





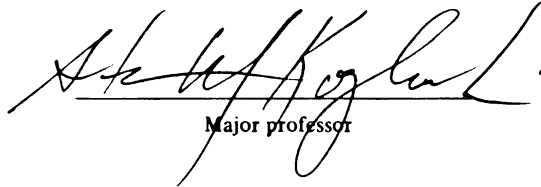
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Eleanor Marie Smith

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**NEW EMPLOYEE ADAPTATION: AN EXPLORATION OF  
INFORMATION-SEEKING, ITS ANTECEDENTS, AND OUTCOMES**

**By**

**Eleanor Marie Smith**

**A THESIS**

**Submitted to  
Michigan State University  
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## **ABSTRACT**

### **NEW EMPLOYEE ADAPTATION: AN EXPLORATION OF INFORMATION-SEEKING, ITS ANTECEDENTS, AND OUTCOMES**

**By**

**Eleanor Marie Smith**

Recent socialization theories describe the newcomer as a proactive participant in his/her adaptation to the new job, seeking out information to attain personal goals. This study identified factors that may affect the strategies used to acquire functional and evaluative information about the job. Relationships between information-seeking strategies and outcomes of socialization were also examined.

Hypotheses were tested using a sample of 253 individuals with job tenure of approximately one year or less. At least one coworker for each new employee also provided ratings for the socialization outcomes. Results indicated that self-efficacy and several job characteristics predicted the use of information-seeking strategies. Furthermore, supervisor and coworker information-sharing was positively related to the frequency of newcomer information-seeking. Finally, several information-seeking strategies were related to self ratings of mastery and innovation. When coworker ratings of socialization outcomes were used, few information-seeking strategies affected socialization outcomes.

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## THEORIES OF NEWCOMER SOCIALIZATION

Socialization is the process by which a newcomer acquires the knowledge, skills, behaviors and attitudes necessary to assume an effective role in an organization (Feldman, 1981; Van Maanen & Schein, 1979). The newcomer must "learn the ropes" of his/her role to become a contributing organizational member (Schein, 1968). Individuals who enter a new organization face an uncertain situation, and they often experience "reality shock" (Hughes, 1958) or "surprise" (Louis, 1980) when the situation does not meet their expectations. During socialization, newcomers learn to make sense (Louis, 1980) of the work environment in order to interpret how they fit into the organization (Van Maanen and Schein, 1979). Theories of organizational socialization have typically been concerned with stages of socialization (e.g., Feldman, 1981; Graen, 1976; Van Maanen, 1976), or organizational tactics for socialization (Van Maanen and Schein, 1979). Only more recently has the role of the individual as an active participant in the socialization process been detailed (e.g., Jones, 1983; Louis, 1980; Miller & Jablin, 1991; Morrison, 1991, 1993; Ostroff & Kozlowski, 1992; Reichers, 1987).

### Stage Models

Some authors have described the socialization process as a series of stages through which a newcomer must pass to become assimilated into the organization (e.g., Feldman, 1981; Graen, 1976; Porter, Lawler, & Hackman, 1975;

Van Maanen, 1976). Stage models of socialization have typically involved three stages of newcomer adjustment (Fisher, 1986).

The first stage, the "anticipatory" stage, consists of all newcomer learning prior to joining the organization (Feldman, 1981). This stage would include occupational choice, organizational selection, and acceptance of the job offer (Fisher, 1986).

Newcomer expectations about what the new role will be like also develop at this time (Wanous, 1980).

The "encounter" stage (Porter et al., 1975), occurs when the newcomer first begins his/her job in the organization. During this stage, newcomers learn and master the tasks required of their job. They learn what their role will be in this new setting. They also develop interpersonal relationships with their supervisor and peers (Fisher, 1986). Finally, they discover if their expectations match the organizational reality (Wanous, 1980).

The final stage, or "change and acquisition" period (Porter et al., 1975), refers to the processes by which the newcomer becomes accepted and assimilated into the organization (Fisher, 1986). During this stage, the newcomer masters the skills required for the job, adjusts to workgroup values and norms, and becomes successful in the performance of his/her role (Feldman, 1981). The newcomer becomes an "insider," learning how things really work in the organization (Fisher, 1986).

Research has been mixed in its support of stage theories of socialization (Fisher, 1986). Feldman (1976) has provided some support for stage theories. He found that job satisfaction and group influence was greater for individuals who had completed all three stages of socialization than for those who had not completed all

three or any stages at all. Graen, Orris, and Johnson (1973) have also presented some evidence for the validity of stage models. By studying the activities that clerical employees engaged in while first on the job, they learned that "assimilation behaviors" were high during the first 16 weeks. However, these behaviors steadily decreased over time, while attempts at resolving conflicts increased over time. This transition into different types of newcomer behaviors may be indicative of separate stages of socialization.

On the other hand, research has indicated that it is difficult to distinguish discrete stages of socialization (Fisher, 1986). Even in the Graen et al. (1973) study, the behaviors of the clerical employees changed steadily over time, rather than beginning or ending suddenly. In his research on police officer socialization, Van Maanen (1975) also reported smooth changes in motivation and commitment, rather than abrupt changes that would indicate transitions into different stages. In sum, stage models are useful in describing some of the processes involved in newcomer socialization, but their specific sequencing of events may not generalize to all situations.

### Socialization Tactics

Socialization has also been described in the literature as the tactics used by the organization to shape employees and bring them "up to speed." For example, Wheeler (1966) examined the influence of individual v. collective socialization, and serial v. disjunctive socialization. Evan (1963) studied the effects of being socialized alone or with a group of peers. Van Maanen (1978) and Van Maanen and Schein (1979) have

described six dimensions on which organizational socialization tactics may differ. The six dimensions are:

- (1) collective v. individual socialization processes;
- (2) formal v. informal socialization processes;
- (3) sequential v. random socialization processes;
- (4) fixed v. variable socialization processes;
- (5) serial v. disjunctive socialization processes; and
- (6) investiture v. divestiture socialization processes.

According to Van Maanen and Schein (1979), an individual may respond to a given role with custodianship, content innovation, or role innovation. Custodianship occurs when the newcomer accepts the status quo and conforms to past ways of accomplishing tasks. A newcomer who is content innovative accepts the mission of the role, but changes the knowledge or strategies used to accomplish role requirements. Finally, a role innovator rejects the norms of a given role; he/she redefines the knowledge, strategies, and mission associated with the role.

Van Maanen and Schein (1979) contend that the manner in which an organization combines the dimensions of socialization tactics will result in custodianship, content innovation, or role innovation on the part of the newcomer. For example, they posit that socialization processes that are individual, informal, random, disjunctive, and involve investiture will lead to role innovation by the newcomer. Empirical evidence has supported some of these assertions (Allen & Meyer, 1990; Jones, 1986).

However, there are several problems with this conceptualization of socialization and its applicability to the experience of newcomers. As Van Maanen and Schein (1979) explain, some dimensions pertain to the socialization that occurs throughout an

individual's career with an organization. For example, sequential vs. random socialization processes refer to the degree to which the organization specifies discrete steps in attaining an organizational role. However, these processes are more applicable to an individual's progression through hierarchical boundaries into higher-level positions (Van Maanen and Schein, 1979). This dimension of socialization may not have a large influence on a newcomers' acceptance of their first role in the beginning months of the job.

Furthermore, processes that are applicable to newcomers, such as formal vs. informal processes, and individual vs. collective, may lose their influence once the person is on the job. For instance, even if a person receives formal, collective training before entering the job role, further socialization of the newcomer takes place when that individual is placed in a workgroup and begins to learn his/her actual place in the organization. The newcomer's interactions with coworkers and supervisors will also impact his/her adaptation to the organization.

Most importantly, Van Maanen and Schein's (1979) theory did not account for the effects of individual differences, nor did it acknowledge that there may be an interaction between organizational influences and individual differences. This theory views newcomers as passive recipients of whatever actions the organization takes to shape them into the types of employees desired. The possibility that individual differences in terms of personality or disposition might also impact the role orientation taken on the job is not addressed.

### An Interactionist Perspective

Newcomers to an organization bring with them, among other things, individual differences in personality (Fisher, 1986), expectations (Louis, 1980; Wanous, 1980), need for control and need for feedback (Nicholson, 1984), and past socialization experiences (Katz, 1980). While organizational strategies will impact newcomer adjustment, the dispositions, motivations, and attitudes of the individuals to be socialized must also be considered. Jones (1983) has noted, however, that research rarely considers the role of individual differences in the socialization process.

Louis (1980) describes socialization as a process through which individuals make sense of their new situations. Individuals have certain expectations about their jobs, their coworkers, and the organization before entering the organization as a new employee (Wanous, 1980). Surprise occurs when there is a discrepancy between a newcomer's expectations and their actual experiences in the new setting (Louis, 1980). Surprise is a normal part of organizational entry, and sense-making is the process through which individuals cope with this surprise and adapt to the new setting. The ability of the newcomer to explain these surprises and to predict their future occurrence will determine the successful socialization of that new member.

Newcomers have special sense-making needs, such as assistance in interpreting events in the new setting, as well as help in understanding and accepting context-specific interpretation schemes. Louis (1980) notes that insiders are a potentially rich source of assistance for newcomers. This implies an interactionist view on the socialization process, in which interactions between newcomers and insiders determine the successful socialization of new members.

Jones (1983) also took an interactionist view of the socialization process, in which both the organization and the individual influence the outcomes of socialization. Specifically, Jones (1983) hypothesized that an individual's self-efficacy and attributional processes moderate that individual's adjustment to the work role. For example, Jones (1983) posited that individuals high in self-efficacy may tend to take a proactive stance towards role performance, whereas those low in self-efficacy may be more likely to accept role definitions offered by others.

In an empirical study, Jones (1986) integrated his view of the influence of self-efficacy with Van Maanen and Schein's (1979) theory of organizational strategies for socialization. Jones (1986) hypothesized that a newcomer's level of self-efficacy would moderate the relationship between organizational socialization tactics and individual role orientation. Jones (1986) found that when an organization uses institutionalized socialization strategies, custodial role orientations are more likely among those low in self-efficacy than those high in self-efficacy.

Additional research provides evidence of the proactive efforts of newcomers to deal with the novel environment. Feldman and Brett (1983) examined individual coping strategies employed to deal with the uncertainty of the new job situation. The coping strategies most favored by new hires are: getting others to provide task help; seeking out social support; and seeking out information. Further, the use of these strategies are stable over time (Feldman & Brett, 1983).

A number of socialization theories describe newcomer attempts to be innovative on the job. Several individual and situational factors that influence newcomer innovation and personal development during socialization have been

described (Brett, 1984; Nicholson, 1984; West & Farr, 1989). These theories indicate that individual factors such as desire for control, desire for feedback (Nicholson, 1984), self-efficacy, anxiety (Brett, 1984), growth need strength, and task specific skills (West & Farr, 1989) will determine the extent to which a newcomer shows innovation and creativity on the job.

However, there are also job characteristics that will constrain or provide opportunities for innovation, including discretion, job or task novelty, unpredictability, and challenge (Brett, 1984; Nicholson, 1984; West & Farr, 1989). Finally, situational factors such as group support, cohesiveness, leadership support, feedback, and norms for innovation have also been suggested to influence newcomer innovation (West & Farr, 1989). Thus, these theories consider the interaction between the individual entering the new situation and the characteristics of the situation in determining socialization outcomes.

Reichers (1987) advocates the interactionist perspective by asserting that the rate of newcomer socialization is dependent on the frequency of symbolic interactions between the newcomer and insiders. Symbolic interactionism is a process of verbal and social interaction through which shared meanings develop (Reichers, 1987). Symbolic interactions occur more frequently when both newcomers and insiders are proactive in seeking out interactions. Proaction is "any behavior that involves actively seeking out interaction opportunities" (Reichers, 1987, p. 281). The more frequently these symbolic interactions occur, the quicker the newcomer adjusts to the new setting.

Newcomer and insider proaction in seeking out interactions are influenced by individual and situational variables. Individual difference variables that influence

proaction include field dependence, tolerance of ambiguity, and need for affiliation. Situational factors that may affect proaction are task interdependence, orientation programs, on-the-job training, early performance evaluations, and formal mentoring relationships (Reichers, 1987).

In conclusion, recent socialization theories have taken into account the interaction between the newcomer and the situation that results in adjustment to the job. Implicit in all these theories is that newcomers are learning about the job, role, and group when they enter the work setting. There is also some indication of the active strategies used by newcomers to learn about the job (e.g., seeking information, Feldman & Brett, 1983; interacting with organizational members, Reichers, 1987). Therefore, these recent theories are more appropriate than traditional stage theories or theories of socialization tactics in understanding the dynamic socialization process. These theories characterize how newcomers are active in facilitating their socialization to the new work setting. The following sections describe several theories and lines of research that indicate in more detail how newcomers are proactive in learning their tasks, their roles, and their place in the workgroup.

## A CONCEPTUAL MODEL OF NEWCOMER LEARNING AND ADAPTATION

In an integration of the training and socialization literatures, Feldman (1989) explained the similarities and differences between the foci of study for the two research domains. Training research has been concerned with evaluating the effectiveness of formal procedures to teach individuals how to perform work tasks. Socialization research has focused more on how newcomers learn their roles, and how they come to understand organizational values and culture (Feldman, 1989).

Socialization research also indicates that newcomers learn quite a bit about their tasks through their interactions with workgroup members on the job. However, one fault of socialization research is that, in stressing that socialization is more than just learning one's job, it has increasingly ignored this aspect of adaptation by focusing on the learning of attitudes and values (Feldman, 1989). Research needs to examine more fully the processes by which newcomers learn their jobs, and how this learning interacts with the learning of roles and organizational norms (Feldman, 1989).

### Socialization Outcomes

A number of different outcomes of the socialization process have been identified, including satisfaction, motivation, and commitment (Van Maanen, 1975), mutual influence, job involvement, and internal work motivation (Feldman, 1976), and carrying out role assignments dependably, remaining with the organization, and innovating and cooperating spontaneously (Feldman, 1981). However, the outcomes described in conceptual discussions often differ from the outcomes measured in

research (Fisher, 1982). While theoretical papers highlight the learning aspect of socialization, empirical papers often measure attitudinal outcomes of socialization (i.e., commitment and satisfaction).

Three socialization outcomes that are related to the process of learning the job are mastery (e.g., Falcione & Wilson, 1988; Feldman, 1981), innovation (e.g., Nicholson, 1984; West & Farr, 1989), and workgroup influence. Feldman (1981) describes two process variables, resolution of role demands, and task mastery, that reflect mastery of the job. Mastery includes learning the tasks of the new job, determining task priorities and time allocation, dealing with conflicts, and performing the job well (Feldman, 1981).

Furthermore, Fisher (1982) performed a qualitative study to determine what newcomers perceived to be the outcomes of socialization. Characteristics of adjusted newcomers included: skill proficiency; independence in action; knowledge of routines; role clarity; and having a "system" (Fisher, 1982). These characteristics can also be considered indicators that a newcomer has "mastered" his/her job. Thus, mastery can be defined as the extent to which the newcomer learns his/her tasks, successfully and independently performs his/her tasks and duties, and develops methods for getting his/her work done.

A second outcome of the learning process is innovation. Innovation has been examined as an outcome of the socialization tactics used by the organization (Allen & Meyer, 1990; Jones, 1986; Van Maanen & Schein, 1979). It is also the result of the newcomer's proactive attempts to change role requirements (Nicholson, 1984). As the newcomer learns the tasks required of him/her on the job, he/she may attempt to

institute better methods for getting the job done. Thus, innovation can be defined as the implementation of new and different work objectives, methods, and procedures in a newcomer's job (West & Farr, 1989).

A third socialization outcome is workgroup influence. This can be defined as the extent to which the newcomer's supervisor and coworkers accept and use the newcomer's advice and suggestions, and the extent to which the workgroup includes the newcomer in decisions. It indicates that the workgroup accepts the newcomer as a competent performer of his/her job. Feldman (1981) indicates that making creative suggestions and being innovative are important outcomes of socialization. "Lack of influence, and overconformity to organization norms, are perhaps the most frequently cited indicators of ineffective socialization" (Feldman, 1981, p. 315).

Feldman (1976) found that newcomers were unwilling to make suggestions for changes in work-related activities until they had mastered their own jobs. They felt they needed to prove their competence before giving advice or making suggestions to other workgroup members. Thus, it is expected that both mastery and innovation will precede and affect the amount of workgroup influence a newcomer has. When newcomers have mastered their jobs and show greater innovation, then workgroup members may be more likely to take newcomer advice and include the newcomer in decisions.

The literature on newcomer socialization has been fairly complete in describing the outcomes of newcomer learning. However, research depicting how newcomers proactively seek to achieve these outcomes has been sparse. Recently, socialization researchers have focused on the proactive information-seeking tactics used by

newcomers (e.g., Ashford & Cummings, 1985; Miller & Jablin, 1991; Morrison, 1991, 1993; Ostroff & Kozlowski, 1992). Research on information sources and content (e.g., Greller & Herold, 1975; Hanser & Muchinsky, 1978) and proactive feedback-seeking (Ashford, 1986; Ashford & Cummings, 1985) provide a basis for examining newcomer proaction in seeking information about the job.

### Newcomer Information Seeking

The socialization perspective taken in the present study is that newcomers are active participants in their adaptation to their new job. Newcomers take a proactive role in their socialization by seeking out information relevant to learning about the job (Miller & Jablin, 1991; Morrison, 1991, 1993). Ashford and Cummings (1983) argue that individuals are not passive recipients of feedback from their environment, but instead actively attend to and seek information relevant to personal goals. For example, Arps (1917) found that individuals who received no knowledge of results from the experimenter developed their own subjective methods for ascertaining how well they were performing in an experiment. Further, researchers have indicated that individuals actively attend to information from a variety of sources and weigh the importance of each source in providing information (Greller & Herold, 1975).

Ashford and Cummings (1983) explain that individuals are motivated to seek feedback because of its value as an individual resource in attaining goals. Feedback provides two types of information to an individual: functional information, or the behaviors that are appropriate to achieve a goal; and evaluative information, or how well that individual is performing the behaviors (referred to as referent and appraisal information, respectively, by Ashford & Cummings, 1983).

One function of feedback is to reduce uncertainty. In fact, some degree of uncertainty is necessary for feedback to be a valuable resource for an individual (Ashford & Cummings, 1983). Seeking information is one way that newcomers can proactively reduce the uncertainty of the new environment. Feedback may also serve as a cue to which goals are valued in the environment. Finally, feedback is a necessary resource to achieving mastery over an environment. In order to understand the environment and make self-evaluations, the individual will attend to and seek out relevant information (Ashford & Cummings, 1983).

Entry into a new organization is one situation that is particularly uncertain for the individual (Feldman & Brett, 1983; Louis, 1980). Newcomers may experience "information deprivation", in that their communication environments are limited in the amount of useful information provided to them (Jablin, 1984, p. 622). Proactive information-seeking is a strategy by which the newcomer can reduce the uncertainty of the work setting (Miller & Jablin, 1991). Current socialization theory and research has begun to examine the proactive information-seeking behaviors of newcomers (Miller & Jablin, 1991; Morrison, 1991, 1993; Ostroff & Kozlowski, 1992).

Information content. New employees are initially faced with learning how to perform the job (Feldman, 1976; Fisher, 1986). During socialization, newcomers must develop the skills and knowledge necessary to job performance (Morrison, 1991, 1993). Two types of information relevant for this learning are functional information and evaluative information (Morrison, 1991, 1993).

**Functional information** is information about how to perform the job, including how to complete tasks, use equipment and tools, allocate time to various job

assignments, and establish work priorities (Feldman, 1981; Greller & Herold, 1975; Miller & Jablin, 1991; Morrison, 1991, 1993; Ostroff & Kozlowski, 1992).

Newcomers may proactively seek functional information to discover what is required of them on the job and how to accomplish it (Miller & Jablin, 1991).

**Evaluative information** is information concerning how well or how poorly an individual is performing tasks and meeting job requirements (Ashford & Cummings, 1983; 1985; Greller & Herold, 1975; Miller & Jablin, 1991). Seeking evaluative information is vital to learning about the job, since it allows newcomers to identify and correct any errors in their performance, as well as discover areas where additional learning is needed (Ashford & Taylor, 1990).

**Information-seeking strategies.** In addition to seeking different types of information, newcomers may choose different strategies for acquiring this information. One strategy that a newcomer can use is **inquiry**, which is directly asking others for information (Ashford & Cummings, 1983). Supervisors and coworkers would be the most relevant parties for newcomers to ask for functional and evaluative information. For example, Louis, Posner and Powell (1983) found that coworkers and supervisors are the most helpful sources during newcomer adaptation.

Furthermore, in her study of newcomer information-seeking, Morrison (1991) found that other sources such as indirect superiors, support staff, friends, family members, and clients were sought infrequently for information. However, newcomers sought technical information to a great extent from supervisors and coworkers (Morrison, 1991). Thus, for this study, inquiry will be limited to **inquiry of supervisors and inquiry of coworkers.**

Another strategy for seeking information involves **observation** of other people in the work setting. This strategy is the same as Ashford and Cummings' (1983) strategy of monitoring, in which newcomers attend to the behavior of others in the environment, and the reactions of others to their own behavior. In addition, newcomers may watch others performing their jobs to learn how to perform the job and to find out how well they are doing on the job.

