differently and create different knowledge to satisfy demands of their varying task situations. For example, genetic counselors categorize stimuli differently than genetics professors. These performance differences correspond to differences in their real-life task demands (Smith, 1992). Similar findings have been made for dairy warehouse assemblers and dairy office workers (Scribner,
Electronics technicians from military bases with different functions and resources use different repair methods, Lesgold and Lajoie (1991) have found. Those researchers have termed such differences “dialectics of expertise, differences in approach that reflect...detailed tuning of performance to subtle environmental differences” (p. 304). U.S. medical personnel in certain hospital settings have been found to use specialized terms not used by—or known to—medical personnel in other settings, to capture salient aspects of their task situations (Coombs, Chopra, Schenk, & Yutan, 1993). Similarly, African tailors have developed the specialized concept of a “trousers’ worth” as a unit of measure for cloth (Lave, 1985).

Further evidence for the importance of situation-specific knowledge can be found in the fact that experts tend to perform much less well when they encounter tasks outside their areas of specialization or encounter atypical—i.e., unfamiliar—cases within their specialties (e.g., Patel & Groen, 1991). Finally, studies of analogical thinking suggest that while performers can make effective use of information from a variety of domains or task areas, they are less likely to do so, and less likely to do so effectively, when the information involves matters very different from the performers’ target tasks (Weisberg, 1993).

An expert’s knowledge may be largely tacit or implicit in addition to being extensive and complex (Bereiter & Scardamalia, 1993; Boreham, 1992; Jarvis, 1992). For this reason, it can be extremely difficult for a non-expert to appreciate the role expert knowledge plays in expert performance (Ericsson & Charness, 1994). To an observer who is unaware of an expert’s special knowledge, expert performance may seem to result from supernatural reasoning, remembering or imagining processes (Hunter, 1990; Weisberg, 1993).

Lesgold and Lajoie (1991) describe an illustrative case in which an expert technician was able to repair a malfunctioning computer after lower-level technicians had failed, because the expert alone hypothesized (correctly) that data generated from a diagnostic program were inaccurate. It is tempting to view the expert as a better thinker, or at least a less inhibited one. In fact, the expert’s
accomplishment seems to have been the result of his greater familiarity with the social "process of designing a computer, planning how it will be maintained, creating diagnostic software, and actually doing the maintenance" (Lesgold & Lajoie, 1991, p. 308) in addition to his superior device knowledge.

Similarly, the present author encountered an expert order processor who was able to calculate shipping target dates correctly where non-experts did not. Job guides had been given to all the order processors, so it might seem that the expert had superior sense-making skills or at least better reading abilities. Actually, the expert was using specific knowledge of shipping-performance standards applied to the company's manufacturing divisions as a supplement to her reading of the job guide.

Features of job roles and/or learning behaviors may help to explain how the experts in these examples acquired their special knowledge. It is worth noting, however, that these experts fit a pattern of experts knowing more than other performers about "systems and components at the limits of their job routine" (Lesgold & Lajoie, 1991, p. 313) and understanding better the relationships among disparate things, people, and events relevant to their work.

Emerson (1991) presents a similar example of performers in criminal justice systems using knowledge of each other's task situations, values, and so forth to interpret the "real reasons" behind each other's actions and to calculate the probable outcomes of possible actions in order to select appropriate procedures. The real reasons behind events in the systems were unofficial. The performers' use of knowledge about those reasons was not always apparent to observers, therefore.

In sum, research does not suggest that experts "do more with less." Rather, they seem to do more with more. What they have more of, is knowledge precisely tuned to the experts' real-life task situations. How such knowledge is acquired is the focus of the next section of this literature review.
Continuous Learning:
What Individuals Do, to Become Experts

The short answer to the question of how experts become experts is that they work at it very hard and very purposefully for a very long time. In many domains, it takes at least 10 years, and perhaps many more, for a performer to become an expert (e.g., Ericsson, Krampe, & Tesch-Römer, 1993). Persons who become experts may start working hard earlier in their careers, compared to non-experts (Ericsson et al., 1993). They may devote more hours each day to study and practice, and they study and practice more days each year (Ericsson et al., 1993). Over time, these differences add up. For example, the best violinists in one study of music school students had practiced an average of twice as many hours as the lowest-ranked violinists: 10,000 hours versus 5,000 hours over the course of their careers at the time of the study (Ericsson et al., 1993).

Persons who become experts may use different methods, in comparison to non-experts, for learning in the course of preparing to perform and learning in the course of actually performing. For example, persons who become experts tend to elaborate and restructure goals and information, which enables them to learn more while performing better (Bereiter & Scardamalia, 1993; Chi & Bassok, 1989). These methods are not short-cuts to excellence, however. They increase rather than decrease the time and effort performers must invest in learning (Scardamalia & Bereiter, 1991).

Across studies from a variety of domains and life stages, there is a remarkable consistency regarding the characteristics of successful performers. For example:

- "Motivation, initiative and leadership, search for knowledge, [and] direction towards activity" were characteristics of a group of "exceptionally successful" performers in business, engineering, and science (Trost & Sieglen, 1992, in Trost, 1993, p. 331).
- "Active goal-directed behavior, an eagerness to learn, doing more than was required of them...preference for active educational pursuits and...high vocational goals" (Garmezy,
1991, p. 424) were characteristics of Black children who were successful despite coming from socially disadvantaged backgrounds.

- "Persistence in the accomplishment of ends, integration toward goals, self-confidence, and freedom from inferiority feelings" (Terman and Oden, 1959, p. 148) distinguished the most successful individuals in a longitudinal study of high-IQ persons.

- Active pursuit of knowledge through question-asking directed toward teachers, friends, and family, and leadership in student-initiated, informal learning groups characterized high-achieving Hispanic high school students in Cuellar's (1992) study.

- Years of intensive efforts to develop knowledge and skill in their domains were the foundation for the accomplishments of a group of very successful young adults in science, mathematics, art, music, and sports, a research team headed by Bloom (1985) found.

- Years of preparation, setting of high-level goals, persistence in the face of set-backs, and frequent, effortful revision characterize successful performers in "creative" endeavors in science, arts, and industry, various researchers have observed (e.g., Gruber, 1989; Hayes, 1989; Howe, 1990; Weisberg, 1993).

- "Driving absorption in their work" was the dominant characteristic among the highly successful scientists studied by Roe (1952, p. 25). This "one thing alone" was "not of itself sufficient to account for the success" of the scientists, but it appeared to be "a sine qua non" (Roe, 1953, pp. 233-234).

In sum, highly successful performers tend to be very active and persistent learners. They value achievement. They set and pursue challenging goals. When they are successful, it is not because they have avoided problems but rather because they have persevered in trying to solve them. As Ericsson et al. (1993) put it, the highest-level performers should be seen "not simply as domain-specific experts but as experts in...improving performance" (p. 400).
Performers who are sometimes thought to be "naturally talented," such as Mozart or Picasso, are not exceptions (e.g., Howe, 1990; Weisberg). Men and women, and performers from different ethnic and socio-economic backgrounds, do not appear to be different in their needs to invest great time and effort in learning in order to be successful, although they may have very different opportunities to make such investments (e.g., Butler-Por, 1993; Freeman, 1993). Differences in learning behaviors are evident in comparisons of more and less successful performers. Cuellar (1992), for example, found that low achievers viewed participation in learning activities as a waste of time, preferring to socialize, relax or earn money instead. Low achievers paid little attention when instruction was presented, gave up easily when learning was "too difficult," and copied each other's work without attempting to learn from what was copied (Cuellar, 1992).

In light of the findings about expertise described earlier in this literature review, it may not be surprising that successful performers are diligent learners. Expert-level performance appears to require very extensive, specialized knowledge and specialized skill. Knowledge and skill are developed through learning. Therefore, successful performers should tend to be those who have devoted time and effort to continuous learning. Studies of successful performers suggest that this is so; better performers are better continuous learners.

**Cultural Factors Behind Expertise Development**

It seems clear that persons who become experts tend to be highly motivated (Elshout, 1993; Howe, 1990). Motivation leads those persons to invest greatly in their own development, which results, over time, in their acquisition of the extensive specialized knowledge, specialized skill, and physical and affective elements that facilitate expert-level performance (Hayes, 1989; Howe, 1990). But what is the origin of experts' motivation? How do even highly motivated performers manage to find sufficient time and resources for learning when faced with potentially competing...
demands for work, leisure, and so forth? Is motivation by itself sufficient? If not, then what else is needed?

Research (described below) suggests that the answers to all these questions point to cultural factors as significant influences on expertise development. In particular, peer cultures and peer relations are likely to be significant influences on expertise development. A cultural theory of expertise development need not assert that performance differences are due entirely to cultural differences. However, it must endeavor to explain how experts' cultures could contribute to learning and development so that expert-level performance becomes more likely.

**Existing Studies Of Cultural Factors**

Initial evidence of a cultural basis for individual expertise can be found in cross-cultural or comparative cognition studies that show links between performance levels among certain groups of individuals, and specific experiences provided by the individuals' participation in cultural activities (such as work) or special encouragement from other cultural participants (such as family members). These studies have provided evidence of a cultural basis for early motor skills, clay conservation, adeptness in business math, figural and spatial abilities, and abilities to sort and describe various types of stimuli. See Mistry and Rogoff (1985) and Okagaki and Sternberg (1991) for reviews of this literature. Interestingly, some of these studies show that performance levels can drop when a task situation is altered slightly by the replacement of culturally familiar artifacts with culturally unfamiliar ones. They also suggest that variations in task situation experience can produce significant differences in cognition. These findings echo the expertise literature.

Howe (1990) and Fowler (1990) have reviewed studies of interventions designed to improve intellectual abilities. Results suggest that such abilities are amenable to training, but that there is a tendency for performers to "regress to normative levels of their milieux, in the face of their
dominant socialization experiences” (Fowler, 1990, p. 182). These studies are further evidence of a cultural basis for individual expertise.

Especially pertinent to the present review are case studies of the learning backgrounds of highly accomplished performers. Studies have been done in various domains, including language, science, art, mathematics, music, and sports (e.g., Fowler, 1986, 1990; Gustin, 1985; Howe, 1990; Kalinowski, 1985; Monsaas, 1985; Sloane & Sosniak, 1985; Sloboda, 1991; Sosniak, 1985a, 1985b; Subotnik, 1992, 1993a, 1993b, 1994; Weisberg, 1993; Woodward, 1989; Zuckerman, 1977). What these studies suggest above all is that highly accomplished performers tend to have come from environments saturated with resources, opportunities, incentives, and rewards for the development of expertise in the domains favored by members of the performers’ cultures. To some extent, these learning resources, opportunities, and so forth are provided by persons in teaching roles for the conscious purpose of developing expertise in learners. This is especially true for young learners. But increasingly, as the learners move into adulthood, the learning resources, opportunities, incentives, and rewards are generated by learners’ peers informally and incidentally as byproducts of the peers’ own efforts to learn and practice in the domains of interest.

Peers are not the customary foci of investigation in studies of educational outcomes. Teachers, coaches, and other persons in positions of authority over learners are. But peer practices, experiences, values, skills, ambitions, and other aspects of peer culture have been identified as significant influences—both positive and negative—on learning, performance, and career development among learners of varied backgrounds (e.g., Cuellar, 1982; Fordham & Ogbo, 1986; Holland & Eisenhart, 1990; McDill & Rigsby, 1973; Steinberg, 1996; Willis, 1981). These studies, together with the others referenced above, suggest that relations among coworkers can be important influences on employees’ continuous learning.
Coworkers as Learning Facilitators

HRD literature places much emphasis on the role of supervisors as mentors, models, and facilitators in other ways of employees' continuous learning. Certainly, supervisors play an important role in shaping work and learning environments. Features of such environments can influence employees' learning. However, workplace learning studies suggest that job-peers and other coworkers who are not organizational superiors or supervisors may play a greater direct role in facilitating employees' learning on a day-to-day basis, especially for frontline (non-managerial) workers. For example:

- A majority of paramedics in Larson's (1991) study identified their partners—not supervisors or training officers—as the persons to whom they would turn first for answers to questions regarding patient care.
- A study of adult educators by Marsick and Watkins (1990) suggests that such professionals are more likely to learn from peers than supervisors.
- Research and development scientists have indicated that they prefer to learn through dialogue with colleagues, and that their learning is often constrained by managers who do not share the scientists' domain expertise (Kilcoyne & Volpe, 1991).
- Studies of workplace computer use suggest that "managerial support for training tends to be minimal...and that workers rely more heavily on informal support from colleagues than on formal training and support" (Cahoon, 1995, p. 5).
- Lave and Wenger (1991) note: "It seems typical...that apprentices learn mostly in relation with other apprentices" (p. 93).
- Nurses in Rossi's (1996) study identified nurse-peers—not supervisors—as their most important human resource for developing clinical expertise. Physicians, and especially physicians-in-training (interns, residents, and medical students), were the second most
important resource, which suggests that employees need not be in the same job classification in order to influence each other's learning and achievement.

- Non-managerial support staff in the non-profit organization studied by Rickett (1989) tended to rely principally on coworkers rather than supervisors for advice and help in their learning efforts. (The pattern was reversed for manager-learners in this organization, however; such learners relied principally on higher level managers as models, advisors, and coaches.)

- Managers in the large, for-profit organization described by Zemke (1985a) benefited from "mentoring behaviors" (p. 49) but these behaviors were not provided by organizational superiors only. Job-peers, consultants, and others also provided such behaviors. Many successful executives indicated that they never had the benefit of a conventional, hierarchical mentoring relationship.

- Managers and professionals in the large, for-profit organization which was the setting for Kram's (1985) study of mentoring frequently made reference to the importance of peer relationships when a mentoring relationship was changing or ending, or failed to meet critical developmental needs. Kram and Isabella (1985) conducted a second study in the organization and found that a range of peer relationships supported managers' and professionals' learning and development.

Job-peers tend to confront similar task situations on a daily basis, which may help them to develop task situation-specific expertise which is useful for employees' continuous learning. Supervisors and others who confront different task situations may be less able to maintain expertise relevant to employees' tasks (e.g., Rossi, 1996). Studies of expertise described earlier in this review suggest that high levels of performance tend to be supported by task situation-specific knowledge and skills, so it is not surprising that peer relationships would be important resources for learning.
Lack of interpersonal trust or equality in relationships can inhibit learning (e.g., Kram, 1985; Larson, 1991; Rossi, 1996). Supervisor-subordinate relationships are characterized by lack of trust and equality, in many cases (e.g., Bartolomé, 1989; Kram, 1985; Kram & Isabella, 1985; Rossi, 1996) whereas peer relationships can entail greater trust and equality. For this reason, too, peer relationships can be especially useful resources for continuous learning.

Formal Versus Informal and Incidental Teaching and Learning

Most of the teaching, coaching, and learning which takes place among coworkers in an organization is likely to be informal. Watkins and Marsick (1992) define informal learning as “learning from experience that takes place outside formally structured, institutionally sponsored, classroom-based activities” (p. 288). Informal learning has been found to be a very important mode of continuous learning for employees including paramedics (Larson, 1991), community college instructors (Russett, 1991), coal mining personnel (Billet, 1993), non-profit organization managers (Howe, 1991), trade association directors of education (Vericker, 1991) and others. A study of managers in a large for-profit organization suggested that 80 percent of their learning was attributable to informal learning through job experiences and relationships with other performers (Zemke, 1985b).

Coworkers can influence each other’s formal learning (Saxe, 1988) and transfer of formal learning to work settings, too (Rouiller & Goldstein, 1993). Even in formal settings, however, the actions of coworkers that affect employees’ continuous learning are likely to be ‘informal” in the sense that they are unplanned, unstructured, and unmeasured by both coworkers and their employing organizations.

Rickett (1989) found that persons who facilitate or enable employees’ continuous learning informally tend to be unaware of their influence.
When asked if they were aware of helping their friend learn, close friends expressed surprise and delight to discover that they were regarded as enablers. Karen, for example, had a relationship with Mary that reached back more than a decade. They had worked closely together in the same department for several years. Karen and Mary felt they understood each other, worked well together, and could anticipate how the other person would respond to various situations. When asked about her role in facilitating Karen's learning, Mary replied that she had never thought of herself in that way. (p. 80)

Rickett (1989) observed: “Although all the enablers had a general sense that people were learning at work, only rarely did the enabler know exactly what the individual was learning or needed to learn” (p. 86). “When asked what their role was in facilitating an individual's learning,” nearly all of the learning enablers in Rickett’s study “had no idea that they were helping someone learn. Instead they talked about helping people solve problems, complete tasks, and succeed in their work” (p. 87).

Lack of planning, structure, and measurement by coworkers and their organizations regarding coworkers’ informal facilitation of learning and lack of awareness among individual coworkers no doubt have helped to obscure human resource development professionals’ understanding of the ways in which coworkers influence each others’ learning. Difficulties in understanding have been compounded by a lack of scholarly research. As Rickett notes: “Although much has been said about workplace learning,...surprisingly little material is available on facilitating learning in the everyday affairs of worklife where bosses, subordinates, and co-workers all have a role as learners and enablers of learning” (p. 34). Insights can be gleaned, however, from the studies of coworker relationships by Rickett and by Kram and Isabella (1985), as well as other studies. These are discussed below.

29
How Coworkers Facilitate Each Other's Continuous Learning

The case studies of highly accomplished performers (e.g., Fowler, 1986, 1990; Gustin, 1985; Howe, 1990; Kalinowski, 1985; Monsaas, 1985; Sloane & Sosniak, 1985; Sloboda, 1991; Sosniak, 1985a, 1985b; Subotnik, 1992, 1993a, 1993b, 1994; Weisberg, 1993; Woodward, 1989; Zuckerman, 1977), together with studies of informal learning and learners' interactions in workplaces (e.g., Cahoon, 1995; Hutchins, 1993; Keller & Keller, 1993; Kram & Isabella, 1985; Larson, 1991; Lave & Wenger, 1991; Orr, 1990; Rickett, 1989; Rossi, 1996; Sacks, 1994; Zemke, 1985) and schools (e.g., Clasen & Brown, 1986; Cuellar, 1992; Fordham & Ogbu, 1986; Holland & Eisenhart, 1990; McDill & Rigsby, 1973; McDill, Meyers & Rigsby, 1967; Steinberg, 1996; Suskind, 1994; Willis, 1979), suggest four categories of behaviors through which coworkers may facilitate each other's continuous learning:

1. Modeling the role of a good learner.
2. Sharing information and examples.
3. Collaborating in learning activities.
4. Providing encouragement and rewards for learning and achievement.

Through these behaviors, coworkers appear to facilitate continuous learning in several ways. They sustain employees' motivation to learn and achieve. They insure that employees encounter domain artifacts and information of sufficient quantity, quality, and variety to support construction of the extensive, specialized knowledge and specialized skills required for performance at expert levels. Finally, by integrating learning with work and recreation (for example, by trading "war stories" for entertainment during lunch), coworkers create more time for employees' learning and reduce the odds that learning will be undermined by organizational demands for job performance or employees' needs for subsistence, diversion, companionship, and so forth. These learning-supportive behaviors are described in more detail below.
Modeling the Role of a Good Learner in the Expertise Domain

Role modeling is possible when performers practice together or in proximity to each other. Modeling of the role of a good learner appears to be one of the most significant ways through which practitioners in a domain help each other to acquire and perfect expertise. Indeed, Lave and Wenger (1991) suggest that modeling of "what other learners are doing; and what learners need to learn" is one of the central characteristics of participation in a "community of practice" (p. 95).

All of the highly accomplished performers in the studies headed by Bloom (1985) appear to have had access to good role models. Role modeling has been identified as a source of learning among nurses (Rossi, 1996) and software industry employees (Sacks, 1994). In contrast, some research has shown that social pressure to excel, without the type of social support which role modeling can provide, is negatively correlated with achievement (Inglehart & Brown, 1989). Women, minorities, and members of lower socio-economic groups appear to be less successful in some fields because they lack access to appropriate role models (Freeman, 1993).

Case studies of highly accomplished performers and studies of learners’ interactions indicate that performers model the role of a good learner for each other in two ways, through their practice in work or school settings. First, they model the active, persistent, achievement-oriented learning behaviors described earlier in this literature review. Second, they model the success that such behaviors produce.

Role modeling may be beneficial for several reasons. First, it communicates the importance of the subject matters that learners are expected to master. Highly accomplished performers describe how they learned to perceive the "spiritual" significance of music-making (Sosniak, 1985b, p. 49), for example, or the beauty of mathematics (Gustin, 1985, p. 321) through interaction with other interested performers. Exceptionally dedicated preservice teachers are significantly more likely than less dedicated ones to say that the example of their own teachers inspired them to teach (Serow, 1994).
Second, role modeling reveals opportunities for "enjoyable involvement" (Csikszentmihalyi, Rathunde, & Whalen, 1993, p. 249) through work and learning. This is not just a matter of pointing out fun activities to a performer who was previously unaware of them, it seems. Rather, modeling also seems to help performers to construe as pleasurable the activities that constitute expertise development. This is important because such developmental activities are often arduous or tedious, compared to the highly pleasurable "flow" (Csikszentmihalyi, 1990) or "peak" experiences (Ravizza, 1984) that are possible when a performer has mastered a task (Ericsson et al., 1993).

Third, role modeling conveys that learning is socially appropriate. It "insulates" (Ericsson, Tesch-Romer, & Krampe, 1990, p. 127) performers against competing value systems that could undermine learning efforts. For example, it signals that involvement in learning activities is a better use of time than involvement in purely recreational or remunerative activities, and that "doing one's best for the sake of doing one's best" (Csikszentmihalyi et al., 1993, p. 17) is worthwhile—ideas that are not always popular nowadays. The highly accomplished performers in the Bloom (1985) studies seem to have benefited from exposure to family members and associates who modeled such ideas. Modeling of such ideas may be especially important in workplaces, where performers can feel pressured to sacrifice learning for the sake of short-term productivity (Ericsson, et al., 1993; Kilcoyne & Volpe, 1991; Rickett, 1989).

Fourth, role modeling provides referents or standards against which performers can measure themselves and set new goals (e.g., Kalinowski, 1985; Sosniak, 1985b). As one highly accomplished mathematician stated: "It was great to be around a very bright group [of peers]....We challenged each other" (Gustin, 1985, p. 311). "They were just as serious as I was," an accomplished sculptor noted, regarding the sculptor's peers: "We perpetuated each other" (Sloane & Sosniak, 1985, p. 123).
Finally, role modeling has at least the potential to give performers the confidence they need in order to undertake the learning activities that support expertise development. As one paramedic in the highly-rated paramedic system studied by Larson (1991) said, “It makes me feel that I’m able to do the job better because it is a better system and I’m part of that system” (p. 87). The case studies of highly accomplished performers further illustrate the effects of such modeling. With progress, one met “more and more people who had bigger and better dreams and knew more…and it all rubbed off” (Sloane & Sosniak, 1985, p. 135).

Seeing colleagues succeed led performers to think that they could as well, which was no small matter. As one physicist and MacArthur award-winner commented, “You have to have the idea that you can be the one who makes the great discovery. You don’t have to be someone who observes others making the big discoveries” (Subotnik, 1992, p. 373). On the other hand, seeing that no one similar to oneself has been successful can lead a performer to conclude that further learning and achievement are “not for the likes of me,” as one British youth put it (Freeman, 1993, p. 678).

Sharing Information and Examples

Even a highly motivated learner will find it difficult to reach the highest levels of accomplishment without access to information and examples from other practitioners in the domain of interest. To understand this, one must recall that expert-level performance is facilitated by very extensive, specialized knowledge, as described at the start of this literature review. It is difficult, perhaps impossible, for learners to generate such extensive knowledge solely from their own experience and learning efforts, in many domains (e.g., Charness, 1991; Howe, 1990).

Other practitioners provide information and examples for learners in a variety of ways. They serve as technical models whose work processes and products can be observed. They give advice and instruction to help learners with new or difficult tasks. They share stories about cases
they or other performers have encountered. And they generate feedback for learners regarding their performance efforts.

**Models and Examples**

Communities of practice typically generate "exemplars (which are grounds and motivation for learning activity), including master, finished products, and more advanced apprentices in the process of becoming full practitioners" (Lave and Wenger, 1991, p. 95). Performers who are in a position to observe these exemplars can incorporate elements—themes, techniques, and so forth—into their own performance repertoires.

Through such observation, performers have learned ways to design scientific research (Zuckerman, 1977), to "flip turn" in competitive swimming (Kalinowski, 1985), to forge metal (Keller & Keller, 1993), and to express ideas through symbol systems in art, literature and music (e.g., Mistry & Rogoff, 1985). Instructional developers such as the present author have learned new ways to facilitate learning activities, by observing presentations and examining training materials created by other performers. Software developers have learned how to write programs by analyzing programs written by others (Sacks, 1994). Nurses have learned new approaches by observing how coworkers do things (Rossi, 1996). Weisberg (1993) has documented the critical role of observing and borrowing from exemplars among eminent performers in science, industry, and fine arts.

**Advice and Instruction**

In addition to "teaching" by example, other performers provide direct instruction, advice, and explanations to learners regarding tasks, objects, and features of performance environments. Information of this type is given in response to questions from performers who perceive a need to learn about task situations, in some cases (Cahoon, 1995; Sacks, 1994). Indeed, the best perform-
ers may be characterized in part by their ability—and willingness—to ferret out such information from other performers who can provide it (Sacks, 1994). In other cases, information or advice is volunteered when performers appear to have difficulty with tasks (e.g., Larson, 1991). Fear of negative reactions may prevent performers from volunteering advice in some instances, however (see Ryan & Oestreich, 1991).

Verbal information may be combined with opportunities to observe skilled coworkers demonstrate tasks in informal “coaching” (Rickett, 1989; Rossi, 1996) or “tutoring” (Cahoon, 1995) sessions. Cahoon found that tutoring was one of two primary means by which knowledge-sharing occurred in workgroups, in his study of adults learning to use computers. More than 75 percent of the nurses in Rossi’s study reported learning from peer coaches, and all reported learning through coaching of some kind.

In some cases, demonstrations encompass only little tricks-of-the-trade (Rossi, 1996) and shared information resembles “gossip and tidbits of knowledge” (Sosniak, 1985, p. 64) more than comprehensive exposition of a topic area. Demonstrations and information of this type may have value, nevertheless. A number of case studies (e.g., Orr, 1990; Woodward, 1989) indicate that successful performers can retain fragments of knowledge, the significance of which becomes apparent only later—perhaps much later—when the performers connect the fragments to new information or new contexts of application. Experienced performers report that they can incorporate even small improvements in procedures or methods into their performance repertoires as part of skill-building in their domains (e.g., Rossi, 1996).

**Stories and Anecdotes**

“War stories” are common vehicles for sharing information and examples in workplaces. These stories are narratives about difficult or unusual situations performers have encountered (Orr, 1990). Learners compile these shared stories in memory, and may recall them in subsequent cases
to aid problem framing and solving (Orr, 1990). In this way, learners can develop expertise relatively quickly (Larson, 1991).

War stories may be especially useful where performers have not been able to observe each other’s work directly—because, for example, their work is done at different times, in separate offices or on calls away from the central worksite. War stories have been identified as important means for learning among photocopier technicians (Orr, 1990), paramedics (Larson, 1991), and others (e.g., Lave & Wenger, 1991). Larson suggested that war stories were more important means for learning than was observation, among the paramedics in her study.

Stories may be told when a team of performers is trying to solve an immediate problem, or when a performer wishes to enliven a break with a recounting of a recent event. Sometimes a story told by one performer triggers additional stories on related themes (Larson, 1991). Orr (1990) observed that photocopier technicians in his study had practical or utilitarian reasons to share stories where the technicians had joint responsibilities for servicing particular machines. Orr suggested that practical or utilitarian reasons were not the primary motivation for storytelling among technicians, however. Rather, the technicians would talk about machines and customers, talk about their current problems and tell stories about situations they have seen not because it is useful to do so but because it is interesting. They have a deep and abiding interest in the characters and social dramas of their world, and their stories both make sense of events and make something of their world, presenting their actions as an achievement to notice. (p. 175)

Similarly, Larson (1991) observed that some paramedics competed with each other to see who could recount the most dramatic or unusual cases.

**Feedback**

A final type of information shared by performers is feedback—words of praise, words of criticism, and other reactions that signal approval or disapproval of learners’ efforts to learn and perform. Feedback-giving was a method of supporting learning among the employees Rickett
(1989) studied. Kram and Isabella (1985) found that feedback-giving was a distinguishing function of "special peer" relationships—the most supportive type of coworker relationship identified in their study. Highly accomplished performers have testified that feedback from peers helped them to identify and improve upon weaknesses in their work (e.g., Sloane & Sosniak, 1985). Performers generated feedback for themselves, in addition, using exemplars posed by other practitioners as referents (e.g., Kalinowski, 1985; Sosniak, 1985b).

**Collaborating in Learning Activities**

Performers do not simply internalize information and examples presented by coworkers. Rather, they and their coworkers also collaborate in activities through which new knowledge is created or existing knowledge recognized and confirmed. Performers and their coworkers learn by collaborating in two ways, primarily: by helping each other to design and execute workplace experiments, and by engaging each other in reflective discourse or dialogue about their work. Rossi (1996) observed that collaborative learning among peers was common among the nurses in her study in cases where "neither person clearly knew exactly how to proceed" (p. 138). Collaborative problem solving was one of two principal means by which adults learning to use computers shared knowledge within workgroups, in Cahoon's (1995) study.

Collaborative dialogue which supports learning appears to have two characteristics. First, it is relatively positive. Second, it is relatively purposeful—the purpose being to achieve new understandings in the domain of interest. New ideas are welcomed (Albrecht & Hall, 1991). Gossip and griping are not the focus of interaction (Albrecht & Hall, 1991) although performers may discuss opportunities for improvement. Disagreement is not avoided, however, nor is superficial consensus the goal. Rather, performers seek "a provisional synthesis" of knowledge that can be recognized as "an advance over what they understood before" (Bereiter & Scardamalia, 1993, p. 208).
Paramedics in Larson's (1991) study provide good examples of learning through dialogue. Paramedics reported critiquing their own efforts

when we're through with a call...especially a bad call, a taxing call....We talked about having to do things and we would make little suggestions back and forth....After the call, we'd talk about ways we could have done it better or faster.... (p. 142)

Such dialogue can be useful because it elicits ideas and information from fellow performers, of course. But simply having the occasion to “think out loud” with an interested and knowledgeable partner appears to be enormously valuable, as well. Sacks (1994) provides examples of this regarding performers in the software industry. Likewise, having a “sounding board” has been found to be highly beneficial for managers' learning (Zemke, 1985). Managers' and professionals' development was aided by peers who served as dialogue partners in Kram's (1985; Kram & Isabella, 1985) study. Being available and willing “to listen and talk things over as needed” when learners encountered problems or faced challenging tasks was a method of enabling learning found in nearly every case, in Rickett's (1989) study.

Hatano and Inagaki (1993) suggest that dialogue facilitates learning because it places demands upon performers to organize their own ideas, explicate implicit understandings, and account for opposing beliefs. Research on peer teaching (Whitman, 1988) supports the notion that dialogue is beneficial because it encourages performers to reexamine and refine their own beliefs in order to reconcile differences with other performers' understandings. Similarly, Larson's (1991) study indicated that partnerships between performers with different ways of doing things can spur learning because they create a practical imperative for the performers to reexamine their diverse practice philosophies, pros and cons of various approaches, and similar matters in order to forge efficient and effective working partnerships.

Performers and their coworkers collaborate in learning through experiments as well as conversation. The paramedics in Larson’s (1991) study who tried new approaches together after having heard about them through war stories, or having discussed them in the course of documenting
and reflecting on calls, provide examples of learning through experimentation. Subotnik (1994) presents another example, of a research cardiologist who was able to try a new technique only with the aid of physicist coworkers who developed the requisite technology at the cardiologists' insistence. In these and other studies (e.g., Rickett, 1989), performers have been able to learn through experiences that were made possible because of the assistance provided by coworkers. Through such assistance, performers facilitate each other's continuous learning and expertise development.

**Providing Encouragement and Rewards**

Continuous learning efforts can strain learners' time, energy, and other resources. Empathy and encouragement from coworkers and others can help learners to persist. Rickett (1989) reported that in nearly every case in his study, learners described enablers as providing "moral support, encouragement, and confidence" (p. 79). Similarly, Kram and Isabella (1985) have identified "emotional support" as one of the most important developmental functions provided by coworkers of managers and professionals in their study. All types of people can provide social support for learning in workplaces, but encouragement and support from coworkers who share learners' burdens, ambitions, and so forth can be especially appreciated. This has been attested to by performers in domains ranging from art (Sloane & Sosniak, 1985) to athletics (Kalinowski, 1985). For example, a paramedic in Larson's (1991) study noted that "seeing some of your peers, seeing a smile on a face or just knowing that he's under the same circumstances you are and that each one of you is supporting the other" was "sometimes the only way you make it through the day" (p. 77).

The role of rewards and incentives for learning and achievement is highlighted in studies of highly accomplished performers. The studies suggest that accomplished performers tend to come from environments where other performers provide rich rewards and incentives for learning and achievement in the favored expertise domains. These rewards and incentives are short-term and long-term, material, social, and psychological. They vary in different settings, but two forms of re-
wards and incentives appear to be important in nearly all cases: positive recognition and opportunities for further involvement in attractive communities of practice. These rewards and incentives give performers self-confidence and purpose. They help performers to maintain the good learning habits that are characteristic of the best performers in almost any domain (Sosniak, 1985c).

Recognition of learning efforts and accomplishments helps learners from disadvantaged backgrounds to succeed despite their disadvantages (Garmezy, 1991). The highly accomplished performers in the Bloom (1985) studies described how recognition from associates was given informally "when somebody does something really good and everybody else turns around and says, "That's incredible" (Sloane & Sosniak, 1985, p. 124). Recognition helped the performers to feel "special" about their abilities. The sense of being special, in turn, motivated the performers to keep honing their abilities despite inevitable difficulties and set-backs (Sosniak, 1985c). Similarly, learners in Rickett's (1989) study testified that enablers provided recognition for their good efforts and achievements. Such recognition helped them to engage in continuous learning.

Involvement in communities of practice is not commonly thought of as a reward or incentive for continuous learning, perhaps, but the studies examined for this review (e.g., Bloom, 1985) suggest that it can be a powerful learning motivator. Performers who acquire the language, skills, values, and other components of expertise within a practice community can be accepted as legitimate members of such communities (Lave & Wenger, 1991). They can participate competently in community activities including work and conversation. They can enjoy a sense of connection with other skilled performers. Accomplished performers in the studies examined for this review appear to have derived much pleasure from this. For example:

- The "pleasure of work" for a renowned chemist included "existing within a supportive network" (Woodward, 1989, p. 242) of other chemists.
- Knowledgeable peers formed an "exciting group" (Subotnik, 1992, p. 377) of learning companions, according to a prize-winning physicist.
• Fellow musicians provided “exciting comradeship” (Sosniak, 1985b, p. 64) for each other.

• Accomplished mathematicians made their domain “come alive” (Gustin, 1985, p. 318) for each other: “You’d walk into an office, and somehow there would be a little electricity in the air” (p. 318).

• Accomplished neurologists talked about working with “bright and enthusiastic’ residents and attending physicians....’I guess I really wanted to be more like these people I saw leading what I viewed as exciting lives” (Sosniak, 1985b, p. 400-401).

Performers who acquired the components of expertise shared by a practice community were able to interact with others who shared their interests. They were not “lonely,” not “isolated”—they had “a lot of support” (Subotnik, 1992, p. 376), one recalled. In contrast, performers who do not acquire the knowledge, skills, and other components of expertise shared by a practice community may be unable to participate effectively in community activities such as storytelling or observation and critique of other performers’ work (Larson, 1991; Orr, 1990; Rossi, 1996). Such performers may be ostracized or excluded from activities by community insiders (Lave & Wenger, 1991).

Behaviors that Discourage Continuous Learning and Achievement

Studies of informal learning and learners' interactions in workplaces (e.g., Cahoon, 1995; Hutchins, 1993; Keller & Keller, 1993; Kram & Isabella, 1985; Larson, 1991; Lave & Wenger, 1991; Orr, 1990; Rickett, 1989; Rossi, 1996; Sacks, 1994; Zemke, 1985) and schools (e.g., Clasen & Brown, 1986; Cuellar, 1992; Fordham & Ogbu, 1986; Holland & Eisenhart, 1990; McDill & Rigsby, 1973; McDill, Meyers & Rigsby, 1967; Steinberg, 1996; Suskind, 1994; Willis, 1994).
1979), self-directed learning studies (e.g., Tough, 1979), and studies of “underachieving” learners (e.g., Butler-Por, 1994; Freeman, 1994) suggest that learners’ associates do not always use the learning-supportive behaviors described above. In some cases, learners’ associates use behaviors that actively undermine or inhibit learning and achievement. These unsupportive behaviors can be sorted into four categories:

1. Modeling the role of a poor learner.
2. Withholding information and providing poor quality information.
3. Declining to collaborate in learning.
4. Blocking and punishing efforts to learn and achieve.

How significant are such unsupportive behaviors? Stanius (quoted in Tough, 1979) noted that the “negative effects” of difficulties encountered when adult learners sought help with self-directed learning projects “can be picked out from the interviews—frustration, anger, confusion, procrastination, diminished enthusiasm, lack of motivation, and a vow never to go to a particular helper again” (p. 105). When unsupportive behaviors are used by a learner’s associates throughout the learner’s career, the learner may be almost wholly prevented from reaching his or her potential (see, e.g., Freeman, 1994).

How common are these unsupportive behaviors in workplaces? Literature examined for this review does not provide a direct answer, but Tough (1979) noted that all but one of the interviewees in his study of self-directed adult learners reported “difficulty in getting help from at least one or two particular resources during their contact with those resources” (p. 108).

**Modeling the Role of a Poor Learner**

Performers in formal learning settings sometimes model the role of a poor learner for each other by skipping classes, engaging in off-task conversation during lectures, copying solutions to problems without trying to understand them, and spending excess time and money in non-learning
pursuits (e.g., Cuellar, 1992; Holland & Eisenhart, 1990). Performers in work settings sometimes focus their resources on short-term production to the exclusion of learning things that would make them more productive in the long-run. For example, computer users will employ the same few techniques for all tasks, for all programs, without stopping to learn other, more efficient procedures (Ashworth, 1992). Such performers model the "attitude that sitting quietly and studying or thinking...[is] unproductive.....The idea that anything not immediately productive is wrong" (Rickett, 1989, p. 129) or that, "If they are reading, they must not be working" (Rickett, 1989, p. 129). Where this attitude is modeled, especially by influential performers, employees' continuous learning can be inhibited.

Withholding Information and Providing Inaccurate Information

Jacobs and Jones (1995) have observed that experienced coworkers can be reluctant to participate in on-the-job training which would disseminate the coworkers' knowledge and skills among other employees. Watkins and Marsick (1993) have reported the case of employees in a high technology organization who were not taught how to use a new machine when they transferred to a different worksite because, as one coworker put it: "Knowledge is what enables me to keep my job" (p. 254). Sacks (1994) has described coworkers who were not good sources of information or advice for employees despite being very knowledgeable, because the coworkers were unwilling to share their insights with fellow employees. Learners in Rickett's (1989) study said that lack of feedback from other performers hindered their learning. Tough (1979) described persons whose help was sought by adults attempting self-directed learning projects who "would not or could not" (p. 106) provide the information needed by learners.

Learning can be impeded when other performers provide information which is inaccurate. Sacks (1994) and Tough (1979) have noted that some performers simply do not possess the information learners require. Learners in Rickett's (1989) study complained about performers who pro-
vided inaccurate information rather than admit that they lacked answers to some questions. In some cases, it took learners a considerable amount of time to recognize and correct the errors resulting from the inaccurate information.

**Declining to Collaborate in Learning Activities**

Paramedics in Larson's (1991) study reported that their efforts to collaborate in experimental approaches and progressive problem-solving dialogue were not always well-received by some partners who simply wanted to finish their tasks as quickly as possible. One described a partner who just "wanted to do his job and that was it. It was the worst experience I've ever had in my life" (p. 109). Other studies describe performers disrupting learning efforts with off-task conversation (Cuellar, 1991) and ignoring learners who try to engage them in inquiry about problems (Hatano & Inagaki, 1993). Such performers model an approach to tasks which Scardamalia and Bereiter have labeled, "do it and be done with it." This approach can be seen, too, in the way some less successful learners copy each others' solutions to problems without attempting to understand why (or whether) the solutions are correct (e.g., Cuellar, 1992). By collaborating in that way, performers undermine each other's learning.

**Blocking and Punishing Efforts to Learn and Achieve**

Larson (1991) and Lave and Wenger (1991) have alluded to the difficulties of learning in situations where one performer prevents another from trying out new practice behaviors. This can occur when one coworker takes charge to make sure tasks are performed the "right way," or when a coworker is so intimidating that learners are afraid to try unperfected behaviors in the coworker's presence. In either case, learning is undermined.

Coworkers can inhibit learning by making rude, impatient or grudging responses to questions put to them by learners (e.g., Rossi, 1996; Sacks, 1994). Rickett (1989) reported that learn-
ers in his study were discouraged when other performers made them feel inferior or communicated that "you are an interruption" (p. 128).

Efforts to learn and achieve may require employees to probe beyond the boundaries of their formal job descriptions, to challenge workplace assumptions or to speak openly about "undiscussable" issues (Ryan & Oestreich, 1991). Coworkers and others may react by communicating social disapproval in various ways or by excluding the offending employees from social circles. Fear of derision and ostracism can have powerful dampening effects on potential learners (Ryan & Oestreich, 1991).

Learners' associates can be especially vituperative if they perceive that learners are trying to distance themselves from their associates or align themselves with social factions whose interests and perspectives seem hostile or alien to the associates. Suskind (1994) described an extreme case of a school system where students' efforts to learn and achieve were regarded as "disrespect" for their less ambitious peers. Students who attempted to learn and achieve were greeted with jeers, harassment, and even death threats from their peers. Peers who mete out such punishments can create cultures of "negativism and animosity among low achievers that...[are] constantly strengthened" (Cuellar, 1992, p. 24).

Factors Related to Differences in Levels of Supportiveness in Coworker Relationships

The studies examined for this review suggest that coworker learning relationships are constructed by employees and their coworkers through their practices with regard to each other and with regard to other matters. For example, coworkers who approach their own work and learning with diligence and care can provide role modeling to other employees with whom they have relationships. The studies make clear, moreover, that the feelings and beliefs of learners and their associates can be important in the formation of their relationships. For example, a different type of
relationship will be formed if a peer interprets the diligent learning efforts of a learner as something to be admired and copied rather than interpreting such efforts as “disrespect” meriting harassment and ridicule.

The studies further suggest that attributes of individual learners, of their coworkers, and of their work and learning environments affect the developing character of coworker relationships by affecting employees’ feelings, beliefs, and behaviors. Level of learning supportiveness is one aspect of a coworker relationship. The studies suggest that other aspects—such as the level of interpersonal trust in a coworker relationship—can affect the level of learning supportiveness.

**Relationship Attributes**

LaParo (1989) found that the development of relationships that could support learning among health care middle managers was conditional on the development of trust. Larson (1991) and Kram (1985) made similar findings in their studies of managers, professionals, and paramedics. The workplace learning studies and case studies of highly accomplished performers examined for this review suggest that lack of trust can hinder learning because it discourages employees from experimenting and communicating freely, and because it causes employees to devalue each other’s ideas, examples and approaches. That is, lack of trust can discourage performers from both using and taking advantage of learning-supportive behaviors. The studies examined for this review suggest several reasons why lack of trust may have such effects.

First, learners in low-trust relationships may fear that their relationship partners will be unwilling to use supportive behaviors with them. Kram (1985) has observed that such fears can prevent performers from approaching potential mentors for assistance. Sacks (1994) and Rickett (1989) note that learning in workplaces can be an iterative process, where answers to questions lead to more questions requiring further help from other performers. If an initial request for help is
poorly received, or if the help-giver seems to be growing impatient with repeated questions, a learner may be reluctant to ask for more assistance.

Learners in low-trust relationships may fear negative evaluations if they reveal a need for help. For example, a performer in Rossi's (1996) study indicated that she would never ask questions of certain coworkers "because they had a very condescending attitude. You know like clicking their tongues at me as though saying, 'Oh, you should know that.' I might have asked them once, but not again" (p. 174). Fear of negative reactions may affect potential help-givers as well as help-seekers. Ryan and Oestreich (1991) found that fear of negative reactions is a common reason for employees' failing to speak up in organizations.

Employees in low-trust relationships may fear that low-quality performance will result if they attempt to use information or follow models provided by coworkers or collaborate in learning with them. Sacks (1994) suggests that fears of this type are not always misplaced. Even some experienced coworkers "are virtually useless as resources....They simply don't know enough to be worth asking" (p. 128) for information.

Larson (1991) observes that, for employees in relationships with new and unproven partners, "even the most basic of trusts, that of [trust in] the ability of a partner to perform the skills of the job when needed, is not present on both sides" (p. 171). This may discourage employees from experimenting in practice with their partners. Employees may ignore information or ideas from partners in such relationships, moreover, because they "do not consider themselves equals and they place different values on each other's experiences" (Larson, 1991, p. 171).

Factors Affecting Trust

Studies examined for this review suggest some factors that may affect levels of trust in relationships. Newness and transitoriness of relationships are such factors. Larson (1991) suggests that partners in transitory relationships perceive few incentives to engage in the types of activities
that support trust-building. In contrast, Larson found that long-term, stable partnerships were most likely to support high levels of learning.

In addition, differences relating to personal attributes of coworkers may undermine trust. Kram (1985) has described difficulties in cross-gender mentoring relationships. Problems can arise also when coworkers differ in levels of experience (e.g., Larson, 1991; Lave & Wenger, 1991). Personal differences may undermine trust because the differences make the relationship partners unpredictable to each other or because the differences evoke negative stereotypes that prejudice partners against each other. If one partner is in a position of power over the other, the consequences of a potential breach of trust may seem especially threatening. This may hinder learning on both sides.

For example, Rossi (1996) found that nurses and their supervisors collaborated little or not at all in activities—such as experimentation and dialogue—that might have supported learning for each of them. Rossi questioned whether persons in positions of authority could bring themselves to admit to subordinates that they did not know some things. She questioned whether such persons would be "open to working out solutions to problems with those of less power and authority" (p. 179). She suggested that nurses in her study would not want to disclose a lack of knowledge to supervisors charged with evaluating them. Bartolomé (1989) suggests that interpersonal trust will always tend to be lower where one person is the judge of another. Where trust is lower, communication will be less frequent and open, he observes.

**Attributes of Learners**

Learners vary in the extent to which they seek and obtain help and information from other performers. Some learners seek little help because they simply prefer to learn on their own as much as possible, because that suits their personalities or because they believe such learning is more effective (e.g., Sacks, 1994). Some learners avoid contact with other performers because they feel
uncomfortable about their own lack of knowledge or experience. Lave and Wenger (1991), for example, describe a butcher's apprentice who stayed away from the back room where experienced butchers worked because his lack of knowledge made him feel out-of-place there. Larson (1991), Orr (1990), and Rossi (1996) observed that performers would need some level of prior expertise in order to make sense of information or examples from coworkers. Employees with inadequate knowledge or experience might be less able to respond appropriately to information or examples from coworkers, which could affect coworkers' willingness to provide further information or examples.

Learners who are highly committed to learning and practicing in their domains may be more likely to receive help from other performers. For example, Zuckerman (1977) noted a striking tendency for Nobel-winning scientists to have been mentored by other Nobel winners before the mentors or their protégés won their awards. This was not mere coincidence, Zuckerman contends. Rather, scientists who would go on to win Nobels were keenly interested in their practice domains early in their careers. They were much more knowledgeable than their peers about which other scientists (potential mentors) showed promise. They sought out mentoring relationships with these other scientists more vigorously and more effectively. In turn, mentors received them more positively. This mutual-attraction phenomenon appears to have been a factor behind the success of learners in the Bloom (1985) studies of highly accomplished performers, in studies of “resilient” learners from disadvantaged backgrounds (Garmezy, 1991), and in studies of workplace mentoring (Kram, 1985).

**Attributes of Coworkers**

Cahoon (1995) noted that his interview participants consistently named the same few individuals as “local experts” (p. 106) to whom one could turn for help. Rossi (1996) observed a similar phenomenon among some nurses in her study. Rickett (1989) reported that the average enabler in
his study helped three learners, but some helped as many as ten learners. These studies suggest that some coworkers have characteristics that make them especially likely to form supportive relationships. Rickett (1989) noted that enablers in his study were typically described as “open, considerate, and supportive” (p. 77). Beyond that, enablers had little in common in terms of personality traits. What enablers had most in common, Rickett noted, was a value orientation which led enablers to facilitate continuous learning among other performers. Studies examined for this review suggest that at least three different value orientations may lead coworkers to facilitate learning:

- An orientation toward helping other workers.
- An orientation toward getting work done effectively and efficiently.
- An orientation toward helping oneself to learn and practice at high levels.

Larson’s (1991) study provides an example of supportiveness motivated primarily by a desire to aid other employees’ learning: A paramedic in that study encountered a patient with unusual symptoms. At the hospital, the paramedic sought information from a physician in order to understand better the causes of those symptoms. Other members of the paramedic’s shift were at the hospital, as well. The paramedic shared his information with those shift-mates and suggested, “If you haven’t seen this before, you really ought to go look at the patient” (p. 126). Several did so. Larson comments: “There was nothing in this sharing of knowledge to suggest that the motivation on the part of...[the paramedic] was anything but expanding the learning experience” (p. 126). Larson notes:

The idea that members view their shift as a family was discussed earlier....Members of families often feel and assume some responsibility for each other. The observation suggested that a member of the shift was assuming responsibility for the learning of significant others. (p. 126)

A desire to help fellow employees is evident in other studies. Enablers in Rickett’s (1989) study, for example, believed it was important to “help people succeed at their work, do their best, and feel good about themselves” (p. 155). Consistent with that belief, the enablers took action which helped employees to learn. However, the enablers were not focused on helping others to
learn, for the most part. Rather they were focused on helping others to solve problems and complete tasks in personally satisfying ways. Enablers in Rickett's study, moreover, were concerned with the organization and its clients, and with their own self-interest. These concerns spurred the enablers to render assistance and to voice opinions about the best ways for learners to accomplish tasks.

Lave and Wenger (1991) emphasize that performers who aid each other's learning frequently do not intend to "teach" and may not be aware that they are helping each other to learn. Where coworkers do not intend to facilitate learning, then resources, opportunities, incentives, and rewards for learning may be generated incidentally as by-products of coworkers' efforts to learn and practice. One could predict that coworkers who tend to generate the most useful resources, incentives, and so forth would be committed to their own involvement and advancement in their practice domains. The case studies of highly accomplished performers (e.g., Bloom, 1985), workplace learning studies (e.g., Larson, 1991; Orr, 1990), workplace mentoring studies (Kram, 1985), and studies of school students' interactions (e.g., Cuellar, 1992) seem to bear this out. In contrast, performers who use unsupportive behaviors with each other appear to be more alienated (e.g., Cuellar, 1992; Suskind, 1994). They profess disinterest in the subjects of their domains and seem pessimistic about their own prospects for success.

**Features of Organizational Environments**

Organizational environments have been found to have significant effects on workplace relationships and workplace learning (e.g., Kram, 1985; Larson, 1991; Rickett, 1989). Features of organizational environments can influence employees' learning-related behaviors in several ways.

Workflow designs, technology, and physical layouts can reduce employees' opportunities to observe each other's work processes and products (e.g., Garson, 1988; Hutchins, 1993; Kilcoyne & Volpe, 1991; Lave & Wenger, 1991; Zuboff, 1988). Workplace rules can serve to isolate co-
workers from each other in the name of efficiency or quality (e.g., Garson, 1988; Kilcoyne & Volpe, 1991). Rickett (1989) found that interactions among coworkers that enabled learning were nearly always centered around the accomplishment of workplace tasks or solving of problems. However, formal or informal workplace rules could discourage such interactions. As a learner in Rickett's study described one workplace, "You felt like you couldn't talk or have fellowship with any of your co-workers because somebody was always watching you and criticizing you for taking some time" (p. 129).

Various features of organizations may create a climate which favors certain types of co-worker behaviors. An organizational *climate* is a collection of practices and procedures that "connote or signal to people what is important" (Rouiller & Goldstein, 1993, p. 379) and appropriate with regard to some matter. Schneider (1975) has suggested that an organization may have a variety of climates oriented toward different subject matters. For example, an organization may have a climate for safety and a climate for customer service. Rouiller and Goldstein (1993) have produced evidence for the effects of an organizational climate for positive transfer of training. Studies examined for this review provide some evidence for the notion that an organization's support of employee learning and achievement can create a climate in which the use of learning-supportive behaviors with coworkers seems appropriate. Conversely, the failure of an organization to support learning and achievement may have the opposite effect.

For example, paramedics in Larson's (1991) study used learning-supportive behaviors in an organization which provided support for learning and achievement in the form of resources, opportunities, incentives, and rewards. Highly accomplished performers and their associates in the Bloom (1985) studies used learning-supportive behaviors in environments that provided high levels of support for learning and achievement, as well. In Cuellar's (1992) study, high-achievers had supportive environments and used supportive behaviors with each other. Low-achievers had un-
supportive environments and used unsupportive behaviors with each other. Low-achievers used unsupportive behaviors and had unsupportive environments in Suskind's (1994) study as well.

Unlike some other paramedic organizations, the organization in Larson's (1991) study recognized and rewarded four different levels of educational attainment for paramedics. It reimbursed paramedics for education through the master's level. It provided eight hours of continuing education each month and paid paramedics for their attendance. The organization provided resources for effective work. "I've never had this kind of support and equipment to work with" (p. 84) was a typical comment. Managers had paramedic field experience—not just general management experience. Managers worked alongside of the paramedics from time-to-time, which the paramedics appreciated. Paramedics were empowered (but perhaps not enough, Larson observes) to use highly-developed skills and knowledge to make significant decisions independently with their partners. And it was easy for the paramedics to see how their work, and the work of their partners, contributed to important outcomes involving patient health.

Every paramedic interviewed by Larson (1991) expressed pride in being associated with such a "top-notch" (p. 87) organization. In such an environment, it may have been relatively easy for the paramedics to conclude that learning and achievement were valued by the organization and valuable to its stakeholders. Paramedics who arrived at that conclusion might be less concerned that negative reactions (cf., Ryan & Oestreich, 1991) or wasted effort would result if they invested in learning and achievement for themselves and their coworkers. Such paramedics might be more inclined to develop a value orientation which favors helping and teaching other employees, facilitating the effective and efficient performance of work tasks, and facilitating learning and achievement for themselves.

Rickett (1989) found that "strong learning efforts" were associated with "challenge in work assignments...linkage to information, and...influence on work structure and expectations" (p. 175) in the organization which was the setting for his study. Moreover, learning efforts were associated
with high levels of interpersonal contact. Learners and enablers in Rickett’s study did not necessarily have similar job responsibilities, nor did they always work in the same department. Learners did have considerable contact with enablers, however, “through repeated brief interactions, periodic encounters over a long span of time, or regular periods of intensive involvement” (p. 105). Persons who “did not work closely with the learner were not regarded as enablers” (p. 105). It is interesting to compare Rickett’s findings in this regard with Larson’s (1991) conclusion that stable, long-term partnerships were most conducive to learning and Kilcoyne and Volpe’s (1991) observation that organizational changes that disrupted social networks also reduced informal learning opportunities for employees.

One last point should be made, concerning the effects of interpersonal competition among coworkers. Interpersonal competition, in contrast to intrapersonal or “goal” competition (Griffin-Pierson, 1990) may focus coworkers’ attention on the possible negative consequences of other employees’ continuous learning. Concerns about job competition seem to have motivated the unsupportive coworker behaviors in the case reported by Watkins and Marsick (1993). “Fear of threatened job security” and competition for social status can dissuade employees from serving as structured on-the-job trainers, Jacobs and Jones (1995, p. 167) have suggested. Interpersonal competition can discourage mentoring, Kram (1985) has indicated. Various features of organizational environments, such as threats of downsizing, may heighten coworkers’ career concerns and interpersonal competition (e.g., Cameron & Cheek, 1991). Such features may orient coworkers away from supportive relationships and toward unsupportive ones.

Employees as Self-Directed Learners and Helpers

Employees can be largely self-directed in their interactions with coworkers. Tough (1979) identified a number of factors that influence the success or failure of self-directed adult learners’ efforts to get information or help with learning from other persons. Tough describes these factors in
terms of an intentional, step-by-step approach to self-directed learning. Tough’s writings have been criticized in this respect because subsequent studies have shown that much self-directed learning among adults is unintentional, unplanned, and/or iterative rather than linear (see Merriam and Caffarella [1991] for a review of these studies). If references to step-by-step planning are removed, however, Tough’s factors can be reduced to a set which may help to explain variations in coworker relationships even where learning is not highly structured or intentional. This reduced set can be described as consisting of the following factors: lack of access to coworkers, failure of coworkers to offer appropriate information and help, failure of learners to seek or use appropriate information and help, and excessive costs or negative consequences for receipt of information or help.

Some of these factors are similar to those discussed previously in this review but Tough (1979) contributes the following new insights, too:

- Learners “may be shy, may feel that requesting assistance is childish and inappropriate” (Tough, 1979, p. 108) or may lack the ability to articulate their needs.
- Learners who are highly inexperienced or unknowledgeable in an area may not know what information or help they require.
- Learners may not know who could help them—they may not know other persons’ areas of expertise.
- Learners may turn habitually to friends or familiars rather than seek the most appropriate helpers.

This last insight, regarding friendships, is interesting in light of other study findings. Kram (1985; Kram & Isabella, 1985) identified “friendship” as one of the critical functions of a highly supportive peer relationship. On the other hand, Rickett (1989) found that most enablers were not close friends of the learners they helped. Non-friends were the most intentional enablers. These findings suggest that the link between learning-supportiveness and friendship deserves further scrutiny.
Relationship Phases

Kram's (1985) study of conventional, hierarchical mentoring relationships suggests that such relationships develop in stages or phases consisting of initial creation, cultivation and definition, termination and/or redefinition. Relationship tasks can vary at the different phases. Factors influencing relationship development may have different effects at different phases.

Peer relationships differ from conventional mentoring relationships in many respects, including time frame, Kram (1985; Kram & Isabella, 1985) suggests. Peer relationships can last two or three decades, for example, whereas conventional mentoring relationships may last only five or six years, typically (Kram, 1985). In addition, conventional mentoring relationships may be redefined to be more peer-like, although this is not inevitable (cf., Kram, 1985; Larson, 1991).