A fourth strategy that is closely tied to observation is **experimentation**. Through their own trial and error performance of their tasks, newcomers learn how to function on the job. All newcomers would necessarily participate in this strategy because it comprises the performance of their tasks. However, some newcomers may rely more on their own initiative in learning the tasks rather than asking supervisors or coworkers for assistance. Furthermore, newcomers may try to evaluate how well they are doing on the job through attending to and evaluating their own performance, rather than relying on others' feedback and evaluations.

Based on Bandura's (1977b) social learning theory, individuals learn through observation and modeling of others' behaviors. Thus, it is likely that the strategies of observation and experimentation will occur together. The combination of observation and experimentation has been found to be an effective learning strategy; for example, behavior modeling has been found to be a successful training technique (e.g., Gist, Schwoerer, & Rosen, 1989; Goldstein & Sorcher, 1974). Individuals use the strategies of observing and experimenting in their own proactive attempts to understand the new job. Research indicates that newcomers engage in high levels of monitoring for

information (Morrison, 1991), and that both observation and experimentation are positively related to knowledge about the job (Ostroff & Kozlowski, 1992).

Strategy choice. Newcomers may choose which information-seeking strategy to use based on various costs associated with these strategies. For example, inquiry, observation, and experimentation require effort costs. Inquiry involves the physical effort of finding and asking others for information, while observation and experimentation require the cognitive and attentional effort of processing the information observed and then modeling it (Ashford & Cummings, 1983).

A second cost related to strategy choice is the cost of "losing face" when using inquiry as an information-seeking strategy (Ashford & Cummings, 1983; Miller & Jablin, 1991; Morrison & Bies, 1991). Communication with others involves social costs (Miller & Jablin, 1991). Newcomers may be reluctant to ask supervisors or coworkers for information for fear of appearing incompetent. Therefore, impression management concerns may limit the newcomer's willingness to inquire of others for information (Morrison & Bies, 1991).

Inference costs may also affect which strategy is chosen (Ashford & Cummings, 1983). Inquiry may require less inference, since the message is directly conveyed to the newcomer. On the other hand, observation and experimentation require a great deal of inference to interpret the meaning of the behaviors displayed by others. Further, newcomers may have inadequate interpretation schemes for attaching meaning to events in the new environment (Louis, 1980). Thus, the use of inquiry may provide the newcomer with more accurate information about the environment than information acquired through observation and experimentation.

The importance of these costs in choosing an information-seeking strategy may depend on the information content. For example, one of the first tasks faced by the newcomer is learning the requirements of his/her job (Feldman, 1981; Fisher, 1986; Ostroff & Kozlowski, 1992). Therefore, functional information would be critical when the newcomer is first learning his/her tasks. Without functional information, the newcomer may not be able to perform adequately (Morrison, 1991, 1993). Newcomers may be less constrained in their choice of strategies to seek this information, because the cost of not knowing this information would be greater than the costs mentioned above.

On the other hand, asking for evaluative information may have high social costs for the newcomer. The newcomer is not performing at the level of an experienced incumbent, and they may not want to draw attention to that fact (Morrison & Bies, 1991). However, evaluative information is still important to their mastery of the job. Therefore, they may use observation and experimentation to a high degree to acquire evaluative information, while limiting their use of inquiry for evaluative information (e.g., Morrison, 1991).

### Research on Information-Seeking

There is a fairly substantial body of research that sheds some light on the information-seeking process, although some studies present conflicting results. Several studies examined the informativeness of various sources of information for job incumbents (Greller & Herold, 1975; Hanser & Muchinsky, 1978). Greller & Herold (1975) found that, for functional information, supervisors were the most informative source, followed by the self, task, coworkers, and the company. For evaluative

information, the most informative source was the self, followed by the task, supervisor, coworker, and company. Hanser and Muchinsky (1978) found similar results, except that, for functional as well as evaluative information, the self and task were most informative, followed by supervisor, coworkers, and the organization.

In contrast, Burke & Bolf (1986) found that coworkers were more valuable sources of information in general than the supervisor. However, in terms of information content, supervisors were more valuable sources of job requirements and evaluative information, while coworkers were more valuable sources of technical information. Finally, individuals who were younger and at lower levels in the organization rated coworkers as more valuable learning sources (Burke & Bolf, 1986).

Several studies examined characteristics that affect information search and choice of information source. For example, Gerstberger and Allen (1968) found that individuals used information sources that were more accessible. Heslin, Blake, and Rotton (1972) found that a combination of response importance and uncertainty (insufficient, inconsistent, or unfavorable information) led to greater information search. Furthermore, Greller and Herold (1975) examined several self, task, and relational characteristics that affected reliance on information sources. These results will be detailed in subsequent sections.

The research of Ashford and her colleagues clarifies some of the antecedents of active information search (Ashford, 1986; Ashford & Cummings, 1985). For example, Ashford (1986) found that the greater the importance of performance as a goal, the greater the uncertainty about performance-related issues, and the lower the job tenure, the more the individual valued feedback on performance. The greater the perceived

value of feedback, the greater the frequency of both monitoring and inquiring for performance feedback (Ashford, 1986). Furthermore, Ashford and Cummings (1985) found that greater uncertainty and role ambiguity led to greater information seeking, moderated by the individual's tolerance for ambiguity (Ashford & Cummings, 1985).

Several studies have examined the information acquisition of newcomers in organizations (Jablin, 1984; Morrison, 1991, 1993; Ostroff & Kozlowski, 1992). Jablin (1984), analyzing communication logs kept by newcomers, found that nurses did not initiate most of their interactions with others during their third week of employment. However, by the ninth week of employment, newcomers were initiating the majority of their interactions with others (Jablin, 1984).

Ostroff and Kozlowski (1992) examined four types of information acquired by newcomers: task; role; group; and organization. They found that newcomers acquired the most information about the task domain, followed by role, group, and organizational domains, and this pattern remains stable over time. This indicates that newcomers concentrate primarily on learning about their tasks and role during their first year on the job (Ostroff & Kozlowski, 1992).

Ostroff and Kozlowski (1992) also examined newcomer reliance on various sources of information. For task information, supervisors and coworkers provided information to an equal degree. In terms of noninterpersonal sources, newcomers acquired more task information from experimentation than from observing others. Across all four content areas, observation is relied on to the greatest extent to acquire information, followed by supervisors and coworkers. However, there is a significant increase in experimentation over time. Finally, although the amount of information

acquired from observation is nearly the same as that acquired from supervisors and coworkers, only information acquired through observation and experimentation are related to knowledge about the task domain (Ostroff & Kozlowski, 1992).

Morrison (1991) examined newcomer efforts to acquire different types of information, using Ashford and Cummings' (1983) two information-seeking strategies, inquiry and monitoring. She found that when seeking performance feedback (i.e., evaluative information), newcomers used monitoring more frequently than inquiry. In fact, they monitored for performance feedback more frequently than any other type of information. When seeking technical (i.e., functional) information, newcomers used inquiry more frequently than monitoring. Furthermore, newcomers inquired of supervisors more frequently than coworkers for technical information and performance feedback (Morrison, 1991).

Morrison (1993) also examined the relationship between information-seeking and task mastery. Results indicated that inquiring for performance feedback, and asking supervisors, asking coworkers, and monitoring for technical information were related to task mastery. However, the relationship between asking coworkers for technical information and mastery was negative. Morrison (1993) explained that newcomers who are more unsure about their task competence would more frequently ask coworkers for technical information to cope with their uncertainty.

In conclusion, research has indicated that newcomers seek information through a number of different strategies. Further, they may rely to a greater extent on certain strategies for certain types of information. The following section describes several hypotheses to be tested in the present study.

### Differential Use of Information-Seeking Strategies

The present study will examine which information strategies are used by newcomers during their first year on the job. Based on previous research, it is expected that newcomers will rely on information-seeking strategies to varying degrees. The present study hypothesizes that newcomers will rely to the greatest extent on both observation and experimentation to acquire functional information. Newcomers are faced with a new, uncertain situation, but they may not want to appear incompetent. Therefore, they may rely on their own observations and behaviors to seek information while they learn how to interact with their supervisor and coworkers.

Previous research indicates that coworkers are valuable sources of functional information (Burke & Bolf, 1986; Louis, et al., 1983). In addition, newcomers may feel it is less costly to ask coworkers than supervisors for functional information. Inquiry of coworkers for functional information may be the next most frequently used strategy, followed by asking supervisors for functional information. Morrison (1991) investigated the hypothesis that inquiry of coworkers would be used more frequently than inquiry of supervisors to acquire technical (i.e., functional) information. Her results, however, indicated that the newcomers in her sample inquired of supervisors more frequently than coworkers for technical information. Morrison (1991) explained that the relationship between supervisors and newcomers was probably unique in her sample, in that supervisors were accountants like the newcomers and were only two years ahead of the newcomers. In the present study, which samples a variety of jobs, it is expected that newcomers will ask coworkers for functional information more frequently than they ask their supervisors for this information.

It is expected that observation and experimentation will also be the most frequently used strategies for acquiring evaluative information. Evaluative information may be viewed as much more costly by newcomers, who are naturally bound to make mistakes while learning. However, it is important for newcomers to understand how their supervisor evaluates their work; therefore, it is expected that, for evaluative information, newcomers will inquire of supervisors more frequently than coworkers.

In addition to the expectation that information-seeking strategies will be used with varying frequency, it is expected that the frequency of using certain strategies may change over time. For example, newcomers may increase their use of inquiry over time for evaluative information. The pattern of information acquisition exhibited by newcomers may differ over the course of their first year on the job. The present study will compare the information-seeking strategies used by a cross-sectional sample of newcomers on the job for approximately one year or less.

It is expected that individuals on the job for a longer period of time will have learned the basics of how to perform the job. For example, Graen et al. (1973) found that over sixteen weeks on the job, individuals decreased their involvement in "assimilation-relevant" activities, including learning the amount of work needed to be done, mastering the job situation, and getting help from others. Furthermore, research indicates that predictors of performance change over time (Jablin, 1984). At six weeks of employment, the best predictor of a newcomer's performance is the extent to which he/she is dependent on the supervisor for information. By the eighteenth week of employment, the best predictor of an individual's performance is the supervisor's supportiveness and degree of upward work influence (Jablin, 1984).

Therefore, it is expected that the use of inquiry of both supervisors and coworkers will decrease with increased tenure on the job. On the other hand, it is expected that all newcomers in the present study will still acquire functional information through observation and experimentation to a high degree. While it is not a specific hypothesis that can be tested, it is expected that the use of observation and experimentation for functional information will not change with increased job tenure (for individuals on the job for one year or less).

In addition, while acquiring functional information from others may become less important, discovering how others evaluate their work may gain increasing salience for individuals who have been on the job for a longer period. These individuals have passed through the "honeymoon period" (Miller & Jablin, 1991), and their workgroup may expect more from them. Furthermore, they may be facing performance evaluations by their supervisors. For example, Feldman (1977) found that new employees usually took about 6 months to feel competent on the job, and this usually occurred because of a feedback meeting with the supervisor. Therefore, inquiry of both supervisors and coworkers for evaluative information is expected to increase with greater tenure on the job. Again, while not a testable hypothesis, it is expected that the use of observation and experimentation for evaluative information will not change with job tenure.

To summarize, the hypotheses to be tested are as follows:

**Hypothesis 1.** A three-way interaction between information content (functional, evaluative), information-seeking strategy, and time on the job will affect information-seeking.

**Hypothesis 2.** Newcomers will use experimentation more frequently than inquiry of coworkers and inquiry of supervisors to acquire functional information.

**Hypothesis 3.** Newcomers will use observation more frequently than inquiry of coworkers and inquiry of supervisors to acquire functional information.

**Hypothesis 4.** Newcomers will inquire of coworkers for functional information to a greater extent than inquiring of supervisors for functional information.

**Hypothesis 5.** Newcomers will use experimentation more frequently than inquiry of supervisors and inquiry of coworkers to acquire evaluative information.

**Hypothesis 6.** Newcomers will use observation more frequently than inquiry of supervisors and inquiry of coworkers to acquire evaluative information.

**Hypothesis 7.** Newcomers will inquire of supervisors for evaluative information to a greater extent than inquiring of coworkers for evaluative information.

**Hypothesis 8.** Inquiry of supervisors for functional information will decrease with greater time on the job.

**Hypothesis 9.** Inquiry of coworkers for functional information will decrease with greater time on the job.

**Hypothesis 10.** Inquiry of supervisors for evaluative information will increase with greater time on the job.

**Hypothesis 11.** Inquiry of coworkers for evaluative information will increase with greater time on the job.

The purpose of the present study is to further clarify the process of newcomer information-seeking for functional and evaluative information. While previous

research has indicated general patterns of information acquisition, it has not examined factors that may cause newcomers to differ individually in the strategies they rely on to acquire information. There are a number of factors that may impact the information-seeking strategies used by newcomers. Several individual, job, and situational characteristics are posited to influence the information-seeking behaviors of newcomers. Figure 1 presents a general heuristic of the process of newcomer information-seeking. This conceptual heuristic will not be tested as a complete causal model. Rather, it serves to depict the critical variables to be examined in this study. The following sections detail the specific relationships in the model that will be examined and tested in this study.

### Individual Difference Factors

Several individual-level variables have been posited to affect the information-seeking strategies used by new employees. For example, in their theory of adaptation to transitions, Ashford and Taylor (1990) hypothesize that individuals who are high self-monitors may be especially sensitive to the need for adaptation to a new environment. Furthermore, they believe that the breadth of the individual's past experiences may facilitate the recognition of pertinent cues in the new setting (Ashford & Taylor, 1990). Several other individual differences have been hypothesized to affect information-seeking behaviors, including tolerance for ambiguity, self-esteem, cognitive complexity, and self-efficacy (Ashford & Cummings, 1985; Ashford & Taylor, 1990; Major & Kozlowski, 1991; Miller & Jablin, 1991).

Research has examined how some individual differences relate to information-seeking. For example, Greller and Herold (1975) found that individual involvement in

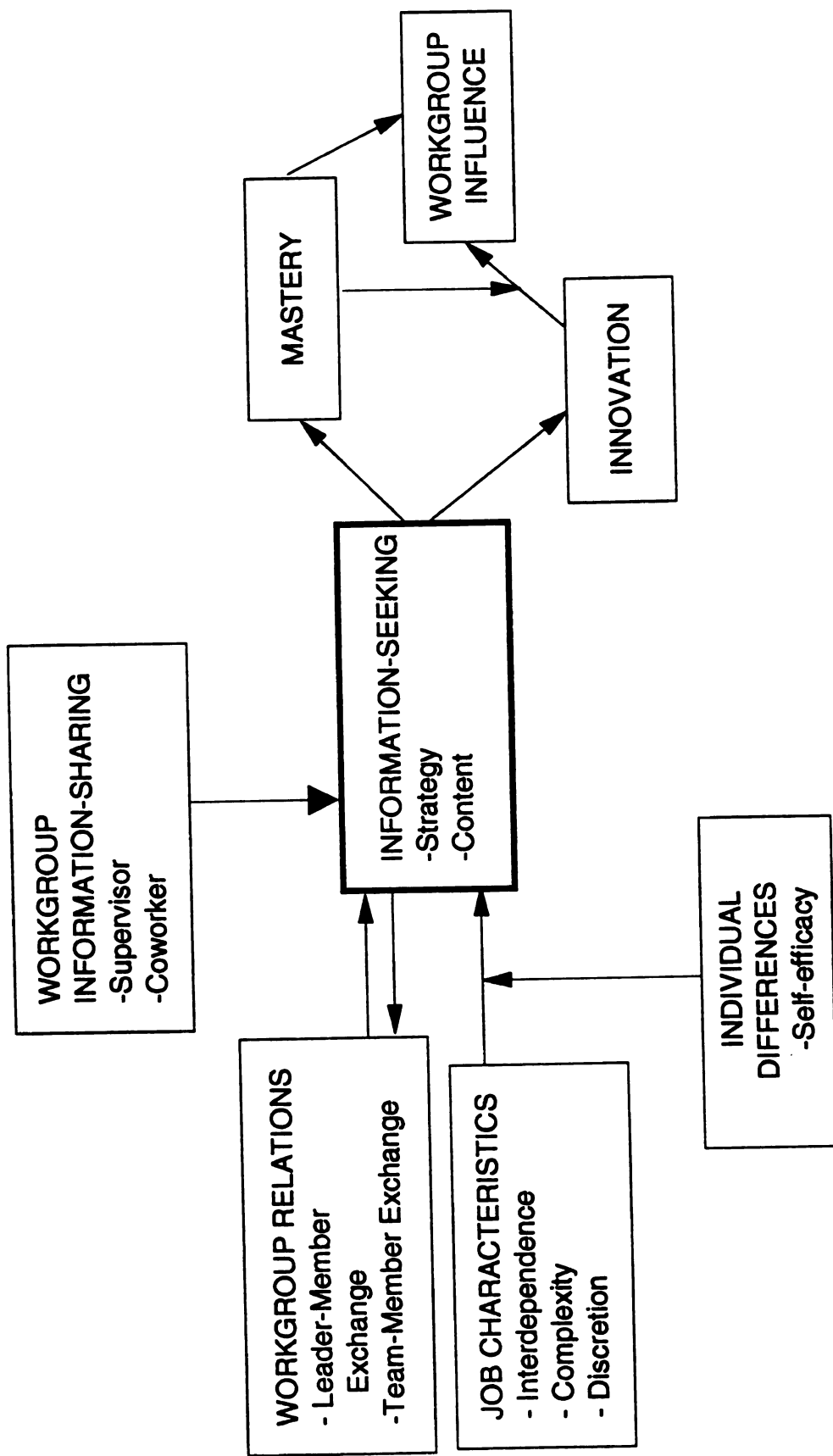


Figure 1. Conceptual Model of Newcomer Information-Seeking.

and enjoyment of work were related to greater reliance on intrinsic sources (e.g., task and self) for functional information. Ashford and Cummings (1985) found that individuals who reported greater job involvement engaged in greater levels of information seeking. They also found that tolerance for ambiguity moderated the relationships between uncertainty, role ambiguity and level of information seeking (Ashford & Cummings, 1985).

However, research has not examined how the individual's past experiences relate to their information-seeking behaviors on the new job. Self-efficacy is a particularly relevant variable because it examines an individual's confidence on the new job based on prior experiences.

Self-efficacy. As depicted in Figure 1, self-efficacy is posited to influence the strategies chosen by newcomers to acquire information on the job. Bandura (1982) describes self-efficacy as "judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122). Self-efficacy expectations are an individual's estimates that given behaviors will result in certain outcomes; these expectations are based on successful performance in the past (i.e., mastery), and past exposure to models and other vicarious experiences (Bandura, 1977a).

Mastery experiences are the most influential sources of efficacy, followed by vicarious experiences, verbal persuasion, and information on an individual's physiological state (Bandura, 1982). Self-efficacy can be distinguished from self-esteem because self-efficacy concerns task-specific expectations (Gist, 1987). For the newcomer, self-efficacy can be defined as his/her assessment of how well he/she can perform on the job based on past experiences and past performances.

Research indicates that self-efficacy is related to subsequent performance (Gist, 1987). For example, self-efficacy has been found to be positively related to the level of goals chosen and task performance in research on goal setting (Locke, Frederick, Lee, & Bobko, 1984). Furthermore, higher self-efficacy prior to training has led to greater mastery of computer skills (Gist, Schwoerer & Rosen, 1989).

Jones (1983) has posited that self-efficacy plays an important role in the socialization process. He hypothesizes that individuals high on self-efficacy would tend to take a more proactive stance towards their role performance due to beliefs in their personal competence. On the other hand, individuals low on self-efficacy are unsure about their ability to handle the new job. They may be more likely to accept prior definitions of how to get the work accomplished (Jones, 1983). In a study examining the effects of organizational socialization tactics on role orientation, Jones (1986) found that self-efficacy moderated this relationship. Individuals low on self-efficacy were more likely to take a custodial orientation towards their job, while high self-efficacy individuals were more likely to be innovative (Jones, 1986).

Self-efficacy may influence the proactive efforts of newcomers to learn about their jobs. For example, self-efficacy may affect the newcomer's choice of information-seeking strategies. The strategies chosen, however, would depend on the content of the information sought. When seeking functional information, it is hypothesized that individuals high on self-efficacy may rely to a greater extent on observation and experimentation. Thus, they may rely on their own past experiences to develop methods to accomplish their tasks. They may be more independent when learning their tasks, and seek less guidance from others (Major & Kozlowski, 1990).

On the other hand, individuals low on self-efficacy may be less self-sufficient. Because they are less confident in their ability to master the job, they may be more likely to ask others for help in learning their tasks. Therefore, they would be more likely to ask supervisors and coworkers for functional information. In fact, Major and Kozlowski (1990) found newcomers low on self-efficacy to be more active in seeking out work-related interactions with their coworkers and supervisor.

When seeking evaluative information, the opposite relationship may hold. Specifically, individuals low on self-efficacy would be more likely to seek evaluative information through the less public strategy of observation and experimentation. They may avoid asking for evaluative information to protect their self-concept (Larson, 1989; Northcraft & Ashford, 1990), or they may be concerned with impression management and how others view their competence (Morrison & Bies, 1991).