Despite these differences, some studies suggest that peer relationships can resemble conventional mentoring relationships in the sense of developing in stages or phases. Larson's (1991) study, for example, suggests that paramedic partner relationships do develop in stages or phases and that such partners may need to progress through an “antagonistic” phase in order to reach high levels of supportiveness. Larson describes the antagonistic phase as one in which partners do not yet know how to coordinate their actions. They fumble over joint tasks, exchange ideas, question each other's methods, reappraise their own, and so forth until they reach a high level of functioning. The process of moving through the antagonistic phase is not just a process of becoming more efficient in handling the immediate demands of the job, it seems, but also a process of deepening one's understanding so that long-term improvements in effectiveness and efficiency are made possible.
Summary

Studies examined for this review suggest a number of personal, environmental, and relationship factors that may be predicted to affect levels of learning-supportiveness. These factors and their predicted effects are summarized in Table 2 below.
<table>
<thead>
<tr>
<th>Influence on Level of Supportiveness</th>
<th>Factor</th>
</tr>
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<tbody>
<tr>
<td>+</td>
<td>Interpersonal trust</td>
</tr>
<tr>
<td>-</td>
<td>Status differences between learner and coworker</td>
</tr>
<tr>
<td>-</td>
<td>Demographic differences (e.g., sex, race)</td>
</tr>
<tr>
<td>?</td>
<td>Different job duties/departments</td>
</tr>
<tr>
<td>+</td>
<td>Learner is committed/eager to learn</td>
</tr>
<tr>
<td>-</td>
<td>Learner does not know what help is needed</td>
</tr>
<tr>
<td>-</td>
<td>Learner believes help-seeking is inappropriate</td>
</tr>
<tr>
<td>+</td>
<td>Coworker values helping and teaching others</td>
</tr>
<tr>
<td>+</td>
<td>Coworker values effective work performance</td>
</tr>
<tr>
<td>+</td>
<td>Coworker values own learning and achievement</td>
</tr>
<tr>
<td>+</td>
<td>Frequent contact between learner and coworker</td>
</tr>
<tr>
<td>+</td>
<td>Stable, long-term relationship</td>
</tr>
<tr>
<td>?</td>
<td>Friendship</td>
</tr>
<tr>
<td>-</td>
<td>Physical separation</td>
</tr>
<tr>
<td>-</td>
<td>‘No-talking’/no-interaction policies</td>
</tr>
<tr>
<td>-</td>
<td>Inadequate prior knowledge/skill of learner</td>
</tr>
</tbody>
</table>

Table 2
Predicted Effects of Personal, Environmental, and Relationship Factors

*Table continues on next page.*
Table 2 continued

<table>
<thead>
<tr>
<th>+</th>
<th>Adequate formal training</th>
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</thead>
<tbody>
<tr>
<td>+</td>
<td>Adequate equipment/staffing</td>
</tr>
<tr>
<td>+</td>
<td>Appropriate quality standards</td>
</tr>
<tr>
<td>+</td>
<td>Challenging work</td>
</tr>
<tr>
<td>+</td>
<td>Empowerment/influence over work</td>
</tr>
<tr>
<td>+</td>
<td>Linkage to information networks</td>
</tr>
<tr>
<td>—</td>
<td>Time constraints/immediate performance demands</td>
</tr>
<tr>
<td>—</td>
<td>Excessive interpersonal competition</td>
</tr>
</tbody>
</table>

Table 2
Predicted Effects of Personal, Environmental, and Relationship Factors
CHAPTER THREE

RESEARCH METHODS

Organization of this Chapter

This chapter begins with a discussion of the epistemological assumptions and overall research approach used in the present dissertation study. Next, the study site is described. Then specific procedures used for data collection and analysis are described. Finally, criteria and measures used to insure quality or goodness of the study are explained.

Qualitative, Constructivist Approach

A qualitative approach is appropriate for investigating "how people make sense of their lives, what they experience, how they interpret these experiences, how they structure their social worlds" (Merriam, 1988, p. 19). A qualitative approach is appropriate for investigating processes (Patton, 1990). The purpose of the present study was to illuminate the processes through which supportive and unsupportive coworker relationships develop. The study was intended to explicate what employees experience in their coworker relationships, how they interpret these experiences, and what actions they take to structure their relationships. Accordingly, a qualitative approach was deemed appropriate.
Guba and Lincoln (1994) advocate a constructivist approach to research in which a goal of inquiry is to juxtapose informants’ views so that researchers, participants, and research users can become “more aware of the content and meaning of competing constructions” (p. 113) regarding the subject matters under scrutiny. The present study was undertaken with the aim of juxtaposing study participants’ constructions so that participants, readers, and the study investigator would be able to understand better the various feelings and beliefs that inform coworkers in relationships. Areas of consensus among participants were sought and described. Where participants held differing opinions, such differences were noted.

Researchers working from a predominantly qualitative approach or constructivist approach may use quantitative data to identify possible patterns warranting further investigation or to illuminate findings derived from qualitative data (Guba & Lincoln, 1994; Patton, 1990). Some quantitative data were obtained for such purposes in the present study. The data are presented in the study findings because they help to explain the researcher’s path of inquiry and study procedures, and because they may help readers to understand the qualitative data presented in the study.

**Study Site**

The study was conducted at the offices of a state Attorney General. The Attorney General is an elected official charged with representing the people of the state in a wide variety of civil and criminal justice matters. For example, the Attorney General:

- Prosecutes violators of environmental protection laws.
- Sues businesses that commit consumer fraud.
- Defends state universities, prisons, and hospitals in contract and personal injury disputes.
- Advises state agencies and boards that license professionals and paraprofessionals such as health care workers, accountants, and architects.
• Represents the state in federal court when the Constitutionality of a state statute or regulation is challenged.

To discharge these duties, the Attorney General employs several hundred staff attorneys—the main workforce of the Attorney General organization and the main focus of the present study. A staff attorney typically will have a four-year college bachelor's degree, which may be in any subject, and a juris doctor degree from an accredited three-year law school. Staff attorneys must pass a three-day written examination following graduation from law school in order to be admitted to the bar of the state in which the Attorney General organization is located. Admission entitles attorneys to practice law and to appear as counsel in the courts of the state. To practice in federal courts located in the state, staff attorneys must be admitted to the appropriate federal court bar, which can require an additional written examination. To maintain a license to practice, each attorney must attend formal continuing legal education (CLE) courses for a certain number of hours every two years, as specified by the state's highest court. CLE courses are presented by bar associations, universities, and in-house by the Attorney General's staff.

Staff attorneys are employed together with clerical support staff in more than two dozen "sections" akin to departments or divisions within the Attorney General organization. Each legal section handles a particular area of law and is headed by an attorney/manager who is the designated "section chief." Some sections are further subdivided into "units" organized around particular clients or specialized areas of legal practice. Assistant chiefs and other attorneys with a variety of job titles help to manage the various sections and units.

Some legal sections employ paralegals and/or investigators. The Attorney General organization also employs clerical support, communications, and administrative staff in several non-legal sections. Several office buildings in the central business district of the state capital house most of the organization's employees. In addition, some employees are based in other cities around the state.

This organization was selected as the study site for several reasons:
• It has a large number of employees in knowledge-intensive jobs. For this reason, it was expected that a sufficient number of coworker learning relationships could be identified to support the study.

• Top leaders at the organization were willing to accommodate the research design, including requirements for protection of human subjects.

• The present study researcher’s background is in law. It was hoped that this would aid question-posing and interpretation of data collected from staff attorneys and other employees.

Kram (1985) notes that single-organization research designs involve a “tradeoff of generalizability for richness and depth of understanding” (p. 210) in the study of workplace relationships. A smaller variety of potentially relevant organizational features can be examined when the number of organizations participating in a study is restricted. On the other hand, more prolonged engagement with participants is possible than would be the case if a large-scale survey across organizations were used. Prolonged engagement is needed in order to understand the process of relationship development among coworkers. Thus the choice of a single-organization research design was deemed appropriate for the present study.

Research Procedures: Overview

To generate data for the present study, participants who were both willing and able to provide information about supportive and unsupportive coworker relationships had to be selected. An assumption behind this study was that employees who have experienced supportive or unsupportive relationships first-hand and who can provide “vicarious experience” (Guba & Lincoln, 1994, p. 114) through rich descriptions of their relationships would be best positioned to assist the study researcher. Therefore, selection procedures were designed to identify such persons.
Next, the selected participants' supportive and unsupportive relationships had to be identified so that the relationships could be explored in depth. Finally, participants' perceptions and assumptions regarding persons, contexts, and events pertaining to the identified relationships had to be surfaced and examined so that the process of relationship development and factors influencing the process could be better understood.

To accomplish the tasks described above, a number of procedures were used. These are described below.

**Critical Incidents**

Critical incident reports are "brief descriptions written by learners of significant events in their lives" (Brookfield, 1990, p. 179). They can help a researcher to "enter another's frame of reference so that that person's structures of understanding and interpretive filters can be experienced and understood...as closely as possible to the way they are experienced and understood by the learner" (Brookfield, 1990, p. 180). Critical incident reports can reveal behaviors that are essential for success or that tend to result in failure in job settings (Flanagan, 1954).

To generate critical incident reports, an educational researcher or facilitator "gives learners a set of instructions that identifies [sic] the kind of incident to be described and asks for details about the actors involved, their behaviors, and "why the event was so significant" (Brookfield, 1990, p. 179). Brookfield (1990) has observed that it is useful to seek information about contrasting cases through critical incident reports:

It is frequently a good idea to pair critical incidents by asking participants to describe one successful event and one failure (or one 'high' and one 'low'). I always ask for descriptions of the successful event first, since to talk about one's successes is much less threatening than to talk about one's failures. However, it is my experience that a fuller picture of participants' assumptive worlds is revealed when they describe negative as well as positive incidents. (p. 186)

Critical incident reports were used in the present study for two purposes: to select participants and to get descriptions of behaviors and attributes of coworkers in supportive and unsupport-
tive relationships. To generate the reports, critical incident questionnaire packets [Appendix A] were sent to a sample of employees at the study site. The questionnaire asked employees to think of a time when a coworker was particularly helpful, and a time when a coworker was particularly unhelpful or discouraging regarding the employees' efforts to learn and improve their work. The questionnaire was pilot tested in one section of the Attorney General organization which did not participate in the study. In this section, three staff attorneys (one White, one African-American, and one Asian-American) reviewed the questionnaire and agreed that it was understandable and relevant to their experiences.

Employees were asked to provide information about the experience levels and characteristics of the helpful and unhelpful coworkers, whether the employees considered the coworkers to be mentors, and whether the employees tried to help the coworkers learn and improve. Employees were also asked to rate the significance of their relationships with the coworkers. A scale ranging from "not important" to "essential" was provided on the questionnaire for rating supportive co-worker relationships. A scale ranging from "not difficult" to "impossible" was provided on the questionnaire for rating the impact of unsupportive relationships.

Learning Context Questionnaire

The critical incident report questionnaires were accompanied by questions exploring employees' attitudes toward aspects of the work and learning context at the study site. For example, employees were asked whether their Attorney General coworkers would react badly if approached for help, and whether the Attorney General organization would reward employees who helped coworkers to learn and improve. A five-point scale ranging from "strongly disagree" to "strongly agree" was provided. Again, the questions and scale were piloted in one section of the Attorney General organization. Staff attorneys in that section agreed that the questions and scale were understandable and relevant. As a further check, three participants were asked to answer the learning
context questions again in their semi-structured interviews. Their interview answers were compared with their previous written questionnaire answers. These participants said that it was difficult to choose between “agree” and “strongly agree,” or “disagree” and “strongly disagree.” However, their overall patterns of agreement or disagreement on the questionnaire items were stable and consistent between the participants’ written questionnaire and subsequent interview responses.

The learning context questionnaire procedure was added to the study design in response to suggestions from the dissertation committee. The procedure proved very useful in that the results enabled the researcher to identify useful areas of focus for questioning in the interview phase of the study. In particular, the researcher was led to inquire about employees’ attitudes regarding learning and time demands at the study site. Inquiry related to those matters turned out to be critical for an understanding of learning-supportive relationship development at the study site.

**Semi-Structured Interviews**

Interviews were conducted with selected participants in order to explore in detail the process of relationship development and factors that encourage employees to form supportive or unsupportive relationships. One interview was conducted at the researcher’s home, as requested by the interview participant. Other participants requested that the researcher come to their offices or Attorney General conference rooms for interviews; their requests were honored. Each interview lasted approximately one hour and was transcribed fully by the researcher.

Kram (1985; Kram & Isabella, 1985) used semi-structured interview schedules to explore the development of mentoring and peer relationships:

While the interview sequence began with a list of questions and topics to be covered, each was different from the others because particular questions were used in response to the individual’s way of telling his or her story. This flexibility facilitated our joint exploration by enabling the interviewee to manage his or her personal exploration. The variations in the specific events across interviews make it impossible to compare data on specific questions; however, the richness gained through this process does make full appreciation of the personal experiences of each individual manager possible. (Kram, 1985, p. 219)
A similar approach was used in the present study. The researcher started with a list of questions developed from the review of literature [Appendix B]. New questions were developed on-the-spot during interviews in response to participants’ comments. Participants were invited to contribute any insights they deemed important at the end of their interviews. Consequently, no two interviews were exactly alike. The researcher was able to pursue interesting but unanticipated issues and take advantage of variations in the experiences and perceptions of participants. This opportunistic research approach enriched the study findings.

**Task Sorting**

A task sorting procedure was added to the semi-structured interviews in response to results of the initial critical incident and learning context questionnaire procedures. In particular, the task sorting procedure was designed to follow up on two points suggested by the critical incident and learning context questionnaire procedures:

- Many employees at the study site perceived that they lacked time for help-seeking and help-giving for purposes of learning, because of day-to-day work demands.
- Many employees at the study site perceived that getting work done was more important than learning.

Prior to the interviews, the researcher generated a list of learning-related and production-related tasks a staff attorney at the Attorney General organization might handle [Appendix C]. Some tasks were drawn from research and theory on organizational learning and performance improvement (e.g., Rummler & Brache, 1990; Schonberger, 1990). Some were drawn from the researcher’s own experience and knowledge of typical attorney job tasks. In addition, a staff attorney from a section of the Attorney General organization where study instruments were piloted served as a subject matter expert to help guide the process of task generation.
Tasks were typed on index cards, one task per card. In the semi-structured interviews, participants were asked to indicate how likely or unlikely they would be to complete each task in a typical work period at the study site, and why. Participants were permitted to place tasks with similar likelihoods of being completed into groups or piles, to facilitate analysis and discussion. Most participants sorted the task cards into three to five groups.

This procedure proved very useful in that the task cards served as concrete focal points for participants to discuss their workplace behaviors, beliefs, and feelings. Participants were freed from abstract analysis of their work and learning. The task sorting process generated new questions that yielded useful information, particularly regarding participants' work and learning environments.

Concept Mapping

Concept mapping is a "structured conceptualization" process (Trochim, 1989, p. 1) in which ideas are generated and their interrelationships articulated and represented in some visual form. Concept mapping techniques can be aids to critical reflection among adults (Deshler, 1990).

Concept mapping was a procedure planned in the present study to enable participants to identify characteristics of their supportive and unsupportive coworkers. To facilitate concept mapping, the researcher prepared index cards containing words and phrases drawn from the review of literature and participants' critical incident reports. A participant in one of the first semi-structured interviews was invited to use the cards for concept mapping. This procedure was very time-consuming and did not seem to increase the participant's ability to describe his supportive and unsupportive relationships. Other interview participants described their relationships readily and with apparent ease without the use of concept mapping. Therefore, concept mapping was not used in the other semi-structured interviews.
Debriefing

At the conclusion of their interviews, participants were invited to share insights about any matters they deemed important or useful for the study, regardless of whether the researcher had inquired about them. Participants were invited to share concerns and pose questions to the researcher as well. Some asked about how the study findings would be reported to the Attorney General organization. None expressed concerns about having participated in the study.

Participants were also given anonymous written feedback instruments concerning their participation experiences, to be mailed to the researcher later [Appendix D]. This procedure helped the study investigator gauge the “authenticity” (Guba & Lincoln, 1994, p. 114) of the study, for quality assurance purposes.

Sampling Strategy

There are no fixed rules for sample size in qualitative research (Patton, 1990). In general, however, qualitative studies favor the use of a relatively small number of “information-rich cases for study in depth” (Patton, 1990, p. 169). Patton (1990) describes several strategies for selecting information-rich cases: Extreme case sampling “focuses on cases that are rich in information because they are unusual or special in some way...such as outstanding successes or notable failures” (Patton, 1990, p. 169). Intensity sampling “involves the same logic as extreme case sampling but with less emphasis on the extremes” (Patton, 1990, p. 171). The principle behind extreme or intensity sampling is that rich information can be obtained from studying strong cases. A related principle is that rich information can be obtained from studying contrasting cases such as “above average, average, and below average” cases (Patton, 1990, p. 174). Studies of contrasting cases are undertaken to “capture major variations rather than to identify a common core, although the latter may also emerge in the sample” (Patton, 1990, p. 174).
Extreme or intensity sampling has been used in qualitative studies of accomplished performers in many different fields in order to gain insights about the individual and social factors that support knowledge and skill development (e.g., Bloom, 1985; Fowler, 1986, 1990; Subotnik, 1992, 1993a, 1993b, 1994; Weisberg, 1993; Zuckerman, 1977). Contrast sampling has been used in qualitative studies in order to gain insights about the effects of varying patterns of social interaction on knowledge and skill development. An example is Cuellar's (1992) comparative ethnographic study of high and low-achieving Hispanic high school students' interactions with peers, teachers, and family members. The present study combined contrast sampling and intensity sampling by seeking participants who had experienced strongly supportive relationships and participants who had experienced strongly unsupportive relationships.

To locate such participants, a critical incident questionnaire was sent to 176 employees at the study site. These employees included:

- All staff attorneys, paralegals, section chiefs and other attorney supervisors from five different legal sections chosen to represent the diversity of matters handled by the Attorney General organization.
- Section chiefs of all other legal sections except one. The exception was a section used to pilot the study instrumentation.
- Clerical, communications, and administrative staff from three non-legal sections.

The critical incident questionnaire was mailed with a cover letter and consent form. A follow-up reminder letter was mailed two weeks later. Sixty employees responded. From these, the researcher selected twelve employees for interviews using the following criteria:

- The employees worked in staff attorney positions (nine participants) or related positions such as section chief or paralegal (three participants).
- The employees included both men (eight participants) and women (four participants).
- The employees represented various areas of the organization (seven sections).
The employees described significant supportive and/or unsupportive relationships. Supportive relationships were rated "very important" or "essential" by the employees. Unsupportive relationships were described as making learning and improvement efforts "very difficult" or "impossible."

Two additional employees were identified as possible interview candidates at the start of the interview phase. One could not be reached during the study period and the other declined to participate because of time concerns.

Substantial information redundancy was apparent by the end of the twelfth interview. At that point, the researcher judged that a point of "theoretical saturation" (Glaser & Strauss, 1967; Lincoln & Guba, 1985) had been reached. No other employees were recruited for interviews thereafter.

**Voluntary Participation**

Fairness—an authenticity criterion discussed later in this chapter—is promoted when participation in a study is made contingent upon procurement of a participant's "fully informed consent" which "is obtained not only prior to an inquiry, but is reaffirmed from time to time as the [research] design unfolds" (Lincoln, 1986, p. 12). Such consent must include the right to end one's participation and to withdraw information about oneself from a study "at any point in the inquiry." (Lincoln, 1986, p. 12).

In accord with these principles, the researcher in the present study provided participants with information about the study. The information was provided in writing in the questionnaire packets and interview recruitment letters, and orally at the start of interviews. This information included the following:

- Purpose of the study.
- Nature and purpose of the research procedures to be done.
• Employees' right to refuse to participate or to withdraw during the course of the study.
• How study results would be reported to the Attorney General organization.

Written consent to participate was obtained from employees at the start of the critical incident phase, and again at the interview phase. No employee who participated in the study asked to withdraw subsequently. The anonymous feedback instruments returned by interview participants indicate that participants understood the study procedures and did not feel pressured to participate against their will.

**Chain Sampling**

The initial research plan was to ask interview participants for permission to contact their identified supportive or unsupportive coworkers for the purpose of getting those coworkers' accounts of their relationships with the participants. However, restrictions imposed by the university in order to protect human subjects made this impossible. The inability to interview participants' relationship partners poses a potential limitation on the trustworthiness of the study results, although the effects may be negated by other quality assurance procedures used for the study (cf., Kram, 1985).

**Data Analysis**

The researcher maintained a reflective journal throughout the study. Hypotheses and issues requiring further study were recorded in the journal in the course of reviewing the critical incident reports and developing the interview transcripts. In addition, an outline of the study findings was created in the word processing program used by the researcher during the study. Topics were added or modified in the outline as analysis progressed.

Verbatim quotes from the critical incident reports and interview transcripts were copied into the appropriate outline sections together with observations and reflections of the researcher.
throughout the study. Quotes or observations that seemed relevant to several topics were copied to several topics. Quotes and observations were attributed to specific named participants in the outline for reference by the researcher in the course of analysis. These attributions were removed in the final dissertation report in order to preserve confidentiality for the study participants.

Quality/Goodness Criteria

A qualitative study must include provisions for satisfying criteria relating to the quality or goodness of the research. Guba and Lincoln (1994) note:

Two sets of criteria have been proposed: the trustworthiness criteria of credibility (paralleling internal validity), transferability (paralleling external validity), dependability (paralleling reliability), and confirmability (paralleling objectivity) (Guba, 1981; Lincoln & Guba, 1985); and the authenticity criteria of fairness, ontological authenticity (enlarges personal constructions), educative authenticity (leads to improved understanding of constructions of others), catalytic authenticity (stimulates to action), and tactical authenticity (empowers action) (Guba & Lincoln, 1989). The issue of quality criteria in constructivism is nevertheless not well resolved, and further critique is needed. (p. 114)

In other words, there is not yet consensus as to which criteria a study must satisfy in order to be considered good. The present study addressed both sets of criteria.

Authenticity

A member check can be used to gather data regarding fairness (Lincoln, 1986) and other aspects of authenticity (Guba & Lincoln, 1989). The present study used oral debriefings and an anonymous written feedback instrument [Appendix D] for this purpose. Feedback from the participants indicated that they believed they were fairly treated and that they gained useful insights about themselves, their coworkers, and the effects of their work and learning environments. Not all areas of concern identified in the study are under the control of the study participants. However, participants felt that the study results could be used by participants, their coworkers, and organizational leaders to make needed changes at the study site.
Trustworthiness

Lincoln and Guba (1985) ask, "How can an inquirer persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?" (p. 290). One answer is that the use of widely-accepted quality assurance procedures makes a study more trustworthy and believable. The present study used quality assurance procedures including triangulation, prolonged engagement and persistent observation, a member check, an audit trail, and thick description of data. However, "no amount of trustworthiness techniques built into a study will ever 'compel' anyone to accept the results of the inquiry; it can at best persuade" (Lincoln & Guba, 1985, p. 329).

Triangulation

Denzin (1978) has identified various types of triangulation that can strengthen a qualitative study, including data triangulation (use of multiple sources of data), methodological triangulation (use of multiple methods to study a problem), and investigator triangulation (participation of multiple researchers or investigators). Triangulation is considered an effective means to promote trustworthiness of a study because errors created from one source, investigator or method can be checked or countered by another (Patton, 1990). However, triangulation does not guarantee trustworthiness, nor are differences in results generated from different sources, investigators or methods proof of a lack of trustworthiness. The unique situations of different informants, for example, might cause them to have different but equally legitimate views on a problem. Detecting and accurately reporting those differences would be a strongpoint in a study, not a weakness.

The present study used multiple methods of data collection, including critical incident reports and semi-structured interviews. The study employed multiple participants. Differences in the perceptions of participants were disclosed. These aspects of the study contribute to its trustworthiness.
Prolonged Engagement and Persistent Observation

Guba and Lincoln (1989) recommend “substantial involvement at the site of the inquiry” (p. 237) in order to “overcome the effects of misinformation, distortion, or presented ‘fronts,’ to establish the rapport and build the trust necessary to uncover constructions, and to facilitate immersing oneself in and understanding the context’s culture” (p. 237). They recommend “sufficient observation” (p. 237) to enable the researcher to “identify those characteristics and elements in the situation that are most relevant to the problem or issue being pursued and [to focus] on them in detail” (Lincoln & Guba, 1986, p. 304).

In the present study, the researcher conducted in-depth interviews with participants at one site. The prolonged, persistent nature of these interviews, focused on one site, contribute to the trustworthiness of the study.

Member Check

A member check, defined as “the process of testing hypotheses, data, preliminary categories, and interpretations” with participants (Guba & Lincoln, 1989, p. 238), is the “single most crucial technique for establishing credibility” in a study (Guba & Lincoln, 1989, p. 239). In the present study, a member check was conducted by asking three study participants (staff attorneys from three different sections) and one staff attorney from the section in which the study instruments were piloted to review the study findings. Feedback from these persons indicated that the findings and researcher’s interpretations described in this study do correspond to the experiences and perceptions of organizational members. As one participant put it, the study “is excellent....right on target.”
**Thick Description**

In a qualitative study, the researcher is obligated to provide a thick description of the data including direct quotations and details about the context of participants' experiences so that readers can make judgments regarding the trustworthiness and transferability of the study (Guba & Lincoln, 1989). In the present study, findings are presented together with quotations from participants' critical incident reports and interview transcripts in order to enable readers to judge the evidence relied upon by the researcher as much as possible.

**Audit Trail**

Disciplined inquiry is distinct in that it is conducted and reported so that all of its aspects can be publicly examined (Cronbach & Suppes, 1969). The researcher creates "a texture that displays the raw materials entering the argument and the logical processes by which they were compressed and rearranged to make the conclusion more credible" (Cronbach & Suppes, 1969, p. 16). Lincoln and Guba (1982) recommend establishing an audit trail to facilitate the kind of public examination suggested by Cronbach and Suppes. An audit trail, Lincoln and Guba say, is not created to establish "whether the investigator carried out the processes or reached the conclusions in the same way that the auditor would have" (p. 6). Rather, the pertinent issue is whether the processes "were carried out in a reasonable manner. Thus, replicability is not a criterion, but rather rationality is" (Lincoln & Guba, 1982, p. 6).

To create an audit trail for the present study, the researcher maintained a reflective journal and retained all raw materials including critical incident reports and interview tapes and transcripts. This procedure conforms to the recommendations of Lincoln and Guba (1982).
CHAPTER 4

STUDY FINDINGS:

THE CONSTELLATION OF COWORKER LEARNING RELATIONSHIPS

As described in the preceding chapters, the present study was undertaken to explore the development of relationships that support or inhibit continuous learning among employees of a state Attorney General. Staff attorneys employed by the Attorney General were the main focus of the study. Findings were obtained through written questionnaires returned by 60 study participants from a variety of attorney and non-attorney positions, and through interviews with twelve participants selected from the pool of questionnaire respondents. Interview participants included nine staff attorneys and three persons in related positions (e.g., paralegal and section chief). Results of these procedures are as follows:

Existence of Supportive and Unsupportive Relationships

Fifty-eight of the 60 questionnaire respondents recalled a learning-supportive coworker relationship. Seventy-two percent of the supportive relationships were described by participants as being "very important" or "essential" for participants' learning and practice improvement.
Thirty-eight of the 60 questionnaire respondents recalled an unsupportive relationship. Forty-seven percent of the unsupportive relationships were described by questionnaire participants as making learning and practice improvement "very difficult" or "impossible."

In interviews, participants indicated that they were well aware, prior to the study, of the impact of their coworker relationships on participants' learning and practice improvement. Generally, it was not difficult for participants to classify their relationships with particular coworkers as learning-supportive, unsupportive or neutral in interviews.

Participants' comments attest to differences in their experiences with coworkers in the Attorney General organization. For example:

Most co-workers are...happy and willing to listen and help. (Staff Attorney)

I feel that it is extremely difficult to learn from others, gain responsibility, trust in this section. (Staff Attorney)

These questionnaire and interview results, taken together, suggest that the learning-supportive, unsupportive, and neutral coworker relationship constructs are valid, meaningful constructs among employees in the Attorney General organization although those terms may not have been in common use among participants prior to the study. The constructs correspond to participants' experiences as learners in the Attorney General organization. These results support the appropriateness and usefulness of investigating the origins and consequences of such relationships among employees at the study site.

Value of Supportive Relationships

Ninety-one percent of the 60 questionnaire respondents agreed or strongly agreed that it is "useful" to get Attorney General coworkers' opinions about their work. Ninety percent of the questionnaire respondents reported that they seek help for learning or practice improvement from
a coworker "sometimes," "frequently," or "always" in a "typical" month at the Attorney General's office. Moreover, it is not only novice employees who seek help. Respondents who reported that they seek help from coworkers "frequently" or "always" had a median average of eight years' experience in their current profession (e.g., law) and two year's experience in their current job (e.g., section chief). Those respondents included two employees with twenty years' experience in their current profession, one in law and one not. In comparison, the ten percent of questionnaire respondents who reported that they seek help from coworkers "rarely" had slightly less experience than the respondents who said they seek help "frequently" or "always."

Study participants in a variety of jobs attested to the value of supportive coworker relationships as resources for continuous professional learning in the Attorney General organization:

Lawyers learn the most from co-workers. Books and research as well as writing can only take you so far. (Section Chief)

For me, learning from a co-worker was more effective and efficient than trying to learn by research or other methods. (Section Chief)

Most learning takes place in informal relationships. (Attorney, Other)

We learn from the mistakes of each other. (Staff Attorney)

These results together suggest that supportive coworker relationships can be highly beneficial for continuous professional development. Benefits are not limited to employees newly entering a job or profession. Rather, supportive relationships can benefit novice and experienced employees in management and non-management positions.
What is Learned through Coworker Relationships

The range of skills and areas of knowledge that participants said they were able to develop and improve as a result of interaction with coworkers is further evidence of the value of learning-supportive coworker relationships at the study site. Examples mentioned by participants include:

- Whether and how to prepare questions and exhibits for a hearing or trial.
- Pros and cons of joining certain types of wrongdoers as defendants.
- How to manage client relationships.

These examples involve basic lawyering practice and expertise in specific areas of law. However, one participant also described how she learned a way of thinking and seeing patterns among cases, a sort of meta-skill, with the assistance of a supportive coworker:

I wouldn’t have thought to use various things that I’d used in one case in another until he had pointed out the links between the subjects. So after that had happened once or twice, then in subsequent times I was able to think about whether there might be a connection between different topics, which I wouldn’t have thought about had he not pointed out these interconnections before. (Staff Attorney)

Another participant described how a team of coworkers learned goals they wanted their unit to achieve, together with a process for planning and measuring their unit’s progress toward the goals.

Participants did not describe simple mimicry or rote, uncritical copying as the essence of learning through relationships with coworkers. Rather, participants described a process of being exposed through coworker relationships to a multitude of ideas, approaches, and examples that participants were able to recall when faced with performance demands. Participants used judgment in constructing their responses to their demands, modifying the previously encountered ideas, approaches, and examples to accommodate their task situations as well as their personal strengths and weaknesses:

Q. Do you try to follow pretty exactly what you’ve heard the other people doing, or do you put your own spin on it?
A. I think you always put your own spin on it. I think we're all so different that you can't really copy anybody else's techniques unless it's something really mundane and minor. (Staff Attorney)

In one example of this, a staff attorney participant indicated that she had observed coworkers writing out every question fully before going to a hearing, at one extreme, and coworkers writing out no questions in advance, at the other extreme. That staff attorney considered the advantages and disadvantages of each approach, tried the full-preparation approach, and then staked out a middle ground for herself which was flexible but not too confining:

I'm sort of in between those two areas. Like I don't write out every question....This last time I actually wrote out my questions question-by-question, I felt like it kind of slowed me down....So I guess my personal style is to write out sort of format areas: "This an area of concern I need to get and these are the four exhibits I need to talk about in that area," and so on. I think that's a personal preference.

Although the end result of this process is the construction of a personal repertoire of skills and knowledge, participants indicated that it is useful to have input from a variety of coworkers:

You may not have picked up on one idea or seen one avenue that you could have taken, and somebody else will have that experience and pass it along to you....Between one person or another, something comes out of it that you can use.....And it usually pays off. (Paralegal)

An interesting contrast emerged between participants' descriptions of learning informally through coworker relationships, and formal continuing professional education (CPE). Participants indicated that formal CPE offerings are not always relevant to employees' job responsibilities and interests. Employees attend some CPE sessions that are not particularly useful or interesting in order to meet professional licensing requirements, participants said. Informal learning through coworker relationships appears to be more relevant to employees' responsibilities and interests than formal CPE is, in many instances. The high utility and interest value of such informal learning seems attributable to the fact that employees themselves generate the learning agenda by seeking and giving help in response to employees' authentic job tasks, problems, and goals. Coworkers provide help or information at the study site when the need arises. The help and information co-
workers provide tends to be application-oriented. Rickett (1989) made similar findings in his study of adults who enable informal workplace learning:

Although what enablers teach in the workplace is as varied as the demands of the job and needs of individuals, it generally amounts to concrete advice and know-how for immediate use and direct application. Enablers do not deal in abstracts and seldom in theory. In the workplace what learners want and enablers provide is relevant information for a particular task in a specific situation. Whether or not not learners and enablers are consciously involved in a teaching/learning process, learning content is determined by what has to be done, when, and at what level of quality or degree of satisfaction. (p. 173)

Formal CPE, like formal worker training generally, is not always grounded in the way that informal learning through coworker relationships is. Employees do not always have the same opportunities to shape formal CPE (Cervero & Wilson, 1994). Formal CPE, like other formal training, is not always readily applicable to authentic work tasks (Jacobs & Jones, 1995). Formal CPE, like other formal training, can be difficult to individualize. An educator would be unlikely to develop a formal CPE session for just one or two learners, but many instances of informal learning appear to take place when a single employee seeks help from a single supportive coworker regarding a particular problem or task faced by the employee.

The results presented above suggest that a variety of subject matters can be learned through coworker relationships, and that the learning agenda can be differentiated to suit individual learners' needs arising from authentic job demands. These aspects can make informal learning through coworker relationships very useful for workforce education. The advantages of learning-supportive coworker relationships may be especially important in modern organizations that are moving from mass production toward production methods focused on satisfying the varying needs of individual customers (e.g., Peters, 1992) and from "just-in-case" learning to learning "just-in-time" when workers need it (West, 1996, p. 52).
Beyond Mentoring: Varieties of Supportive and Unsupportive Relationships

Many participants expressed beliefs that mentoring is important for professional development:

It is critical for growth of new attorneys that mentoring be viewed as an important learning device. (Section Chief)

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It is very important...[for] experienced attorneys to teach newer attorneys and it is important for new attorneys to learn from more experienced attorneys. (Staff Attorney)

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There is no official mentoring/learning system in place here....This is a great injustice to the new attorney and hurts the efficiency of the office. (Staff Attorney)

Many participants indicated that they were helped by coworkers whom they described as "mentors," particularly at the start of their careers. However, as explained above, learning-supportive coworker relationships appear to facilitate learning and practice improvement among experienced employees as well as novices. Moreover, the varieties of learning-supportive coworker relationships described by study participants extend well beyond traditional conceptions of mentoring (e.g., Kram, 1985). For example:

- Fifty-five percent of the learning-supportive relationships identified by questionnaire respondents were described as relationships with coworkers who were not "mentors."
- In interviews, a common pattern was for the participant to begin by describing a learning-supportive relationship with one person described as a "mentor" and then to detail supportive relationships with numerous additional colleagues as the interview proceeded.
- Coworkers identified as "mentors" were not always more experienced than the participants they helped. In some cases, participants and their mentors had the same level of
experience. In contrast, traditional conceptions of mentoring depict the mentor as being more experienced (e.g., Kram, 1985). Non-mentor learning-supportive coworkers included persons with more, less, and the same levels of experience as the participants they helped. Similarly, unsupportive coworkers included persons with more, less, and the same levels of experience as the participants whose learning and practice improvement they hindered.

- Persons identified as “mentors” were participants’ supervisors in many cases, although not all. Participants identified both supervisors and non-supervisors in response to questions about supportive “coworkers.”

- Participants reported that they helped both “mentor” and non-mentor learning-supportive coworkers in the same ways that their coworkers helped them, in many cases. These cases differ from traditional conceptions of mentoring as a relationship in which the mentor teaches and counsels while the protégé offers psychosocial and political support but does not typically advise the mentor (e.g., Kram, 1985). In other cases, participants reported that they helped their mentor and non-mentor supportive coworkers in different ways than their coworkers helped them. In a few cases, participants said they did not help their supportive coworkers. Thus, identifying an employee as a “mentor” or “non-mentor” would not enable one to predict the level or type of support reciprocity in the relationship. Moreover, identifying a relationship as unsupportive would not enable one to predict reciprocity. Participants reported that they tried to help their unsupportive coworkers learn and improve in about half the cases identified by questionnaire; in the other half, participants reported that they did not try to help.

Differences in experience levels are not necessarily barriers to supportive relationships at the study site, although they appear to affect coworker relationships in some instances. For example, a staff attorney observed that
[Some older employees] place a higher stock in seniority....[Some] of us are much newer than the rest of the group so we sometimes feel like...they dismiss us a little bit.

A non-attorney/senior staff member, in turn, suggested that younger employees tend to resist help from older ones:

Veteran employees...are perceived as assertive, aggressive, ‘possess a know-it-all attitude.’ Learning is perceived as ‘questioning or checking-up’ on an employee, rather than helping the co-worker grow in the position. Younger co-workers are reluctant to seek advice and vent frustration in closed door discussions with other colleagues.

A section chief suggested that older employees have less access to support from coworkers:

Long term employees seem to resent teaching or helping other long term employees, believing that other employees should “know how to do it by now.”

On the other hand, a staff attorney commented:

I believe...[the Attorney General’s] office is a unique environment where a fair number of new or young attorneys are thrown together and they all help each other out as much as they can. Now that a lot of the attorneys are a little older, I still find that most if not all...have an open door policy and are always willing to at least act as a sounding board for me or anyone else in need of help.

These questionnaire and interview results together suggest that coworker relationships at the study site are not easily captured by simple dichotomies such as mentor/non-mentor or experienced/non-experienced. Rather, there are constellations of various types of supportive and unsupportive relationships among employees. Variables of experience, job position, and support reciprocity can be combined in many different ways.

**Section and Occupation Differences**

Differences in job position, such as section chief versus staff attorney, do not appear to be barriers to supportive relationships, necessarily. However, participants rarely mentioned supportive relationships between employees in legal versus non-legal professions or occupations, such as secretarial support staff, or between employees in different sections of the Attorney General organization when asked to describe their significant learning relationships. These results suggest that differ-
ences based on organizational section and profession or occupation can be barriers to supportive relationships at the study site.

One explanation for this is that employees such as staff attorneys have job duties that require extensive specialized knowledge. Non-attorneys as well as attorneys in different sections may not have such knowledge and therefore may not be in a position to offer much support. This explanation is supported by findings discussed in the next chapter of this study.

An additional explanation is that employees in different sections have relatively few opportunities to learn about each other’s tasks, needs, and areas of expertise because they tend to be physically or geographically dispersed and because management practices that enable employees to know about each other’s tasks, needs, and so forth tend to be applied within rather than across sections. This explanation is supported by findings explained in chapter six of this study. It is consistent with Rickett’s (1989) finding that enablers used their knowledge of learners’ tasks and needs to provide useful information and appropriate help, and that coworkers who did not work closely with employees were not regarded as learning enablers.

**Supportive Relationships and Friendships**

Participants reported that some friendships grew out of learning-supportive relationships. In some cases, participants were more comfortable seeking help from or sharing information with coworkers whom the participants regarded as friends. One participant reported that employees who did not socialize with coworkers in one section were social “outcasts” who could not rely on coworkers for help. However, learning-supportive relationships were not necessarily coterminal with friendships. Not all supportive coworkers were friends and certainly not all were close friends. This finding is in accord with Rickett’s (1989) study.
These results, together with those previously described, suggest that any and every employee is potentially a learning-supportive coworker. Supportiveness is not only the province of experienced employees or supervisors who can be mentors, or of friends at the study site.

**Growth and Change in Relationships**

Previous studies (e.g., Kram, 1985) have described mentoring relationships as developing in stages. In contrast, there was no evidence of distinct stages in the development of the supportive relationships in this study, and no evidence of unsupportive relationships being converted into supportive ones. Participants reported that they liked or admired their supportive coworkers and were helped to learn and improve their practices from the start of their relationships. In some cases as participants gained professional experience, they became less reliant on help from their supportive coworkers and the coworkers came to rely on them more—the relationships changed in the direction of being more reciprocal and peer-like. But no participant described a supportive relationship developing after a participant gained a significant negative impression of a coworker or experienced significant problems with a coworker. The following comments were typical:

- He was very good from the start. (Staff Attorney)

- We just sort of hit it off right off the bat. (Paralegal)

- A. I just liked him.

- Q. Did your relationship help you to learn and improve your practice right away?

- A. Oh yes, definitely. (Staff Attorney)
A. I thought he was a nice guy, someone who didn't have too much of a temper. Someone I'd like to work for. Intelligent.....

Q. Did your relationship with this person help you to start to learn and improve right away?

A. Yeah, it did. (Staff Attorney)

Q. Did you find that...[supportive coworker was] helping you to learn right away or to improve your practice right away?

A. Definitely. (Staff Attorney)

Q. Did you have any doubts or concerns about him initially?

A. No. (Staff Attorney)

Q. You didn't have to overcome any issues?

A. No. (Staff Attorney)

If you have a bad opinion of somebody...it's hard to overcome that type of thing. (Staff Attorney)

On the other hand, supportive relationships are not necessarily perfect relationships. Participants reported that some supportive coworkers had annoying traits. For example, some tended to "lecture" at length. Participants tolerated these annoyances if their relationships with coworkers were otherwise positive and helpful.

These results suggest that employees and their coworkers at the study site who experience significant problems in a relationship may be very unlikely to form a learning-supportive relationship subsequently. It may not be that employees must become friends with coworkers in order to give and receive support. But personal or environmental factors that cause employees at the study site
to develop negative feelings or beliefs about each other may ultimately reduce the employees' opportunities for learning and improvement through supportive coworker relationships.

Chapter Summary

The questionnaire and interview results discussed in this chapter suggest that employees in all types of jobs with all levels of experience benefit significantly from learning-supportive coworker relationships at the study site. When employees encounter unsupportive relationships, learning and improvement can be difficult or impossible.

Through supportive relationships, employees at the study site are helped to develop technical skills and knowledge, learn ways of thinking about problems and tasks, and learn ways of working together with other employees to solve workplace problems. Uncritical copying does not appear to be the essence of learning through supportive relationships. Rather, employees engage in repertoire-building: incorporating, critiquing, and modifying, ideas, approaches, and other expertise elements to suit the employees' task situations and individual characteristics (cf., Schön, 1983).

Supportive relationships span divisions based on experience level and supervisor-subordinate differences at the study site, although section differences and differences in profession or occupation seem to inhibit the formation of supportive relationships, as do significant interpersonal problems early in a relationship. Supportive relationships often, although not always, involve reciprocal helping. A typical pattern seems to be that an employee will maintain multiple reciprocal-helping relationships with job-peers and supervisors at the study site rather than rely on a single organizational superior or more senior job-peer serving as teacher or mentor. This pattern is consistent with "andragogic" models of adult learning (Knowles, 1980; 1984) that view adults as wanting to share mutually in the responsibilities of teaching and learning in coequal relationships with other adults, rather than being dependent upon one teacher or mentor.
CHAPTER 5

STUDY FINDINGS: CHARACTERISTICS OF SUPPORTIVE AND UNSUPPORTIVE COWORKERS

Learning-Supportive Coworker Behaviors

Participants described a number of behaviors used by supportive coworkers that facilitate learning and improvement at the study site. These behaviors are described below.

Sharing Information, Advice, and Examples

One way in which supportive coworkers help employees at the study site is by sharing advice, information, and examples, including examples of work products such as a prepared trial notebook or appellate brief. Participants indicated that such sharing by supportive coworkers is valuable for several reasons:

- The information is correct and the examples and advice are of high quality.
- The information and advice are communicated clearly.
- Supportive coworkers explain why and how things happen rather than simply telling employees what to do.
Participants reported that supportive coworkers share information, advice, and examples related to a wide variety of matters. The following is a sampling of the topics mentioned by participants:

- How certain laws would apply to a case.
- How a complex client organization operates.
- Preferences of particular judges.
- Effective ways to manage relationships with clients.

Participants suggested that such sharing is appreciated because it enables employees to complete immediate tasks such as brief writing more quickly and efficiently, and because it enables employees to assemble the knowledge and skills employees need to feel competent in their jobs:

I don’t know if I’ve ever left...[supportive coworker’s] office with more questions than answers. And I know that there are other people...that do that. You can go to their office and you just come back more confused than when you went in....He gets to the point. (Staff Attorney)

[Supportive coworkers are] teaching you the whole time about a process....They just take you from the beginning and just teach you about different aspects of it, or teach you how to interview somebody for a deposition...or what you’re supposed to look for, or what you should be getting ready for trial. It just works more smoothly. And you feel like you’ve accomplished something instead of just getting, you know, “Here, get this, get that” and it’s just bits and pieces. (Paralegal)

**Serving as a Sounding Board**

A second way in which supportive coworkers help employees at the study site is by serving as a sounding board. In interviews, most participants said that serving as a sounding board and sharing information, advice, and examples were two equally important ways in which supportive coworkers help them. Participants suggested that supportive coworkers are good sounding boards for two reasons. They listen with an open mind and they listen actively, drawing on their own expertise to pose useful questions to the employees they help:
I’d go in his office and...we would sit down and I would say, “I have a question about this file,” or “How do you handle this?” And he’d say to me, “Well, what do you know already?” He would ask me what have I done, what do I know, what do I think. And then he’d tell me what he thinks. And sometimes he didn’t agree. You know, we had professional disagreements, but...he had a lot of respect for me. (Staff Attorney)

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One thing that I really like with this individual, was that he liked to...discuss problems, pose questions to me or to attorneys involved in the case. And he really didn’t say, “Well, I think this is the answer.” It was more: “Well, have you thought about this?” And we would talk about it. And usually what I would really like is we would meet...at a common ground and reach more consensual solutions to problems. (Staff Attorney)

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The one thing that is helpful to me is...to get another person whose legal mind has worked through similar situations, to bounce it off of them. In part, it’s just to explain it to myself. But also...when another person’s there and they can ask questions or relate their own experiences...If I’m asking somebody, it’s because it’s ambiguous to begin with...I’d just like to have someone else...use some of their insight, take a little time...bat it around and see if we can come up with any new ideas. And often we do. (Staff Attorney)

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He’s a very good sounding board for all the ideas...He’ll review the case. He’ll review the motion, any written documentation that I think needs to be run by somebody. We’ll discuss strategy. He’ll share anecdotes about how he’s done, he’s tried that same thing and it’s been successful or unsuccessful. He’ll try to challenge me to think of how that affects the whole framework of the case...the big picture as well as the small benefits. (Staff Attorney)

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Because they ask the right questions. You know, a lot of other people, I’ve been to their offices to ask questions, and I either feel that they’re not really listening, or they just don’t know the questions to ask. This [supportive] person always knows the right questions to ask, so I try to be prepared so that I can answer those questions. (Staff Attorney)

Participants’ comments suggest that supportive coworkers are valued as sounding boards when employees face “ambiguous” situations where questions must be constructed and the pros and cons of solution alternatives carefully weighed, as opposed to situations where the pertinent questions are self-evident and answers are clear-cut. Ambiguous situations seem to be prompts for
employees and their supportive coworkers to reflect on issues, to generate new hypotheses, and perhaps to synthesize new understandings rather than simply follow the most familiar path to resolve a case quickly. The ambiguous situation by itself will not produce new insights, however, unless employees and their coworkers respond in inquiring and open-minded ways. Indeed, open-mindedness appears to be a hallmark of supportive coworkers, as described later in this chapter.

**Serving as a Role Model**

A third way in which supportive coworkers help employees at the study site is by serving as models of good practice. Participants reported that by observing supportive coworkers, they were able to develop both high standards for practice, and social and technical skills needed to meet those standards:

Q. What are some of the things he did that helped you to learn or improve?

A. Well... part of it was his attitude.... He had a very professional attitude toward the client. He was very good at analyzing our professional responsibilities in terms of analyzing our office and our client. Certainly he had a good substantive grasp. But I think what I probably learned the most was, things that had to do with general professionalism and with client relations. (Staff Attorney)

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In litigation, there were some things that we would do jointly. Or I would go to one of his to see how something was done, something new I hadn't seen before. So I would get to observe him. I would go to meetings with the client where I saw him handle difficult problems with the client. (Staff Attorney)

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I don't know if I've ever walked into a hearing without at least an outline of what I want. I always pre-mark all my exhibits. I always have copies of all my exhibits. I always feel like I'm ready to go, even if it looks like it's going to settle.... And I don't think I'm uncommon.... I see that that's what everyone else is doing too. (Staff Attorney)

Participants suggested that sometimes the opportunity to observe coworker-models arises incidentally through the normal conduct of work and interaction among coworkers:

Q. How do you see what other people are doing?
A combination. I've been in other people's offices where I've seen them writing out all their different questions....And I've seen them reading questions. And I've seen them being prepared in the sense that they had all their different outlines. I've seen people in the copy room making copies of all their different exhibits, everything pre-marked. And just talking with them. (Staff Attorney)

In other cases, opportunities arise because supportive coworkers make deliberate efforts to provide such opportunities:

He will say, "...I'm going to be conducting preparation of a witness for this trial. If you would like to sit in, you are more than welcome." (Staff Attorney)

Arranging Developmental Experiences

A fourth way in which supportive coworkers help employees at the study site is by arranging developmental experiences for employees—i.e., opportunities for employees to try new tasks or encounter new situations:

He's invited me to be co-counsel on a trial with him. Things along that line, other than just giving advice. (Staff Attorney)

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He was trying to make sure I was engaged in all possible varieties of the kind of law I practice. Sending me along with other senior attorneys or whatever to see new cases and things like that. Meet people at the agency. (Staff Attorney)

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This individual suggested a research term to me. He said I should run this term on LEXIS [a computerized legal research database]....This was more helpful to me in my professional development than if he had just given me the name of the case. (Section Chief)

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If they're in a position where they assign things to you, to assign you work of greater responsibility, that shows respect. Asking you to take on something special because they think you can handle it. (Staff Attorney)

Participants indicated that in some cases, supportive coworkers were able to arrange developmental experiences because the coworkers were in supervisory positions (e.g., section chief) or...
were otherwise entitled to delegate tasks. For example, a staff attorney could delegate tasks to a paralegal. In other cases, supportive coworkers were simply job-peers who had sufficient control over their work to arrange such experiences. For example, a staff attorney in some instances could invite another, less experienced attorney to join as co-counsel on a case.

Participants indicated that arranging developmental experiences consists of more than simply assigning work. Rather, supportive coworkers provide encouragement and freedom of movement, enabling employees to tackle challenging work with confidence:

They say, “This is what I need. Do it well.” And then they trust you to bring it back to them....They give you that freedom to do what you have to do without standing over top of you....We know what we have to do and we sort of have a trust. (Paralegal)

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A. He made it very clear that he could be trusted and if we made a decision, he would back his attorneys to the hilt. If somebody later challenged that decision, whether the client or the front office, he would stand up for the attorney who made the decision.....

Q. ....Did that encourage you to explore different ways that you thought would be good?

A. Yeah. It did....You know, occasionally you could go out a little more. It was certainly very reassuring in terms of trying out different things in cases. (Staff Attorney)

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Q. In those supportive relationships, do you think that you are more exploring or more creative?

A. Yeah, sure. Oh, sure. I mean, you’re more than willing to get in there and do whatever it takes to get the job done. And you’d be surprised at what you come up with....I’ve been in some situations that I would never see myself into....But it doesn’t bother you if it’s somebody that...you feel comfortable with. (Paralegal)
Unsupportive Coworker Behaviors

Participants also described a number of behaviors used by unsupportive coworkers that make it difficult for employees to learn and improve at the study site. These behaviors are described below.

Withholding and Miscommunicating Information

One way in which unsupportive coworkers hinder learning and improvement at the study site is by withholding information, advice, and examples. Participants indicated that in some cases such withholding is accomplished passively by coworkers who simply refuse to exert themselves:

A. They're just unwilling to share information....They're not willing to give you any time.....They'll say, 'Oh, well, there's a case on that. I know we had one. I just can't remember the name of it. And I just don't have time to look up anything now'....

Q. So are they giving you bad advice, weak advice?

A. They're giving you no advice. (Staff Attorney)

In other cases, withholding is active and deliberate. For example, one participant described a coworker who placed passwords on computer-stored documents so that other employees could not access them.

Participants also reported difficulties regarding the manner in which unsupportive coworkers communicate information and advice. Participants described four types of deficiencies in the communication behaviors of unsupportive coworkers:

- Giving incorrect information.
- Giving incomplete information.
- Giving ambiguous or difficult-to-understand instructions or advice.
- Issuing commands without explaining how and why things are done.
These unsupportive coworker behaviors appear to make learning difficult in two ways: Incorrect information causes employees to develop inaccurate understandings about critical subject matters, such as the meaning or status of a court decision. Incorrect, incomplete, or incomprehensible information or instructions prevent employees from gaining knowledge and skill by successfully carrying out job tasks. This second type of difficulty is often compounded, it seems, by the tendency of unsupportive coworkers to hoard power, preventing other employees from participating in task planning.

For example, a paralegal participant reported that some staff attorneys do not share all the facts pertinent to cases on which the paralegal is providing support. Those attorneys command the paralegal to retrieve certain types of materials or research without involving the paralegal in discussion about what would be useful or actually available:

"It's very...cut-and-dried. If you do something for them, it's just, "Get this" or "Get that."

In contrast, more supportive attorneys share all facts at the start and have the paralegal brainstorm with them about what types of materials or research would be possible and useful to retrieve. In this way, the paralegal is helped to understand how she could act in ways that would contribute to the successful resolution of the case.

**Excluding Learners from Developmental Opportunities**

A second way in which unsupportive coworkers hinder learning and improvement at the study site is by excluding employees from developmental opportunities. Participants indicated that supervisors hinder development in some instances by assigning employees to less challenging, less complex cases and by limiting employees to subject areas they have already mastered when employees express desires to move on to other types of work.

Non-supervisors can hinder development as well, participants indicated. For example, one participant wanted to gain experience dealing with certain types of witnesses and legal procedures
in a case where the participant had co-counsel. The participant's co-counsel controlled the distribution of work on the case, and prevented the participant from handling aspects of the case that would have involved the participant with the desired witnesses and procedures.

Similarly, attorneys and other employees who are not supervisors but who have power to assign work to support staff sometimes limit the developmental opportunities of support staff by restricting them to routine and mundane tasks. In contrast, a paralegal participant described supportive staff attorneys who let the paralegal take on more challenging tasks, such as developing case strategies, writing briefs, and interviewing and preparing witnesses.

**Doing Poor Quality Work**

A third way in which unsupportive coworkers hinder learning and improvement at the study site is by doing poor quality work. Coworkers who do poor quality work appear to undermine learning and improvement in two ways:

- Such coworkers are not available as role models.
- Employees cannot rely on such coworkers for information, advice, or examples.

As one participant put it:

> It is very difficult to learn from individuals that take no pride in their work and at times are unprofessional. It is very difficult to respect their opinions. (Staff Attorney)

**Resisting Change**

A fourth way in which unsupportive coworkers hinder learning and improvement at the study site is by resisting change when an employee wishes to experiment with a new approach to certain tasks. In some instances, the pertinent tasks are the employee's own. For example, staff attorneys sometimes need approval from management in order to make changes in their own work, such as prosecuting certain types of cases more forcefully. In other instances, the pertinent tasks
are performed with a team of coworkers or co-counsel, or they are tasks performed by other coworkers that affect the employee's work. For example, attorney participants reported that unsupportive coworkers resisted change concerning the work of secretarial support staff and investigators. A paralegal participant reported that attorneys resisted change regarding the division of work between attorneys and paralegals.

Participants described unsupportive coworkers:

- Rejecting ideas before hearing or reading them fully.
- Insisting that everything be done the coworker's way.
- Dismissing problems perceived by other employees.

Participants suggested that unsupportive coworkers resisted change in order to protect their own "turf" or status, in some instances. In other instances, change resistance was attributed to political concerns or the difficult personality of the unsupportive coworker.

Supportive and Unsupportive Coworker Attributes

Participants described a number of personal attributes common among supportive and unsupportive coworkers at the study site. These attributes are described below.

Knowledge and Skill

One frequently cited attribute of learning-supportive coworkers was knowledgeability. Attorney participants described supportive coworkers as being very knowledgeable in specialized areas of law, and skillful in lawyering techniques and procedures. Related attributes such as intelligence, good analytical ability, good common sense, and professional judgment were also cited. Participants indicated that such attributes often drew the participants into relationships with their supportive coworkers:

From the very start....I knew that he knew the substantive area of law very well and so...I was very comfortable going to him. (Staff Attorney)
Participants were drawn to supportive coworkers because of their practical field knowledge, in addition to their knowledge of codified law. For example, one participant indicated that a supportive coworker had experience dealing with a particular person with whom the participant now was involved. The supportive coworker was able to advise the participant to follow up all conversations in writing because the person could not be trusted to take action as promised. Another participant reported that supportive coworkers were valuable sources of ideas about what would satisfy a particular group of judges.

Obviously, coworker knowledge and skill can be useful when support consists of giving advice or examples, or serving as a role model. As one participant observed,

They [supportive coworkers] are good researchers, so I know that when I borrow stuff from them, it's up-to-date and I just have to do some checking. (Staff Attorney)

Knowledge can be beneficial as well when support consists of serving as a sounding board. Scardamalia and Bereiter's (1993) process model of expertise suggests that experts use existing knowledge to frame problems or issues and to pose questions effectively, in addition to generating effective solutions or answers. New insights generated through the process are incorporated into the expert's knowledge base, to aid future problem posing and solving. From that model, one would predict that knowledgeable coworkers would be better able than unknowledgeable coworkers to pose useful questions. Therefore, knowledgeable coworkers would tend to be better sounding boards, all else being equal.

**Lack of knowledge and skill**

Interestingly, participants did not cite lack of knowledge as an outstanding attribute of unsupportive coworkers. Rather, participants focused on undermining behaviors, professional bad character, close-mindedness, and rudeness when they described unsupportive coworkers. These results suggest that perceived lack of coworker knowledge, by itself, may propel a relationship to-
ward neutrality rather than unsupportiveness at the study site. Employees may not seek involve-
ment with coworkers who seem to lack knowledge, but they will not perceive those coworkers as
being unsupportive unless the coworkers use behaviors that interfere with other employees’ efforts
to learn and improve.