The motivation to avoid damage to their public image may be particularly salient for low self-efficacy individuals. However, acquiring evaluative information is still important for detecting and correcting any errors in performance; therefore, individuals low on self-efficacy may rely on observation of others and self-evaluations to acquire this information. Although the information acquired through observation and experimentation may be biased (Northcraft & Ashford, 1990), it is expected that for low self-efficacy newcomers, the costs of appearing incompetent are greater.

On the other hand, individuals high on self-efficacy are expected to use inquiry to a greater extent to acquire evaluative information. They may be more likely to view information from others, whether positive or negative, as a way to improve their knowledge and skills. They will tend to have less doubt about their competence, so

they will not be concerned that attention will be drawn to their inadequacies. In fact, their impression management concerns may be opposite to those of low self-efficacy individuals. By asking for evaluative information, they can direct attention to their success at mastering the job. In this manner, they can improve their public image through inquiring of others for evaluative information (Morrison & Bies, 1991).

Furthermore, individuals who seek evaluative information from others may be viewed as conscientious and willing to improve their skills (Ashford & Cummings, 1983).

Research has given some indication that self-efficacy may influence the willingness of individuals to ask for evaluative information. For example, when task performance was manipulated to be high on a preliminary task, individuals chose to perform more diagnostic tasks (i.e., tasks that provided more information about their ability) in the second experimental session, compared to individuals with low initial performance (Zuckerman, Brown, Fischler, Fox, Lathin, & Minasian, 1979).

Furthermore, Northcraft and Ashford (1990) examined the willingness to ask for evaluative information more directly. In a laboratory study, they manipulated performance expectations prior to the experiment with an "aptitude test." They found that individuals with low performance expectations inquired for less evaluative information, especially when inquiry was public (Northcraft & Ashford, 1990).

Though not labelled self-efficacy, these experiments did manipulate task-specific performance expectations based on past experiences, which fit the definition of self-efficacy. These experiments provide some support for the notion that self-efficacy influences the strategies used to acquire evaluative information.

In the present study it is expected that self efficacy will moderate the relationship between job characteristics and information-seeking strategies. Therefore, the specific hypotheses concerning self-efficacy will be detailed in the next section.

### Job Characteristics

From an interactionist perspective, both individual and situational characteristics will influence the newcomer adaptation process (Schneider, 1983). For example, the type of job the newcomer enters may influence the newcomer's learning strategies. It is posited here that certain job characteristics may constrain or provide opportunities for newcomers to utilize different information-seeking strategies. Job characteristics may be a salient feature of the environment for newcomers, because newcomers focus early on task learning (Morrison, 1993; Ostroff & Kozlowski, 1992). Figure 1 details three job characteristics posited to play a role in the newcomer adaptation process: interdependence; complexity; and discretion.

Interdependence. In Thompson's (1967) theory of technology, the technological requirements of an organization will dictate the type of interdependence found between organizational parts. There are three types of interdependence that can be found in organizations. In order of increasing interdependence they are: 1) pooled interdependence; 2) sequential interdependence; and 3) reciprocal interdependence.

**Pooled interdependence** describes the situation in which each component of an organization contributes to the whole organization and is supported by the whole organization. **Sequential interdependence** occurs when the outputs of one part of the organization become the inputs to another part of the organization. Finally, when the

outputs of one part of the organization become the inputs of the other, and vice versa, the situation is described as **reciprocal interdependence** (Thompson, 1967).

These three types of interdependence exhibit increasing degrees of contingency. As the level of interdependence increases, there is a greater necessity for interaction and communication between organizational members to accomplish tasks (Thompson, 1967). Research at the workgroup level has found a relationship between interdependence and coordination modes (Van de Ven, Delbecq, & Koenig, 1976). Van de Ven et al. (1976) found that as interdependence increased between workgroup members, increases in the use of coordination modes such as horizontal channels of communication and unscheduled and scheduled meetings occurred.

Interdependence functions similarly at the individual level of analysis. Individual jobs can have differing degrees of interdependence with other jobs within a workgroup. This may then impact the level of communication between workgroup members. The level of interdependence between a newcomer's job and the jobs of other workgroup members impacts the opportunities the newcomer has to ask coworkers for information. In fact, interdependence is an important component of Reicher's (1987) theory of newcomer proaction. She asserts that greater interdependence between jobs may facilitate proaction because it necessitates interactions between newcomers and insiders (Reichers, 1987).

Major and Kozlowski (1990) tested this hypothesis and found that newcomers initiated greater levels of work-related interactions with their coworkers when their jobs were more interdependent. To tie these results more specifically to utilization of information-seeking strategies, it can be hypothesized that newcomers in jobs that are

more interdependent will use inquiry as a strategy to acquire information to a greater extent. Since interdependent jobs require interactions between individuals to accomplish tasks, newcomers will have more opportunities to ask others for the information they need.

On the other hand, newcomers who are in jobs that are not interdependent will have fewer opportunities to interact with coworkers. In some cases, coworkers may have less knowledge about the newcomer's job when there is little interdependence between jobs. In addition, where newcomers and coworkers are performing similar duties yet are not interdependent with one another, newcomers may be hesitant to bother their coworkers too frequently with questions. Therefore, newcomers in jobs that have little interdependence may rely on observation and experimentation to a greater extent to acquire information. It is expected that interdependence will have similar impacts on strategies to acquire both functional and evaluative information.

In addition, it is expected that self-efficacy will moderate the relationships between interdependence and the various information-seeking strategies. For individuals low on self-efficacy, it is expected that a strong positive relationship will be found between interdependence and inquiry of supervisors and coworkers for functional information. On the other hand, for individuals high on self-efficacy, there should be a weaker relationship between interdependence and inquiry of supervisors and coworkers. As found by Major and Kozlowski (1990), individuals low on self-efficacy may be more sensitive to the situational demand of high interdependence. Since they are not confident about their ability to succeed on the job, they are already more likely to ask others for assistance in determining the correct ways to perform

their job. The opportunity for more frequent interactions with coworkers due to greater interdependence will facilitate their inclination to rely on inquiry to learn their jobs. On the other hand, individuals high on self-efficacy may be less sensitive to the effect of interdependence because they are more confident that they will succeed in learning and performing their tasks.

Furthermore, for individuals low on self-efficacy, the hypothesized negative relationships between interdependence and observation and experimentation for functional information should be found. Individuals low on self-efficacy should be more likely to rely on observation and experimentation when their job is not interdependent with coworkers and they have less opportunities to ask questions. In contrast, for high self-efficacy individuals, there should be no relationship between interdependence and observation and experimentation for functional information. High self-efficacy individuals should engage in relatively higher degrees of observation and experimentation regardless of the level of task interdependence.

Hypothesized interactions are slightly different in terms of seeking evaluative information. For individuals low on self-efficacy, it is expected that interdependence will have a negative relationship with inquiry of supervisors and coworkers for evaluative information. Individuals low on self-efficacy already believe that they are not performing well on the job; therefore, the social costs of appearing incompetent make them less likely to inquire for evaluative information. When their jobs are interdependent with others, they may be less likely to inquire for evaluative information because they will be highlighting their lack of success on the job to those individuals who must depend on their work. For individuals high on self-efficacy,

there should be the hypothesized positive relationship between interdependence and inquiry of supervisors and coworkers for evaluative information. Individuals who are more confident of their abilities are more likely to ask for evaluative information to improve their performance, and greater interdependence provides more opportunities for inquiry.

Furthermore, individuals low on self-efficacy should report little relationship between interdependence and observation and experimentation for evaluative information. Low self-efficacy individuals are expected to rely on observation and experimentation to acquire evaluative information to a greater extent regardless of the level of interdependence. For individuals high on self-efficacy, the hypothesized negative relationship between interdependence and observation and experimentation for evaluative information is expected.

The specific hypotheses to be tested are as follows:

Hypothesis 12. Task interdependence will be positively related to inquiry of supervisors for functional information.

Hypothesis 12a. This relationship will be moderated by the newcomer's self-efficacy. For low self-efficacy individuals, a strong, positive relationship between task interdependence and inquiry of supervisors for functional information is expected; for high self-efficacy individuals this relationship should be weaker.

Hypothesis 13. Task interdependence will be positively related to inquiry of coworkers for functional information.

Hypothesis 13a. Self-efficacy will moderate this relationship. For low self-efficacy individuals, a strong, positive relationship between task interdependence and inquiry of coworkers for functional information is expected; for high self-efficacy individuals this relationship should be weaker.

**Hypothesis 14.** Task interdependence will be negatively related to observation for functional information.

**Hypothesis 14a.** Newcomer self-efficacy will moderate this relationship. For individuals with low self-efficacy, there should be a negative relationship between task interdependence and observation for functional information. For high self-efficacy individuals, task interdependence should have no relationship to observation for functional information.

**Hypothesis 15.** Task interdependence will be negatively related to experimentation to acquire functional information.

**Hypothesis 15a.** Self-efficacy will moderate this relationship. For individuals with low self-efficacy, there should be a negative relationship between task interdependence and experimentation for functional information. For high self-efficacy individuals, task interdependence should have no relationship to experimentation for functional information.

**Hypothesis 16.** Task interdependence will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 16a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, task interdependence will be negatively related to inquiry of supervisors for evaluative information. For high self-efficacy individuals, task interdependence will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 17.** Task interdependence will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 17a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, task interdependence will be negatively related to inquiry of coworkers for evaluative information. For high self-efficacy individuals, task interdependence will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 18.** Task interdependence will be negatively related to the use of observation to acquire evaluative information.

**Hypothesis 18a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, interdependence should have no relationship to observation for evaluative information. For individuals high on self-efficacy, there should be a negative relationship between interdependence and observation for evaluative information.

**Hypothesis 19.** Task interdependence will be negatively related to the use of experimentation to acquire evaluative information.

**Hypothesis 19a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, interdependence should have no relationship to experimentation for evaluative information. For individuals high on self-efficacy, there should be a negative relationship between interdependence and experimentation for evaluative information.

**Complexity.** Figure 1 indicates a second job characteristic hypothesized to affect newcomer information seeking, complexity. There have been numerous definitions of complexity in the literature. For example, March and Simon (1958) define complex tasks as those tasks having uncertain alternatives and consequences of action, inexact means-end relationships, and a number of smaller subtasks that make up the complete task. Terborg and Miller (1978) indicate that more complex tasks are high on "path-goal multiplicity;" in other words, a number of strategies for accomplishing the task exist. Wood (1986) describes three components of complexity. **Component complexity** is the number of distinct acts to be performed and distinct information cues to be processed in order to complete a task. **Coordinative complexity** concerns the relationships between inputs and products, and includes timing, frequency, intensity and location requirements for task performance. Finally, **dynamic complexity** concerns changes in the means-end relationships over time.

After reviewing the literature, Campbell (1988) describes four task characteristics that contribute to complexity:

(a) the presence of multiple potential ways (i.e., paths) to arrive at a desired end-state, (b) the presence of multiple desired outcomes (i.e., end-states) to be attained, (c) the presence of conflicting interdependence among paths to multiple outcomes, and (d) the presence of uncertain or probabilistic links among paths and outcomes (Campbell, 1988, p. 43).

The various definitions described above all define complexity as an objective task characteristic. This definition of complexity can be differentiated from task difficulty, which represents a person X task interaction (Campbell, 1988). For example, a complex task may be easy or difficult to perform based on an individual's past experiences. One problem with the definitions described above are their own "complexity;" especially in the case of Wood's (1986) and Campbell's (1988) definitions, it may be difficult to measure all aspects of complexity described.

On the other hand, Perrow (1967) describes two dimensions of an organization's technology that are part of the construct of job complexity. One dimension is the number of exceptions, or task variety, that occur in the performance of work. A second dimension of complexity is the analyzability of the job. When tasks are highly analyzable, individuals can rely on established procedures to get the job done. However, when tasks are not very analyzable, individuals must think about how to solve problems on the job, and they may have to engage in active search beyond available procedures (Withey, Daft, & Cooper, 1983). The two dimensions can be combined to form a continuum from routine (low on both dimensions) to nonroutine technologies (high on both dimensions). To be more exact, the two

dimensions can be combined to form four categories of technologies: routine, craft, engineering, and nonroutine (Perrow, 1967).

Research examining the link between complexity and communication indicates that, at the organizational level of analysis, more complex organizations exhibit greater levels of horizontal communication between departments (Hage, Aiken, & Marrett, 1971). Furthermore, in analyzing communication within work units, it was found that the more complex the work unit's task, the greater the level of communication between coworkers (Tushman, 1979).

Daft and Macintosh (1981) examined the relationship between the two dimensions of complexity and the information-processing within work units. They found that the greater the number of exceptions (or task variety), the greater the amount of information processed by the workgroup. Furthermore, information equivocality was greater when tasks were less analyzable. A puzzling finding was that greater amounts of information were processed when tasks were more analyzable. They hypothesized that information may be difficult to share when activities are intangible and difficult to understand, and it may be more difficult to develop coding schemes to interpret information about less analyzable tasks. Furthermore, they hypothesized that individuals in less analyzable jobs may use more equivocal sources of information, such as engaging in face-to-face interactions to obtain information (Daft & Macintosh, 1981).

The dimensions of complexity described at the work unit level are also relevant and meaningful at the individual job level. The present research will examine complexity at the individual job-level. Drawing on the research described above, it is

expected that job complexity will impact the information-seeking strategies utilized by newcomers. One dimension of complexity, exceptions, has been related to the use of information sources. Greller and Herold (1975) found that individuals who reported greater variety in job duties relied to a greater extent on extrinsic sources (supervisor and coworkers) for functional information.

Additional hypotheses concerning the relationships between job complexity and information-seeking can be made. If a job is fairly routine, the newcomer may not need to actively inquire for information (Ashford & Cummings, 1983). When there are few exceptions, or the job is analyzable, the individual may be able to rely to a great extent on observation and experimentation to master his/her job. On the other hand, if a job has many exceptions or is not analyzable, the individual may not be able to learn the requisite information needed for job mastery on his/her own. Thus, newcomers entering more complex jobs may inquire of supervisors and coworkers to a greater extent for information.

It is expected that job complexity will have the same impact for both functional and evaluative information. The newcomer will engage in greater levels of inquiry for both functional and evaluative information when exceptions are high. On the other hand, when there are few exceptions, the newcomer may be more self-sufficient in learning the job, relying to a greater extent on observation and experimentation. Similarly, when the job has low analyzability, the newcomer will be more likely to inquire for functional and evaluative information. When the job is highly analyzable, the newcomer may rely on observation and experimentation to acquire functional and evaluative information.

These relationships, however, are hypothesized to be moderated by self-efficacy. Specifically, for individuals low on self-efficacy, the hypothesized relationships between exceptions, analyzability, and inquiry of supervisors and coworkers for functional information are expected. When individuals have low self-efficacy, greater task variety and lower analyzability will lead to more frequent inquiry of supervisors and coworkers for functional information. In contrast, for individuals high on self-efficacy, there will be a weaker relationship between complexity and inquiry of supervisors and coworkers for functional information. Individuals who are confident of their abilities will be less likely to inquire for functional information overall. Their confidence is expected to lessen the impact of complexity on inquiry. There will be some information that they must acquire from others, but they are expected to react to greater variety and less analyzability more proactively with greater experimentation.

Thus, high self-efficacy individuals will report a positive relationship between exceptions and observation and experimentation for functional information. They should also be more likely to use observation and experimentation for functional information when the job is less analyzable. For low self-efficacy individuals, the hypothesized negative relationships between exceptions and observation and experimentation for functional information are expected. In addition, it is expected that individuals with low self-efficacy will be more likely to observe and experiment for functional information when the job is more analyzable. When it is less analyzable, they do not have the confidence or experience to learn their tasks on their own.

In terms of evaluative information, low self-efficacy individuals are expected to inquire less of supervisors and coworkers when the job has more exceptions, and when the job is less analyzable. When individuals are faced with more complex jobs, and they have lower self-efficacy, they may avoid appearing incompetent to other workgroup members by refraining from asking for evaluative information. Individuals high on self-efficacy, however, may feel challenged by jobs with greater exceptions and less analyzability, and may therefore be more willing to ask for evaluative information to improve their skills.

Low self-efficacy individuals faced with complex jobs may also be less likely to observe and experiment for evaluative information. Individuals are more likely to experience mistakes and failures in a complex job, and low self-efficacy individuals will be less willing to confirm their expectations through active self-evaluation. On the other hand, high self-efficacy individuals should engage in observation and experimentation for evaluative information more frequently when their job has more exceptions and less analyzability. The greater challenge of a complex job will lead them to more actively assess their skills and abilities as a means of improvement.

The following hypotheses will be tested in this study:

**Hypothesis 20.** Exceptions will be positively related to inquiry of supervisors for functional information.

**Hypothesis 20a.** Self-efficacy will moderate this relationship. Exceptions will be positively related to inquiry of supervisors for functional information for individuals low on self-efficacy. For individuals high on self-efficacy, the relationship should be weaker.

**Hypothesis 21.** Exceptions will be positively related to inquiry of coworkers for functional information.

**Hypothesis 21a.** Self-efficacy will moderate this relationship. Exceptions will be positively related to inquiry of coworkers for functional information for individuals low on self-efficacy. For individuals high on self-efficacy, the relationship should be weaker.

**Hypothesis 22.** Exceptions will be negatively related to observation to acquire functional information.

**Hypothesis 22a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, exceptions should be negatively related to observation to acquire functional information. For high self-efficacy individuals, exceptions should be positively related to observation for functional information.

**Hypothesis 23.** Exceptions will be negatively related to the use of experimentation to acquire functional information.

**Hypothesis 23a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, exceptions should be negatively related to experimentation to acquire functional information. For high self-efficacy individuals, exceptions should be positively related to experimentation for functional information.

**Hypothesis 24.** Exceptions will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 24a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, exceptions will be negatively related to inquiry of supervisors for evaluative information. For high self-efficacy individuals, exceptions will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 25.** Exceptions will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 25a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, exceptions will be negatively related to inquiry of coworkers for evaluative information. For high self-efficacy individuals, exceptions will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 26.** Exceptions will be negatively related to the use of observation to acquire evaluative information.

**Hypothesis 26a.** Self-efficacy will moderate this relationship. Exceptions will be negatively related to observation for evaluative information for low self-efficacy individuals. Exceptions will be positively related to observation for evaluative information for high self-efficacy individuals.

**Hypothesis 27.** Exceptions will be negatively related to the use of experimentation to acquire evaluative information.

**Hypothesis 27a.** Self-efficacy will moderate this relationship. Exceptions will be negatively related to experimentation for evaluative information for low self-efficacy individuals. Exceptions will be positively related to experimentation for evaluative information for high self-efficacy individuals.

**Hypothesis 28.** Analyzability will be negatively related to inquiry of supervisors for functional information.

**Hypothesis 28a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, analyzability will be negatively related to inquiry of supervisors for functional information. For high self-efficacy individuals, the relationship will be weaker.

**Hypothesis 29.** Analyzability will be negatively related to inquiry of coworkers for functional information.

**Hypothesis 29a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, analyzability will be negatively related to inquiry of coworkers for functional information. For high self-efficacy individuals, the relationship will be weaker.

**Hypothesis 30.** Analyzability will be positively related to the use of observation to acquire functional information.

**Hypothesis 30a.** Self-efficacy will moderate this relationship. Analyzability will be positively related to observation for functional information for low self-efficacy individuals. The relationship will be negative for high self-efficacy individuals.

**Hypothesis 31.** Analyzability will be positively related to the use of experimentation to acquire functional information.

**Hypothesis 31a.** Self-efficacy will moderate this relationship. Analyzability will be positively related to experimentation for functional information for low self-efficacy individuals. The relationship will be negative for high self-efficacy individuals.

**Hypothesis 32.** Analyzability will be negatively related to inquiry of supervisors for evaluative information.

**Hypothesis 32a.** Self-efficacy will moderate this relationship. For individuals low on self-efficacy, analyzability will be positively related to inquiry of supervisors for evaluative information. For high self-efficacy individuals, the relationship will be negative.

**Hypothesis 33.** Analyzability will be negatively related to inquiry of coworkers for evaluative information.

**Hypothesis 33a.** Self-efficacy will moderate this relationship. For individuals low on self-efficacy, analyzability will be positively related to inquiry of coworkers for evaluative information. For high self-efficacy individuals, the relationship will be negative.

**Hypothesis 34.** Analyzability will be positively related to the use of observation to acquire evaluative information.

**Hypothesis 34a.** Self-efficacy will moderate this relationship. Analyzability will be positively related to observation for evaluative information for low self-efficacy individuals. For high self-efficacy individuals, the relationship will be negative.

**Hypothesis 35.** Analyzability will be positively related to the use of experimentation to acquire evaluative information.

**Hypothesis 35a.** Self-efficacy will moderate this relationship. Analyzability will be positively related to experimentation for evaluative information for low self-efficacy individuals. For high self-efficacy individuals, the relationship will be negative.

**Discretion.** A third job characteristic that may impact newcomer information-seeking is discretion (Brett, 1984; Nicholson, 1984). Discretion (i.e., autonomy) can be defined as an individual's freedom to determine the methods for performing the job, to alter goals, to schedule work, to act independently of his/her supervisor, and to decide whom to deal with in order to get work accomplished (Brett, 1984; Hackman & Oldham, 1980; Nicholson, 1984; West & Farr, 1989). Labelled "autonomy" in the job redesign literature, it is believed to be one of five job characteristics that can improve internal work motivation (Hackman & Oldham, 1980). Autonomy is hypothesized to relate to the psychological state of experienced responsibility for work outcomes:

When the job provides substantial autonomy to the persons performing it, work outcomes will be viewed by those individuals as depending substantially on their own efforts, initiatives, and decisions, rather than on, say, the adequacy of instructions from the boss or on a manual of job procedures (Hackman & Oldham, 1980, p. 79).

A meta-analysis by Spector (1986) found that autonomy on the job was related to greater levels of satisfaction on the job, lower levels of role ambiguity, higher performance, lower intent to quit and turnover, and higher motivation. In a subsequent meta-analysis of job characteristics, Fried and Ferris (1987) found that autonomy was related to growth satisfaction, and experienced meaningfulness and responsibility.

In the socialization literature, discretion is described as a factor that allows newcomers the opportunity to innovate when developing their roles within the organization (Brett, 1984; Nicholson, 1984; West & Farr, 1989). Nicholson (1984) asserts that jobs high in discretion ". . . make it impossible simply to conform to job specifications, role descriptions, or the practices of previous incumbents: newcomers

lack adequate data on which to base any such conformity; therefore, some degree of role development is inevitable" (Nicholson, 1984, p. 178). Several studies have supported the relationship between job discretion and innovation (West, 1987; West, Nicholson, & Rees, 1987).

West (1987) performed a longitudinal study of the levels of innovation displayed by a sample of managers and professionals. He found discretion to predict innovation at two points in time, as well as predict changes in innovation over time. In a study of managers and professionals who had moved into newly-created jobs, West, et al. (1987) found that these individuals reported significantly greater levels of discretion than individuals moving into existing jobs. Although the relationship between discretion and innovation was not examined in this study, it can be hypothesized that an individual moving into a newly created role is implicitly a role innovator (West, et al., 1987).

With regard to newcomer adaptation, it can be posited that the level of discretion in the job and the level of innovation displayed by the newcomer are linked by the strategies chosen by the newcomer to acquire information. Specifically, it can be hypothesized that individuals who enter jobs with greater levels of discretion will be more likely to use observation and experimentation to learn information about the job (i.e., functional information).

When a job is high in discretion, the newcomer may be forced to develop his/her own methods to get tasks accomplished. Furthermore, his/her supervisor and coworkers may not provide much help in determining the best ways to get work done. For example, West, et al. (1987) found that individuals entering newly-created jobs

were less likely to report that their bosses, subordinates, and a colleague were helpful in letting them know about the requirements of their new job. Furthermore, Greller and Herold (1975) found that individuals who reported higher levels of job discretion relied to a greater extent on intrinsic sources (task and self) for functional information.

On the other hand, when a job is low in discretion, the newcomer is allowed little latitude in developing his/her own work methods. Therefore, the newcomer may rely to a greater extent on his/her supervisor and coworkers to learn about job requirements. Other workgroup members are more likely to shape the behavior of newcomers in low discretion jobs to ensure that they behave in specified ways. Therefore, it would be expected that newcomers in low discretion jobs would be more likely to inquire of supervisors and coworkers for functional information.

In terms of evaluative information, it is expected that job discretion will have a positive relationship with all strategies for acquiring evaluative information. When individuals are in high discretion jobs, there are no standard procedures for getting the work done. Newcomers placed in high discretion jobs are faced with ambiguity in terms of how well they are performing their tasks and duties. Therefore, newcomers in high discretion jobs may need to be more active in terms of evaluating their own performance, as well as in discovering how supervisors and coworkers evaluate their performance. In contrast, newcomers in low discretion jobs may have clear instructions on how to perform job duties. Therefore, they may have less of a need for evaluative information.

The relationships between discretion and information-seeking strategies will be moderated by self-efficacy. For high self-efficacy individuals, the hypothesized

negative relationships between discretion and inquiry of supervisors and coworkers for functional information should be found. Individuals who are more confident when entering a new job are better able to handle the self-sufficiency required by a job with high discretion. On the other hand, low self-efficacy individuals are expected to inquire of supervisors and coworkers for functional information to a greater degree when faced with more job discretion. Low self-efficacy individuals are not able to handle the challenge of developing their own work methods, and thus are more likely to ask others for help in determining how to best accomplish their work.

Similarly, low self-efficacy individuals will be less likely to observe and experiment for functional information when placed in jobs with greater discretion. They are less likely to have the skills and experience to learn their job with no assistance. On the other hand, high self-efficacy individuals will be more likely to observe and experiment for functional information when faced with job discretion.

With regard to evaluative information, low self-efficacy individuals will be less likely to inquiry of supervisors and coworkers when their job is high in discretion. The social costs of appearing incompetent will prevent them from asking for this feedback. In contrast, individuals high on self-efficacy will be more likely to inquiry of supervisors and coworkers for evaluative information when their job has more discretion. When faced with the challenge of developing their own work methods, it becomes more important to learn whether their methods are correct. Individuals high on self-efficacy will be less threatened by the possibility of negative feedback, they will be more likely to view it as diagnostic.

For high self-efficacy individuals, there should also be a positive relationship between job discretion and observation and experimentation for evaluative information. When the job has greater autonomy, it is necessary for individuals to determine correct and incorrect ways of performing their tasks. For low self-efficacy individuals, this relationship should be weaker. Their expectation that they are not performing well may make them less likely to evaluate their own performance and thus add to their uncertainty.

The hypotheses to be tested are described below:

Hypothesis 36. Discretion will be negatively related to inquiry of supervisors for functional information.

Hypothesis 36a. Self-efficacy will moderate this relationship. For low self-efficacy individuals, discretion will be positively related to inquiry of supervisors for functional information. For high self-efficacy individuals, the relationship will be negative.

Hypothesis 37. Discretion will be negatively related to inquiry of coworkers for functional information.

Hypothesis 37a. Self-efficacy will moderate this relationship. For low self-efficacy individuals, discretion will be positively related to inquiry of coworkers for functional information. For high self-efficacy individuals, the relationship will be negative.

Hypothesis 38. Discretion will be positively related to the use of observation to acquire functional information.

Hypothesis 38a. Self-efficacy will moderate this relationship. Discretion will be negatively related to observation for functional information for low self-efficacy individuals. For high self-efficacy individuals, the relationship will be positive.

**Hypothesis 39.** Discretion will be positively related to the use of experimentation to acquire functional information.

**Hypothesis 39a.** Self-efficacy will moderate this relationship. Discretion will be negatively related to experimentation for functional information for low self-efficacy individuals. For high self-efficacy individuals, the relationship will be positive.

**Hypothesis 40.** Discretion will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 40a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, the relationship between discretion and inquiry of supervisors for evaluative information will be negative. For high self-efficacy individuals, the relationship will be positive.

**Hypothesis 41.** Discretion will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 41a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, the relationship between discretion and inquiry of coworkers for evaluative information will be negative. For high self-efficacy individuals, the relationship will be positive.

**Hypothesis 42.** Discretion will be positively related to the use of observation to acquire evaluative information.

**Hypothesis 42a.** Self-efficacy will moderate this relationship. For high self-efficacy individuals, discretion will be positively related to observation for evaluative information. For low self-efficacy individuals, the relationship will be weaker.

**Hypothesis 43.** Discretion will be positively related to the use of experimentation to acquire evaluative information.

**Hypothesis 43a.** Self-efficacy will moderate this relationship. For high self-efficacy individuals, discretion will be positively related to experimentation for evaluative information. For low self-efficacy individuals, the relationship will be weaker.

### Workgroup Relations

Feldman (1989) has indicated the need for socialization research to examine ". . . how the learning of a job interacts with the learning of a role and of group norms" (p. 405). Although these learning processes have been separated theoretically, they all occur within the same environment and will thus interact to some degree. The processes of job and role learning may be particularly linked due to the interactive natures of each of the processes. While interacting with workgroup members to learn the basics of job performance, newcomers must also learn how they fit into the workgroup and what these other organizational members expect of them. Further, newcomers must develop relationships with both their supervisor and coworkers in order to become effective organizational members.

Falcione and Wilson (1988) emphasize the transactional and reciprocal nature of the socialization process. Newcomers attend to environmental cues that they obtain through interacting with other organizational members. These cues help them to interpret the new environment. Both ambient (indirect and unconscious) and discretionary (direct and intentional) cues play a role in the intersubjective process of socialization (Falcione & Wilson, 1988).

Their theory is similar to Reicher's (1987) perspective in which the interactions between newcomers and insiders lead to the development of shared meanings. From both these perspectives, it is apparent that the communication between newcomers and their supervisors and coworkers is vital to the socialization process.

Supervisor and coworker information-sharing. As depicted in Figure 1, the willingness of supervisors and coworkers to share functional and evaluative information will have direct impacts on newcomer information-seeking. Often, feedback is infrequently provided in organizations (Ilgen, Fisher, & Taylor, 1979). Ashford and Taylor (1990) and Jablin (1984) note that newcomers are often provided with limited amounts of useful information. Thus, it may be expected that newcomers must cope with this lack of information by asking for the information they need, or discovering the information through observation and experimentation.

On the other hand, the willingness of supervisors and coworkers to provide functional and evaluative information may be positively related to how active the newcomer is in acquiring this information. This would suggest that, in workgroups where supervisors and coworkers are proactive in providing this information, the newcomer may perceive a norm for sharing information. In fact, research indicates that, when individuals perceive a strong workgroup norm for sharing information (i.e., colleagues enthusiastically share information without being asked), individuals are more likely to use interpersonal sources when seeking technical information (Dewhirst, 1971). Newcomers, who are actively seeking cues for how to behave in their new environment (e.g., Louis, 1980), may pick up on these norms and behave accordingly. In fact, Major (1990) found that the proaction of supervisors and coworkers in providing work-related information was positively related to the proaction of newcomers in actively seeking out this information. Therefore, the present study will test the prediction that the frequency with which supervisors and coworkers share functional and evaluative information will be positively related to newcomer attempts

to acquire functional and evaluative information through all information-seeking strategies.

Hypothesis 44. Supervisor sharing and coworker sharing of functional information will be positively related to the extent to which the newcomer seeks functional information through inquiry of supervisors.

Hypothesis 45. Supervisor sharing and coworker sharing of functional information will be positively related to the extent to which the newcomer seeks functional information through inquiry of coworkers.

Hypothesis 46. Supervisor sharing and coworker sharing of functional information will be positively related to the extent to which the newcomer seeks functional information through observation.

Hypothesis 47. Supervisor sharing and coworker sharing of functional information will be positively related to the extent to which the newcomer seeks functional information through experimentation.

Hypothesis 48. Supervisor sharing and coworker sharing of evaluative information will be positively related to the extent to which the newcomer seeks evaluative information through inquiry of supervisors.

Hypothesis 49. Supervisor sharing and coworker sharing of evaluative information will be positively related to the extent to which the newcomer seeks evaluative information through inquiry of coworkers.

Hypothesis 50. Supervisor sharing and coworker sharing of evaluative information will be positively related to the extent to which the newcomer seeks evaluative information through observation.

Hypothesis 51. Supervisor sharing and coworker sharing of evaluative information will be positively related to the extent to which the newcomer seeks evaluative information through experimentation.

Leader-member exchange relationships. During socialization, the newcomer learns how to interact and communicate with his/her supervisor. It is particularly important for the newcomer to learn how to deal with his/her superior, since the newcomer is dependent on the supervisor for job assignments and instruction, rewards,

and for linking that newcomer to the rest of the organization (Falcione & Wilson, 1988; Katz, 1985; Jablin, 1985).

Because the supervisor is in a position of authority, he/she is able to clarify any ambiguities experienced by newcomers in terms of task assignments, responsibilities, or expectations (Falcione & Wilson, 1988). "Frequent and open communication with the supervisor can provide the newcomer with more opportunities to clarify concerns, ask questions, check perceptions, and become better acquainted with the organizational culture" (Falcione & Wilson, 1988, p. 157). Communication not only clarifies uncertainties about the job, but may also facilitate the development of a personal relationship between the newcomer and supervisor (Jablin, 1982).

Dansereau, Graen, and Haga (1975) suggest that different types of exchange relationships may develop between supervisors and subordinates. First, a supervisor may develop an exchange relationship with a new employee based solely on the formal authority he/she possesses as a supervisor. In this case, the newcomer agrees to fulfill his/her role requirements as well as submit to his/her supervisor's authority, in exchange for formal compensation in terms of salary and benefits.

On the other hand, a relationship may develop between the newcomer and supervisor based on social and interpersonal exchanges. The supervisor would provide various benefits to the newcomer, such as "job latitude, influence in decision making, open and honest communications, support of the member's actions, and confidence in and consideration for the member" (Dansereau, et al., 1975, p. 50). In return, the subordinate would devote greater time and energy to ensuring the success of the work

unit, and would assume more job responsibility and become more committed to the organization (Dansereau et al., 1975).

The development of a leader-member exchange (LMX) relationship occurs through the processes of role taking, role making, and role routinization (Graen & Scandura, 1987). During role taking, the supervisor gives the newcomer various job assignments to discover the newcomer's abilities and motivations. Role making consists of negotiations between the supervisor and newcomer in terms of how they will behave in various situations. During role making, the two parties exchange resources valued by each member. Finally, during role routinization, the patterns of behaviors between the supervisor and subordinate become more permanent and interlocked (Graen & Scandura, 1987). The development of a higher quality exchange relationship would be characterized by the supervisor providing greater latitude, information, support, and influence to the subordinate. The subordinate would exhibit dependability, commitment, and loyalty (Dansereau et al., 1975).

Research indicates that supervisors develop different quality exchange relationships with newcomers (Graen, Orris, & Johnson, 1973). Furthermore, Dansereau et al. (1975) found that supervisors developed different quality relationships with members of the same work unit. The quality of these relationships was apparent within the newcomer's first month on the job. Members of the supervisor's "in-group" reported getting more attention than reported by "out-group" members, although "out-group" members reported a greater preference for attention. Individuals with greater negotiating latitude had less difficulty in dealing with the supervisor, and reported their supervisor was more responsive to their job needs (Dansereau et al., 1975).

Graen and Ginsburgh (1977) found that member role orientations and leader acceptance of members had an interacting influence on member resignations. Graen, Cashman, Ginsburg, and Schiemann (1977) reported that supervisors who had higher quality exchange relationships with their superiors provided greater support to their subordinates, and these subordinates showed greater involvement in administrative decision-making activities. They commented that the ". . . quality of upper dyads can be viewed as a major component of the organizational climate of members" (Graen et al., 1977). In an examination of the relationships between climate and LMX, Kozlowski and Doherty (1989) found that members' negotiating latitude was related to their climate perceptions, and that in-group members showed greater consensus on their climate perceptions and greater similarity to their supervisor's climate perceptions than out-group members.

Finally, Graen, Novak and Sommerkamp (1982) trained supervisors to exchange their job expectations with those of their subordinates. Individuals whose supervisors received this training showed greater productivity, greater motivating potential of their jobs, greater role orientation, higher job satisfaction, greater work overload, and lower future job ambiguity. Thus, research indicates that the development of high-quality exchange relationships between newcomers and supervisors may lead to a number of positive outcomes for both parties.

The role-making processes between supervisors and newcomers may be related to the information-seeking tactics utilized by new employees to learn their jobs. Since these two processes may overlap somewhat during newcomer adaptation, role making and job learning will probably reciprocally influence one another (see Figure 1).

Several hypothesized relationships between the two processes can be specified. Interactions between newcomers and supervisors will initially consist of task-based information to a large degree. The extent to which newcomers ask supervisors for functional information may influence the development of the leader-member exchange relationship. When newcomers proactively seek functional information from their supervisors, they are increasing the amount of communication between them. Frequent communication is essential to the process of adaptation (Jablin, 1985), and is also related to higher quality LMX relationships (Graen & Scandura, 1987).

In addition, newcomers who are more proactive in seeking information may be perceived more favorably by their supervisors. For example, supervisors may perceive newcomers who seek functional information from them as actively interested in improving their skills and abilities. Newcomers are seen as needing support and assistance (Feldman & Brett, 1983), and those newcomers who are more proactive in seeking out this assistance may be perceived more positively by supervisors.

Furthermore, newcomers who actively seek functional information from their supervisors may feel that their supervisors are more supportive of them. Kirmeyer and Lin (1987) found that the rate of subordinate-initiated work-focused communication to superiors was related to subordinate perceptions of social support. Thus, it may be that newcomers who more frequently ask their supervisors for functional information create more opportunities for the development of higher quality LMX relationships.

The process of developing LMX relationships may also influence the information-seeking tactics utilized by newcomers. Newcomers may initially be hesitant to ask for evaluative information while first learning the job (Morrison, 1991).

However, if a high-quality, supportive relationship develops between the supervisor and subordinate, the individual may feel more comfortable asking for evaluative information later in the adaptation process (Ashford & Taylor, 1990). For example, Greller and Herold (1975) found that individuals who reported that their supervisors were friendly and approachable were more likely to rely on external sources (supervisor and coworkers) for evaluative information. Thus, the processes of learning the job and developing a relationship with the supervisor are hypothesized to influence one another over time.

The present study is cross-sectional; therefore, the manner in which these processes interact over time cannot be examined. Although the present study examines information-seeking at one point in time, several hypothesized relationships between LMX and newcomer information-seeking can be specified:

**Hypothesis 52.** LMX quality will be positively related to inquiry of supervisors for functional information.

**Hypothesis 53.** LMX quality will be positively related to inquiry of supervisors for evaluative information.

**Team-member exchange relationships.** In addition to developing a relationship with their supervisor, newcomers must learn to interact with their peers. Newcomers must learn what their coworkers expect of them, as well as what role they will play in the workgroup. "New members seek to interact with and observe members of relevant groups or reference groups in order to gain acceptance into the group as well as competence in carrying out their roles" (Louis, 1990, p. 94). Since coworkers are at

the same organizational level, they may be especially helpful in providing information and clarifying uncertainties. In fact, coworkers have been reported to be the most available and most helpful socialization agent for newcomers (Louis et al., 1983).

Coworkers can assist newcomers in interpreting surprises in the new situation by providing them with relevant information (Louis, 1980). Communication between newcomers and coworkers can thus facilitate newcomer adaptation. Jablin and Sussman (1983) describe the functions of individually-oriented group communication. This communication functions to:

(a) provide members with feedback about their self-concepts, (b) gratify needs for affiliation, (c) share and test perspectives about social reality, (d) reduce organization-related uncertainty and concomitant individual feelings of anxiety, insecurity, and powerlessness, or (e) accomplish employee-related (versus organization-related) tasks and resolve individual or group-related problems (Jablin & Sussman, 1983, p. 13).

Coworkers may also provide newcomers with social support that alleviates the stress of the new work environment. For example, Evan (1963) found that newcomer interaction with peer group members was negatively related to turnover of new employees. Sheridan (1985) reported that turnover among new employees was negatively related to group cohesion. Furthermore, Fisher (1985) found that coworker emotional support was related to several socialization outcomes, including job satisfaction, self-rated performance, professional commitment, and intention to leave. However, as in the development of supervisor-subordinate relationships, these supportive relationships between coworkers develop over time. Newcomers must not only negotiate a role with their supervisors, but also with their peers.

Seers (1989) developed the construct of team-member exchange to describe the development of exchange relationships among workgroup members. Team-member exchange (TMX) concerns the amount and pattern of reciprocation developed between peers. The construct can be defined as ". . . the member's perception of his or her willingness to assist other members, to share ideas and feedback and in turn, how readily information, help, and recognition are received from other members" (Seers, 1989, p. 119). TMX quality is related to the construct of group cohesion. However, it differs in that cohesion is a perception of the group as a whole, while TMX is an individual's perception of his/her role within the group.

Team-member exchange (TMX) contrasts with leader-member exchange in that it is not dyadic; rather, it involves the relationship that develops between an individual and his/her workgroup as a whole. However, it is similar to LMX in that the development of a team-member exchange relationship involves processes of social exchange. Although research has examined the influence of the supervisor on the role making process, new employees may spend a lot of time interacting with peer group members when learning the job and role (Seers, 1989). Thus, coworkers may also influence the development of the newcomer's role in the organization. Furthermore, Seers (1989) found TMX to be positively related to job satisfaction and performance.

Figure 1 indicates that the processes of acquiring information on the job and developing an exchange relationship with coworkers will influence one another. Since TMX quality develops through newcomer interactions with coworkers, it can be posited that newcomer proaction in initiating communication will be positively related to the quality of the TMX relationship. In a review of the group cohesion literature,

Lott and Lott (1965) reported that greater levels of interaction lead to greater interpersonal attraction among group members. Although TMX is a distinct construct from cohesion, a similar relationship between communication and TMX may be hypothesized.

Initial communication between a newcomer and coworkers may focus on task procedures, task priorities, and problems faced by the newcomer on the job (Louis, 1990). Newcomers may interact with coworkers to clarify ambiguities about their task and role requirements (Falcione & Wilson, 1988; Louis, 1980). The extent to which the newcomer inquires of coworkers for functional information may influence the quality of the TMX relationship that develops. Since the newcomer is increasing the amount of interaction with other workgroup members, he/she is increasing the opportunities for exchange relationships to develop.