Open-mindedness

A second frequently cited attribute of learning-supportive coworkers was open-mindedness.
Participants in various legal and non-legal job positions said that a supportive coworker is a “good
listener” who will pay attention to what other employees say, value the other employees’ opinions,
and accept their suggestions where appropriate:

[Supportive coworkers] treat you like a fellow worker, a human being on the same
level. They are receptive to your ideas and even ask for them and your opinions.
You are an equal, a team member who is valued. (Non-Attorney)

Participants suggested that instances of professional disagreement are critical opportunities
for displaying open-mindedness and building relationships that can support learning and improve-
ment. Supportive coworkers who concede “Gee, I think you’re right about this,” who change their
minds sometimes in response to other employees’ arguments and show that “their way isn’t the
only way” display “respect” for the other employees, participants said. In turn, such displays of
respect create trust, which may help the other employees to accept criticism and try new ap-
proaches encouraged by their supportive coworkers. Trust can produce benefits for supportive co-
workers as well, because it leads other employees to share information and ideas with them:

You’re more than willing, if you come up with a new idea or think there might be
something interesting, to tell the attorney about it, as long as you have a good re-
lationship. Ones that we don’t have good relationships with, we don’t bounce
ideas off, because they have their own set mind of how they’re going to do it.
(Paralegal)
Supportive coworkers need not accede to their dissenting colleagues in all instances of disagreement or accept all changes advocated by other employees, participants suggested. Rather, supportive coworkers must give opposing viewpoints and new ideas a fair hearing:

He’ll just tell me, “I’m not sure that that will work.” And then we’ll talk about the pros and cons of it....And then, you know, no one’s real hard and fast or egotistical about their work in this particular group. So it’s an open discussion....Sometimes he says, “You’re right.” And sometimes I say “You’re right.” And that’s about it. It’s actually a pretty good work environment. (Staff Attorney)

Close-mindedness

Participants drew a sharp contrast to their supportive coworkers in their descriptions of unsupportive coworkers:

“Closed to other ideas” (Staff Attorney).

“Excessive need for control” (Staff Attorney).

“Inability to consider others’ viewpoints” (Non-Attorney).

“Distrust” (Section Chief).

“Close-mindedness” (Staff Attorney).

“Refusal to consider my point of view, or anyone else’s” (Section Chief).

“They’re usually people that seem to have very dogmatic approaches to problems” (Staff Attorney).

Q. We’ve talked about how...[unsupportive coworker] is getting really immersed in the details of...(another employee’s] cases....But also the other supportive, helpful manager is also very aware of what people are doing, and making recommendations....What’s the difference between what they’re doing?

A. I think a lot of it is the attitude. It’s either, “You should keep in mind A, B, and C” or “Don’t forget about A, B, and C!” And, it’s an attitude of, “I know you’re going to forget about it so I’m going to tell you about it because you’re too stupid to figure it out....”

Q. With the...unsupportive person, she... will dictate what you are to do?

A. Yes.
Q. Does...[supportive coworker] suggest what actions you ought to take?

A. He sort of gives a range. But I never feel like there's only one way to do something. Whereas with the unsupportive person I always feel that, "There's only one way, and if you do it any other way, you would obviously be wrong." And I just think in law, 90 percent of the time there's not just one way to do something. (Staff Attorney)

Professional Good Character

A third frequently cited attribute of learning-supportive coworkers was professional good character. Participants alluded to this attribute with the following descriptors of supportive coworkers:

"Honesty" (Section Chief).

"High integrity" (Attorney, Other).

"Professionalism" (Staff Attorney).

"Professional, thorough" (Non-Attorney).

"Commitment to finish project" (Non-Attorney).

"Trustworthy" (Section Chief).

"Absolute commitment to his clients; diligence, hard work" (Staff Attorney).

"He's just very driven in terms of his work. He works long hours. His quality of work...is excellent" (Staff Attorney).

"He's very professional. He treats his coworkers and even the attorneys that we try cases against very professionally, very courteously" (Staff Attorney).

The professional good character of supportive coworkers seems to facilitate learning and improvement among employees at the study site in several ways:

- Acts of good character position supportive coworkers as role models upon whom employees can pattern themselves.
- Good character helps employees to feel confident about advice they receive from supportive coworkers.
• Good character helps employees to feel comfortable about confiding in supportive co-workers. As one participant put it:

I know that they can be trusted, not steer me wrong,...not turn around and betray a confidence or anything like that. (Staff Attorney)

**Bad character**

Just as participants described supportive coworkers as having good character, they described unsupportive coworkers as having bad character:

“Lack of professionalism” (Staff Attorney).

“Not trustworthy” (Staff Attorney).

“Hypocrisy—making excuses for her work that she wouldn’t have accepted from me” (Section Chief).

“Last-minute and chaotic approach to work” (Staff Attorney).

“Inability to plan, or to make appointments and keep them” (Non-Attorney).

The bad character of unsupportive coworkers seems to hinder learning and improvement at the study site because it prevents what good character facilitates. It prevents unsupportive coworkers from being viewed as role models, and it discourages employees from confiding in or accepting advice from unsupportive coworkers.

**Gracious Help-Giving**

A fourth frequently cited attribute of learning-supportive coworkers was graciousness and courteousness in giving help. Participants alluded to this attribute with a variety of descriptors of supportive coworkers. The following is a representative sampling:

“Responsive, attentive...helpful” (Non-Attorney).

“Approachability, interest, tact” (Section Chief).

“Approachable, patient” (Section Chief).

“Patience, empathy” (Staff Attorney).
“Accessibility” (Attorney, Other).

“Congeniality...humility” (Staff Attorney).

“Pleasant/kind demeanor” (Staff Attorney)

“Easy to get along with” (Attorney, Other).

“Belief in my ability to ‘get it’ and improve” (Section Chief).

“Friendly attitude, sympathetic to the issue, eager to offer advice and ideas for improvement” (Non-Attorney).

“Willingness to spend his valuable [time] explaining an area of which I had little practical knowledge. Honesty about his limitations and the limitations of the system in which we operate” (Section Chief).

A common theme of participants’ comments was that supportive coworkers are attentive and responsive to the tasks, interests, and concerns of the employees they help. A supportive coworker does not engage in abstract “intellectual discussions about where Constitutional law should be in the future,” as one staff attorney put it, when an employee actually needs information about the procedures for seeking a temporary restraining order.

A second theme was that supportive coworkers are willing to make time for helping. Participants observed that most employees at the study site are very pressed for time. Supportive coworkers give time through behaviors such as:

- Conducting a careful and thorough rather than perfunctory review of an employee’s appellate brief.
- Explaining how and why to do things rather than simply issuing directives.
- Helping an employee to tease out all the pros and cons of possible solutions in sounding board sessions, rather than simply recommending the first solution which comes to mind.
- Helping an employee to locate a needed brief or court opinion rather than simply saying, “There’s something out there. Go find it yourself.”
Participants indicated that they were appreciative when supportive coworkers made time to give help in response to participants’ needs and interests although the coworkers would not benefit directly—when, for example, a coworker who was not a participant’s co-counsel reviewed a brief or provided information for the participant. Such acts appear to strengthen relationships between employees and their supportive coworkers in ways that can increase help-seeking and reciprocation.

A third theme was that supportive coworkers are courteous and constructive in giving help. Several participants alluded to the fact that supportive coworkers sometimes must offer criticism to employees in order to facilitate learning and improvement. Indeed, one participant suggested that “it is easy to tell which employees have good...relationships” precisely because they are “much more free with comments and ideas and even criticisms on how to change a project to make it better” (Non-Attorney). Participants indicated that supportive coworkers give constructive criticism which employees can accept. The gracious and courteous demeanor of supportive coworkers at the study site seems to encourage such acceptance, in addition to lessening employees’ concerns about seeking help from coworkers who may be busy or uninterested in the employees’ needs and problems.

**Rudeness**

Participants described the demeanor of unsupportive coworkers in terms such as the following:

“Abrasive...judgmental” (Non-Attorney).

“Condescending” (Section Chief).

“Egotistical” (Staff Attorney).

“Defensiveness, poor manners” (Attorney, Other).

“Arrogance” (Section Chief).

“Inaccessibility” (Section Chief).
“Unapproachable, mean” (Attorney, Other).

“Rude” (Non-Attorney).

“Short-tempered, not caring, personally insulted me” (Staff Attorney).

“Complete lack of tact or consideration for others’ feelings or concerns” (Non-Attorney).

Participants told of unsupportive coworkers “taking my work for granted” (Section Chief) and looking down on employees in different jobs: “You know, you’re just beneath them” (Paralegal). They complained of back-stabbing:

This individual did not call to tell me what he thought I did wrong. Instead he went directly to my boss behind my back. This was not helpful to teach me what to do differently. (Section Chief)

And they described unsupportive coworkers making them feel unwelcome when participants sought help:

Some people make it clear that if they’re busy, they don’t want to be interrupted. And it’s frustrating even if they say, “Okay sure, I have time to talk,” if they’re incessantly looking at their computer or trying to do other things while you’re talking,...making it clear that their heart’s not really in it. Then you just tend to abbreviate the whole process and not get much out of it. (Staff Attorney)

Just as the demeanor of supportive coworkers appears to encourage employees to seek help and accept directives and criticism, the demeanor of unsupportive coworkers appears to do the opposite. In this way, the demeanor of unsupportive coworkers appears to undermine learning and improvement.

Unselfishness Versus Selfishness and Self-Protectiveness

Participants described supportive coworkers at the study site as giving of themselves to help others:

“Team player, helpful attitude” (Non-Attorney).

“Complete unselfishness in helping me” (Non-Attorney).

Participants offered contrasting assessments of unsupportive coworkers:
"Self-centered" (Staff Attorney).

"Selfish" (Staff Attorney).

"Possessive, self-promoting, competitive" (Non-Attorney).

"Protective of turf" (Section Chief).

"Not...a real 'team player"' (Section Chief).

"Selfish people that...really are only concerned with their own advancement or concerned with their own careers" (Staff Attorney).

Again, the willingness to devote time and effort to the needs and problems of other employees where coworkers typically have their own steep workloads and limited time appears to be a characteristic employees strongly associate with learning-supportiveness at the study site. Unwillingness to spare time for another employees’ concerns is strongly associated with unsupportiveness.

A Variety of Personalities

Participants described supportive coworkers as having a variety of personal traits apart from the core attributes of knowledgeability, open-mindedness, and so forth. For example, some supportive coworkers were described as having a good sense of humor. Another was described as “rigid” and “formal.” As mentioned previously, some were even described as having annoying personality aspects, such as excessive talkativeness. These results suggest that no single personality style is essential for supporting learning and improvement at the study site: Anyone is potentially a supportive coworker.

Characteristics of Neutral Coworkers

In addition to describing supportive and unsupportive coworkers, participants described neutral coworkers—those who neither help nor hinder learning and improvement among other
employees at the study site. Participants seemed to be in agreement that neutral coworkers are those who are uninvolved with other employees in general:

I think the people that are neutral coworkers tend not to want to communicate at all, about anything. They come here, they want to put in their eight hours and go home. They don’t want anything to do with you. They keep the door closed all day. Don’t want to be bothered by anything. (Staff Attorney)

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They’re just middle-of-the-roaders. They’re the ones that don’t...get into any participation with the office at all....They usually just stick to themselves. (Paralegal)

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An eight-to-five kind of guy...[who] doesn’t work any less hard, but he doesn’t seek any challenges....He doesn’t frequently come around and ask for help, and he doesn’t encourage—I mean, he doesn’t discourage—but he doesn’t encourage people to come around and ask him for stuff. (Staff Attorney)

Characteristics of Learners

Participants suggested that opportunities to learn and improve at the study site are affected by the attitudes and behaviors of learners themselves, in various ways. For example, participants indicated that they were more willing to help other employees who were considerate of the participants’ time constraints and other obligations. Participants themselves tried to be well-organized in order to minimize their demands on their supportive coworkers and gain the most benefit from the help provided:

I always try to be very prepared. I always try to have the file with me. I’ve read the file before I go into their office. (Staff Attorney)

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I would always try to have the answer first because I wanted to see if I got the answer right rather than have him tell me. And I wanted him to know that I could figure it out too. (Staff Attorney)
Participants contrasted the approach of employees who are well-organized and self-helping with the approach of employees who may become lazy and over-reliant on their supportive co-workers:

I mentor one of the new attorneys who’s here now. And he comes and he asks me tons of questions all the time….Sometimes I feel like he’s always asking me for documents and I don’t want to give him things because I think he needs to figure out how to do it himself. And I’m concerned about him not taking those extra steps when he needs to. (Staff Attorney)

Participants suggested that learners have responsibilities to seek help and make good use of help which is offered by coworkers:

It is important for the student, not the teacher, to make the actual decision in order for learning to be successful. (Attorney, Other)

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To succeed in the workplace one must always be open to constructive criticism from colleagues. (Attorney, Other)

However, employees at the job site do not always live up to their responsibility to seek and use help, participants indicated:

I have seen that if an AG [Assistant Attorney General] runs into trouble, he/she has probably not asked for help. (Staff Attorney)

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People have not taken my advice, and I’m guilty of it too. You come into someone’s office and your mind is already made up that this is what you’re going to do, and all you’re looking for is someone to ratify that. (Staff Attorney)

Chapter Summary

The questionnaire and interview results discussed in this chapter suggest that supportive coworkers at the study site vary in terms of personality, but share certain common characteristics. Supportive coworkers have specialized knowledge and skill. They are open-minded, unselfish, gracious and courteous, and they have professional good character, such as integrity. They pursue and
attain high quality standards in their own work, thus serving as good role models for employees. They arrange developmental experiences for employees by assigning or inviting them to observe new task situations. They help employees by sharing information, advice, and examples, and by serving as sounding boards; these two forms of help are equally valued by employees, and are both made more useful because of the knowledgeability of supportive coworkers.

Ambiguous task situations and instances of professional disagreement present critical opportunities for supportive coworkers to build good relationships and facilitate learning and improvement. The acid test for a supportive coworker is how he or she responds to such situations. Learning and improvement are more likely to result if supportive coworkers remain open-minded, inquiring, and respectful of differing viewpoints, although the coworkers need not accede to every opposing view. Coworkers are able to build learning-supportive relationships, as well, when they give help in response to other employees' wants and needs in situations where the coworkers are not likely to benefit directly—e.g., by conducting a thorough review of a brief in a case where the coworker is not co-counsel.

Unsupportive coworkers at the study site are characterized by close-mindedness, rudeness, lack of professional good character, and selfishness—but not, necessarily, by lack of knowledge. Unsupportive coworkers undermine learning and improvement by withholding and miscommunicating information, excluding learners from developmental opportunities, doing poor quality work, and resisting change.

Neutral coworkers at the study site are simply uninvolved with other employees. They neither seek or give help. Other employees are not drawn to them as sources of help or advice.

Employees at the study site improve their own learning prospects by seeking help actively, by being open to help and ideas from coworkers, and by being well-organized and considerate about coworkers' time. The formation of learning-supportive relationships thus seems to depend not on help-giving behaviors alone, but on behaviors including striving to learn and improve, and seeking and using help and support from coworkers. Where these types of behaviors associated
with learning-supportive relationships do not occur, learning-supportive relationships can be pre-
dicted not to arise at the study site.
CHAPTER 6

STUDY FINDINGS: HOW ORGANIZATIONAL CLIMATE AFFECTS WHAT IS LEARNED THROUGH COWORKER RELATIONSHIPS

Does Learning Really Matter?

Results discussed previously suggest that learning and improvement will not occur through coworker relationships if employees do not strive to learn and improve, and to make use of help and support from coworkers for purposes of learning and improvement. Employees may be less willing to extend help and support for each other's learning if they perceive learning and improvement to be unimportant. Employees may be less able to extend help and support if they do not endeavor to learn and improve themselves, because giving effective help can require much knowledge and skill, as well as open-mindedness. Similarly, employees may be less valued as sources of help and support if they do not endeavor to learn and improve themselves. In addition, there may be fewer opportunities to learn incidentally from an employee who is not striving to learn and improve. For example, an employee who is not striving to learn and improve may be less likely to talk about work or produce good work products from which others may learn.

Do employees at the study site value learning and improvement for themselves and coworkers? Results of this study suggest that employees' attitudes in this regard are mixed.
In their questionnaire responses, a majority of the study participants agreed or strongly agreed that helping coworkers to learn is enjoyable, beneficial, and something the participants should do. A majority agreed or strongly agreed that it is useful to get coworkers’ opinions and enjoyable to talk with coworkers about ways to improve work. Most participants said they felt comfortable asking coworkers for help “when I need to learn something.” However, a minority of participants agreed that their Attorney General coworkers “try to learn all the time.” In response to the statement, “The reality of my job is that getting work done is more important than learning,” most participants agreed or did not know. A majority of the 14 section chief participants agreed or strongly agreed with that statement.

Comments of participants further illustrate the mix of attitudes regarding learning at the study site:

I’m not motivated to learn. I’m motivated to work hard. Learning about what I’m doing is one way to be more effective. (Staff Attorney)

Do proactive reading of legal publication.” I just feel that you have to do that to stay on top of things. But naturally you can’t just sit down and read a legal publication and let your main work go. (Staff Attorney)

“I feel comfortable using work time to help A.G. coworkers learn.” Absolutely. The only catch is that I have to be able to...complete my own assignments. (Staff Attorney)

You know, we’re not educators, so our job is not to teach. We’re not students, so our job is not to learn. We’re attorneys whose job is to go out and do the job. But that entails learning and teaching to some degree. (Attorney/Supervisor)

The Attorney General organization in this study has hundreds of employees serving millions of constituents in dozens of highly complex and rapidly-changing areas of law but, like other such organizations, has a limited budget, no research and development department, no quality control staff, and only a small training office. By necessity, much of the learning which is needed to de-
velop and deliver the services that will enable the organization to fulfill its purpose must occur, if at all, on the front lines, in the daily activities of staff attorneys, their managers, and their support staff. What then might cause some frontline employees and their managers to doubt that learning really is important? One factor seems to be the organizational climate, as explained in the remainder of this chapter.

An Organizational Climate for Coworker Learning

Relationships

Organizational climate theory suggests that employees in a workplace will tend to behave in ways that are favored by the prevailing organizational “climate.” An organizational climate has been defined in previous research as a collection of practices, procedures, and conditions in an organization that “connote or signal to people what is important” with regard to certain types of behaviors (Rouiller & Goldstein, 1993, p. 379). Signaling is accomplished within an organization through behavioral “cues” or prompts, and consequences attaching to behaviors (e.g., Rouiller & Goldstein, 1993). Cues can be of various types. Types identified by Rouiller and Goldstein (1993) include:

- “Goal” cues articulated by supervisors or other organizational members.
- “Social” cues arising from “group membership” such as “the behavior and influence processes exhibited” by supervisors and peers (p. 383).
- “Task” cues involving the “design and nature” of job tasks and tools for accomplishing tasks (p. 383).
- “Self-control” cues involving various self-prompting and self-restraint processes of employees (p. 383).

Consequences can consist of positive events or reactions from other organizational members when an employee uses a behavior, or negative events or reactions when an employee fails to
use the behavior. These consequences will tend to motivate the employee to use the behavior. Consequences can also be negative events or reactions when an employee fails to use the behavior. A consequence can also be that nothing occurs or that an employee gets no information about anything occurring. These consequences will tend to extinguish the employee’s use of the behavior.

The following excerpts illustrate how such cues and consequences can shape behaviors at the study site. These are excerpts from interviews with two staff attorney participants discussing various tasks suggested by the researcher. The first participant acknowledges initially that some learning-related tasks suggested by the researcher are tasks the participant would likely never do because of perceived time constraints. The second participant makes a similar assertion in another part of the interview not reprinted here. The participants then indicate that explicit management requirements (goal cues), office forms (task cues), threat of job loss or loss of license (consequences), getting paid (a consequence), and potential for malpractice (a consequence) spur certain behaviors:

A. Some of this stuff I don’t know if I’d ever have time to do [laughs].
A. Okay, this is probably stuff that I would do because I either have to do it or I would malpractice if I didn’t do it.... “Do time sheets.” Because I have to.
Q. Why do you have to?
A. Well, two reasons. One to get paid, and the other because we track our time that way if we have attorneys’ fees in a case....
Q. That’s commanded by management?
A. Yeah. We have a form we use.
A. “Read the mail.” Do that. If I miss a pleading day I could potentially lose my job. ....
A. “Sheppardize cases” is the next one. That’s one of those issues where, if you don’t do it, you could potentially malpractice. So that’s pretty high on my list....
A. “Document your case activities for your manager/client counsel.” We’re required to do that, so I do it everyday.

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A. This is the priority group. What do they have in common?... You have to do them. You have to do them to be paid. You have to do them or lose your license. Or lose your job.

Q. What are some of those things?

A. "Do your time sheet" if you want to be paid....

A. "Read your mail." You have to be current.

A. "Schedule depositions/meetings with client or opposing counsel..." You've got to get the case going. You've got to, you know, stay on top of your work.

If a climate for learning-supportive coworker relationships exists at the study site, there should be similar evidence of cues and consequences inducing employees to use behaviors associated with such relationships (as described in the previous chapter):

- Striving to learn and improve.
- Seeking and using help and support from coworkers for learning.
- Giving help and support to other employees for learning.

Evidence to be presented in the remainder of this chapter suggests that some such cues and consequences are present at the study site and do encourage employees to use behaviors associated with learning-supportive relationships. The cues and consequences vary somewhat across different sections and units of the Attorney General organization. These variations are noted throughout this chapter.

There are also some cues and consequences at the study site that encourage employees to withhold help and support—a behavior associated with unsupportive relationships. More significantly, there are cues and consequences that discourage efforts to learn and to seek help and support for learning from coworkers. These cues and consequences do not encourage employees to resist learning and improvement in any active way. Rather, they simply encourage employees to invest their limited resources of time, effort, and attention in non-learning activities rather than
learning activities. This phenomenon affects not only how much is learned but also what is learned through coworker relationships at the study site.

**Personal Versus Organizational Values**

Before specific organizational climate features are examined, it is necessary to reexamine and refine the notion that an organizational climate shows employees what is “important.” In this study, it appears that employees avoid some behaviors if the employees perceive that the behaviors are not feasible, expected, and normal at the study site, even if the employees personally believe that the behaviors would be useful and appropriate. In other words, employees ask themselves not whether the behaviors are “important” in their own systems of values and beliefs but whether the behaviors are important in the organization where they work. To paraphrase Schön (1983), employees ask themselves whether the behaviors are required by the theory-in-use as opposed to the espoused theory at their organization.

The following excerpt from an interview with a staff attorney participant illustrates this point. The participant in this interview has sorted various learning, help-seeking, and help-giving tasks suggested by the researcher into four groups. Groups three and four consist of tasks such as reflecting on lessons learned from a case or discussing professional innovations with coworkers. The participant states that the tasks in groups three and four would facilitate learning, create a “feeling of self-satisfaction,” and “improve the office overall.” They are tasks the participant “probably ought to be doing.” Nevertheless, the participant is not likely to do them. Groups one and two consist of tasks such as completing time sheets and returning phone calls. The participant says these tasks create no sense of learning or self-satisfaction. Nevertheless, the participant is very likely to do them. The participant prioritizes the various tasks in ways that are inconsistent with the participant's own preferences because of the participant's perceptions regarding workplace factors.
such as the expectations of the participant’s manager, and management-imposed consequences such as not getting paid.

This excerpt—and others like it from interviews with various participants—suggests that organizational features are contributing influences on employees’ work and learning behaviors, above and beyond the influence exerted by the employees’ own values and preferences. Training such employees to value learning would not necessarily cause the employees to learn more if the employees’ perceptions of the work and learning environment were unchanged. Human resource developers who wish to nurture learning-supportive coworker relationships must pay close attention to employees’ perceptions of their environments and not jump to the conclusion that employees must be trained to value continuous learning.

A. “[Discuss] best practices, innovations with coworkers.” You know, that would be nice when you have time to do it. There’s no time.

A. “[Document] lessons learned from a case. You know I have a case, I’d still like to sit down and think about what I learned from it. I just don’t have time....

A. “Reflect on lessons learned from a case.” Same thing. I mean, there are cases where there are things to be learned. I just don’t have time to explore that as deep as I’d like to sometimes.

Q. ....What will happen if you don’t do the things in this fourth group [e.g., discuss best practices]?

A. ....What will happen is, I think...it stumps your learning process....I think it cripples your growth as an attorney. And I think that in a sense you get the feeling that you’re more sort of processing cases through instead of learning from them.

Q. What will happen if you don’t do the things in group one [e.g., return phone calls and do time sheets]?

A. Your world will fall apart....You will have very angry opposing counsel for not returning their phone calls, and you’ll have a pissed-off boss for not returning their phone calls. [The boss will]...start getting them.

Q. And the other things here?

A. Time sheets? Oh, they won’t pay you.

Q. Time sheets and mail and things like that.
A. Those are all administrative things you have to do every day. But they consume such a large amount of your time, you don’t have time to do things that you probably ought to be doing....I just think they’re things you have to do as part of your job. And yeah, we are expected to return all our phone calls to clients and counsel....

A. ....I think personally...you get more of a feeling of self-satisfaction by doing groups three and four than you do by doing things in group one. There’s just not any sense of learning or self-satisfaction in looking at your mail every day....

A. And these [groups three and four] are things that would improve the office overall....But...nobody has time. Nobody right down from the attorneys clear down to the secretaries and the data support staff, nobody has time for this stuff. (Staff Attorney)

Climate Features Encouraging Efforts to Learn and Improve

Participants described a number of climate features that appear to encourage employees at the study site to strive to learn and improve. These are described below.

Work Aligned with Career Goals and Interests

A common reason given by participants for employees at the study site striving to learn was professional challenge and growth. In some cases, this reason was linked to possibilities for advancement to new jobs—usually, jobs outside the Attorney General organization:

You never know when you might want to leave this office, so you should try to learn as much as you can from as many people as possible so that you have skills to confront whatever situation might be on the outside when you may or may not have as much help as you have here. (Staff Attorney)

In most cases, however, challenge and growth were described as sufficient goals by themselves or as components of general career advancement not linked to specific job moves:

A. The people here, they want to progress. They don’t want to stay in one place. They want to move forward....

Q. Move forward in the sense of changing to another job?
A. No. Just becoming, you know, a better attorney, being aware of more things, a better practitioner. (Staff Attorney)

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A. ....For the most part I think they are people who do try to keep themselves prepared for new situations that might develop.

Q. And possible...job changes...?

A. Yes, but I just think they're more interested in just acquiring new knowledge. Just to be prepared more than for career advancement. (Staff Attorney)

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Q. What motivates you to keep learning?

A. I just like to do it because it's something interesting. I mean, I'm always finding something new....It's not like...just going into private practice and dealing with probate or something like that and being bored. So I have a lot of different avenues I can grow in. (Paralegal)

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A. "My employer will reward me if I have superior skills and knowledge." Sure.

Q. In what way?

A. By giving me the harder cases.

Q. Do you consider that a reward?

A. Yeah, sure....I like to have the harder cases, the more involved cases. I like to be depended on to do those. I like the exposure that I get, either with the public or in the Attorney General's office. (Staff Attorney)

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You know, a good case is a good case because it gives you more experience. Because the issues are more interesting. (Staff Attorney)

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In our office, there is no...promotion. There's not even any raises. You're just in a stagnating position, basically. The only thing you can do, I would say, is further your career by how you learn and by how you practice. (Staff Attorney)
With regard to organizational climate, opportunities to do work which is aligned with an employee's professional growth and career advancement goals and interests constitute self-control cues for striving to learn and improve. Where such cues are present at the study site, they are features of the organizational climate that appear to encourage employees to use behaviors associated with learning-supportive relationships.

Learning Modeled by Coworkers

Many participants indicated that they saw coworkers striving to learn and improve at the study site, although few saw coworkers trying to learn all the time. Participants did not report that seeing coworkers striving to learn was the primary reason for the participants' own efforts to learn and improve. Rather, participants reported that they got a general sense of learning being an appropriate and normal thing to do because it was a common behavior in their workplaces. In contrast, a participant who reported that many coworkers did not strive to learn and improve also indicated that it was a constant struggle to avoid "falling into that rut" as well.

With regard to organizational climate, the presence of coworkers who model the behavior of striving to learn and improve constitutes a social cue for learning. Where opportunities to see coworkers making efforts to learn and improve are present at the study site, those opportunities are features of the organizational climate that appear to encourage employees to use behaviors associated with learning-supportive relationships.

Learning Resources Provided to Employees

Participants described various resources provided by the Attorney General organization for the purpose of learning. Such resources include tuition for continuing legal education (CLE), in-house CLE, and access to computer-assisted legal research services.
Participants also described various practices established in sections or units of the Attorney General organization for the purpose of disseminating information among employees. For example, some sections or units hold regular meetings in which coworkers are invited to share problems, advice, news about developments in emerging areas of law and so forth. Some supervisors direct employees to attend continuing education sessions and then share what they have learned, informally or in the regular meetings. Some sections or units have an established practice or custom of circulating legal journals or recent court decisions among all employees in the section or unit. Participants suggested that such practices served as indicators of the value placed on learning in the organization:

I think getting work done would be the first priority. But I think that learning is important also. And I think that our section shows us that in the sense that every single time a new...opinion comes out... that's on our area, it's sent to every single person in our section. (Staff Attorney)

With regard to organizational climate, the practice of providing resources for learning constitutes a task cue or resource cue for learning. Where such cues are present at the study site, they are features of the organizational climate that appear to encourage employees to use behaviors associated with learning-supportive relationships.