Team-member exchange quality may also impact the level of group communications. For example, a similar construct, group cohesion, has been found to be positively related to the level of communication in groups (Lott & Lott, 1961). By definition, TMX allows for information and feedback to be more readily shared among group members. Thus, the development of higher quality TMX relationships may impact later efforts by newcomers to acquire information.

When newcomers develop high-quality relationships with their coworkers, they may feel that it is less costly to ask their coworkers for evaluative information. High-quality TMX relationships provide an atmosphere of open communication and feedback for workgroup members. Some support for this relationship has been found by Greller and Herold (1975). Individuals who reported that coworkers kept to

themselves relied more on internal sources (task and self) rather than external sources (supervisor and coworkers) for evaluative information. This would also indicate the opposite relationship to be true: when coworkers interact and assist one another, a newcomer may more readily seek evaluative information from them.

As with the team-member exchange process, the present study is unable to test the reciprocal influences of TMX and newcomer information-seeking processes.

However, several hypothesized relationships can still be specified:

Hypothesis 54. TMX quality will be positively related to inquiry of coworkers for functional information.

Hypothesis 55. TMX quality will be positively related to inquiry of coworkers for evaluative information.

To conclude, it is posited that a number of individual, job, and situational characteristics impact the types of strategies chosen by newcomers to acquire functional and evaluative information. Furthermore, Figure 1 indicates that newcomer information-seeking is related to two socialization outcomes, mastery and innovation.

#### Outcomes of Newcomer Information Seeking

Previous socialization research has found relationships between information-seeking and mastery (Morrison, 1993) and information acquisition and task knowledge (Ostroff & Kozlowski, 1992). Furthermore, it has been stated that information is a resource to achieve mastery over a situation (Ashford & Cummings, 1983). Figure 1 depicts a relationship between newcomer information-seeking and mastery. It is hypothesized that greater levels of information-seeking by newcomers will lead to

greater mastery of the job. By seeking out relevant information, newcomers will reduce the uncertainty of the new job.

Specifically, individuals who seek functional information to a greater degree across all strategies will exhibit greater mastery of the job. However, the relationship between inquiry and mastery may change over time. For example, once newcomers have passed through a "honeymoon period" (Miller & Jablin, 1991), their supervisor and coworkers may expect them to have learned the basics of the job. If these newcomers, who have been on the job for a number of months, are frequently asking these supervisors and coworkers for functional information, it may be an indication that they have not mastered their jobs well. Therefore, time on the job may moderate the relationship between inquiry and mastery.

In terms of evaluative information, it is expected that seeking this information to a greater degree across all strategies will lead to greater mastery. By actively acquiring this information, newcomers are able to adjust any errors in their performance of the job (Ashford & Taylor, 1990).

As shown in Figure 1, newcomer information-seeking may also relate to the amount of innovation displayed by the newcomer on the job. Individuals who are innovative do not simply conform to past ways of performing the job; rather, they rely on their own initiative to find better ways to get their work accomplished (e.g., Jones, 1983). This suggests that newcomers who are more self-sufficient in acquiring functional information may be more innovative on the job. Specifically, it is expected that newcomers who rely on observation and experimentation to acquire functional information will display greater levels of innovation on the job. On the other hand,

inquiry of supervisors and inquiry of coworkers for functional information should have little or no unique impact on newcomer innovation.

Newcomers who are more active in acquiring evaluative information in general (across all strategies) may also be more innovative on the job. By asking for evaluative information and evaluating their own performance, newcomers are able to discover whether their attempts to perform the job are adequate, and they can then improve any problems in their performance (e.g., Ashford & Taylor, 1990). Newcomers who tend to be more active in acquiring evaluative information are likely to find better ways to accomplish their jobs.

Figure 1 indicates that mastery and innovation mediate the relationship between information-seeking and workgroup influence. However, this mediator relationship will not be tested in the present study. Figure 1 serves as a conceptual heuristic to display the theoretical model developed. The present study will be testing the links displayed in the model in separate analyses. For example, two analyses will examine the links between information-seeking and the two outcomes, mastery and innovation. In addition, a separate analysis will test the relationships between mastery, innovation, and workgroup influence.

Both mastery and innovation are hypothesized to affect the amount of influence a newcomer has on his/her workgroup. Individuals who show that they have mastered their jobs should find their workgroup more accepting of their ideas and suggestions. In addition, those who have found better ways to accomplish their tasks should have more influence on their workgroup; however, this relationship may be moderated by mastery.

In summary, the hypotheses concerning information-seeking strategies and outcomes are as follows:

Hypothesis 56. Individuals who seek functional information to a greater extent (across all strategies) will exhibit greater mastery of the job.

Hypothesis 57. Time on the job will moderate the relationship between inquiry of supervisors for functional information and mastery. With little time on the job, inquiry of supervisors for functional information should be positively related to mastery. With greater time on the job, inquiry of supervisors for functional information should be negatively related to mastery.

Hypothesis 58. Time on the job will moderate the relationship between inquiry of coworkers for functional information and mastery. With little time on the job, inquiry of coworkers for functional information should be positively related to mastery. With greater time on the job, inquiry of coworkers for functional information should be negatively related to mastery.

Hypothesis 59. Individuals who seek evaluative information to a greater extent (across all strategies) will exhibit greater mastery of the job.

Hypothesis 60. The use of observation and experimentation above and beyond the use of inquiry of supervisors and coworkers to acquire functional information should be positively related to innovation; the use of inquiry of supervisors and coworkers beyond observation and experimentation to acquire functional information should not have a unique impact on innovation.

Hypothesis 61. Newcomers who seek evaluative information to a greater extent (across all strategies) will exhibit greater levels of innovation on the job.

Hypothesis 62. Mastery will be positively related to workgroup influence.

Hypothesis 63. Mastery will moderate the relationship between innovation and workgroup influence. Innovation will be positively related to workgroup influence for individuals high on task mastery; innovation should have no relationship to workgroup influence for individuals low on task mastery.

## METHOD

### Sample and Procedure

Previous socialization research has often focused on individuals in one profession or one organization at a time (e.g., Feldman, 1989). Therefore, the present study sought to examine the socialization of newcomers in a variety of jobs and organizations. Newcomers from seven organizations participated in the present study. The seven organizations that participated in the study were as follows: a university; a food manufacturer; a chemical manufacturer; a hospital supply/services company; a general industrial manufacturing company; a power generation systems construction company; and a telecommunications company. Through contacts in each of the organizations, the researcher acquired the names of new hires and mailed them questionnaires. If the organization had someone to handle the distribution of surveys, the researcher sent the contact person the surveys to distribute to new hires.

Surveys were distributed to 1,382 newcomers who had been on the job for approximately one year or less. A total of 449 newcomers returned completed surveys, for a response rate of 32.5%. In addition to completing the survey, the newcomers were asked to provide the names and office addresses of their supervisor and up to three coworkers who would be sent surveys that contained similar questions about the newcomer's adaptation to the job.

Surveys were sent to 355 supervisors of the newcomers who had completed the survey. A total of 214 supervisors returned the questionnaire, for a 60.3% response

rate. Newcomers provided names and office addresses for 849 coworkers who were also sent surveys to complete. Surveys were returned by 490 coworkers, for a 57.7% response rate.

Survey data was collected from multiple sources to deal with the possible method bias difficulties that have been cited in previous socialization research. A critique of the literature on newcomer socialization is that it tends to collect self-report data only, including measures of socialization outcomes. The present study sought to obtain outcome measures from independent sources to deal with common method variance. Specifically, it was decided that coworkers would be used as sources for the three outcome measures of mastery, innovation, and workgroup influence. Coworkers were chosen to provide the outcome measures for two reasons. First, it can be argued that coworkers are in a good position to observe newcomers during their adaptation to their job. For example, Louis et al. (1983) found that coworkers were the most available source for help during socialization. Daily interactions with peers was available to nearly 9 out of 10 new employees (Louis et al., 1983). In addition, coworkers are often present, and are able to frequently monitor and reinforce new employee behavior with their power to provide informal rewards (Fisher, 1986). Second, the use of coworkers as the independent source for the outcome measure allowed for a newcomer-coworker matched sample size of  $N = 271$  to test the study's hypotheses. Because of the numerous interactions hypothesized in this study, statistical power was a great concern.

After deleting surveys with missing data, the final newcomer-coworker matched sample to be used in this study was 253. The representation of newcomers from each participating organization was as follows: university (N = 63); general industrial manufacturer (N = 47); food manufacturer (N = 45); chemical manufacturer (N = 42); hospital supply/services company (N = 24); telecommunications company (N = 18); and power generation systems construction company (N = 14).

In addition to the variables collected as part of this study, individuals also provided information on background characteristics. The new employees participating in this study were 47% female, with an average age of 28 (sd = 7 years). Average time on the job was 27.19 weeks (sd = 18.85). Average number of employees in the workgroup was 12. In addition the average number of similar jobs in the past was 1.43 (sd = 1.35). Finally, the sample reported that both their supervisor and coworkers were physically accessible and easy to get to. On a five-point scale from low to high accessibility, supervisor accessibility was rated with a mean of 4.17 (sd = 1.02) and coworker accessibility was rated with a mean of 4.43 (sd = .88). A variety of jobs were sampled in this study as follows: clerical (11.1%); skilled/manual labor (6.3%); computer programming (7.5%); engineering (30.4%); management (16.2%); sales (3.2%); finance/accounting (3.2%); research/science (7.5%); and other professional (14.6%).

The sample used for this study included a majority of professional employees (N = 209), as well as a minority subsample of nonprofessional employees (clerical and skilled/manual labor, N = 44). The subsamples could differ in terms of variances on the variables examined, as well as in terms of their mean values. Therefore, a

MANOVA and Box's M test were run to examine the possibility of mean differences and the lack of homogeneity of variance on the variables of interest. To examine whether professionals and nonprofessionals differed on variables used in the present analyses, a one-way MANOVA was run with job status (professional, nonprofessional) as the grouping factor. The dependent variables included all variables to be used in the present analysis, along with background questions also collected on the survey. These background characteristics included: age; gender; time on the job; number of similar jobs in the past; number of coworkers in workgroup; physical accessibility of supervisor; and physical accessibility of coworkers.

Box's M test was run to examine whether there was homogeneity of variance for the variance-covariance matrices across the between-subject factor of job status. The Box's M value was significant ( $\chi^2$  (465 df) = 600.58,  $p < .001$ ), rejecting the hypothesis of homogeneity of variance. In addition, the MANOVA resulted in a significant effect for job status ( $F(30, 204) = 6.17$ ,  $p < .001$ ), indicating that professionals and nonprofessionals did differ on some of the variables of interest.

To examine which variables contributed most to differentiating the two groups, a discriminant analysis was run. Discriminant structure coefficients, the pooled within-groups correlations between the discriminating variables and the canonical discriminant function, are listed in Table 1. The list only includes those variables with pooled within-groups correlations of .20 or higher. The results of the discriminant analysis indicate that professionals and nonprofessionals differ mainly due to job characteristics. Nonprofessionals tend to have jobs with less variety (exceptions) and that are more analyzable. This is understandable in that nonprofessional jobs in this

sample were clerical and skilled manual labor jobs; these jobs are more likely to be repetitious and analyzable. In addition, nonprofessionals tend to be older in age, to have greater mastery of their jobs, and have greater self-efficacy. Nonprofessional jobs are less interdependent with coworker jobs, nonprofessionals have had more similar jobs in the past, they have been on the job for a longer period of time, they are more likely to be female, and they are less likely to ask coworkers for functional information.

Because professionals and nonprofessionals do tend to differ on some of the variables of interest in this study, job status will be used as a covariate in analyses, where appropriate, to control for these differences.

Table 1

## Discriminant Analysis Results for Professional/Nonprofessional Job Status

| Pooled Within-Groups Correlations        |            |
|------------------------------------------|------------|
|                                          | Function 1 |
| Exceptions                               | .59        |
| Age                                      | .38        |
| Analyzability                            | .37        |
| Mastery                                  | .27        |
| Self-Efficacy                            | .26        |
| Interdependence                          | -.26       |
| Similar Jobs in Past                     | .26        |
| Time on the Job                          | .20        |
| Gender                                   | .20        |
| Inquiry of Coworker<br>(Functional Info) | -.20       |

## Measures

The measures to be used include new scales developed for this study, as well as a number of scales previously used in the industrial/organizational psychology literature. The newly developed information-seeking, mastery, and workgroup influence measures were pretested on a sample of 313 working undergraduates prior to this study. Scales were modified based on factor analysis results. Measures that were taken from the literature were not pretested.

Job status. Respondents were coded as being in either nonprofessional (coded 0) or professional (coded 1) jobs. Because the MANOVA and discriminant analysis indicated that these two groups differed on some of the variables of interest in this study, the job status variable was used as a covariate in most analyses.

Time on the job. Respondents answered the following open-ended question: "How long have you held your current position (to the nearest week)?" Examination of the distribution of this variable for the present sample indicated a non-normal distribution. The distribution was positively skewed, and contained several peaks. Therefore, this measure was trichotomized into three tenure categories as follows:  $\underline{1}$  = 2-13 weeks;  $\underline{2}$  = 14 to 36 weeks;  $\underline{3}$  = 37 weeks or more.

All scales used in this study were subjected to factor analyses using the entire sample of 449 newcomers who returned surveys. For measures collected from more than one source, factor analyses were run only on the newcomer responses. For all measures, the principal factors method was employed with a varimax rotation and Kaiser criterion. In addition, where multiple factors emerged, a scree test was used to determine the number of factors. The factor analysis results for each measure are

discussed below. In addition, reliability analyses were conducted for all measures using the complete sample of 449 newcomers who returned surveys.

**Newcomer information-seeking** items were developed to tap four information-seeking strategies (inquire of supervisor, inquire of coworkers, observe, and experiment) and two content areas (functional and evaluative information).

**Inquiry of supervisor - functional information.** This seven-item scale measured the extent to which the individual asked his/her supervisor how to perform tasks, use equipment, and handle problems on the job. Respondents answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. New employees provided responses to this measure. Items can be found in Appendix A.

**Inquiry of supervisor - evaluative information.** This seven-item scale measured the extent to which the individual asked the supervisor how well he/she was performing on the job and meeting job responsibilities. Respondents answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. New employees responded to this measure. Items can be found in Appendix B.

**Inquiry of coworkers - functional information.** This seven-item scale measured the extent to which the individual asked his/her coworkers for information on how to perform the tasks and duties of the job. Respondents answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. New employees responded to this measure. Scale items can be found in Appendix C.

**Inquiry of coworkers - evaluative information.** This seven-item scale measured the extent to which the individual asked his/her coworkers how well he/she was performing on the job and meeting job requirements. Respondents answered these

items on a five-point scale ranging from (1) very infrequently to (5) very frequently.

New employees answered these items. Scale items are listed in Appendix D.

Observation - functional information. This six-item scale measured the extent to which the individual observed the behavior of others to determine how to perform tasks, how to use equipment and materials, and how to handle difficulties on the job. New employees answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. Scale items are listed in Appendix E.

Observation - evaluative information. This six-item scale measured the extent to which the individual observed the behavior of others to determine how well he/she was performing on the job, and how well others evaluated his/her work. New employees answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. Scale items are listed in Appendix F.

Experimentation - functional information. This six-item scale measured the extent to which the individual experimented on his/her own to discover how to perform tasks, use equipment and materials, and handle problems on the job. New employees answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. Scale items are listed in Appendix G.

Experimentation - evaluative information. This six-item scale measured the extent to which the individual evaluated his/her own performance on the job. New employees answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. The items can be found in Appendix H.

The 52 items making up these eight information-seeking scales were subjected to a common factor analysis and a varimax rotation. The factor analysis results

suggested an eight-factor solution, although only seven interpretable factors were rotated. The scree plot revealed that six- and seven-factor solutions were also reasonable. Therefore, two additional factor analyses specifying six- and seven-factor solutions were run. The seven-factor solution produced the same factors as those found in the original factor analysis. The six-factor solution was less consistent with the theoretical distinction between the information-seeking strategies. Therefore, based on theoretical and content grounds, the seven-factor solution was chosen for use in the present analyses. The factor loadings for the seven factors are presented in Table 2. All factors accounted for at least 2.3 percent of the total variance.

To a large extent, the predicted factor structure was maintained. For example, all items concerned with inquiry of coworkers for evaluative information fell on the second factor. Factor 3 consisted of all items that measured inquiry of supervisors for evaluative information. Factor 4 included all items concerned with inquiry of supervisors for functional information. Factor 5 included all items tapping experimentation for functional information. Finally, Factor 6 included all items that measured experimentation to acquire evaluative information.

However, several factors were not as expected. For example, Factor 1 contained all observation items, both for functional and evaluative information, as well as two items concerned with inquiry of coworkers for functional information. In addition, two other items tapping inquiry of coworkers for functional information loaded on Factor 2 along with the asking coworkers for evaluative information items. Finally, the remaining three inquiry of coworkers for functional information formed Factor 7.

Table 2

## Principal Axis Factor Matrix for Information-Seeking Items

|                             | Factor     |            |            |      |      |      |      |
|-----------------------------|------------|------------|------------|------|------|------|------|
|                             | 1          | 2          | 3          | 4    | 5    | 6    | 7    |
| Observe Eval1 <sup>a</sup>  | <u>.79</u> | .16        | .06        | -.05 | .00  | .07  | .06  |
| Observe Eval4 <sup>a</sup>  | <u>.77</u> | .23        | .03        | .05  | .01  | .08  | -.06 |
| Observe Eval3 <sup>a</sup>  | <u>.75</u> | .14        | .01        | .05  | .01  | .12  | .02  |
| Observe Func5               | <u>.73</u> | .22        | .08        | .11  | .01  | .08  | .14  |
| Observe Func3               | <u>.73</u> | .17        | .07        | .14  | -.03 | .05  | .24  |
| Observe Func6               | <u>.72</u> | .19        | .05        | .03  | .08  | .04  | .14  |
| Observe Func2               | <u>.66</u> | .25        | .15        | .08  | -.04 | .07  | .10  |
| Observe Func1               | <u>.66</u> | .11        | .02        | .13  | -.01 | -.04 | .27  |
| Observe Func4               | <u>.62</u> | .16        | .03        | .09  | .09  | .02  | .30  |
| Observe Eval6 <sup>a</sup>  | <u>.61</u> | .15        | .06        | -.03 | .11  | .20  | -.04 |
| Observe Eval2 <sup>a</sup>  | <u>.56</u> | .11        | .07        | -.07 | .12  | .21  | -.03 |
| Observe Eval5 <sup>a</sup>  | <u>.49</u> | .13        | .25        | -.01 | .15  | .13  | -.06 |
| Cowk Ask Func2 <sup>a</sup> | <u>.44</u> | .15        | .06        | .20  | .03  | -.06 | .44  |
| Cowk Ask Func1 <sup>a</sup> | <u>.43</u> | .23        | .02        | .17  | .01  | -.13 | .36  |
| Cowk Ask Eval5              | .26        | <u>.82</u> | .26        | .08  | -.01 | .11  | .13  |
| Cowk Ask Eval7              | .28        | <u>.79</u> | .26        | .05  | .00  | .04  | .13  |
| Cowk Ask Eval6              | .28        | <u>.78</u> | .31        | .05  | -.03 | .03  | .09  |
| Cowk Ask Eval3              | .28        | <u>.77</u> | .26        | .05  | -.02 | .06  | .09  |
| Cowk Ask Eval2              | .30        | <u>.76</u> | .24        | .06  | .02  | .04  | .08  |
| Cowk Ask Eval4              | .30        | <u>.76</u> | .31        | .09  | -.03 | .07  | .08  |
| Cowk Ask Func3 <sup>a</sup> | .38        | <u>.53</u> | .20        | .17  | -.01 | .03  | .21  |
| Cowk Ask Func6 <sup>a</sup> | .42        | <u>.53</u> | .15        | .22  | -.01 | -.03 | .21  |
| Cowk Ask Eval1 <sup>a</sup> | .26        | <u>.49</u> | .17        | .18  | .00  | .04  | .10  |
| Supv Ask Eval7              | .09        | .26        | <u>.87</u> | .19  | -.02 | .06  | .02  |
| Supv Ask Eval6              | .07        | .25        | <u>.87</u> | .22  | -.02 | .08  | .05  |
| Supv Ask Eval4              | .07        | .20        | <u>.83</u> | .22  | -.02 | .09  | .05  |
| Supv Ask Eval3              | .09        | .26        | <u>.80</u> | .23  | -.01 | .06  | .03  |
| Supv Ask Eval5              | .09        | .27        | <u>.76</u> | .24  | -.02 | .13  | -.07 |
| Supv Ask Eval1              | .14        | .19        | <u>.75</u> | .20  | -.02 | .09  | .06  |
| Supv Ask Eval2              | .13        | .27        | <u>.65</u> | .30  | -.02 | .07  | .02  |

Table 2 (cont'd.)

|                             | Factor |      |      |            |            |            |            |
|-----------------------------|--------|------|------|------------|------------|------------|------------|
|                             | 1      | 2    | 3    | 4          | 5          | 6          | 7          |
| Supv Ask Func3              | .08    | .11  | .17  | <u>.84</u> | .03        | -.01       | .08        |
| Supv Ask Func2              | .03    | .11  | .15  | <u>.84</u> | -.05       | .00        | .03        |
| Supv Ask Func1              | .10    | .04  | .09  | <u>.77</u> | -.03       | -.07       | .05        |
| Supv Ask Func7              | .01    | .14  | .18  | <u>.74</u> | -.03       | -.00       | .20        |
| Supv Ask Func6              | .07    | .03  | .23  | <u>.67</u> | -.04       | .02        | .08        |
| Supv Ask Func5              | .04    | .05  | .32  | <u>.60</u> | .04        | .00        | .04        |
| Supv Ask Func4 <sup>a</sup> | .09    | .11  | .33  | <u>.51</u> | -.05       | .04        | .11        |
| Experiment Func2            | .09    | -.08 | .02  | .01        | <u>.85</u> | .18        | .00        |
| Experiment Func5            | .02    | -.01 | -.02 | -.05       | <u>.83</u> | .20        | .06        |
| Experiment Func6            | .07    | -.02 | -.02 | -.06       | <u>.81</u> | .24        | .02        |
| Experiment Func3            | .03    | .00  | .02  | -.03       | <u>.77</u> | .22        | -.06       |
| Experiment Func1            | .06    | -.04 | -.05 | -.02       | <u>.76</u> | .08        | -.06       |
| Experiment Func4            | .04    | .06  | -.04 | .01        | <u>.71</u> | .12        | .06        |
| Experiment Eval5            | .16    | .07  | .08  | .01        | .17        | <u>.83</u> | -.06       |
| Experiment Eval2            | .06    | .01  | .06  | .03        | .18        | <u>.81</u> | -.02       |
| Experiment Eval3            | .10    | .03  | .00  | .06        | .18        | <u>.78</u> | -.06       |
| Experiment Eval6            | .17    | .07  | .10  | -.03       | .18        | <u>.74</u> | -.05       |
| Experiment Eval4            | .12    | .09  | .14  | -.06       | .14        | <u>.71</u> | .04        |
| Experiment Eval1            | .02    | -.02 | .06  | -.03       | .17        | <u>.63</u> | .01        |
| Cowk Ask Func4              | .44    | .29  | .02  | .20        | .01        | -.07       | <u>.65</u> |
| Cowk Ask Func5              | .36    | .33  | .05  | .26        | -.02       | -.06       | <u>.64</u> |
| Cowk Ask Func7              | .39    | .36  | .07  | .23        | -.00       | -.04       | <u>.61</u> |
| EIGEN VALUE                 | 15.03  | 6.25 | 5.20 | 3.37       | 2.51       | 1.88       | 1.19       |

<sup>a</sup> These items were deleted from the final information-seeking scales used in this study.