**Organization Provides Rewards and Recognition**

Organizational recognition, promotions, pay raises and the like are rewarding behavioral consequences that are directly under the control of an employer. Demotions, terminations, and similar actions are punishing consequences that an employer can use to deter deviations from desired behaviors. Such rewards and punishments can be aspects of an organizational climate for certain behaviors (Rouiller & Goldstein, 1993).

In this study, some participants agreed that small pay raises and minor promotions were available to employees who acquired superior skills and knowledge. Others denied that. Some participants mentioned that job loss might be a consequence for failing to develop and use appro-
appropriate skills and knowledge. Others were less certain. Regardless, participants said that such rewards and punishments did not for the most part motivate the participants to learn:

I can’t say that management holds out anything in the way of promotions...that would entice you to learn these skills. I find that there’s rather a lack of that....I suppose that one is not considered for merit raises if one doesn’t do a quality job. However, I don’t believe merit raises have been given....I suppose one is not considered for promotion; not that there’s that many promotions given....I haven’t seen anybody fired, although now I have to backtrack, I have seen someone moved. It may not be because they haven’t done a quality job. Perhaps their social skills may not be as desirable. (Staff Attorney)

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Q. How much of...the possibility of promotions or pay raises or recognition...constitutes your motivation for doing good work on your cases?

A. It doesn’t....I have a strong work ethic. I like my work. I enjoy coming to this job. There are some parts of it that I’d rather not do, but it all fits together. And I do good work to satisfy myself....I still like it. It’s still exciting, I’m still learning new things and there’s nothing else out there that’s calling to me. (Staff Attorney).

Organizational recognition was an exception. Participants suggested that it was a somewhat significant motivator and a means of communicating what the organization expects from employees:

A. They expect us to learn and to become maybe not experts but very conversant with what we’re dealing with.

Q. How do you know they expect that?

A. Well, I’m assuming they expect that because they certainly reward that if clients call to say you did a wonderful job. Then they’ll send a letter to you saying, “We appreciate it. Keep up the good work” (Staff Attorney)

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A. Our section boss, you know, you do something good, he will let everybody in the section know what you’ve done....And then the Attorney General [the elected official heading the organization]...puts that out in the newsletter once in a while...on good cases....And....I’ve gotten a little note from the Attorney General once in a while when it’s been successful...

Q. And...people really care about that kind of recognition?
A. I think they do.....Everybody likes to be recognized among their peers for doing well at your job....And I’m no exception. I like seeing my name and somebody saying I did a good job. (Attorney/Supervisor)

Where recognition is available at the study site, it is a feature of the organizational climate which appears to encourage employees to use behaviors associated with learning-supportive relationships. Pay raises and promotions have not been shown to affect employees’ behaviors in the same way, in this study. This may be attributable to the fact that available pay raises and promotions in the Attorney General organization tend to be small in comparison to what would be available in some private sector organizations. Although nominally available, the pay raises and promotions are too small to exert any influence on employees’ behavior.

**Climate Features Encouraging Help-Seeking and Use of Help**

Participants described a number of climate features that appear to encourage employees at the study site to seek and use help from coworkers for learning. These are described below.

**Information About Supportive Coworkers**

The most common reason cited by participants for seeking help from a coworker is simply knowing that a supportive or potentially supportive coworker is available. Participants indicated that employees learn of the existence of such coworkers in various ways at the study site. In some cases, employees learn who is knowledgeable and helpful in which areas through office gossip about coworkers and their activities. In other cases, a section or unit is so tightly focused that an employee could expect to find almost any coworker to be knowledgeable and helpful:

Here, even though we have attorneys with certain specialties, there’s...a lot of common areas we all work in or have worked in. And I think that’s good because...you pretty much can go to anyone else in the section with a question. And people do. And I think that really keeps the atmosphere positive where people get to know all the other people in the section, tend to go to one another for help. (Staff Attorney)
With regard to organizational climate, information about the availability of supportive co-workers constitutes a cue for help-seeking. Where such information is available at the study site, it is a feature of the organizational climate which appears to encourage employees to use behaviors associated with learning-supportive relationships.

**Supervisor Recommendation of Help-Seeking**

Another way to learn about the availability of supportive coworkers at the study site, participants indicated, is through supervisor recommendation. Participants said they acquired knowledge about a coworker in some cases when a supervisor recommended the coworker to help with a task or problem a participant had encountered.

Participants indicated that having a supervisor recommend a coworker as a resource could have a more significant effect than simply spurring an employee to contact the recommended coworker on that particular occasion. Supervisor recommendations also signaled that it was generally acceptable and advisable for employees and their coworkers to talk together and to help each other:

Q. Sometimes in workplaces, management is not comfortable with employees talking to each other...And that can make employees feel uncomfortable....Do you sense that?

A. Oh, not at all. It's completely the opposite.

Q. Management encourages that?

A. Oh, definitely.

Q. How do they do that?

A. Oh, as I say, in section meetings they will say: ‘Does anyone have any thoughts on how we should precede with this? Or do you think we've been doing things correctly in the past? Is there some new way that we should precede along different lines?’ And they just elicit that type of information. Or they will come to you, if the section chief assigns you the project, they'll say, “Now, I think that one of your other coworkers has had this type of case before. You might want to ask them...how they preceded or if they have any suggestions.” So it's very encouraging. (Staff Attorney)
Because of the specialized work and learning needs of employees at the study site, a supervisor would need some depth of knowledge about employees' tasks and coworkers' areas of experience and expertise in order to match employees with coworkers who could provide appropriate help. Participants indicated that supervisors who match employees with appropriate coworkers are able to do so by leveraging their own expertise and by maintaining a flow of information about employees' activities:

Our chief has a very open door policy. And she spends a lot of time in the common area and talking to people about their cases. She...has one of the most incredible minds to be able to recollect what people are doing in their cases....I will go to her on a case, bring it up on Monday, two weeks later I'll go back and say, you know, a couple things changed on this case, and she remembers the case....And she also is a good person to say, "You need to talk to X or you need to talk to Y." She doesn't have the in-depth type of knowledge that that...[supportive coworker] I was talking about before has. But she's got enough litigation experience that she can always put you on the right track. (Staff Attorney)

With regard to organizational climate, recommendation by a supervisor constitutes a cue for help-seeking. Where such recommendations occur at the study site, they are features of the organizational climate that appear to encourage employees to use behaviors associated with learning-supportive relationships.

### Help Offered by Coworkers

Some participants indicated that they were prompted to use help from coworkers simply because help was offered by the coworkers. In addition, where the consequences of using help were positive, the participants were inclined to seek help from the coworkers again:

I wouldn't start out seeking...his help because perhaps at that time I didn't even know enough to know that I should be seeking his help. I think it was probably wisdom on his part...that he would occasionally realize that perhaps some help would be a nice thing to do, a nice thing to give to me....I began to realize how knowledgeable he was and how much of a help he was. And so then I would begin to seek him out. (Staff Attorney)

A series of positive consequences could lead an employee to seek help from coworkers generally:
I used to be surprised when I thought I had something worked out in my mind and then talking about it, somebody would come up with a different slant on it. Now I go looking for that because that's valuable. It doesn't always change my opinion, but it at least allows me to look at positions and issues from a different angle and to help me to search for weaknesses in the way I'm going about my work. (Staff Attorney)

Participants suggested that coworkers at the study site vary in their willingness and ability to give help. Some coworkers are unwilling. Some lack knowledge and skill, or have traits or behaviors that make the receipt of help an unpleasant experience. Where help is offered at the study site and the experience of receiving help is positive, this is a feature of the organizational climate which appears to encourage employees to use behaviors associated with learning-supportive relationships

**Help-Seeking Modeled by Coworkers**

Many participants indicated that they saw coworkers seeking and sharing help and information with each other at the study site. Participants reported that they got a general sense of help-seeking being an appropriate thing to do because it was a common behavior in their workplaces. They felt comfortable doing it because, as one paralegal participant noted, “everybody does it.”

These results suggest that opportunities to see coworkers engaging in help-seeking and help-using constitute social cues for help-seeking and using. Where such opportunities are present at the study site, they are features of the organizational climate that appear to encourage employees to use behaviors associated with learning-supportive relationships

**Positive Reaction from Supervisor**

No participant described a negative reaction from a supervisor when employees at the study site sought help from each other. Some participants described positive reactions. One participant described a significant positive reaction when a supervisor observed the participant conversing with a coworker friend shortly after being hired at the Attorney General organization:
I’d been here a couple of months. [Coworker]...was in my office one afternoon and we were talking about the application of the...Act to this and this and this, and the legal aspects of it. The Section Chief walked by and I thought, “Here I am a new employee and I’m bullshitting with my friend and here comes...[the Section Chief].” And...[the Section Chief] looks in and says, “You know, I really like it that you are spending time not just working on cases but talking about what we do.” So there was a positive reinforcement for...collegiality.... Now I’ve not had any managers say anything since then, but my sense has been that nobody begrudges that and they all think that’s a positive aspect. (Staff Attorney)

Supervisor approval constitutes a positive consequence for help-seeking and help-using. Where such approval occurs at the study site, it is a feature of the organizational environment which appears to encourage employees to use behaviors associated with learning-supportive relationships.

**Experience as Help-Giver**

Some participants indicated that they would approach certain coworkers for help because they had previously given help to those coworkers:

> It becomes a two-way street. You know, other people come to me when they get a hard case, I talk to them. And then, when the shoe’s on the other foot...I feel comfortable going to them. (Staff Attorney)

These results suggest that opportunities to *give* help to coworkers can create self-control cues for *help-seeking*. Where such opportunities are present at the study site, they are features of the organizational climate that appear to encourage employees to use behaviors associated with learning-supportive relationships.

**Climate Features Encouraging Help-Giving**

Participants described a number of climate features that appear to encourage employees at the study site to give help and support to other employees for learning. These are described below.
Information About Learners' Needs

Participants indicated that a common reason for a coworker at the study site to offer help to an employee is simply learning that the employee needs help:

A. They may come to you and say, "I hear from somebody that you just got this kind of case. That's really interesting because I had that issue before"....When they realized that someone hasn't had experience or when they think maybe the person has not had experience by that type of issue, they would come to you as much as anything to offer help.

Q. They would? They'd voluntarily come forward?
A. Uh, huh. Yes. (Staff Attorney)

Opportunities to know about the work and learning needs of other employees can arise in various ways, participants suggested. In many cases, the supervisor plays a role by sharing information about employees' tasks with coworkers in formal or informal office meetings, such as weekly meetings held regularly in some sections and units. In other cases, peers share the information with each other in the course of work or socializing. In tightly focused sections, employees are able to leverage their own expertise in order to make assessments about other employees' needs:

Q. How would he [supportive coworker] know what you were working on, or what you would need help with?
A. Well, because we generally have the same type of cases, he would know if I had just received a case at what point I might be or what level of the proceedings that help might be needed. (Staff Attorney)

Not all coworkers at the study site have opportunities to know about the needs of other employees, participants suggested:

We really are like solo practitioners here [in participant's section]. We each have our different cases here and nobody really knows what else is going on in the cases except the boss and the client. And that's it. (Staff Attorney)

With regard to organizational climate, opportunities to know about other employees' needs arising through conditions such as unit focus and information-sharing practices of supervisors and peers constitute cues for help-giving. Where such opportunities exist at the study site, they are fea-
tures of the organizational climate that appear to encourage employees to use behaviors associated with learning-supportive relationships.

**Help Requested by Learners**

Participants indicated that being asked to give help is another common reason for a coworker at the study site to provide help to an employee. Participants said they received help from coworkers in some cases because they approached the coworkers with requests for advice, examples, critiques, or other forms of support. Participants also gave help to other employees simply because those employees requested it, in many cases. Not all employees do request help, participants said.

With regard to organizational climate, being asked to give help constitutes a cue for helping. Where other employees seek help from coworkers, that is a feature of the organizational climate which appears to encourage employees at the study site to use behaviors associated with learning-supportive relationships.

**Past Receipt of Help from Other Coworkers**

Having received help in the past was another commonly cited reason for helping an employee at the study site. Many participants indicated that they had "been there." They were sympathetic to learners and felt a moral obligation to give help and support:

It's a difficult field of endeavor...and there's just lots of traps for the unwary—and especially the newer and younger attorneys who are just starting out. I've been there. I've been alone in the cold, worrying about my next step. And anyone who doesn't feel, "I want to reach out and help pull this person along," probably isn't much of any attorney anyway. (Staff Attorney)

Let's see. "I feel I should help A.G. coworkers to learn whenever I can." I strongly agree, obviously depending on the time constraints...Law is hard enough to practice without trying to learn it all yourself. And I've...been through periods where I've had to do that. I understand that and empathize when people are starting out new. (Staff Attorney)
Participants who had received help in these difficult situations were willing to share help with others consequently:

A. ....People come to me and unless I absolutely don't have the time, I make it. I think that it's important....

Q. Why is it important for you to do that....?

A. ....I just can remember myself. I mean...some of the questions I get now, the answers seem pretty simple. But I can understand. I mean I've had that uneasy, nervous feeling when you're looking at an issue for the first time and you're not quite sure. And if you can go to somebody, not only can they say, "This is how you do it" but they can give you a reason, make you feel comfortable. (Staff Attorney)

Participants in these examples are not describing reciprocity: "You help me now and I'll help you later." They are describing the ability to feel empathy for one employee because of being helped by another employee previously. With regard to organizational climate, these results suggest that help-giving practices among coworkers can cue further help-giving. Where such help-giving occurs at the study site, it is a feature of the organizational climate which appears to encourage employees to use behaviors associated with learning-supportive relationships

**Likelihood of Future Reciprocation**

Expected reciprocity was a reason cited by some participants for giving help to other employees now. Participants indicated that this expectation could arise in various ways at the study site. In some cases, a particular employee and coworker had established a history of reciprocal helping. In other cases, there was a general custom or norm of reciprocal helping among coworkers.

With regard to organizational climate, reciprocation is a positive consequence of helping. Where employees can expect reciprocity, that is a feature of the organizational climate which appears to encourage employees to use behaviors associated with learning-supportive relationships
**Benefit to Own Learning**

Many participants suggested that giving help to other employees enabled the participants to improve their own knowledge and skills:

Mentoring...can help a more experienced attorney to look at issues from new directions. (Staff Attorney)

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And it helps me...to work through...things again, too. I mean, sometimes I haven’t looked at a problem in a while. If you’re helping somebody else, you’re usually at the very least refreshing things in your own mind. (Staff Attorney)

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“Helping coworkers to learn benefits me.” Yeah. I’d strongly agree to that because often when they’re talking about problems they have on a case, or how to find something, you find out some other way to do it or you learn something that you didn’t know at all or you haven’t used in a while....You might be helping someone find a case that helps you in another case. So I don’t think there’s ever been something where we’ve been bouncing ideas around where it hasn’t helped me out to some extent. (Staff Attorney)

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“Helping coworkers to learn benefits me.” I agree with that, definitely....One of the ways for me to organize my thoughts, you know. Sometimes you just know something in the abstract form until you sit down and try to explain it to somebody else....You really don’t have all the steps down so it’s very helpful. Or you point out those areas you really don’t know, if you talk long enough....“Maybe that isn’t right. Maybe we both need to take a look.” (Staff Attorney)

With regard to organizational climate, learning by helping other employees to learn constitutes a positive consequence for helping. Where employees can realize improvements in their own knowledge and skills as a result of helping others at the study site, that is a feature of the organizational climate which appears to encourage employees to use behaviors associated with learning-supportive relationships.
Benefit to Own Work Efficiency

Several participants suggested that helping other employees to learn aided the participants' own work, as well as their learning:

In the end, I think my job is easier if I help others be more effective at their job. For that reason, it is worthwhile. (Staff Attorney)

It helps both parties....In the long range, time for anyone...helps the section as well as the individual. (Staff Attorney)

Participants in some cases indicated that benefits accrued as a result of helping others, because of interdependencies in the work of various employees. For example, staff attorneys in an emerging area of law needed to coordinate their work to avoid making inconsistent arguments before the same courts or administrative agencies, or to avoid setting precedents that would negatively affect each other's work. In addition, staff attorneys sometimes could provide facts that served as "missing pieces of the puzzle" for other employees dealing with related matters, a participant indicated. Employees who shared information, advice, and examples and served as sounding boards for each other were able to coordinate their work better and gain useful insights. Participants recognized this and were willing to help each other for this reason, among others.

With regard to organizational climate, improving one's own work by helping other employees to learn constitutes a positive consequence for helping. Where employees at the study site can realize benefits for their own work by helping others, that is a feature of the organizational climate which appears to encourage employees to use behaviors associated with learning-supportive relationships.
Recognition and Organizational Rewards

Some participants were aware of organizational rewards being available for helping other employees to learn. Again, however, participants expressed a degree of indifference regarding these rewards:

"My employer will reward me if I help coworkers learn and improve." Well...to some extent, "yes." It's considered in our evaluations. (Attorney/Supervisor)

A. "My employer will reward me if I help coworkers learn and improve." Absolutely....

Q. In what way do they reward you?

A. By designating you as coordinator of something or other, praising you. I don't know, maybe it might reflect in a merit-type raise. I don't know.

Q. Is that much of your motivation for helping coworkers?

A. No. Not really. (Staff Attorney)

I'm accessible to everybody. They know that. I'm a leader. That's one of the reasons I've gotten promoted and rewarded. But it wasn't my motivation for doing that. I mean, that's who I am and what I do. (Staff Attorney)

Obtaining organizational rewards and recognition for helping others to learn constitutes a positive consequence for helping. Where such rewards are available at the study site, they are features of the organizational environment that may encourage employees to use behaviors associated with learning-supportive relationships. However, the influence of such rewards at this time appears to be slight.

Shared Sense of Significance Regarding Work

Many participants suggested that a shared sense of significance regarding their work drives employees at the study site to undertake the various behaviors associated with learning-supportive relationships: striving to learn and improve, seeking and using help from coworkers for learning,
and giving help to coworkers. In some cases, participants indicated, this sense of significance de- 

rives from the subject matter of the employees’ work—e.g., protection of human rights or human 

health. In some cases, it derives from beliefs about the level of challenge faced and the level of 

quality attained by the employees and their section or unit colleagues. In other cases, this sense of 

significance is related to the organization’s status as paramount champion of the State and its peo- 

ple in legal matters. Often, these ideas intertwine:

There’s always a bit of competition about which unit has more work and which 

unit, you know, has more sophisticated work. So I think people talk about their 

work, number one to get help, and number [two]...because of pride in your own 

unit. (Staff Attorney)

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Q. I imagine there’s also got to be an element in there of people...caring 

about doing a good job?

A. Oh, yeah....It’s also the type of work we do....You really don’t come to 

this section unless you really believe in that kind of work....It’s highly com- 

petitive to get into this section. And you really have to want to do this 

type of work. It’s complex litigation so that’s not for everyone. (Staff At- 

torney)

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In this section, the people are...mission-oriented....They want to [advocate in the 

subject matter area]...and second and equal to that is they want to do a good job 

for the Attorney General. They want the State to look good. They want to do 

dwell in court....People expect the Assistant Attorney General to be better than the 

local prosecutor, better than the local attorney. We are the Attorney General’s of- 

fice and people expect it. And nobody wants to walk into the courtroom and tar- 

nish that. (Attorney/Supervisor)

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This just sounds so romanticized, but I think...here you have probably the purest 

practice of law that you’re going to get. Because you really are focusing on the 

law, the legal issues, defense and representation of the People....It’s hard to be 

wrong when you’re on that side.... And they believe in what their clients are trying 

to do. I have to think that those are the motivators, because it’s not what you’d 

normally find. You now have more refugees from law firms coming to this office, 

too. And I think that that is interesting, because it isn’t money that is necessarily 

driving a lot of people. (Section Chief)
Participants indicated that employees make concerted efforts to learn and improve, and to help each other learn and improve, when they share a significant mission:

When the goal is a superior product, review and comment is encouraged, supportive and welcomed. (Section Chief)

There needs to be a common goal or interest in working together and in working toward a particular objective. (Section Chief)

In addition, however, employees at the study site interact in ways that incidentally generate opportunities to learn, because they and their coworkers share a sense of their common tasks being interesting and important. This finding is consistent with previous studies of other occupational groups, such as Orr’s (1990) study of “war story” telling among skilled technicians, and Larson’s (1991) study of informal learning among paramedics:

Sometimes people are just going up there [to observe coworkers at trial] because they think it’s going to be interesting. But that doesn’t mean it’s not going to be a learning experience. (Staff Attorney)

Q. Do you see any rewards or encouragement that you get from coworkers?
A. ....Encouragement, yeah. I would say not active encouragement...but just an interest. If someone does begin to talk about a new topic, and things that are involved in...the legal aspects of it, people do seem to join in the conversation rather than act like it’s of no interest. (Staff Attorney)

A. We tell war stories here. That happens all the time. I’d say it happens on a weekly basis with somebody. Either somebody’s coming in your office or you’re going in theirs.

Q. If they’re telling a war story, is that for the purpose of helping you with a specific case or is that just an interesting story?
A. It’s just an interesting story....I’ve learned some of my best techniques from those. Because a lot of times those involve something that’s a very difficult, either a plaintiff or a plaintiff’s counsel, or sometimes a client. So you learn how to deal with something. It’s just like a little kernel of information that you store for a day that you need it. (Staff Attorney)
Employees at the study site have varying opportunities to gain a shared sense of significance regarding their work, participants indicated. Participants described various practices of supervisors and peers that seem to contribute to a shared sense of significance regarding employees' work, including:

- Articulating a formal mission statement linking employees' work to important outcomes such as protection of human health.
- Making inquiries and displaying interest in the work employees are doing.
- Referring to employees' work as interesting or important in conversation.
- Articulating a need for high quality and providing support and resources to enable employees to achieve high quality.

With regard to organizational climate, a shared sense of significance regarding work constitutes a behavioral cue. Where practices of organizational members create a shared sense of significance at the study site, those practices are features of the organizational climate that appear to encourage employees to use behaviors associated with learning-supportive relationships.

**Co-Counsel Arrangements**

Some participants described seeking help from and giving help to co-counsel (counsel with joint responsibility for a case). One participant indicated that the prevalence of co-counsel arrangements in the participant's unit provided a strong motive for helping. Because of the complex nature of the unit's cases, the participant could expect to be co-counsel with every unit member at some time. Because the participant could expect to be co-counsel with every coworker, it was in the participant's interest to insure that coworkers had essential skills and knowledge as well as good personal relations with the participant:

Cases are much more complex down here. They're not as simple. You can't handle them by yourself. You have to have co-counsel on every case, so you have to be able to work together and I think everyone knows that. (Staff Attorney)
In contrast, the participant also had experience in an area of the Attorney General organization where cases were simpler and co-counsel arrangements were not prevalent. Coworkers in that area did not help each other to learn or to complete tasks, the participant said.

Participants in general reported learning more outside co-counsel arrangements than in such arrangements. Several participants reported that they simply do not have co-counsel very often. One participant reported, however, that having co-counsel actually undermined the participant's ability to learn. Co-counsel in that case controlled the distribution of work among the attorneys assigned to the case. Co-counsel prevented the participant from handling tasks or entering situations that would have been new and developmental for the participant:

It was a "dump" relationship where you did all the legwork and then they took the case and ran with it after that. (Staff Attorney)

Where co-counsel do not use undermining behaviors, there is potential for co-counsel arrangements to provide exceptionally good learning opportunities. Joint tasks and common problems can be opportunities for dialogue and reflection in important real-life contexts. Co-counsel attending depositions, hearings or trials together can observe each other's work, pick up new techniques and insights, and offer useful critiques to each other. Participants indicated that they do learn in such ways, on occasion.

However, participants also indicated that time pressures at the study site lead employees to circumvent the opportunities for shared work and learning in many co-counsel arrangements. It takes more time, at least in the short run, to do each task together. Employees can save time by simply dividing up their tasks, and when time and workload pressures are intense, they do so:

Q. Have you ever had the situation where you're technically co-counsel but you don't really share work on anything. You just take a case, break it into pieces, and you have your piece and the co-counsel has their piece? And you never really interact?

A. The busier you get, the more that happens, I think. And you get to a point where you're so busy that, you know, two of you will have three cases together, and you'll say "You take case 'A' and just tell me if anything big happens, and I'll take case 'B' and I'll let you know if anything big happens, and then case 'C,' we'll each do that." Just as a time management technique. So sure I have cases like that. (Staff Attorney)
A. I think I get more help in a case where...I do all the work and I just go to people and ask them things, bounce ideas and research off them, than I ever do in a co-counsel relationship.

Q. Why do you think that is?

A. I think everybody in our office is just too busy to have time to try to like drag you along and help you learn with them. They just take the case and do it....It's real hard in our office to...run a co-counsel case, because it's just a consistent nightmare....

Q. ...A lot of people feel that adults learn more when they're in groups or teams and they're sharing the work.

A. I think if time permits, you will. But in our office, time doesn't permit and you've got to, you know, if I've got a full calendar, you toss it off to co-counsel and they do whatever needs done on the one case. You just juggle things around as fast as you can...to get them covered and get them done.

Q. But if you're not working as co-counsel, then you could go to those people and ask for information?

A. Yeah. I could just handle the whole case and sort of go...find out information as need be. And it's more consistent because I know what's going on with the case all along. The problem with co-counsel relationships in our office is co-counsel doesn't keep you abreast of what they're doing, so you never know....And, to me, it makes it harder to work and harder to accomplish the end goal. (Staff Attorney)

With regard to organizational climate, opportunities to participate in joint work through co-counsel arrangements can be a cue for seeking and sharing help and information. Opportunities are not available in all cases at the study site, participants indicated, because of factors including high workloads and limited time. Where such opportunities are available, and where employees do not use these opportunities to oppress each other, that is a feature of the organizational climate which appears to encourage employees to use behaviors associated with learning-supportive relationships.
Climate Features Discouraging Learning,

Help-Seeking or Helping

Various features of the organizational climate at the study site appear to discourage learning, help-seeking, or helping. These are described below.

Time

The most commonly cited reason for participants not engaging in learning, help-seeking, and help-giving activities was time. This point is illustrated by a sampling of the comments from many different participants:

Most are willing to give advice and take advice. Time constraints seem to be the most limiting factor. (Staff Attorney)

Unfortunately, work is often so overwhelming that it is difficult to find the time to devote to [mentoring]. (Staff Attorney)

There needs to be time to interact and learn instead of being taken up with work that must be completed timely due to court imposed deadlines. And when there may be time for one, there may not be time for others. (Section Chief)

Q. What do you see being the biggest barrier to attorneys in this section being able to learn and improve their practice?
A. Time. I think that attorneys would like to be able to spend more time on issues and work them a little more thoroughly....

Q. What do you see as being the biggest barrier to your own learning and practice improvement?
A. Time. We... always feel like we're just barely above water and are constantly bailing....The inflow of matters is just incredible. (Section Chief)
A. "Discuss profession’s best practices and innovations with coworkers." Chances are I’d probably say that that’s not something that would be a real high priority....Generally we’re just too busy with our regular case load to spend a lot of time on that.....

A. “Observe coworker in legal proceeding in order to learn and improve your performance.” This is something that I’d like to do. I don’t get a whole lot of opportunity to do it, unfortunately. Mainly because of time.....

A. “Do proactive reading of legal publication.” That’s definitely something...that’s probably pretty...low priority....Just because I don’t really have time to do that. (Staff Attorney)

Participants’ concerns about time must be considered in relation to an aspect of the compensation system at the Attorney General organization: Full-time staff attorneys and other professionals who are exempt from the collective bargaining system applied to secretarial staff and others have their wages calculated based on a 40 hour week. However, such professionals can work up to 45 hours per week without receiving additional compensation. Hours over 45 are compensated with time off. Therefore, if a staff attorney or similarly situated professional spends five hours helping a coworker to learn on Friday, and must work five hours on Saturday to complete other tasks such as writing a brief, that weekend time will not be compensated either monetarily or with time off. The time will simply be donated to the State.

One section chief participant noted that the financial rewards for staff attorneys at the Attorney General organization are much less than the rewards available at many private sector firms. However, that section chief suggested that staff attorneys at the Attorney General organization should not focus on concerns about uncompensated time:

When I interview people to come into the section, if someone says one of the reasons they want to come to work for the Attorney General is because they want more reasonable work hours, to me that’s kind of the kiss of death in an interview because I’m not interested in having that kind of person. People here will work long hours even though they’re not getting paid for it. I’m looking for, I think, the public service focus and that’s the core of what they’re going to do here. And they’re going to work long hours just like people in a law firm do....But if you don’t have that public service focus, the person probably isn’t going to stay here very long.

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This participant’s suggestion that Attorney General employees should value public service was echoed by other participants, including staff attorneys. However, the participant’s comments also raise a question about possible incongruity in management practices at the organization: Do organizational leaders say on one hand that learning and help-giving are so important that the organization wants those behaviors to occur, yet so unimportant that the organization will not pay for them? If so, employees at the study site may conclude that such behaviors are not “really” important.