It appeared from these factor analyses that newcomers do not distinguish the content of the information they acquire through observation. However, the present study predicted distinct hypotheses depending on the content of the information observed. Based on the conceptual ideas developed in this paper, it was decided that the present study would only focus on the use of observation to acquire functional information. Upon reflection, it was decided that observation for functional information was more clear and understandable as a construct than observation for evaluative information (i.e., it seems more difficult for individuals to obtain evaluations of their work by monitoring the behavior of others). Therefore, it was decided that all items concerning observation for evaluative information would be dropped from Factor 1.

In addition, although four items measuring inquiry of coworkers for functional information loaded on different factors, there was a distinct three-item factor that did measure this construct. Therefore, based on analysis of item content, theoretical considerations, and a factor loading criteria of .54 or greater, several items were dropped from three of the factors to maintain the conceptual distinction between the constructs. Specifically, three items were dropped from Factor 1, three items from Factor 2, and one item from Factor 4 based on these criteria. In addition, as mentioned above, the five items concerned with observation for evaluative information that loaded above .54 were also dropped from Factor 1 to maintain the conceptual clarity of the constructs. The items that were dropped from the factors are marked in Table 2. This resulted in seven clearly interpretable factors.

The seven measures, their number of items, and reliability coefficient (for the complete sample of 449 newcomers returning surveys) are as follows: (1) inquiry of supervisors for functional information (six items,  $\alpha = .90$ ); (2) inquiry of supervisors for evaluative information (seven items,  $\alpha = .95$ ); (3) inquiry of coworkers for functional information (three items,  $\alpha = .91$ ); (4) inquiry of coworkers for evaluative information (six items,  $\alpha = .96$ ); (5) observation for functional information (six items,  $\alpha = .90$ ); (6) experimentation for functional information (six items,  $\alpha = .92$ ); and (7) experimentation for evaluative information (six items,  $\alpha = .90$ ).

Self-efficacy. Self-efficacy was measured with a six-item scale adapted from Major (1990). This scale measured newcomer confidence in performance on the job based on past experiences. Four items comprising the Major (1990) scale, as well as two new items consistent with this scale, made up the present self-efficacy measure. The rating scale for this measure ranged from (1) strongly disagree to (5) strongly agree. The items for this scale can be found in Appendix I.

The six self-efficacy items were subjected to a factor analysis using the principal factors method. One six-item factor was extracted, which accounted for 67.4 percent of the variance. The factor loadings for the items can be found in Table 3. In addition, the internal consistency reliability estimate for the self-efficacy scale was .90.

Table 3

## Principal Axis Factor Matrix for Self-Efficacy Items

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|                | <u>Factor</u> |
|----------------|---------------|
|                | 1             |
| Self-Efficacy6 | .87           |
| Self-Efficacy5 | .84           |
| Self-Efficacy4 | .80           |
| Self-Efficacy2 | .73           |
| Self-Efficacy3 | .73           |
| Self-Efficacy1 | .70           |
| EIGEN VALUE    | 4.04          |

---

Four **job characteristics** variables were measured in this study:  
interdependence; analyzability; variety; and discretion.

Interdependence. Interdependence was measured with a modified version of a scale used by Major (1990) (which adapted three-items from Ostroff & Kozlowski (1993)). Five items that made up the original Major (1990) scale, along with three additional items written to be consistent with the scale, made up the eight-item scale used in the present study. This scale measured the extent to which an individual had to coordinate with other workgroup members to accomplish work. The rating scale for this measure ranged from (1) very little extent to (5) very great extent. All sources provided this measure. The scale items can be found in Appendix J.

Complexity. Complexity was measured with modified versions of two scales developed by Withey et al. (1983). Their five-item scale, **Exceptions**, measured the

extent to which the newcomer's tasks were routine and repetitious. After the factor analysis, responses to this scale were reverse-scored to be consistent with the construct being measured and the hypotheses developed (i.e., higher scores indicated greater number of exceptions or variety). Their five-item scale, **Analyzability**, measured the extent to which the job contained defined steps and procedures for getting work done. The items in the two measures were rated on a scale ranging from (1) very little extent to (5) very great extent. All sources provided this measure. The items in these two measures can be found in Appendix K.

**Discretion.** A modified version of West's (1987) discretion measure was used in this study. Three additional items were added to West's (1987) original four-item discretion scale to form a seven-item measure for the present study. This scale measured the extent to which the job provided an individual with freedom to determine how tasks were accomplished. Items on this measure were rated on a five-point scale ranging from (1) very little extent to (5) very great extent. All sources provided this measure. The scale items can be found in Appendix L.

These job characteristics are conceptually distinct. However, to test the empirical independence of these four constructs, the items making up these four measures were subject to a factor analysis. The factor analysis results indicated a four factor solution, corresponding to the four job characteristics constructs. The rotated factor matrix is presented in Table 4. The first factor contained all interdependence items. Factor 2 contained all exceptions items, Factor 3 contained all analyzability items, and Factor 4 included all discretion items. Each factor accounted for at least 5.5 percent of the variance.

Table 4

## Principal Axis Factor Matrix for Job Characteristics Items

|                          | Factor     |            |            |            |
|--------------------------|------------|------------|------------|------------|
|                          | 1          | 2          | 3          | 4          |
| Interdependence8         | <u>.80</u> | -.12       | .03        | -.07       |
| Interdependence3         | <u>.79</u> | -.11       | -.03       | -.10       |
| Interdependence6         | <u>.70</u> | -.16       | -.11       | -.07       |
| Interdependence4         | <u>.67</u> | -.14       | .00        | -.04       |
| Interdependence1         | <u>.66</u> | -.03       | .09        | -.09       |
| Interdependence7         | <u>.60</u> | -.11       | .08        | -.16       |
| Interdependence5         | <u>.54</u> | .10        | .05        | -.01       |
| Interdependence2         | <u>.49</u> | .09        | -.04       | -.12       |
| Exceptions5              | -.10       | <u>.87</u> | .23        | -.19       |
| Exceptions3              | -.12       | <u>.83</u> | .25        | -.17       |
| Exceptions4              | -.09       | <u>.81</u> | .27        | -.19       |
| Exceptions1              | -.09       | <u>.72</u> | .28        | -.23       |
| Exceptions2              | -.07       | <u>.64</u> | .34        | -.12       |
| Analyzability3           | .03        | .37        | <u>.75</u> | -.01       |
| Analyzability1           | .02        | .29        | <u>.71</u> | .05        |
| Analyzability2           | .02        | .03        | <u>.68</u> | .02        |
| Analyzability5           | -.03       | .30        | <u>.67</u> | -.04       |
| Analyzability4           | .06        | .24        | <u>.64</u> | -.07       |
| Discretion6              | -.09       | -.14       | -.04       | <u>.73</u> |
| Discretion3              | -.02       | -.09       | .07        | <u>.66</u> |
| Discretion2              | -.11       | -.10       | -.10       | <u>.66</u> |
| Discretion7              | -.07       | -.23       | -.12       | <u>.64</u> |
| Discretion4              | -.20       | .04        | .05        | <u>.57</u> |
| Discretion1              | -.08       | -.11       | .08        | <u>.47</u> |
| Discretion5 <sup>a</sup> | -.03       | -.04       | -.03       | <u>.39</u> |
| EIGEN VALUE              | 6.00       | 4.57       | 2.75       | 1.37       |

<sup>a</sup> This item was deleted from the final discretion scale used in the present study.

One item was dropped from Factor 4, discretion item 5, because it had a low factor loading of .39. In addition, when estimates of internal consistency were run, the item evidenced a low item-total correlation ( $r = .35$ ) and a low squared multiple correlation ( $R^2 = .14$ ) compared to the other items. Therefore, the final versions of the four job characteristics scales with their reliability coefficients are as follows: interdependence (eight items,  $\alpha = .86$ ); exceptions (five items,  $\alpha = .93$ ); analyzability (five items,  $\alpha = .85$ ); and discretion (six items,  $\alpha = .80$ ).

Four measures of **supervisor and coworker assistance** were developed for this study: supervisor information-sharing (functional); supervisor information-sharing (evaluative); coworker information-sharing (functional); and coworker information-sharing (evaluative).

Supervisor functional information-sharing. This six-item measure examined how frequently the supervisor provided the newcomer with information on how to perform his/her tasks. Respondents answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. The newcomer provided responses to these items. The scale items can be found in Appendix M.

Supervisor evaluative information-sharing. This six-item scale measured how frequently the supervisor provided the newcomer with information on how well he/she was performing the job. Respondents answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. The new employee responded to these items. The scale items can be found in Appendix N.

Coworker functional information-sharing. This six-item scale measured the extent to which coworkers provided the newcomer with information on how to perform his/her tasks. Respondents answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. The new employee provided these measures. The scale items can be found in Appendix O.

Coworker evaluative information-sharing. This six-item scale measured the extent to which coworkers provided the newcomer with information on how well he/she was performing the job. Respondents answered these items on a five-point scale ranging from (1) very infrequently to (5) very frequently. The newcomer provided these measures. The scale items can be found in Appendix P.

The 24 items comprising these measures were subjected to a principal axis factor analysis. The factor analysis resulted in a four-factor solution, presented in Table 5. The factor structure basically reflected the predicted dimensions, with each factor accounting for at least 5.2 percent of the variance.

Factor 1 included all items concerning supervisor evaluative information-sharing, and one item concerning supervisor functional information-sharing. Factor 2 contained all items making up the coworker evaluative information-sharing measure. Factor 3 consisted of all coworker functional information-sharing items. Factor 4 included all supervisor functional-information sharing items except the one item loading on Factor 1. In fact, this item (supervisor functional information-sharing 3) was actually split across Factors 1 and 4, as seen in its factor loadings presented in Table 5. Therefore, to preserve the conceptual distinction of the two constructs, this item was deleted from the measure used in this study.

Table 5

## Principal Axis Factor Matrix for Supervisor and Coworker Assistance Items

|                                     | Factor     |            |            |            |
|-------------------------------------|------------|------------|------------|------------|
|                                     | 1          | 2          | 3          | 4          |
| Supervisor Evaluative4              | <u>.92</u> | .18        | .02        | .17        |
| Supervisor Evaluative6              | <u>.89</u> | .20        | .04        | .20        |
| Supervisor Evaluative2              | <u>.89</u> | .18        | .01        | .18        |
| Supervisor Evaluative3              | <u>.87</u> | .18        | .04        | .22        |
| Supervisor Evaluative5              | <u>.82</u> | .20        | .06        | .21        |
| Supervisor Evaluative1              | <u>.81</u> | .22        | -.04       | .24        |
| Supervisor Functional3 <sup>a</sup> | <u>.53</u> | .02        | .15        | .49        |
| Coworker Evaluative4                | .21        | <u>.85</u> | .28        | -.01       |
| Coworker Evaluative6                | .19        | <u>.84</u> | .26        | .05        |
| Coworker Evaluative2                | .20        | <u>.83</u> | .24        | .01        |
| Coworker Evaluative3                | .15        | <u>.80</u> | .29        | .04        |
| Coworker Evaluative1                | .17        | <u>.77</u> | .25        | .00        |
| Coworker Evaluative5                | .20        | <u>.77</u> | .30        | .03        |
| Coworker Functional1                | .02        | .26        | <u>.80</u> | .07        |
| Coworker Functional6                | -.01       | .23        | <u>.80</u> | .18        |
| Coworker Functional2                | -.03       | .28        | <u>.74</u> | .10        |
| Coworker Functional4                | .07        | .35        | <u>.73</u> | .11        |
| Coworker Functional5                | .05        | .12        | <u>.66</u> | .18        |
| Coworker Functional3                | .09        | .34        | <u>.64</u> | .15        |
| Supervisor Functional6              | .19        | .03        | .18        | <u>.88</u> |
| Supervisor Functional2              | .15        | .01        | .12        | <u>.81</u> |
| Supervisor Functional1              | .33        | .01        | .07        | <u>.77</u> |
| Supervisor Functional5              | .20        | .02        | .15        | <u>.75</u> |
| Supervisor Functional4              | .48        | .05        | .25        | <u>.59</u> |
| EIGEN VALUE                         | 9.62       | 4.71       | 2.94       | 1.24       |

<sup>a</sup> This item was deleted from the final supervisor functional information-sharing scale used in the present study.

The final measures used in the study and their reliability estimates are: supervisor functional information-sharing (five items,  $\alpha = .91$ ); supervisor evaluative information-sharing (six items,  $\alpha = .97$ ); coworker functional information-sharing (six items,  $\alpha = .91$ ); coworker evaluative information-sharing (six items,  $\alpha = .95$ ).

Leader-member exchange. A measure of leader-member exchange developed by Scandura and Graen (1984) was used in this study. This seven-item scale measured the quality of the relationship that developed between the newcomer and supervisor. It examined how the supervisor understood the needs of the newcomer and recognized his/her potential, whether the supervisor supported the newcomer, and whether the newcomer would defend the decisions of his/her supervisor. Newcomers checked one of four multiple choice alternatives for each item. The scale items can be found in Appendix Q.

The seven leader-member exchange items were subjected to a factor analysis. One factor that included all seven items was extracted. This factor accounted for 53.0 percent of the variance. In addition, the internal consistency reliability estimate for this scale was .85.

Team-member exchange. An adaptation of Seers' (1989) ten-item measure of team-member exchange quality was used in this study. It measured the willingness of workgroup members to ask for and provide help, to switch jobs with one another, and to let others know when they were affecting their work. Seers (1989) reported a reliability estimate of .92 for this scale. Newcomers in the present study checked one of four multiple choice alternatives for each item. The scale items can be found in Appendix R.

The ten team-member exchange items were subject to a principal axis factor analysis. Four factors were rotated using varimax rotation. In addition, the scree plot suggested that four or five factors were possible. These results suggested that the items did not measure a unidimensional construct. Rather, the four factors, comprised of 2-3 items each, seemed to measure separate dimensions. Therefore, based on the failure to find a unidimensional construct, it was decided that this construct would be excluded from the analyses proposed in this study.

Mastery. Mastery was measured with an eight-item scale developed for this study. It measured whether the newcomer had learned his/her tasks, had developed a "system" for doing work, and was meeting job responsibilities. Individuals responded to these items on a seven-point scale ranging from (1) strongly disagree to (7) strongly agree. New employees and their coworkers answered these items. For each newcomer, between one and three coworkers rated their mastery. Responses from these 1-3 coworkers were averaged to form the coworker rating of the newcomer's mastery. The decision to average the ratings when two or three coworkers rated one newcomer was based on the moderate consistency found between coworker ratings. When two coworkers provided ratings for each newcomer, the coefficient alpha for these two ratings was .43. When three coworkers provided ratings, the coefficient alpha for the three ratings was .69. The scale items can be found in Appendix S.

The newcomer responses to the eight mastery items were subjected to a factor analysis. The factor analysis yielded a two-factor solution, presented in Table 6. Both factors accounted for at least 12.5 percent of the variance. Factor 1, consisting of five

Table 6

## Principal Axis Factor Matrix for Mastery Items

|                       | Factor     |            |
|-----------------------|------------|------------|
|                       | 1          | 2          |
| Mastery8              | <u>.86</u> | .29        |
| Mastery7              | <u>.80</u> | .27        |
| Mastery2              | <u>.66</u> | .39        |
| Mastery3              | <u>.64</u> | .32        |
| Mastery4              | <u>.56</u> | .51        |
| Mastery6 <sup>a</sup> | .34        | <u>.84</u> |
| Mastery1 <sup>a</sup> | .30        | <u>.81</u> |
| Mastery5 <sup>a</sup> | .33        | <u>.74</u> |
| EIGEN VALUE           | 5.03       | 1.00       |

<sup>a</sup> These items were deleted from the final mastery scale used in this study.

items, appears to measure mastery of the basic requirements of the job (e.g., is competent in carrying out assignments, completes tasks in a timely manner, and has developed a system for performing duties). Factor 2, consisting of 3 items, measures an absolute or final mastery of all tasks on the job. Conceptually, Factor 1 is most consistent with the learning process examined in the present study. Because the present study focused on the mastery of employees new to the job, the five items comprising the first factor were selected to form the mastery measure. The internal consistency reliability estimate for the newcomer's perception of mastery was .89.

**Innovation.** Allen and Meyer's (1990) modified version of Jones' (1986) innovation measure was used in this study. The four items of the scale, along with three additional items written for this study, made up the seven-item innovation scale. This scale measured the extent to which the newcomer tried to change the purpose of his/her role, the tasks that make up the job, or the methods to accomplish his/her tasks. Respondents answered these items on a five-point scale ranging from (1) not at all to (5) to a great extent. Newcomers and coworkers answered these items. Between one and three coworkers answered this scale for the newcomer in their workgroup. The responses from the 1-3 coworkers were averaged to form the coworker rating of the newcomer's innovation. The decision to average the ratings when two or three coworkers rated one newcomer was based on the moderate consistency found between coworker ratings. When two coworkers provided ratings for each newcomer, the coefficient alpha for these two ratings was .61. When three coworkers provided ratings, the coefficient alpha for the three ratings was .62. The items can be found in Appendix T.

The newcomer responses to the seven innovation items were factor analyzed, resulting in a two-factor solution. The results of the factor analysis are presented in Table 7. Six of the items loaded on Factor 1. Innovation item number 3, which was a reverse-scored item, made up Factor 2. For the present study, the six items comprising Factor 1 were used as the innovation measure, and the reverse-scored item was dropped from further consideration. The internal consistency reliability estimate for the newcomer's perception of innovation was .88.

Table 7

## Principal Axis Factor Matrix for Innovation Items

|                          | Factor     |            |
|--------------------------|------------|------------|
|                          | 1          | 2          |
| Innovation5              | <u>.76</u> | -.10       |
| Innovation4              | <u>.76</u> | .10        |
| Innovation7              | <u>.75</u> | .35        |
| Innovation1              | <u>.74</u> | .41        |
| Innovation2              | <u>.74</u> | .29        |
| Innovation6              | <u>.72</u> | -.37       |
| Innovation3 <sup>a</sup> | .02        | <u>.21</u> |
| EIGEN VALUE              | 3.79       | 1.08       |

<sup>a</sup> This item was deleted from the final innovation scale used in this study.

Workgroup influence. This eight-item measure was developed for use in this study. It measured the extent to which the supervisor and coworkers used the newcomer's advice, acted on the newcomer's suggestions, and included the newcomer in work-related decisions. Respondents answered these items on a seven-point rating scale ranging from (1) strongly disagree to (7) strongly agree. Newcomers and coworkers answered these items. For each newcomer, between one and three coworkers provided ratings of workgroup influence. Responses from these 1-3 coworkers were averaged to form the coworker rating of the newcomer's influence. The decision to average the ratings when two or three coworkers rated one newcomer was based on the moderate consistency found between coworker ratings.