Interestingly, although several participants speculated that interpersonal competition would be the greatest barrier to learning-supportive relationships in a private sector workplace as opposed to the Attorney General organization, participants with experience in private law firms suggested that time may be the most important barrier in private sector firms as well:

I came from a very large law firm where the atmosphere was not at all conducive to co-worker informal learning relationships. The pressure to make the ever-increasing number of yearly billable hours [i.e., work for which clients can be billed] made it hard for us to take the time to listen to and help each other: how could we bill that time to a client? (Attorney, Other)

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Especially in private practice, the mentor system, they don’t have the luxury...because you are billing by the hour, by actually six minute increments. So you’re under the gun all day to produce. It’s more difficult for that person in private practice to take that half hour out of their time if you have a major problem to work on. (Staff Attorney)

Adult learning theory (e.g., Knowles, 1980, 1984) recognizes that adults tend to have multiple demands on their time. Adults’ concerns about time scarcities and needs to use time effectively influence adults’ preferences regarding both how they learn and what they learn. Adults prefer economical, task application-oriented learning approaches. They tend not to be interested in learning about subject matters for their own sake. They tend to center their learning around tasks they deem important and may avoid investing in learning about matters that seem non-essential. From adult learning theory, one would predict that employees at the study site would be uninterested in learning which is not obviously connected to tasks the employees consider to be important.
What remains to be explained is how employees at the study site decide what is an important task and what is not. To answer this question, it is necessary to consider additional features of the organizational climate at the study site.

**Lack of Goals**

Performance goals set by supervisors or other organizational members and communicated to employees in the form of requests or requirements can function as cues for accomplishing certain tasks (Rouiller & Goldstein, 1993). Participants in this study routinely denied that they had ever been requested or required to perform some learning, help-seeking, and help-giving tasks:

Q. Is there anything outside of your own personal experience that’s signaling to you that that’s your responsibility, or that’s the correct thing to do? To help people learn?

A. ....I don’t think anyone’s ever said, you know, “This is what we expect out of you....” It’s never been said that, “This is what we want.” Not that I recall, anyway. (Staff Attorney)

Participants suggested that they did not attempt to perform some learning and helping tasks because the tasks were not expected or required:

These [lower priority tasks] are things that you do if you’re asked for them....Once again, it’s things you’d like to do if you had all the time in the world.....”[Discuss ways to] improve office procedures with coworker....Prepare contribution for office brief bank.” I mean if that’s something you’re required to do right away, of course you’d put it in the priority category. But it’s something that’s voluntary, yeah, it gets lower priority. (Staff Attorney)

Where performance goals are missing at the study site, this is a feature of the organizational climate which appears to discourage employees from using behaviors associated with learning-supportive relationships.

**Lack of Models**

Models, in the guise of coworkers or their work products, can function as social cues for performing certain tasks (Rouiller & Goldstein, 1993). Employees at the study site appear to lack
models for some learning and helping tasks. Participants indicated that they were unfamiliar with such tasks although, upon reflection, some participants thought the tasks would be worth doing:

"Seek feedback from clients regarding your service quality." I just get the feeling that it's more important to find out what my coworkers or my supervisor thinks of me than my clients at this point. So I have not actually done that. That almost doesn't make sense when I say that. It did when I put it in that [lower priority] pile. (Staff Attorney)

Q. What about the task of seeking feedback from a client regarding your service quality....?
A. I think that happens naturally....
Q. So...you wouldn't say, "I'm going to write down on my calendar, 'Next Wednesday call the client and ask them how they think things are going in general: Are you satisfied with what we're doing?"
A. I never have ever done that. Maybe somebody needs to do that.
Q. Do you know of anybody who does that?
A. My boss might do it to evaluate us....
Q. But you don't know of just other staff attorneys who do?
A. No. I have to say I don't. (Staff Attorney)

A lack of models may undermine improvement because it deprives employees of opportunities to know how to accomplish certain learning or helping tasks. This problem appears to confront the participant in the following excerpt:

I don't think you ever finish developing your skills as a lawyer. But there's a great deal of what I do now that I don't understand there to be any further skills to develop....There's a lot of different things I do on a daily or weekly basis that I don't know how I would polish those skills any better. (Staff Attorney)

Where performance models are missing at the study site, this is a feature of the organizational climate which appears to discourage employees from using behaviors associated with learning-supportive relationships.

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**Contrary Models**

Models contrary to learning, help-seeking, and help-giving were not frequently mentioned by participants, but were evident in some instances. For example:

Proactive reading of legal publication....Most of the people in the office cross their name off the list and forward it on without looking at it. And they joke about it; that’s how I know what they do. (Staff Attorney)

Where such contrary models exist, they may discourage employees at the study site from engaging in some learning, help-seeking, or help-giving behaviors.

**Lack of a Process**

Task design can be a climate feature which prompts performance of certain tasks within an organization (Rouiller & Goldstein, 1993). An aspect of task design is the extent to which there is a structured process for accomplishing a task or engaging in some behavior. Participants in this study indicated that there is no structured process for many learning, help-seeking, and help-giving tasks at the study site, and therefore participants are not likely to attempt those tasks:

“I enjoy talking with A.G. coworkers about ways to improve my work.” That’s different from...asking about something specific that I need to know. And I would say I don’t know about that, because...I wouldn’t go to somebody else and say to them without a context, “How can I do a better job at X?”....Saying, “[Coworker]..., how do you think I could do a better job of talking to the complaint people?” I mean...there’s not a context for that kind of inquiry. (Staff Attorney)

In contrast, where a structured process for learning, help-seeking, or help-giving does exist, participants are likely to accomplish those tasks:

Because of our structured meeting schedule, every Monday afternoon, I know that there will be a forum for me to do things like that, share the information. And there are times when my supervisor will tell us, you go to this teleconference, take good notes, you’re going to report back to the unit. (Staff Attorney)

Where a structured process for learning, help-seeking, or help-giving tasks is missing at the study site, this is a feature of the organizational climate which appears to discourage employees from using behaviors associated with learning-supportive relationships.
**Lack of Technology**

Employees need not always interact face-to-face with coworkers in order to learn. They can receive information, advice, examples, or sounding board services from coworkers through technologies such as telephone, computer e-mail and bulletin board systems, and routing services through which coworkers can circulate copies of articles and opinions that may interest other employees. Employees at the study site also have access to examples of coworkers' work products stored in "brief banks" or computer databases.

Participants in this study indicated that they do not always make use of such technologies. One participant indicated that faults in technology rather than lack of content quality was a reason for failing to make use of the brief bank in the participant's section:

Q. What about checking the office brief bank to find examples you might copy or build upon?

A. I almost never do it....

Q. Do you find that the brief bank is not useful?

A. It's not indexed appropriately. That's why it's not useful for us....We need a better way of accessing the information. If they scan the briefs in, and you can do a keyword search, it would be very helpful. But unfortunately, we don't have that way.

Q. So it's the retrieval, the technology rather than the quality of the briefs that are the problem?

A. Oh, right. We have great quality of briefs in this section. (Staff Attorney)

Where technology for interacting with other employees or accessing the work of other employees is deficient at the study site, this is a feature of the organizational climate which appears to discourage employees from using behaviors associated with learning-supportive relationships.

**Lack of Feedback**

Feedback from other organizational members about the effects of employees' behaviors can be a type of consequence which motivates employees and allows them to regulate their behav-
iors more effectively (Rouiller & Goldstein, 1993). Some employees at the study site appear to lack feedback regarding the effects of their behaviors on other employees' abilities to learn and improve. Many participants indicated that they did not tell their learning-supportive or unsupportive coworkers how those coworkers were affecting the participants' efforts to learn and improve.

Participants who did not give feedback to coworkers said they assumed that their coworkers already knew, or would not care. However, Rickett (1989) found that coworkers at his study site frequently were not aware of their influence on other employees' learning. Employees at the study site who lack feedback may not know of the effects of their behaviors. Where feedback about employees' effects on other employees' abilities to learn and improve is missing at the study site, this is a feature of the organizational climate which appears to discourage employees from using behaviors associated with learning-supportive relationships.

**Negative Reactions from Coworkers**

Negative reactions from supervisors or peers can function as consequences that discourage employees' use of certain behaviors (Rouiller & Goldstein, 1993). Some employees at the study site appear to encounter negative reactions when they attempt to learn and improve. For example:

A. I was discouraged from further research on issues already researched. It was kind of like, "Oh well, why do that again? Somebody's already done it. Don't even bother doing any more work on it"....

Q. And you've had a feeling of...not being able to establish the standards that you wanted?

A. ....I had more of a feeling like I was resented for wanting to establish those standards for myself. Because I was rocking the proverbial boat. (Staff Attorney)

Participants in this study did not report many instances of negative reactions for learning, help-seeking, or help-giving but they indicated that such reactions could affect their behaviors:

If the situation was...where managers didn't value that [helping coworkers], I probably wouldn't do it as much because I don't want to cross anybody's path....I'm not internally motivated to help other people to the point where I'd jeopardize myself to do it. (Staff Attorney)
Where negative coworker reactions result from employees' efforts to learn and improve at the study site, this is a feature of the organizational climate which appears to discourage employees from using behaviors associated with learning-supportive relationships.

**Interpersonal Competition among Coworkers**

Interpersonal competition is at least potentially a feature of any workplace with multiple employees. Interpersonal competition may create various behavioral cues and consequences that discourage employees from seeking help and especially from giving help to each other. Participants in this study described some instances where interpersonal competition discouraged help-giving at the study site. For example, one attorney participant described a group of employees in competition for higher-profile cases, who refused to share information or help each other with work tasks. A non-attorney participant made reference to coworker learning relationships being "ineffective and useless" where employees with equal experience compete "for title, position and salary."

However, interpersonal competition was not frequently mentioned as an influence on coworker relationships. Just nine of the 60 questionnaire participants agreed or strongly agreed that, "I need to compete against my A.G. coworkers in order to achieve career success." Of those nine, four were attorneys and five were non-attorneys. Many interview participants flatly denied that interpersonal competition is a problem at the study site. Where interpersonal competition was described as a problem, it appeared that management actively encouraged employees to compete against each other. One participant who acknowledged behaving in competitive rather than cooperative ways in a section of the Attorney General organization where interpersonal competition was prevalent indicated that he was very cooperative with other employees after transferring to another section.
These results suggest that interpersonal competition may not discourage employees at the study site from engaging in learning, help-seeking, and help-giving unless extraordinary management practices are used to induce employees to compete against each other.

**Competing Tasks**

Staff attorney participants who said they lacked time for learning frequently made reference to the volume of other tasks they had to perform and the lack of assistance they had for getting them done. Some of those were core production tasks of a staff attorney—arguing court cases, for instance. Others were ancillary tasks, such as doing time sheets, checking phone messages, and reading mail. Still others were tasks that in some settings would be considered non-attorney tasks:

- Typing.
- Copying.
- Filing documents with courts and agencies.
- Filing documents internally.
- Scheduling appointments.
- Retrieving state cars for out-of-town travel.

Such “non-attorney” tasks, participants indicated, could consume much of a staff attorney’s time. For example, one participant claimed to spend one half day per week completing tasks such as filing documents internally. Over the course of a year, that would amount to five full work weeks consumed by “non-attorney” tasks.

Participants suggested that staff attorneys at the study site have less time for learning and less time for improvement of performance on core production tasks because they spend so much time on non-core tasks. They attributed part of this problem to lack of assistance from support staff on non-core tasks, as shown in the following excerpts of interviews with staff attorneys in three different sections of the Attorney General organization:

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A. Because it's the government, I think we get bogged down in a lot of administrative things that impede us from practicing law and spending more time learning....

Q. What sort of things?

A. Well, I'm amazed at the number of forms you have to fill out on numerous things....I think that takes away from the time that you can spend doing learning. I think the support staff is not as good as the private area, so that you spend more time doing your own copying or doing your own typing, you know, the clerical stuff that in a perfect world you'd have support staff doing so that you'd be free to...practice law or run things by your coworkers. (Staff Attorney)

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A. Lack of support staff. I think that's our biggest problem, at least in this section. I do so much secretarial work that I shouldn't be doing....

Q. If you could free yourself from that, what would you do with the time?

A. Oh, I'd work on some of these motions that I have hanging around....I like to read about the area that I practice in. One of my clients...sends me these [journals] when she's finished with them. I try and read one or two....Sometimes I have weeks when I don't read any of them. (Staff Attorney)

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We have no one who does any of our filing....A lot of it is that they [secretarial staff] have never been delegated the work of filing or organizing the files. They've never been trained in that. I don't even know if it's part of, under the union, what they can do. (Staff Attorney)

Participants suggested that they could learn and improve more with appropriate support:

It would be nice to have...a permanent paralegal that I could send to help me do my research. Because a lot of it is, I know what I want, but because of sheer time I don't have three hours to sit down in the library and pull up every case....But I could give a fairly direct question to a paralegal to give me 10 or 15 cases in that area, and then I could go through them. (Staff Attorney)

Participants also suggested that although core production tasks or other tasks can present opportunities for learning, employees at the study site feel too rushed to take advantage of such opportunities:

You get the feeling that you're more sort of processing cases through instead of learning from them. (Staff Attorney)
You find yourself, you’re not thinking long-term, you’re not thinking finished product. You’re thinking, “Oh my god, I’ve got three motions to respond to by tomorrow or by today or the next day.” So it’s a very immediate and short-term approach. (Staff Attorney)

Participants indicated that their core production tasks and non-core tasks are expected or required by management and performed by participants’ peers. The Attorney General organization provides tools and equipment to facilitate staff attorneys’ completion of the tasks. Severe negative consequences are likely to follow if the tasks are left undone. From these cues and consequences participants concluded that it is necessary and important within the Attorney General organization to accomplish such production tasks even though—as participants acknowledge—that lessens time for learning.

Where cues and consequences for non-learning tasks are present at the study site, those cues and consequences are features of the organizational climate that appear to discourage employees from using behaviors associated with learning-supportive relationships. Instead, employees are encouraged to devote their time and effort to non-learning tasks. Immediate production is favored over long-term gains through increased knowledge and skill.

Interplay of Climate Features

Climate features have been discussed one-by-one in this chapter. However, participants often described an interplay of various features influencing employees’ behaviors at the study site. This finding supports the notion that employees will tend to respond to the entirety of performance systems in place at their worksites (Gilbert, 1978; Rummler & Brache, 1990). That tendency makes it difficult for a manager to bring forth desired types of performance with one “lever” or intervention alone (Rummler & Brache, 1990).
The interplay of climate features is evident in the following excerpt. This interview is with a staff attorney participant discussing various learning and helping tasks suggested by the researcher. In this excerpt, the participant indicates two things. First, the participant's helping behaviors have varied in two different work environments—the participant's previous section, and the participant's current section. Second, the participant's behaviors are shaped by multiple factors including:

- The mission of the participant's unit ("it helps the group achieve a goal").
- Behaviors modeled by coworkers (circulating information among other employees).
- Coworkers' receptiveness to learning and help-using (they "would be interested in improving themselves").
- Interpersonal competition in the participant's previous section (so "you don't want to share your ideas").
- A structured process for learning and helping tasks ("there will be a forum for me to do things like that").
- Social norms ("you end up stamping out anybody who's...against it....There's just no room for them").
- Coworkers' explicit requests or requirements that the participant contribute to group discussion of unit tasks and problems ("I've been told, 'You're not participating. Wake up'").

A. "Make copy of an article/case for a coworker who may be interested." I can give that to a secretary, so that's easy. That's like an immediate thing.

Q. Some people would not necessarily see that as their responsibility....

A. Really? Well, if I have the article, why make them go to the library and look it up or whatever?

Q. Well...are you even obligated to let them know that...[the article is] out there? Is that your responsibility?

A. ....If it's something that's relevant to our case work and it would help everyone, sure, it's my responsibility to bring it into the group. Sure.
Q. How do you know that it is?
A. It improves the group, it helps the group achieve a goal, makes us better attorneys.

Q. Would other people do that for you?
A. Sure. In my unit they would, those people would....And even in the section, if someone has a big decision or something like that, they'll circulate it to everyone. I've got, you know, files full of trial practice tips and writing tips that people have circulated. And I've circulated stuff like that too.

Q. How about in your previous section? Would it still be your responsibility? Would you have seen it as your responsibility to do that?
A. Probably if it was a big decision, yes. But if it was just an interesting article, no.

Q. What about if it's just an interesting article in this unit? Would you?
A. Probably.

Q. What, why the difference?
A. Because these people would actually be interested in it. They would be interested in improving themselves as attorneys, and making the section better.

Q. Would it be a wasted effort in the previous section?
A. Pretty much. Probably get about 10 to 15 percent of the people would be interested.

Q. What would the others do? Not read it?
A. Look at it, throw it away.

....

Q. If you're concerned about your time you could just go to a CLE, learn something useful, come back, and keep it to yourself.
A. You could.

Q. It's taking more effort for you to let everyone know.
A. And that's what I would have done...[in participant's previous section].

Q. That's what you did before?
A. Sure.
Q. Other people did that too?
A. Sure because it was competition for ideas. So you don’t want to share your ideas. You wanted to woo the client with new ideas and innovations, rather than the people around you. But it’s different down here [in the participant’s current section].

[Q. [In participant’s current section] if you go to a CLE, come back, keep it to yourself, your coworkers won’t necessarily find out?
A. Correct....Because of our [current] structured meeting schedule...I know that there will be a forum for me to do things like that, share the information....

Q. Do you think the fact that you’re doing that in a structured way, that you just get into the habit of that? That it makes you more likely to do it informally as well?
A. Probably. But because of the structure you end up stamping out anybody who’s, you know, who’s against it or wants to go toward the other scenario that I’ve described.

Q. Stamping them out in what way?
A. There’s just no room for them. Really.

Q. So what will happen?
A. I really don’t know. I’d be curious to see. But I know there have been a couple times where I just have been not participating, just sitting there listening, and I’ve been told, “You’re not participating. Wake up.”

Q. Who?
A. Just whoever’s sitting next to me. Whoever happens to notice. Not in a mean way but just, you know, “Come on, this is a group activity.”

Q. There’s social pressure?
A. Yeah.

Q. Okay.
A. It’s not hostile or anything.

The interplay of climate features is evident as well in the following excerpt with another staff attorney participant who makes reference to the following:
• Expectation that helped coworkers will reciprocate ("they in turn will do the same for you").
• Social norms ("everyone" talks about work).
• Information about learners' needs ("just because I know that they need it").
• Recollection that coworkers previously "have helped me."

---

A. This is the priority group.... "Help a coworker by critiquing their argument or brief" because they in turn will do the same for you, which will make you have quality work....

A. "Help a coworker think out loud about a work issue/problem." It helps everyone because everyone may confront this issue. Everyone talks about their problems. There's an immediacy about it....

A. "Make a copy of an article for...coworker" on a case just because I know that they need it. They help me; I help them. And I think, I guess it's also so we do quality work.

Q. So you have a number of things there that involve reciprocity, helping other coworkers and the expectation is that they will help you when you need it?

A. Not just an expectation. They have helped me, and that's just the type of relationships that we seem to have among our group, with few exceptions.

Chapter Summary:

The Hierarchy of Learning Tasks

Affected by Organizational Climate

The foregoing parts of this chapter have identified features of the organizational climate that encourage employees to use behaviors associated with learning-supportive relationships. Features that could encourage such behaviors but that appear to be missing from the organizational climate at the study site have also been identified. In addition, features of a climate for the accomplishment of non-learning, production tasks have been identified.
In many ways, the climate for non-learning, production tasks appears to be more potent than the climate for learning and helping others to learn. The imbalance of signals produced by the interplay of various climate features seems to discourage employees at the study site from using learning, help-seeking, and help-giving behaviors in general. When employees do use such behaviors, organizational climate features at the study site seem to encourage them to direct their efforts toward some types of learning tasks confronting employees at the study site and away from other types of learning tasks.

The learning tasks identified in this study include tasks alluded to by study participants and tasks suggested by human resource development and quality management research and theory (e.g., Rummler and Brache, 1990; Schonberger, 1990). These learning tasks are related but additional to the production tasks described earlier (i.e., core production tasks, ancillary tasks, and “non-attorney” tasks. The various types of learning tasks are described here as levels of a learning hierarchy, to reflect the fact that top-level tasks have potential to produce more long-term benefits affecting larger numbers of employees than bottom-level tasks. This is not to imply that bottom-level tasks are unimportant. They are important, because they enable employees to accomplish core production tasks more efficiently and effectively, and because knowledge gained from bottom-level tasks can help employees to accomplish higher-level tasks. The levels of learning tasks are as follows:

- **Level I** tasks involve learning for the purpose of accomplishing a core production task in a particular case. Learning, help-seeking, and help-giving at Level I address questions such as, “How do I file this type of motion? What statute governs the transaction at issue in this case?”

- **Level II** tasks involve learning for the purpose of formulating an overall strategy for a particular case. Learning, help-seeking, and help-giving at Level II address questions such as, “What defenses and what evidence should I pursue in order to avoid an inap-
appropriate award of damages against my client? What contractual arrangement would satisfy my client's needs and how should I obtain it?"

- **Level III** tasks involve learning for the purpose of identifying and implementing best practices an employee can use across cases. Learning, help-seeking, and help-giving at Level III address questions such as, "What is the best way to prepare questions and exhibits for hearings? What is the best way to initiate settlements with opposing counsel?"

- **Level IV** tasks involve learning for the purpose of coordinating efficient and effective action across cases and across employees at the study site. Learning, help-seeking, and help-giving at Level IV address questions such as, "How should research tasks be divided among attorneys, investigators, paralegals, and other staff in order to resolve complaints more quickly and effectively? How can the various attorneys in our unit avoid setting bad precedents for each other with regard to a particular issue which comes up frequently in diverse cases? How can we eliminate bottlenecks in the process through which management approval is obtained for certain actions?"

- **Level V** tasks involve learning for the purpose of coordinating efficient and effective action across cases and across employees beyond the boundaries of the Attorney General organization. Learning, help-seeking, and help-giving at Level V address questions such as, "How can we enable a client organization to correct a systemic problem which is generating frequent litigation? How can we enable citizens to protect themselves from certain types of injuries and injustices? How can we eliminate bottlenecks in the process through which client approval or action is obtained?"

Learning at Level I often takes the form of fact retrieval, whereas learning at higher levels tends to take the form of reflection, dialogue, and experimentation. Learning at higher levels can require cooperation among a larger number of coworkers acting as help-seekers and help-givers.
For example, an employee would tend to need insights and examples from multiple coworkers in order to identify best practices. Learning at higher levels can also involve more self-examination and critique than learning at Level I. For example, in order to identify best practices or opportunities for improvement in unit functioning, one may need to ask, “What are the needs and expectations of clients, judges, and other stakeholders? Are we meeting these expectations now?” In contrast, to accomplish a Level I task, one may only need ask, “What does the statute say about X?”

Level I tasks appear to be the most commonly performed learning tasks at the study site. In general, the higher the task level, the less likely it seems that the task will be performed at the study site. And the higher the task level, the weaker the organizational climate for accomplishing the task appears. For example, there are more models in the form of coworkers performing the learning tasks at the bottom of the learning hierarchy than at the top. Tasks at the top can require structured learning approaches and management support because these tasks involve coordination among many employees in diverse jobs and perhaps diverse organizations. These contextual supports for higher level learning task performance appear to be missing in many areas of the Attorney General organization. In contrast, an employee at the study site typically need only walk across the hall to a coworker’s office to get help from a coworker for a task toward the lower end of the learning hierarchy, and many managers facilitate help-getting at that level by directing employees to knowledgeable coworkers. Tasks at the lower end of the learning hierarchy have an obvious immediate payoff for an employee with a steep workload of production tasks. In contrast, the payoff from higher end tasks can seem speculative, distant, and perhaps not worth the trouble.

Participants acknowledged that they spend less time on higher level learning tasks than they would like, and perhaps less time than they should. For example, many participants suggested that they spend less time than they would prefer engaged in learning for the purpose of developing a case strategy. Participants also described types of high-level learning they might engage in more frequently if they had more organizational support and encouragement or more time:

“Give manager your ideas for improvement of office procedures.” Of course, that would be number one if you were definitely asked to have it done at a certain time.
But I don’t run down and tell him every time I think something needs to be improved. He’s busy. I’m busy. (Staff Attorney)

****

The real disturbing thing is...when you see things coming through that you wish you had the time to devote to because you know that you could solve this systemic problem that this particular...[client] has if you could just help them set up a procedure for handling this, or address this particular matter in the case....They’d be able to reap long-term benefits. And you just don’t have the time to give them for that purpose. It’s frustrating. (Section Chief)

The staff attorney participant in the following excerpt asserted in another part of the interview not reprinted here that employees at the study site are “thinking people.” However the participant also agreed that, “The reality of my job is that getting work done is more important than learning”:

Staff people are on the ground and they see the problems from their own perspective. And they almost intuitively or through experience know, here’s how I could make my job better....Managers are taking on a different point of view, and part of their job is to put the brakes on over-aggressive staff people so that they don’t go too far out....I’m one of the more zealous staff people, so I’ve routinely chafed at management’s disagreement with my proposals for enforcing policy. But over and above that is that there have been a number of recommendations over the years that I’ve made so that the section could work systemically better. And I’ve frequently felt like those recommendations were not given a fair hearing. Things did not change. (Staff Attorney)

Human resource development theory assumes that workplace employees are rational people who will tend to behave in ways demanded by their work environments (Gilbert, 1978; Rummler & Brache, 1990). Adult learning theory assumes that employees will center their learning efforts around tasks they believe to have real-life significance (Knowles, 1980, 1984). Organizational climate theory assumes that the panoply of practices and conditions in a work environment will shape employees’ perceptions regarding which tasks are really important to perform (Rouiller & Goldstein, 1993). From these theories, one would predict that employees at the study site would devote more time, effort, and attention to learning tasks favored by the prevailing organizational climate. They would deem other learning tasks to be either inappropriate or “nice, but not necessary.” They would forego efforts to learn where they perceived that production tasks were more important and required so much time that no resources could be spared for learning efforts:

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I could stop learning most things and still get a lot of work done. So getting work done is more important to me than learning is (Staff Attorney)

These predictions appear to hold true in the examination of employee feelings, beliefs, and behaviors in this study. The tasks favored by the panoply of practices and conditions that constitute the prevailing organizational climate favor lower level learning tasks over higher ones. Employees at the study site appear to invest more time and effort in lower level learning tasks. The prevailing climate favors production over learning at any level, in many respects. Employees at the study site appear to engage in production at the expense of learning in many instances, even when the employees' personal preferences would dictate the opposite. This situation has potential consequences for the Attorney General organization's ability to satisfy citizens, judges, and other "customers" or stakeholders. If the consequences are at odds with what organizational management would like, then a different organizational climate seems necessary.
A Model of Learning-Supportive and Unsupportive Relationship Development

Chapter four of this study presented findings regarding the types of learning-supportive and unsupportive coworker relationships, the impact of such relationships on employees' learning, and changes in such relationships over time at the study site. Chapter five presented findings regarding the attributes and behaviors of supportive, unsupportive, and neutral coworkers, and employee-leaners. Chapter six presented findings regarding aspects of the organizational climate for work and learning that appear to affect employees' use of behaviors associated with supportive and unsupportive coworker relationships. The findings together suggest a model of relationship development in which individual attributes of employees and their coworkers and features of their work and learning environments influence feelings, beliefs, and behaviors of employees and their coworkers. The overall character and level of learning-supportiveness of coworker relationships arises from these feelings, beliefs, and behaviors within the organizational environment, as depicted in Figure 2.
Figure 2

Study Findings: Factors Affecting Levels of Learning-Supportiveness
Propositions Regarding Learning-Supportive Coworker Relationships

Further aspects of learning-supportive coworker relationship development are suggested by the study findings. These aspects are summarized in the following propositions:

1) Supportive relationships form a network, not a pyramid.

Results of the present study suggest that employees give help to and get help from other employees who are more, less, or equally experienced at the study site. Employees give help to and get help from other employees who are supervisors, job-peers, or subordinates. A typical employee will maintain supportive relationships with a number of coworkers, rather than rely on a single senior or higher-level employee as a mentor, teacher, or coach. Support in these relationships is often reciprocal. If one were to map help-giving in these relationships, the result would resemble a network, not a pyramid with one all-knowing leader at the top and masses of workers at the bottom waiting for wisdom to trickle down. This finding is consistent with other research showing that even employees who are being mentored in the ways that mentoring is conventionally depicted tend to use support from many other employees, including peers, in addition (e.g., Kram, 1985; Kram & Isabella, 1985).

2) The development of supportive relationships is bounded by situational variables.

Results of this study further suggest that networks of support at the study site are bounded. At the site of this study, section differences and attorney/non-attorney differences appear to form boundaries that most learning-supportive coworker relationships do not cross. On the other hand, supportive relationships frequently do cross supervisor/subordinate divisions. For example, supportive relationships between staff attorneys and their section chiefs and unit supervisors appear to be common.
Other studies of informal workplace learning have produced findings that support the idea that employees get support for learning and improvement through bounded networks of coworker relationships (e.g., Cahoon, 1995; Kilcoyne & Volpe, 1991; Kram, 1985; Kram & Isabella, 1985; Larson, 1991; Lave & Wenger, 1991; Marsick & Watkins, 1990; Rickett, 1989; Rossi, 1996). Those studies together with the present study suggest that such networks will tend to be bounded in different ways in different settings because of situational differences. For example, in some settings, managers avoid forming supportive relationships with non-managers, and vice versa. In this study, staff attorneys—who are not managers—and section chiefs—who are managers—appear to surmount their differences when giving and seeking support for learning because these employees all have similar education and experience, and similar job duties requiring specialized knowledge typically possessed only by employees within their own sections.

3) **Supportiveness is a behavioral characteristic, not a personality trait.**

Results of the present study point to a number of behaviors and related attributes that characterize supportive coworkers. For example, supportive coworkers have good professional character and they do good quality work. They have knowledge and they give useful advice and examples. The behaviors and related attributes of supportive coworkers identified in this study are highly consistent with the behaviors and attributes identified in previous research on informal workplace learning and related topics (e.g., Cahoon, 1995; Kram, 1985; Kram & Isabella, 1985; Larson, 1991; Rickett, 1989; Rossi, 1996; Sacks, 1994). This consistency suggests that it is typical for supportive coworkers to display the behaviors and related attributes described in this study.

The present study results also indicate, however, that supportive coworkers can have widely differing personalities—e.g., formal and reserved or warm and gregarious—and are not necessarily close friends with the learners they help. These results are consistent with Rickett's (1989) study, among others. These results suggest that supportiveness is primarily a behavioral characteristic, not
a personality trait. Within the boundaries posed by situational features, anyone is potentially a supportive coworker.

4) **Supportive relationships result from three sets of behaviors, of which help-giving may be the least critical.**

Results of the present study suggest that supportive relationships depend on three sets of behaviors, not one, and that two of these are the responsibility of learners rather than their supportive coworkers:

- Supportive coworkers must give help.
- Learners must strive to learn and improve.
- Learners must seek and use help from supportive coworkers.

The present study was begun with the assumption that help-giving would be the most important influence on levels of learning-supportiveness and that many coworkers could be reluctant to give help. A very different picture emerged in the course of the study: Employees at the study site appear to be quite willing to give help, for the most part. But they have doubts about the importance of striving to learn and improve. Employees indicate that they attempt to learn less frequently than they would prefer, and less than they probably ought to. Because employees are less driven to learn, they are less driven to seek help for learning. Because employees are less driven to seek help for learning, their coworkers are less prompted to give help and support for learning. When support is made available, employees do not necessarily take advantage of that because they have other, non-learning tasks that drain their time and attention. Thus, low levels of learning effort appear to be the main influence on levels of learning-supportiveness at the study site.

A somewhat different picture might emerge in another setting with regard to the relative influence of each of the three sets of behaviors. However, it seems unlikely that in any setting, levels of supportiveness will be determined by help-giving alone. Rather, learning effort and willingness to seek and use help are likely to be important influences on supportiveness in any workplace.
5) **Organizational climate forms the organizing circumstance for self-directed activity related to supportive relationships.**

Results of the present study suggest that learning, help-seeking, and help-giving through coworker relationships are largely self-directed activities, initiated by employees themselves and implemented outside formal training settings using methods and forms chosen by the employees. Self-direction has the potential to benefit the employees as well as customers and other stakeholders, because employees use their deep understanding of their authentic task situations to make learning, help-seeking, and help-giving practical and efficient. In contrast, conventional educational interventions such as mandatory continuing legal education (CLE) sessions were described by study participants as a waste of time, in many cases.

Organizational representatives such as human resource developers and employees' supervisors do not directly control the processes of relationship development or support-giving. Nevertheless, practices of organizational representatives influence relationship development and support-giving significantly by shaping the “organizational climate” (Rouiller & Goldstein, 1993) in which employees learn, seek, and give help. Results of the present study suggest that employees will forego or modify efforts to learn, to seek and use help, and to give help for learning depending on the presence of climate features such as requirements to perform other, non-learning tasks. Employees will forego or modify such efforts even if that contradicts the employees’ own espoused beliefs, values, preferences, and interests. On the other hand, employees will engage in certain types of learning and help-giving if management indicates such efforts are required. Climate features such as access to information about the learning needs of other employees or information about the availability of supportive coworkers appear to stimulate efforts to get and give help and support for learning.

The finding that organizational climate shapes self-directed learning, help-seeking, and help-giving through coworker relationships is consistent with previous research on adult learning.
which has indicated that "self-directed learning probably occurs both by design and by chance—
depending on the interests, experiences, and actions of individuals and the circumstances in which
they find themselves" (Merriam & Caffarella, 1991, p. 49).

6) **Information flows are critical features of an organizational climate for learning-
supportive relationships.**

Gilbert (1978) has identified three types of environmental variables that will tend to shape
employees' behaviors in any workplace:

- Performance incentives.
- Tools and work designs.
- Information, including information about performance expectations and requirements,
  performance guidelines, and performance feedback.

Information flows are considered to be critical for appropriate performance in Gilbert's "behavior
engineering model." In the present study, information flows appear to influence learning, help-
seeking, and help-giving among coworkers in significant—although sometimes subtle—ways. Man-
agement appears to facilitate information flows that encourage behaviors associated with supportive
relationships, in many cases. For example, the trigger for help-seeking in many instances described
in this study was a supervisor's recommendation that an employee contact a particular coworker
with relevant knowledge and experience. On the other hand, employees also appear to shun some
learning-related activities because management has not informed the employees that the activities
are expected. With regard to learning-supportive coworker relationships, Gilbert's (1978) emphasis
on flows of information seems well-placed.

7) **Organizational climate affects not only how much is learned through coworker
relationships, but also what is learned—and what is not.**

Results of the present study indicate that the panoply of organizational features at the study
site encourages employees to focus their learning, help-seeking, and help-giving efforts at the lower
levels of a hierarchy of learning tasks. Higher-level tasks get less effort and attention. This situation threatens to undermine the study site organization's ability to meet the needs of various stakeholders.

The precise tasks comprised by the hierarchy described in this study would not be relevant in other settings, but parallel tasks undoubtedly would be. For example, a salesperson for a computer systems manufacturer might face the task of learning what percentage discount is available to a customer with a certain type of purchase agreement—the equivalent of a Level I task in the present study. The salesperson might face the task of identifying best sales practices across customers—the equivalent of a Level III task.

That same salesperson, together with others, might face a need to identify systemic problems in the way a customer organization determines which computer system features to buy, if the customer routinely found that systems purchased from the salesperson's organization did not produce expected gains in productivity or work effectiveness—the equivalent of a Level V task in the present study. If the panoply of organizational features at the salesperson's organization discouraged investment of effort around higher level learning tasks, the present study suggests, then the salesperson might not recognize such a need or might not do anything about it. Of course, that would affect important outcomes for the manufacturing organization, and the customer organization, and the customer's employees, perhaps, and their customers in turn.

Human resource development theory places the responsibility of designing organizational systems that promote desirable organizational outcomes on the shoulders of management primarily (Rummler & Brache, 1990). At the same time, HRD theory recognizes that employees who are not managers can contribute valuable insights concerning the design and maintenance of organizational systems. Sometimes, such employees are the only persons who have the expertise needed to identify system problems and devise workable solutions (Schonberger, 1990). Findings of the present study suggest that neither managers nor non-managers will use coworker relationships as resources for learning for the purpose of improving organizational systems if the organizational cli-
mate disfavors such learning or emphasizes immediate production to the exclusion of all else. In light of this, it seems important for human resource developers to pay attention not only to how much is learned, but also to what is learned and what is done with learning as a result of organizational climate features.

The Place of Supportive Relationship Networks in Workforce Education

Historically, adult education has been characterized by two views: the view that "adults learn best in groups" and the view that adult "learning should be individualized" (Rose, 1996, p. 3). Adult educators and human resource developers sometimes regard individualization and use of groups as opposing or incompatible aims. Rose (1996) notes, however, that these two views are "not necessarily antithetical" (p. 3). Imel (1996), summing up several recent studies, suggests that groups may be used in different modes to suit varying adult education purposes. Aspects of the learning process, content, role of the adult educator, and other matters can vary greatly in different learning modes, Imel notes. Imel (1996) suggests that variations regarding the use of groups can be appropriate if the variations suit the "goals and purposes" of a group and the "reasons for its formation" (p. 95). The challenge for educators, then, is to determine which mode of learning involving a group may be most useful and appropriate for a particular set of learning aims and circumstances.

Findings from the present study, together with previous studies of workplace learning, suggest that a mode of learning through informal networks of supportive coworker relationships can be most useful for some aims and circumstances. A learning network is not the solution for all adult education or human resource development problems. Problem solving at the workflow or "process" level (Rummler & Brache, 1990), for example, where causes and effects can cross numerous functional boundaries, may be best accomplished when individuals meet, generate insights.
and ideas, plan, and act as a group—not as individual members of a learning network. On the other hand, where a fixed, known set of individual job-level skills and knowledge exists, and the challenge is simply to distribute the skills and knowledge to a large number of workers quickly, a formal training mode may be more appropriate than a network mode. An informal learning network mode may be less appropriate than formal training in such a situation, because of the risk that the target skills and knowledge will not "trickle out" through the network to all workers as needed.

However, a learning network mode may offer advantages that other learning modes may not, in certain situations. Learning informally in work settings through networks of relationships with coworkers entails an authenticity—a naturalness—which may not be easily duplicated through designated learning activities in training classrooms or group sessions run by a facilitator. Findings in the present study and other studies of workplace learning suggest that when adults learn informally through networks of supportive relationships with coworkers, their learning tends to be strongly related to their work tasks, needs, interests, and concerns. As discussed in Chapter 4 of this text, that high degree of relevance is not always found in other learning modes.

Learning can take place in an informal network mode where individual workers' learning needs are highly diverse or differentiated and unpredictable. It is not necessary to schedule a group meeting in order for learning to take place in an informal network mode. Learning activities that take place in an informal network mode can generate new skills and knowledge that may be disseminated throughout the organization subsequently by means of formal training. Or such activities may reveal a need for further learning, planning, and action by a group which can be convened subsequently.

In sum, learning in a network mode may reconcile the twin aims Rose (1996) described—i.e., individualization and utilization of group resources for learning—while serving as a wellspring for the creation of knowledge which can be acted upon subsequently in other learning modes. An informal learning network among coworkers is not likely to take care of all learning
needs confronting the members of a work organization. But findings of the present study and other studies suggest that where a vibrant learning network exists, continuous learning and continuous improvement of workplace performance can be predicted to occur, to the benefit of workers, their employing organizations, and their customers. Thus a network mode is worthy of a place among other modes of learning researched, advocated, and used by adult educators and human resource developers.

<table>
<thead>
<tr>
<th>Who learns</th>
<th>Traditional Training and Structured OJT</th>
<th>Learning Group</th>
<th>Learning Network</th>
</tr>
</thead>
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<tr>
<td>Who learns</td>
<td>Individuals</td>
<td>Groups, teams</td>
<td>Individuals and ad hoc groupings</td>
</tr>
<tr>
<td>How</td>
<td>Completing planned learning (training) activities</td>
<td>Discussion and team-building</td>
<td>Informal coaching, problem solving, story sharing, and observation</td>
</tr>
<tr>
<td>Aided by</td>
<td>Trainer</td>
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<td>Coworkers, supervisors</td>
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<tr>
<td>Useful for knowledge...</td>
<td>Distribution</td>
<td>Creation</td>
<td>Creation and transfer</td>
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<tr>
<td>Where learners’ needs are...</td>
<td>Uniform, predictable</td>
<td>Overlapping, interrelated</td>
<td>Differentiated, unpredictable</td>
</tr>
<tr>
<td>And goal/concern is...</td>
<td>Efficient delivery to mass audience</td>
<td>Collaboration and coordinated action among multiple learners</td>
<td>Job-focused, learner-centered, just-in-time learning</td>
</tr>
</tbody>
</table>

Table 3
Comparison of Informal Network and Other Learning Modes
Recommendations for Further Research

Many questions remain unanswered regarding the development of coworker relationships that support or inhibit continuous learning. Further research could yield findings that enable human resource developers or adult educators to nurture more supportive relationships in work organizations. Areas in which further research could be useful concern personal attributes of learners and their coworkers, organizational or environmental factors, and aspects of human resource development or adult education practice that may affect relationship development. In addition, the links between learning and performance could be further examined. Examples of questions that might be explored are as follows:

1. How do differences in profession/occupation or education affect the development of learning-supportive and unsupportive relationships among adult workers? For example, is development different among adults in unskilled labor occupations versus adults in professions such as architecture or accounting, where advanced formal education is required?

2. How do differences in organization type affect the development of learning-supportive and unsupportive relationships? For example, is development different in small versus large organizations, in public sector versus private sector organizations, or in service versus manufacturing industries?

3. How do workplace changes affect the development of learning-supportive and unsupportive relationships? For example, how do increased patient loads or paperwork requirements affect informal learning relationships among physicians? How is learning affected among nurses when traditional nursing duties are shifted away from nurse coworkers to nursing aides or technicians? What changes in learning relationships result when line workers become involved in quality control and planning activities formerly reserved for management?
4. How are organizational and customer needs and interests represented in the self-directed learning, help-seeking, and help-giving activities of employees and their coworkers? What causes employees to be more or less attuned to such needs and interests when they attempt to learn, or seek or give help for learning?

5. How do HRD or adult education interventions affect the development of learning-supportive and unsupportive relationships? For example, what happens if human resource developers assign certain employees to learn together at work rather than allow employees to choose their own learning partners?

**Recommendations for Practice**

Pending further research, general recommendations for human resource development and adult education practice can be derived from the findings of the present study and previous studies of workplace learning. Recommendations are as follows:

1. Do not focus only on traditional forms of mentoring or coaching by senior employees or organizational superiors. Human resource development and adult education practitioners should look for ways to encourage all employees to form learning-supportive relationships with coworkers in various job positions.

2. Do not focus only on personal attributes of employees and their coworkers. Human resource development and adult education practitioners should attempt to identify features of organizational environments that discourage learning, help-seeking or help-giving, through organizational climate surveys, employee focus groups or other means. Once such features are identified, practitioners should work with employees and managers to create more favorable environments by eliminating or altering problematic practices and work designs.
3. Look for best practices. Employees may be aware of existing management practices that encourage workers to learn, to seek help, and to give help for purposes of learning. Human resource development and adult education practitioners can work with employees to identify such practices, then help managers to learn and apply the practices throughout their organizations using a combination of formal management training, group learning, and feedback from employees in the managers' work areas.

If these recommendations are followed, the interventions that are chosen in any particular setting may be very different from what one would otherwise expect. For example, rather than train employees to value help-giving, a practitioner working with employees and managers might look for ways to disseminate information about employees' learning needs to coworkers who can give help. Rather than train employees to value learning, a practitioner working with employees and managers might look for ways to align work with employees' professional growth and career advancement goals and interests so that employees want to learn. Rather than train employees to trust each other, a practitioner working with employees and managers might look for ways to create time for help-giving and let trust develop naturally from the positive experience of being helped. Such an approach could enable the development of networks of supportive coworker relationships to become an enduring and positive means for facilitating continuous learning, rather than just another passing fad.
APPENDIX A

Dear xxxx Attorney General employee:

Your insights are requested for a study of the role of coworker relationships in continuous learning among employees of the Attorney General of xxxx. You are not required to participate in this study. If you do choose to participate, the information you provide may be used to improve professional development opportunities and resources at the Attorney General organization.

To participate in the study, please answer all questionnaire items. The questionnaire does not require you to name any coworker. You will be identified by a confidential code number rather than by name on the questionnaire. Questionnaire answers will be analyzed by researchers from The Ohio State University. No person other than the O.S.U. researchers will have access to your questionnaire or code number. The O.S.U. researchers will provide a report of the study results to human resource/management personnel at the Attorney General’s office. You and your coworkers will not be named in the report.

Rules for protection of human subjects at The Ohio State University require informed consent for participation in studies involving O.S.U. researchers. A consent form is attached to your questionnaire. A copy for your records is enclosed. Please read the consent form. Your return of the questionnaire with the attached consent form will indicate that you have been informed about the study and agreed to the study terms and conditions.

Please mail your questionnaire answers and consent form using the provided envelope directly to the O.S.U. researchers at:

Coworker Learning Relationships Study

If you have any questions or concerns about this study, please contact the O.S.U. researchers listed below. Thank you in advance for your time and effort regarding the study!

David Stein, Ph.D., Associate Professor/Supervising Investigator
The Ohio State University, Adult & Workforce Education

Abney V. Gleespen, Ph.D. Candidate/ Study Investigator
The Ohio State University, Adult & Workforce Education

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1. What is your current job?  
   _ Section Chief  
   _ Staff Attorney  
   _ Other/Attorney  
   _ Paralegal  
   _ Other/Non-Attorney
2. Is your job:  _ full time  
   _ part time?
3. How many years have you been employed in your current job?  ____________
4. How many years have you been employed in your current profession (e.g., law)?  
   ____________

For the following questions, “coworker” means a person employed by the Attorney General in any job.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often or Always</th>
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<tr>
<td>5. You seek an A.G. coworker’s advice about the best way to</td>
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<td>complete a job task.</td>
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<td>6. You ask an A.G. coworker for suggestions about ways to</td>
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<td>improve your work.</td>
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<td>7. You ask an A.G. coworker to serve as a sounding board or</td>
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<td>good listener while you think out loud about work.</td>
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<td>8. You observe or examine the work of an A.G. coworker in</td>
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<td>order to learn.</td>
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<td>9. You and an A.G. coworker trade “war stories” about work</td>
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<td>experiences.</td>
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<td>10. You and an A.G. coworker discuss innovations for improv-</td>
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<td>ing work results.</td>
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<td>11. You and an A.G. coworker discuss the strengths and weak-</td>
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<td>nesses of other professionals’ work.</td>
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<td>12. You and an A.G. coworker collaborate to experiment or try</td>
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<td>a new work approach.</td>
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<td>13. You provide advice or instructions to help an A.G. cowork-</td>
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<td>er complete a task.</td>
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<td>14. You give honest feedback or suggestions to help an A.G.</td>
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<td>coworker improve his/her work.</td>
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<td>15. You serve as a good listener to help an A.G. coworker</td>
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<td>think about work issues or problems.</td>
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<td>16. You share examples from your work for an A.G. coworker</td>
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<td>to copy or build upon.</td>
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© 1996 Abney V. Gleespen
<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Don't Know</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tr>
<td>17</td>
<td>“It is useful for me to get A.G. coworkers’ opinions about my work.”</td>
<td>Strongly Disagree</td>
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<td>18</td>
<td>“I feel comfortable asking A.G. coworkers for help when I need to learn something.”</td>
<td>Strongly Disagree</td>
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<td>19</td>
<td>“I enjoy talking with my A.G. coworkers about ways to improve my work.”</td>
<td>Strongly Disagree</td>
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<tr>
<td>20</td>
<td>“I feel that I should help A.G. coworkers to learn whenever I can.”</td>
<td>Strongly Disagree</td>
<td></td>
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<tr>
<td>21</td>
<td>“I enjoy helping coworkers learn and improve.”</td>
<td>Strongly Disagree</td>
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<tr>
<td>22</td>
<td>“I feel comfortable using work time to help A.G. coworkers learn.”</td>
<td>Strongly Disagree</td>
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<tr>
<td>23</td>
<td>“Helping coworkers to learn benefits me.”</td>
<td>Strongly Disagree</td>
<td></td>
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<tr>
<td>24</td>
<td>“My employer will reward me if I have superior skills and knowledge.”</td>
<td>Strongly Disagree</td>
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<tr>
<td>25</td>
<td>“My employer will reward me if I help coworkers learn and improve.”</td>
<td>Strongly Disagree</td>
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<tr>
<td>26</td>
<td>“The reality of my job is that getting work done is more important than learning.”</td>
<td>Strongly Disagree</td>
<td></td>
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<tr>
<td>27</td>
<td>“My A.G. coworkers and I must compete against each other to achieve career success.”</td>
<td>Strongly Disagree</td>
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<tr>
<td>28</td>
<td>“My A.G. coworkers try to learn all the time.”</td>
<td>Strongly Disagree</td>
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<tr>
<td>29</td>
<td>“My A.G. coworkers regard each other as good resources for learning.”</td>
<td>Strongly Disagree</td>
<td></td>
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<tr>
<td>30</td>
<td>“My A.G. coworkers lack knowledge and skills in areas that are most important to me.”</td>
<td>Strongly Disagree</td>
<td></td>
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<tr>
<td>31</td>
<td>“My A.G. coworkers would react badly if I asked them for help.”</td>
<td>Strongly Disagree</td>
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<tr>
<td>32</td>
<td>“My A.G. coworkers try to help each other learn and improve whenever possible.”</td>
<td>Strongly Disagree</td>
<td></td>
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<tr>
<td>33</td>
<td>“My A.G. coworkers would react badly if I tried to help them learn.”</td>
<td>Strongly Disagree</td>
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</table>
Think of a time when one coworker from the Attorney General's office or another workplace was particularly helpful regarding your efforts to learn and improve your work. (If you cannot recall such a coworker, skip to question #39 below.)

34. How much experience relevant to your work did that coworker have at that time?
   __ Less experience than you
   __ About the same experience as you
   __ More experience than you

35. Do you feel that you helped that coworker to learn/improve also?
   __ No
   __ Yes, in about the same ways that coworker helped me
   __ Yes, in different ways than that coworker helped me

36. Do you consider that coworker to have been your mentor or teacher?
   __ No
   __ Yes

37. How important was the help you received from that coworker?
   __ Not important
   __ Somewhat important
   __ Very important
   __ Essential

38. What characteristics of that coworker were most noticeable or important to you?

Now think of a time when one coworker from the Attorney General's office or another workplace was particularly unhelpful or discouraging regarding your efforts to learn and improve. (If you cannot recall such a coworker, skip to question #43 on the next page.)

39. How much experience relevant to your work did that coworker have at that time?
   __ Less experience than you
   __ About the same experience as you
   __ More experience than you

40. Did you try to help that coworker learn/improve?
   __ No
   __ Yes

41. How difficult was your learning/improvement because of that coworker?
   __ Not difficult
   __ Somewhat difficult
   __ Very difficult
   __ Impossible
42. What characteristics of that coworker were most noticeable or important to you?

43. What other insights or comments do you have about coworker learning relationships?
APPENDIX B

RELATIONSHIP HISTORY INTERVIEW SCHEDULE

1. Think of one coworker from the A.G.'s office or another place where you have worked, who has been particularly helpful or supportive of your efforts to learn and improve your work. Would you consider this person to be your mentor or teacher?

   B. Was this someone you helped to learn?

2. How did you first meet [supportive coworker]?

3. What did you think of [supportive coworker] when you first met?

4. Did your relationship with [supportive coworker] help you to learn right away?

5. I want to understand what helped or encouraged you and [supportive coworker] to develop a supportive relationship, and what got in the way. What is important for me to understand about the time when you and [coworker] were first getting to know each other?

6. Think about the time when your relationship with [supportive coworker] became most helpful or supportive of your learning. When was this?

   A. How was [coworker] helpful to you at that time?

   B. How long had you known [coworker] at that time?

   C. Did you and [coworker] work near each other at that time?

   D. On a team or joint project?

7. What were your feelings or opinions about [supportive coworker] at the time when your relationship became most helpful or supportive of your learning?

   A. Did you have any doubts/concerns about [coworker]?

   B. How did your feelings or opinions about [coworker] affect your relationship?

   C. How did your feelings or opinions affect your ability to learn?
8. What was your workplace like at the time when your relationship was most helpful or supportive?
   A. How did you feel about your job at that time?
   B. How did your work affect your desire or ability to learn?
   C. How did your work affect your relationship with [coworker]?

9. Did you at any time let [coworker] know how your learning was being affected by [coworker]?
   A. IF YES: What was the result?
   B. IF NO: Why not?

10. Did you at any time let your supervisor know how your learning was being affected?
    A. IF YES: What was the result?
    B. IF NO: Why not?

11. Were you aware of the value of your relationship with [supportive coworker] before you participated in this study?

12. Do you still have a significant relationship with [supportive coworker] at this time?
    A. IF NO: Why not?
    B. IF YES: Has your relationship changed in any way?

13. I want to understand what helped or encouraged you and [supportive coworker] to develop a supportive relationship, and what got in the way. Is there anything else important for me to understand about your relationship with [supportive coworker]?

14. Think of a coworker from the A.G.'s office or another place where you have worked, who was particularly unhelpful or unsupportive about your learning. How did you first meet this unsupportive coworker?

15. What did you think of [unsupportive coworker] when you first met?

16. Did your relationship with [unsupportive coworker] undermine your learning right away?

17. What else is important for me to understand about the time when you and [unsupportive coworker] were first getting to know each other?

18. Think about the time when your relationship with [coworker] became most unhelpful or unsupportive of your learning. When was this?
A. How was [coworker] unhelpful?
B. How long had you known [coworker] at that time?
C. Did you and [coworker] work near each other at that time?
D. On a team or joint project?

19. What were your feelings or opinions about [coworker] at the time when your relationship became most unhelpful or unsupportive of your learning?
   A. How did your feelings or opinions about [coworker] affect your relationship?
   B. How did your feelings or opinions affect your ability to learn?

20. What was your workplace like at the time when your relationship was most unhelpful or unsupportive?
   A. How did you feel about your job at that time?
   B. How did your work affect your desire or ability to learn?
   C. How did your work affect your relationship with [coworker]?

21. Did you at any time let [coworker] know how your learning was being negatively affected?
   A. IF YES: What was the result?
   B. IF NO: Why not?

22. Did you at any time let your supervisor know how your learning was being negatively affected?
   A. IF YES: What was the result?
   B. IF NO: Why not?

23. Were you aware of the negative impact of your relationship with [unsupportive coworker] before you participated in this study?

24. Do you still have a significant relationship with [unsupportive coworker] at this time?
   A. IF NO: Why not?
   B. IF YES: Has your relationship changed in any way?

25. I want to understand what led you and [coworker] to develop an unsupportive relationship. Is there anything else important for me to understand about your relationship with [unsupportive coworker]?
26. Think of a coworker relationship which was primarily neutral—not really helpful or unhelpful. Did you make any effort to create supportive learning relationships with this neutral coworker?

   A. IF YES: what was the result?
   B. IF NO: Why not?

27. What is different about your neutral coworker vs. your supportive coworker?

   A. What is similar?

28. Why did your relationship with [neutral coworker] fail to become really supportive?

29. What would help your neutral relationships develop into supportive relationships?

30. Did any of the coworkers we've discussed ask you to help them learn or improve their work?

31. Did a supervisor or other person ask you to help any of these coworkers?

32. Did you try to help any of the coworkers?

   A. Why or why not?
   B. What was the result?

33. Are there other coworkers you have tried to help?

   A. IF YES: Why?

34. Are there other coworkers you have NOT tried to help?

   A. Why not?

35. Think again about the coworker who was very helpful and supportive. What was [coworker's] attitude toward his/her own learning and career advancement?

   A. What was [coworker's] attitude regarding your workplace?

36. Think again about the coworker who was very unhelpful—not supportive. What was [coworker's] attitude toward his/her own learning and career advancement?

   A. What was [coworker's] attitude regarding your workplace?
37. Think again about your neutral coworker. What was [coworker's] attitude toward his/her own learning and career advancement?

A. What was [coworker's] attitude regarding your workplace?

38. How did these coworkers' attitudes affect your relationships?

39. Some people think the following factors *might* affect coworker learning relationships. Please tell me whether and how *your* relationships have been affected by the following:

   Status differences among employees
   Experience differences among employees
   Sex/race/etc. differences among employees
   Having different/similar job duties, compared to coworkers
   Working in a team vs. working by yourself
   Coworkers' levels of expertise
   Having relationship skills or "people" skills
   Being friends with coworkers
   Rules/unwritten rules against employees' talking and interacting
   Your desire to achieve career advancement or promotion
   Your coworkers' desire to achieve career advancement or promotion
   Your level of empowerment or control over work
   Time pressures—need to get job done
   Management's attitude toward employees' learning
   Management's attitude toward coworker relationships
   Quality-orientation of your organization

40. Is there anything else I should understand about anything we have discussed? Anything you would like to add or correct?
APPENDIX C

TASK LIST

Compose litigation/administrative hearing documents.
Return phone calls to clients.
Return phone calls to opposing counsel.
Do intra-office filing of documents/correspondence.
Seek feedback from manager regarding your performance.
Seek feedback from client(s) regarding your service quality.
Sheppardize cases.
Serve subpoenas.
Give manager your ideas for improvement of office procedures.
Do time sheets.
Read mail.
Observe coworker in legal proceeding in order to learn/improve your performance.
Do proactive reading of legal publication.
Document your case activities for manager/client counsel.
Prepare contribution for office brief bank.
Check office brief bank for examples to copy/build upon.
Take documents to client/witness for signature.
Reflect on “lessons learned” from case.

Document “lessons learned” from case for manager/coworkers.

Discuss profession’s “best practices”/innovations with coworker.

Have coworker critique your document/oral argument.

Schedule depositions/meetings with client or opposing counsel.

Benchmark/compare your performance against coworkers’ performance.

Critique an argument/brief for coworker.

Make copy of an article/case for a coworker who may be interested.

Help coworker “think out loud” about a work issue/problem.

Seek coworker’s opinion about causes of client satisfaction/dissatisfaction.

Discuss ways to improve office procedures with coworker.
Thank you for having participated in the Coworker Learning Relationships Study! The study investigators would like your opinions about your experience as a study subject. Please note: You need not put your name on this questionnaire. When you are finished, please mail your answers in the provided envelope to:

Abney Gleespen, Ph.D. Candidate
Study Investigator

Coworker Learning Relationships Study

1. Were you able to provide all the information which you felt was relevant and important for the study?

2. Were you able to answer all the study questions accurately and honestly?

3. Were you treated courteously and fairly by the study investigators?

4. Were your questions and concerns about the study adequately addressed?
5. Did you feel pressured by any person to participate in the study against your will?

6. Did you feel pressured by anyone not to participate in the study, or to withhold information?

7. Did any aspect of the study procedures make you feel uncomfortable?

8. What insights or ideas have you gained from the study?

9. Have you planned any changes in your own behavior as a result of the study?

10. What changes would you like to see in your workplace as a result of the study?
11. Other comments:
LIST OF REFERENCES


Cuellar, A. (1992). *From dropout to high achiever: An understanding of academic excellence through the ethnography of high and low achieving secondary school students.* San Diego State University, CA. (ERIC Document Reproduction Service No. ED 344 718)


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