Table 8

## Principal Axis Factor Matrix for Workgroup Influence Items

|             | Factor |
|-------------|--------|
|             | 1      |
| Influence5  | .83    |
| Influence1  | .78    |
| Influence4  | .76    |
| Influence8  | .76    |
| Influence7  | .75    |
| Influence2  | .71    |
| Influence6  | .69    |
| Influence3  | .67    |
| EIGEN VALUE | 4.87   |

When two coworkers provided ratings for each newcomer, the coefficient alpha for these two ratings was .65. When three coworkers provided ratings, the coefficient alpha for the three ratings was .52. Scale items are listed in Appendix U.

The new employee's responses to the eight workgroup influence items were subject to a factor analysis. One eight-item factor was extracted, accounting for 60.9 percent of the variance. The results of the factor analysis are presented in Table 8. In addition, the internal consistency reliability estimate for the newcomer's perception of workgroup influence was .91.

## RESULTS

The sections below describe several sets of analyses that were run to test groups of hypotheses. Due to the nature of the analyses, hypotheses will be grouped in a different order than they were presented in the introduction. Appendix V lists the hypotheses relevant to each analysis that was conducted.

### Patterns of Information-Seeking by Strategy, Content, and Time on the Job

Hypotheses 1 through 11 examined the pattern of information-seeking used due to strategy, content, and time on the job. Because of the number of specific hypotheses to be tested, a 3-way (Strategy x Content x Time on the Job) repeated-measures ANCOVA was conducted to provide some check on Type I error and an overall description of significant effects. If the results were significant, apriori contrasts were run to examine the specific hypotheses.

However, the results of the factor analyses for the information-seeking strategies led to the deletion of items pertaining to observation for evaluative information. This left only the strategy of observation for functional information without a corresponding strategy for evaluative information. Therefore, in order to have complete cells for strategies across content areas, the ANCOVA was run on only three strategies (inquiry of supervisors, inquiry of coworkers, experimentation). Hypotheses concerned with the use of observation as an information-seeking strategy were not tested in these analyses (hypotheses 3 and 6).

Hypothesis 1. Hypothesis 1 predicted a three-way interaction between strategy, content, and time on the job to influence information-seeking frequency. To examine the relative frequency of information-seeking across strategies, information content,

and time on the job, a repeated-measures 3 x 2 x 3 (Strategy x Content x Tenure) ANCOVA was conducted. The two within-subjects factors were information-seeking Strategy (experimentation, inquiry of supervisor, inquiry of coworkers) and information Content (functional, evaluative). The between-subjects factor was time on the job, which was trichotomized into three categories. The three Tenure categories included: (1) less than 13 weeks; (2) 14-36 weeks; and (3) 37 or more weeks on the job. The dependent variable was the frequency of information-seeking for each of the strategy and content combinations. In addition, professional v. nonprofessional job status was entered as a covariate in the ANCOVA to control for differences between these two job categories. The job status covariate was also included in all subsequent analyses to test specific hypotheses.

ANCOVA results are presented in Table 9. First, Mauchly's test of sphericity was significant for both the Strategy ( $\chi = 15.70$ ,  $p < .001$ ) and Strategy X Content interaction ( $\chi = 11.35$ ,  $p < .01$ ), indicating that the variances of the transformed variables were not equal. Therefore, Table 9 reports the multivariate F-tests rather than the univariate F-tests for all effects involving Strategy (Similarly, for later analyses testing specific hypotheses, the multivariate F-tests were reported for Strategy effects). The job status covariate was significant ( $F(1, 249) = 8.94$ ,  $p < .01$ ) in this analysis. There were also main effects for Tenure ( $F(2, 249) = 3.74$ ,  $p < .05$ ), Strategy ( $F(2, 249) = 393.37$ ,  $p < .001$ ), and Content ( $F(1, 250) = 23.70$ ,  $p < .001$ ). Significant effects were also found for a Tenure x Strategy interaction ( $F(4, 498) = 2.54$ ,  $p < .05$ ), Tenure x Content interaction ( $F(2, 250) = 4.07$ ,  $p < .05$ ), Strategy x Content interaction ( $F(2, 249) = 19.82$ ,  $p < .001$ ), and a three-way

Table 9

Hypothesis 1:

3 (Strategy) x 2 (Content) x 3 (Time on the Job) ANCOVA Results

| Effect                      | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|-----------------------------|--------------|----------------|----------|----------------|
| Job Status                  | 1            | 249            | 1.51     | 8.94**         |
| Tenure                      | 2            | 249            | 1.51     | 3.74*          |
| Strategy                    | 2            | 249            |          | 393.37**       |
| Content                     | 1            | 250            | .66      | 23.70**        |
| Tenure x Strategy           | 4            | 498            |          | 2.54*          |
| Tenure x Content            | 2            | 250            |          | 4.07*          |
| Strategy x Content          | 2            | 249            |          | 19.82**        |
| Tenure x Strategy x Content | 4            | 498            |          | 3.87**         |

\*  $p \leq .05$ ; \*\*  $p \leq .01$ <sup>a</sup>F-tests for all effects involving Strategy are multivariate F-tests (MS Error was not available for these analyses).

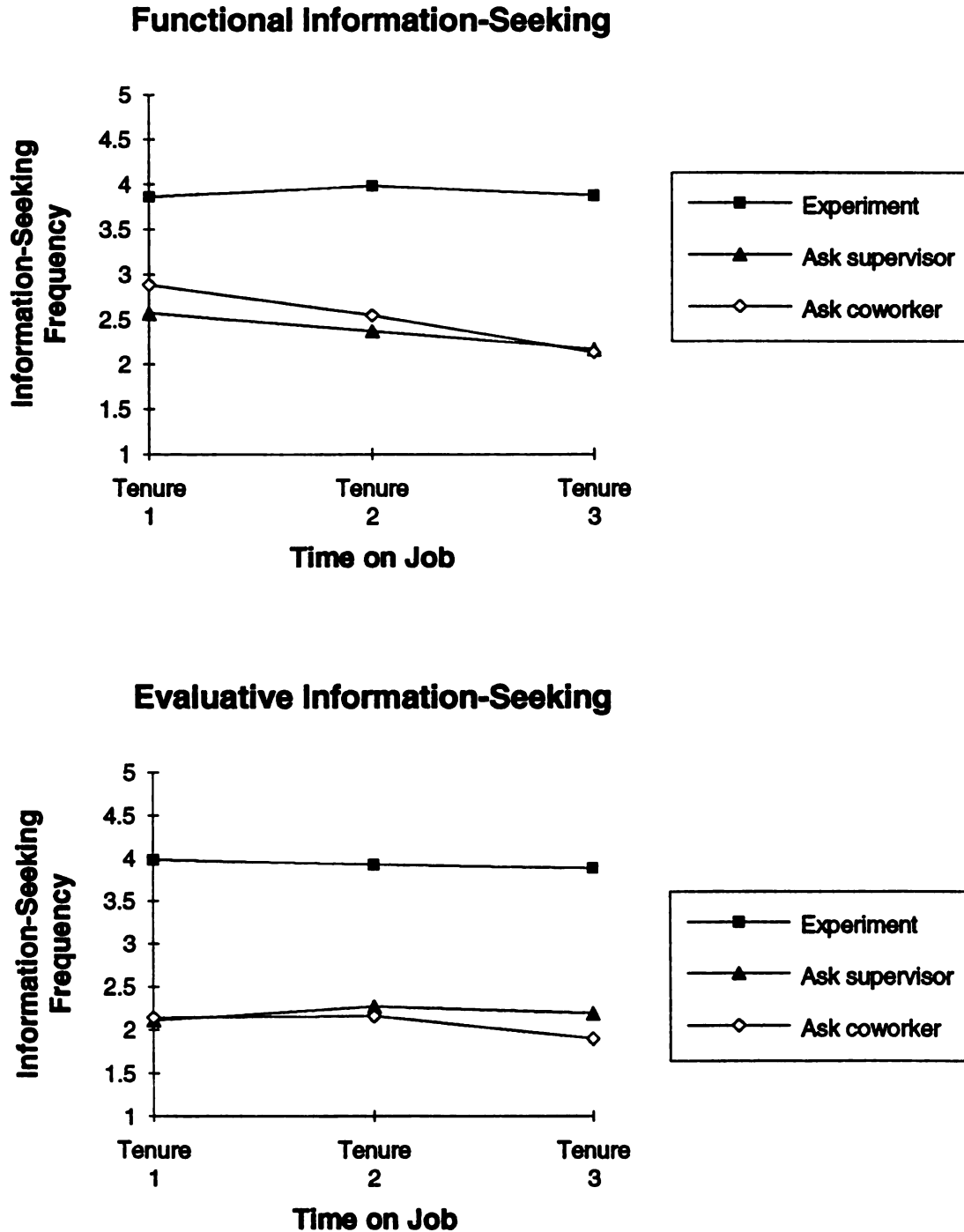


Figure 2. Strategy x Content x Tenure Interaction.

Table 10

## Three-Way ANCOVA Results:

## Cell Means and Standard Deviations

|                           | Tenure         |                |               |
|---------------------------|----------------|----------------|---------------|
|                           | 1              | 2              | 3             |
| Experiment Functional     | 3.86<br>(.73)  | 3.98<br>(.83)  | 3.88<br>(.84) |
| Ask Supervisor Functional | 2.57<br>(.91)  | 2.37<br>(.87)  | 2.17<br>(.73) |
| Ask Coworker Functional   | 2.88<br>(1.10) | 2.55<br>(1.03) | 2.13<br>(.99) |
| Experiment Evaluative     | 3.98<br>(.71)  | 3.92<br>(.79)  | 3.88<br>(.78) |
| Ask Supervisor Evaluative | 2.11<br>(.85)  | 2.27<br>(.99)  | 2.19<br>(.91) |
| Ask Coworker Evaluative   | 2.14<br>(.95)  | 2.16<br>(1.01) | 1.90<br>(.83) |

Tenure x Strategy x Content interaction ( $F(4, 498) = 3.87, p < .01$ ). Thus, these results support the three-way interaction predicted in Hypothesis 1. Figure 2 displays information-seeking frequency by tenure and strategy with separate plots for functional and evaluative information. Table 10 presents the cell means and standard deviations from the ANCOVA analysis.

To better understand the significant three-way interaction indicated in Figure 2, an analysis of the simple interaction effects for Strategy and Content was conducted at each level of the tenure variable. Repeated-measures 3 x 2 (Strategy x Content) ANOVAs with the job status covariate were run for each level of tenure. These results are presented in Table 11. The ANOVA at the first tenure level resulted in significant main effects for Strategy ( $F(2, 81) = 115.94, p < .001$ ) and Content ( $F(1, 82) = 24.40, p < .001$ ), and a significant Strategy x Content interaction ( $F(2, 81) = 21.48, p < .001$ ). The ANOVA for individuals at the second tenure level revealed significant main effects for Strategy ( $F(2, 83) = 106.68, p < .001$ ), Content ( $F(1, 84) = 5.55, p < .05$ ), and a significant Strategy x Content interaction ( $F(2, 83) = 5.02, p < .01$ ). Finally, the ANOVA for the third tenure level resulted in significant main effects for the job status covariate ( $F(1, 83) = 5.93, p < .05$ ) and Strategy ( $F(2, 83) = 188.47, p < .001$ ). The main effect for Content ( $F(1, 84) = 1.07, p > .05$ ) and the Strategy x Content interaction ( $F(2, 83) = 2.56, p > .05$ ) were not statistically significant.

Individuals generally sought information to a different degree across the three strategies for all three tenure levels. For the first two tenure levels, the Content x Strategy interaction suggests that the use of information-seeking strategies generally

Table 11

## Understanding the Three-Way Interaction:

## Test of Simple Interaction Effects at Each Tenure Level

## A. Tenure Level = 1

| Effect             | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|--------------------|--------------|----------------|----------|----------------|
| Job Status         | 1            | 81             | 1.35     | 1.48           |
| Strategy           | 2            | 81             |          | 115.94**       |
| Content            | 1            | 82             | .66      | 24.40**        |
| Strategy x Content | 2            | 81             |          | 21.48**        |

## B. Tenure Level = 2

| Effect             | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|--------------------|--------------|----------------|----------|----------------|
| Job Status         | 1            | 83             | 1.73     | 1.90           |
| Strategy           | 2            | 83             |          | 106.68**       |
| Content            | 1            | 84             | .75      | 5.55*          |
| Strategy x Content | 2            | 83             |          | 5.02**         |

## C. Tenure Level = 3

| Effect             | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|--------------------|--------------|----------------|----------|----------------|
| Job Status         | 1            | 83             | 1.46     | 5.93*          |
| Strategy           | 2            | 83             |          | 188.47**       |
| Content            | 1            | 84             | .57      | 1.07           |
| Strategy x Content | 2            | 83             |          | 2.56           |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

<sup>a</sup>F-tests for all effects involving Strategy are multivariate F-tests (MS Error was not available for these analyses).

depended on the content of the information being sought. For the third tenure level, information content did not impact the use of information-seeking strategies.

A second set of analyses were conducted to examine the simple interaction effects for Strategy and Tenure for the two types of information content. Repeated-measures 3 x 3 (Strategy x Tenure) ANOVAs with the job status covariate were run separately for functional and evaluative information. The results of these analyses are presented in Table 12. The ANOVA for functional information resulted in significant main effects for the job status covariate ( $F(1, 249) = 6.67, p \leq .01$ ), Tenure ( $F(2, 249) = 8.19, p < .001$ ) and Strategy ( $F(2, 249) = 210.92, p < .001$ ), and a significant Tenure x Strategy interaction ( $F(4, 498) = 3.62, p < .01$ ). The ANOVA for evaluative information revealed significant main effects for the job status covariate ( $F(1, 249) = 5.90, p < .05$ ) and Strategy ( $F(2, 249) = 416.30, p < .001$ ). The Tenure main effect ( $F(2, 249) = .74, p > .05$ ), and Tenure x Strategy interaction ( $F(4, 498) = 1.80, p > .05$ ) were not statistically significant.

These analyses indicate that, for functional information, there is a change in general in the use of information-seeking strategies with different levels of tenure. However, for evaluative information, while there is a difference in the use of information-seeking strategies overall (Strategy main effect), tenure on the job does not affect the relative use of information-seeking strategies.

Table 12

## Understanding the 3-Way Interaction:

## Tests of Simple Interaction Effects for Each Information Content Category

## A. Content = Functional Information

| Effect            | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|-------------------|--------------|----------------|----------|----------------|
| Job Status        | 1            | 249            | .90      | 6.67**         |
| Tenure            | 2            | 249            | .90      | 8.19**         |
| Strategy          | 2            | 249            |          | 210.92**       |
| Tenure x Strategy | 4            | 498            |          | 3.62**         |

## B. Content = Evaluative Information

| Effect            | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|-------------------|--------------|----------------|----------|----------------|
| Job Status        | 1            | 249            | 1.27     | 5.90*          |
| Tenure            | 2            | 249            | 1.27     | .74            |
| Strategy          | 2            | 249            |          | 416.30**       |
| Tenure x Strategy | 4            | 498            |          | 1.80           |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

<sup>a</sup>F-tests for all effects involving Strategy are multivariate F-tests (MS Error was not available for these analyses).

Hypotheses 2 and 4. In addition to these overall analyses, specific analyses were run to test hypotheses 2, 4, 5, and 7-11. Hypotheses 2 and 4 concerned the relative use of information-seeking strategies to acquire functional information, predicting that experimentation would be used most frequently, followed by inquiry of coworkers and inquiry of supervisors. As explained earlier, observation for functional information (hypothesis 3) was not examined in the ANOVA analyses.

To test these hypotheses, a one-way ANOVA with 3 strategy levels and the job status covariate was conducted. Two apriori contrasts were specified:

(1) experimentation was compared to inquiry of coworkers and inquiry of supervisors for functional information; and (2) inquiry of coworkers was compared to inquiry of supervisors for functional information. Table 13 presents the ANOVA results.

Results indicated a significant main effect for the job status covariate ( $F(1, 251) = 9.83, p < .01$ ) and Strategy ( $F(2, 251) = 205.96, p < .001$ ). The mean frequency for each of the three information-seeking strategies were as follows: experimentation ( $x = 3.91, sd = .80$ ); inquiry of coworkers ( $x = 2.52, sd = 1.08$ ); and inquiry of supervisors ( $x = 2.37, sd = .86$ ). Results for the specified contrasts indicated that experimentation was significantly different than inquiry of coworkers and inquiry of supervisors for functional information ( $F(1, 252) = 393.05, p < .001$ ), and that inquiry of coworkers was significantly different from inquiry of supervisors for functional information ( $F(1, 252) = 4.51, p < .05$ ). These results indicate that individuals acquire functional information most frequently through experimentation, followed by inquiry of coworkers, and finally inquiry of supervisors. These results support hypotheses 2 and 4.

Table 13

## Hypotheses 2 and 4: ANOVA Results for Functional Information-Seeking

| Effect                        | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|-------------------------------|--------------|----------------|----------|----------------|
| Job Status                    | 1            | 251            | .95      | 9.83**         |
| Strategy                      | 2            | 251            |          | 205.96**       |
| Exprmt v. Ask Cowk & Ask Supv | 1            | 252            | .92      | 393.05**       |
| Ask Cowk v. Ask Supv          | 1            | 252            | .63      | 4.51*          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

<sup>a</sup>F-test for the Strategy effect is a multivariate F-test (MS Error was not available for this analysis).

However, the ANOVAs for the simple interaction effects of Strategy and Tenure that were run separately for functional and evaluative information indicated a significant Strategy X Tenure interaction for functional information. Therefore, to understand the relative frequency of information-seeking strategies for different levels of time on the job, the one-way ANOVA, with 3 strategy levels and the contrasts specified above, was run separately for each tenure level. These results are summarized in Table 14. For the first tenure level, the ANOVA resulted in a significant main effect for Strategy ( $F(2, 81) = 40.42, p < .001$ ). In addition, the apriori contrasts indicated that experimentation was significantly different from inquiry of coworkers and inquiry of supervisors ( $F(1, 82) = 78.17, p < .001$ ), and that inquiry of supervisors was significantly different from inquiry of coworkers ( $F(1, 82) = 4.47, p < .05$ ).

Table 14

Hypotheses 2 and 4: ANOVA Results for Functional Information-Seeking  
at Each Tenure Level

A. Tenure Level = 1

| Effect                        | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|-------------------------------|--------------|----------------|----------|----------------|
| Job Status                    | 1            | 81             | .78      | .17            |
| Strategy                      | 2            | 81             |          | 40.42**        |
| Exprmt v. Ask Cowk & Ask Supv | 1            | 82             | .92      | 78.17**        |
| Ask Cowk v. Ask Supv          | 1            | 82             | .89      | 4.47*          |

B. Tenure Level = 2

| Effect                        | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|-------------------------------|--------------|----------------|----------|----------------|
| Job Status                    | 1            | 83             | .96      | 2.70           |
| Strategy                      | 2            | 83             |          | 68.60**        |
| Exprmt v. Ask Cowk & Ask Supv | 1            | 84             | 1.06     | 122.99**       |
| Ask Cowk v. Ask Supv          | 1            | 84             | .47      | 3.09           |

C. Tenure Level = 3

| Effect                        | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|-------------------------------|--------------|----------------|----------|----------------|
| Job Status                    | 1            | 83             | .97      | 4.00*          |
| Strategy                      | 2            | 83             |          | 124.59**       |
| Exprmt v. Ask Cowk & Ask Supv | 1            | 84             | .69      | 247.25**       |
| Ask Cowk v. Ask Supv          | 1            | 84             | .52      | .14            |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

<sup>a</sup>F-tests for Strategy effects are multivariate F-tests (MS Error was not available for these analyses).

For the second tenure level, ANOVA results indicated a significant main effect for Strategy ( $F(2, 83) = 68.60, p < .001$ ). The contrast results demonstrated that experimentation was significantly different from inquiry of coworkers and inquiry of supervisors for functional information ( $F(1, 84) = 122.99, p < .001$ ). However, the contrast between inquiry of coworkers and inquiry of supervisors was not significant ( $F(1, 84) = 3.09, p > .05$ ).

Finally, for the third tenure level, significant main effects were found for the job status covariate ( $F(1, 83) = 4.00, p < .05$ ) and Strategy ( $F(2, 83) = 124.59, p < .001$ ). In addition, the contrast comparing experimentation with inquiry of coworkers and inquiry of supervisors for functional information was significant ( $F(1, 84) = 247.25, p < .001$ ). The contrast comparing inquiry of coworkers and inquiry of supervisors for functional information was not significant ( $F(1, 84) = .14, p > .05$ ).

In sum, these results suggest that, overall, individuals acquire functional information most frequently through experimentation compared to inquiry of coworkers and supervisors. In addition, individuals on the job for 13 weeks or less ask their coworkers more frequently than their supervisors for functional information. Although significant, the difference between asking coworkers and asking supervisors for functional information is small. Further, for those on the job for more than 13 weeks, there is no difference in the frequency with which they ask coworkers and supervisors for functional information. The specific nature of the effects of tenure on information-seeking will be clarified in the tests for hypotheses 8 and 9.

Hypotheses 5 and 7. Hypotheses 5 and 7 predicted that individuals would acquire evaluative information most frequently through experimentation, followed by inquiry of supervisors, and inquiry of coworkers. To test these hypotheses, a one-way ANOVA with 3 strategy levels and the job status covariate was conducted. Two apriori contrasts were specified: (1) experimentation was compared to inquiry of supervisors and inquiry of coworkers for evaluative information; and (2) inquiry of supervisors was compared to inquiry of coworkers for evaluative information. The results for this ANOVA can be found in Table 15.

The ANOVA resulted in significant main effects for the job status covariate ( $F(1, 251) = 6.16, p < .05$ ) and Strategy ( $F(2, 251) = 417.58, p < .001$ ). The means and standard deviations for the three information-seeking strategies to acquire evaluative information were as follows: experimentation ( $x = 3.93, sd = .76$ ); inquiry of supervisor ( $x = 2.19, sd = .92$ ); and inquiry of coworkers ( $x = 2.07, sd = .94$ ). Results of the apriori contrasts indicated that experimentation was significantly different from inquiry of supervisors and coworkers for evaluative information ( $F(1, 252) = 830.89, p < .001$ ), and that inquiry of supervisors was significantly different from inquiry of coworkers for evaluative information ( $F(1, 252) = 5.59, p < .05$ ). These results indicate that individuals rely most frequently on experimentation to acquire evaluative information, followed by inquiry of supervisors and inquiry of coworkers. These results support hypotheses 5 and 7. However, it should be noted that the difference between asking supervisors and asking coworkers, while significant, is very small.

Table 15

**Hypotheses 5 and 7: ANOVA Results for Evaluative Information-Seeking**

| Effect                        | Numerator DF | Denominator DF | MS Error | F <sup>a</sup> |
|-------------------------------|--------------|----------------|----------|----------------|
| Job Status                    | 1            | 251            | 1.26     | 6.16*          |
| Strategy                      | 2            | 251            |          | 417.58**       |
| Exprmt v. Ask Supv & Ask Cowk | 1            | 252            | .66      | 830.89**       |
| Ask Supv v. Ask Cowk          | 1            | 252            | .35      | 5.59*          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

<sup>a</sup>F-test for the Strategy effect is a multivariate F-test (MS Error was not available for this analysis).

**Hypothesis 8.** Hypothesis 8 predicted that inquiry of supervisors for functional information would decrease with increased time on the job. To test this hypothesis, a one-way ANOVA was run. The dependent variable was inquiry of supervisor for functional information. The job status covariate was entered first, and the independent variable was tenure. Two apriori contrasts were specified: (1) inquiry of supervisors for tenure level 1 was compared to inquiry of supervisors for tenure level 2; and (2) inquiry of supervisors for tenure level 2 was compared to inquiry of supervisors for tenure level 3. ANOVA results are presented in Table 16.

ANOVA results indicated a significant main effect for Tenure ( $F(2, 249) = 3.95, p < .05$ ). The mean frequency for inquiry of supervisors for functional information at each tenure level were as follows: (1) tenure level 1 ( $\bar{x} = 2.57, sd = .91$ ); (2) tenure level 2 ( $\bar{x} = 2.37, sd = .87$ ); and (3) tenure level 3 ( $\bar{x} = 2.17, sd = .73$ ). The apriori contrasts indicated that inquiry of supervisors for

functional information was significantly greater for individuals at tenure level 1 than for individuals at tenure level 2 ( $F(1, 249) = 5.65, p < .05$ ).

However, individuals at tenure levels 2 and 3 did not significantly differ in their use of inquiry of supervisors for functional information ( $F(1, 249) = 2.28, p > .05$ ). These results provide partial support for hypothesis 8.

Table 16

Hypothesis 8: ANOVA Results for Inquiry of Supervisor  
for Functional Information

| Effect               | SS     | DF  | MS   | F     |
|----------------------|--------|-----|------|-------|
| Within Cells         | 176.01 | 249 | .71  |       |
| Job Status           | 1.34   | 1   | 1.34 | 1.90  |
| Tenure               | 5.58   | 2   | 2.79 | 3.95* |
| Tenure 1 v. Tenure 2 | 4.00   | 1   | 4.00 | 5.65* |
| Tenure 2 v. Tenure 3 | 1.61   | 1   | 1.61 | 2.28  |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

Hypothesis 9. Hypothesis 9 predicted that inquiry of coworkers for functional information would decrease with increased time on the job. A one-way ANOVA with three tenure levels and the job status covariate was run with inquiry of coworkers for functional information as the dependent variable. Two apriori contrasts were specified: (1) inquiry of coworkers for tenure level 1 was compared to inquiry of coworkers for tenure level 2; and (2) inquiry of coworkers for tenure level 2 was compared to inquiry of coworkers for tenure level 3. Results are reported in Table 17.

Table 17

Hypothesis 9: ANOVA Results for Inquiry of Coworkers  
for Functional Information

| Effect               | SS     | DF  | MS    | F       |
|----------------------|--------|-----|-------|---------|
| Within Cells         | 260.37 | 249 | 1.05  |         |
| Job Status           | 9.91   | 1   | 9.91  | 9.48**  |
| Tenure               | 18.74  | 2   | 9.37  | 8.96**  |
| Tenure 1 v. Tenure 2 | 11.76  | 1   | 11.76 | 11.25** |
| Tenure 2 v. Tenure 3 | 7.09   | 1   | 7.09  | 6.78**  |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

ANOVA results revealed a main effect for the job status covariate ( $F(1, 249) = 9.48, p < .001$ ) and for time on the job ( $F(2, 249) = 8.96, p \leq .001$ ). The mean frequency for inquiry of coworkers for functional information at each tenure level were as follows: (1) tenure level 1 ( $x = 2.88, sd = 1.10$ ); (2) tenure level 2 ( $x = 2.55, sd = 1.03$ ); and (3) tenure level 3 ( $x = 2.13, sd = .99$ ). The apriori contrasts indicated that inquiry of coworkers for functional information was significantly greater at tenure level 1 compared to tenure level 2 ( $F(1, 249) = 11.25, p < .001$ ). In addition, inquiry of coworkers for functional information was significantly greater at tenure level 2 compared to tenure level 3 ( $F(1, 249) = 6.78, p \leq .01$ ). These results support hypothesis 9.

Hypothesis 10. Hypothesis 10 predicted that inquiry of supervisors for evaluative information would increase with greater time on the job. A one-way ANOVA with three tenure levels and the job status covariate was run. Two apriori

contrasts were specified: (1) inquiry of supervisors for evaluative information for tenure level 1 would be less than inquiry of supervisors for tenure level 2; and (2) inquiry of supervisors for tenure level 2 would be less than inquiry of supervisors for tenure level 3. ANOVA results are displayed in Table 18.

Results of the ANOVA indicated a main effect for the job status covariate ( $F(1, 249) = 4.21, p < .05$ ). The effects for Tenure and the apriori contrasts were not significant. These results did not support hypothesis 10.

Hypothesis 11. Hypothesis 11 predicted that inquiry of coworkers for evaluative information would increase with greater time on the job. A one-way ANOVA with three tenure levels and the job status covariate was run. Two apriori contrasts were specified: (1) inquiry of coworkers for evaluative information for tenure level 1 would be less than inquiry of coworkers for tenure level 2; and (2) inquiry of coworkers for tenure level 2 would be less inquiry of coworkers for tenure level 3. ANOVA results are reported in Table 19.

Results of the ANOVA indicated a main effect for the job status covariate ( $F(1, 249) = 10.07, p < .001$ ). The effects for Tenure and the apriori contrasts were not significant. These results did not support hypothesis 11.

Table 18

Hypothesis 10: ANOVA Results for Inquiry of Supervisor  
for Evaluative Information

| Effect               | SS     | DF  | MS   | F     |
|----------------------|--------|-----|------|-------|
| Within Cells         | 207.78 | 249 | .83  |       |
| Job Status           | 3.52   | 1   | 3.52 | 4.21* |
| Tenure               | 1.72   | 2   | .86  | 1.03  |
| Tenure 1 v. Tenure 2 | 1.49   | 1   | 1.49 | 1.78  |
| Tenure 2 v. Tenure 3 | .23    | 1   | .23  | .27   |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

Table 19

Hypothesis 11: ANOVA Results for Inquiry of Coworkers  
for Evaluative Information

| Effect               | SS     | DF  | MS   | F       |
|----------------------|--------|-----|------|---------|
| Within Cells         | 208.39 | 249 | .84  |         |
| Job Status           | 8.43   | 1   | 8.43 | 10.07** |
| Tenure               | 2.59   | 2   | 1.29 | 1.54    |
| Tenure 1 v. Tenure 2 | .07    | 1   | .07  | .09     |
| Tenure 2 v. Tenure 3 | 2.52   | 1   | 2.52 | 3.01    |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

The remaining analyses focused on antecedent factors and how they related to information-seeking strategies, and how information-seeking strategies relate to socialization outcomes. The means, standard deviations, and intercorrelations for the variables examined in this study are presented in Table 20. Intercorrelations between the information-seeking strategies ranged from  $-.05$  to  $.62$ . Correlations were higher within an information strategy (e.g., between inquiry of coworkers for functional and evaluative information). In addition, inquiry of coworkers for functional and evaluative information were more highly correlated with observation for functional information than the other strategies. Although these strategies were correlated, they were conceptualized to be theoretically distinct. Furthermore, the factor analysis did result in seven distinct factors. It was felt that new employees could distinguish between information-seeking strategies and information content.

The intercorrelation matrix also reveals high correlations between measures of supervisor and coworker sharing of functional and evaluative information, and the respective scales measuring new employee information-seeking from supervisors and coworkers for the two types of information. The high intercorrelations may indicate a shared climate, or may be the result of method bias. However, the present study did hypothesize a positive relationship between the constructs of information-sharing and information-seeking. In addition, the inquiry of supervisor and coworkers items and the supervisor and information-sharing items were asked in separate sections of the survey, with explicit directions for answering each. Therefore, it was felt that new employees could most likely distinguish their attempts to seek information from supervisor and coworkers attempts to approach them and provide information.

In addition, it may be argued that observation for functional information and coworker functional information-sharing are similar constructs. However, the present study conceptualized coworker functional information-sharing as verbal assistance, such as coworkers telling or describing to newcomers how to perform their jobs. While coworkers do this, they may also provide opportunities for newcomers to observe their behavior by actually demonstrating how to perform tasks. However, observation for functional information was also conceptualized to include instances where newcomers were not interacting with coworkers, but unobtrusively monitoring others' behaviors in order to learn their jobs. To ascertain whether these were indeed separate constructs, a principle axis factor analysis with varimax rotation was conducted. It resulted in two clearly interpretable factors corresponding to the two constructs conceptualized in this study. Factor analysis results are presented in Appendix W. Observation for functional information and coworker functional information-sharing were therefore treated as separate constructs in study analyses.

Table 20

Means, Standard Deviations, and Intercorrelations

|                | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1. Ask Sup F   | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2. Ask Cwk F   | .35  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 3. Observe F   | .18  | .62  |      |      |      |      |      |      |      |      |      |      |      |      |
| 4. Expermt F   | -.12 | -.03 | .02  |      |      |      |      |      |      |      |      |      |      |      |
| 5. Ask Sup E   | .43  | .24  | .26  | -.06 |      |      |      |      |      |      |      |      |      |      |
| 6. Ask Cwk E   | .22  | .52  | .55  | -.01 | .60  |      |      |      |      |      |      |      |      |      |
| 7. Expermt E   | -.05 | .01  | .19  | .31  | .18  | .21  |      |      |      |      |      |      |      |      |
| 8. Tenure      | -.19 | -.28 | -.17 | .01  | .04  | -.10 | -.05 |      |      |      |      |      |      |      |
| 9. Job Status  | .12  | .23  | .19  | -.01 | .12  | .21  | .01  | -.16 |      |      |      |      |      |      |
| 10. Self-eff   | -.20 | -.24 | -.09 | .10  | -.03 | .01  | .29  | .06  | -.27 |      |      |      |      |      |
| 11. Interdep   | .17  | .31  | .39  | -.14 | .19  | .32  | .13  | -.09 | .23  | -.09 |      |      |      |      |
| 12. Exceptns   | .08  | .21  | .17  | .10  | .15  | .16  | .02  | -.08 | .51  | -.15 | .16  |      |      |      |
| 13. Analyzblty | -.05 | -.13 | -.01 | -.10 | .02  | -.03 | .14  | -.07 | -.36 | .31  | -.03 | -.56 |      |      |
| 14. Discretion | -.26 | -.11 | -.06 | .35  | -.01 | -.06 | .17  | .09  | .10  | .15  | -.23 | .25  | -.01 |      |
| 15. LMX        | .12  | -.06 | -.05 | .03  | .07  | -.03 | .11  | .00  | -.09 | .16  | -.06 | .02  | .26  | .23  |
| 16. Sup Shr F  | .68  | .25  | .14  | -.17 | .29  | .14  | -.09 | -.16 | .07  | -.06 | .13  | .05  | .06  | -.12 |
| 17. Cwk Shr F  | .25  | .70  | .60  | -.02 | .19  | .51  | .04  | -.28 | .12  | -.12 | .28  | .11  | -.03 | -.10 |
| 18. Sup Shr E  | .23  | .03  | .12  | .00  | .44  | .26  | .15  | .06  | -.01 | .10  | .04  | .01  | .20  | .10  |
| 19. Cwk Shr E  | .13  | .32  | .39  | .02  | .42  | .67  | .25  | -.06 | -.08 | .12  | .24  | .01  | .09  | -.02 |
| 20. Mastr-Slf  | -.12 | -.23 | -.05 | .14  | .11  | .09  | .26  | .22  | -.26 | .55  | -.07 | -.22 | .34  | .17  |
| 21. Innov-Slf  | -.14 | -.17 | -.01 | .25  | .12  | .09  | .15  | .27  | .02  | .10  | .12  | .15  | -.13 | .23  |
| 22. Infl-Slf   | -.01 | -.08 | .04  | .19  | .18  | .13  | .24  | .09  | .07  | .20  | -.01 | .16  | .09  | .28  |
| 23. Mastr-Cwk  | -.10 | -.19 | -.08 | .07  | .03  | .03  | -.02 | .12  | -.11 | .09  | -.11 | -.05 | .01  | .06  |
| 24. Innov-Cwk  | -.07 | -.15 | -.07 | .15  | .09  | .06  | .04  | .22  | .09  | .03  | -.06 | .11  | -.07 | .16  |
| 25. Infl-Cwk   | -.02 | -.17 | -.11 | -.02 | .07  | .03  | -.06 | .20  | .14  | .06  | .06  | .19  | -.08 | .15  |
| M              | 2.37 | 2.52 | 3.11 | 3.91 | 2.19 | 2.07 | 3.93 | 2.01 | 0.83 | 4.44 | 3.23 | 3.72 | 3.03 | 3.76 |
| SD             | 0.86 | 1.08 | 1.00 | 0.80 | 0.92 | 0.94 | 0.76 | 0.82 | 0.38 | 0.60 | 0.80 | 1.00 | 0.91 | 0.72 |

Table 20 (cont'd.)

|               | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   |
|---------------|------|------|------|------|------|------|------|------|------|------|------|
| 15. LMX       | --   |      |      |      |      |      |      |      |      |      |      |
| 16. Sup Shr F | .32  |      |      |      |      |      |      |      |      |      |      |
| 17. Cwk Shr F | -.06 | .32  |      |      |      |      |      |      |      |      |      |
| 18. Sup Shr E | .55  | .46  | .12  |      |      |      |      |      |      |      |      |
| 19. Cwk Shr E | .06  | .15  | .56  | .43  |      |      |      |      |      |      |      |
| 20. Mastr-Slf | .25  | -.04 | -.11 | .25  | .25  |      |      |      |      |      |      |
| 21. Innov-Slf | -.05 | -.24 | -.14 | .11  | .15  | .16  |      |      |      |      |      |
| 22. Infl-Slf  | .51  | .09  | -.03 | .40  | .16  | .35  | .21  |      |      |      |      |
| 23. Mastr-Cwk | -.05 | -.13 | -.12 | -.02 | .10  | .18  | .06  | .12  |      |      |      |
| 24. Innov-Cwk | -.17 | -.18 | -.15 | -.07 | .01  | .15  | .38  | .13  | .28  |      |      |
| 25. Infl-Cwk  | .04  | -.10 | -.17 | .06  | -.02 | .05  | .16  | .27  | .40  | .38  |      |
| M             | 3.04 | 2.61 | 3.00 | 2.84 | 2.63 | 5.93 | 2.67 | 5.30 | 5.99 | 2.48 | 5.08 |
| SD            | 0.54 | 1.01 | 1.00 | 1.16 | 1.08 | 0.90 | 0.92 | 0.91 | 0.86 | 0.84 | 1.05 |

**Note.** Ask Sup F = Inquiry of supervisor - functional information; Ask Cwk F = Inquiry of coworkers - functional information; Observe F = Observation - functional information; Expermt F = Experimentation - functional information; Ask Sup E = Inquiry of supervisor - evaluative information; Ask Cwk E = Inquiry of coworkers - evaluative information; Expermt E = Experimentation - evaluative information; Tenure = time on the job; Job Status = Job status (nonprofessional/professional); Self-eff = Self-efficacy; Interdep = Interdependence; Exceptns = Exceptions; Analyzblty = Analyzability; Discretion = Discretion; LMX = Leader-member exchange; Sup Shr F = Supervisor functional information-sharing; Cwk Shr F = Coworker functional information-sharing; Sup Shr E = Supervisor evaluative information-sharing; Cwk Shr E = Coworker evaluative information-sharing; Mastr-Slf = Mastery - self rating; Innov-Slf = Innovation - self rating; Infl-Slf = Workgroup influence - self rating; Mastr-Cwk = Mastery - coworker rating; Innov-Cwk = Innovation - coworker rating; Infl-Cwk = Workgroup influence - coworker rating.

$r > .12$ ,  $p < .05$ ;  $r > .16$ ,  $p < .01$ ;  $n = 253$ .

### Job Characteristics and Self-Efficacy as Antecedents to Information-Seeking

Hypotheses 12 through 43 examined the relationships between various job characteristics and the information-seeking strategies used by newcomers. In addition, these relationships were hypothesized to be moderated by self-efficacy (hypotheses 12a through 43a). However, because observation for evaluative information was dropped as a variable in this study, hypotheses pertaining to this construct could not be tested (hypotheses 18, 18a, 26, 26a, 34, 34a, 42, and 42a). Therefore, seven separate moderated hierarchical regression analyses were run, one for each of the remaining information-seeking strategies.

A similar procedure was followed for each information-seeking strategy. First, the job status variable was not a covariate in these analyses. As can be expected, and as shown in the discriminant analysis (see Table 1), the difference between professional and nonprofessional jobs is largely due to differences in job characteristics. Therefore, it was not appropriate to control for job status when the purpose of the analyses was to assess the effect of job characteristics on information-seeking.

However, for two of the analyses, time on the job was entered first into the regression equation as a covariate. Because the ANOVA results presented earlier indicated that time on the job had a significant effect on two of the strategies, the tenure variable was entered as a covariate for the following dependent variables: (1) inquiry of supervisors for functional information; and (2) inquiry of coworkers for functional information. For the remaining five analyses, time on the job was not included as a covariate. In the second step of each regression, the four job

characteristics and self-efficacy were entered to test for their linear effects on the information-seeking strategy. In step 3, the interaction between each job characteristic and self-efficacy were entered to test for the role of self-efficacy as a moderator variable.

Hypotheses 12, 12a, 20, 20a, 28, 28a, 36, and 36a. These hypotheses examined how job characteristics and self-efficacy were related to inquiry of supervisors for functional information. Results of the moderated hierarchical regression analysis to test these hypotheses are presented in Table 21. The first step in the equation, the covariate, accounted for a significant amount of variance in inquiry of supervisors for functional information. Specifically, the tenure covariate was negatively related to the use of inquiry of supervisors for functional information ( $\beta = -.19$ ). The second step in the equation accounted for a significant amount of variance in the dependent variable above that accounted for by the covariate. The specific variables contributing to this step were discretion ( $\beta = -.25$ ) and self-efficacy ( $\beta = -.14$ ), which were both negatively related to inquiry of supervisors for functional information. These results supported hypothesis 36. The third step in the regression equation, containing the interactions between job characteristics and self-efficacy, was not significant. Thus, hypotheses 12, 12a, 20, 20a, 28, 28a, and 36a were not supported by the results, although self-efficacy was related to inquiry of supervisors for functional information in the predicted direction.

Table 21

## Moderated Hierarchical Regression Results

Dependent Variable: Inquiry of Supervisor for Functional Information

| Step | Predictors                      | $\beta$ | $R^2$ | $\Delta R^2$ |
|------|---------------------------------|---------|-------|--------------|
| 1    | Tenure                          | -.19**  | .04** | .04**        |
| 2    | Self-Efficacy                   | -.14*   |       |              |
|      | Interdependence                 | .07     |       |              |
|      | Exceptions                      | .13     |       |              |
|      | Analyzability                   | .05     |       |              |
|      | Discretion                      | -.25**  | .14** | .10**        |
| 3    | Interdependence x Self-Efficacy | 1.40**  |       |              |
|      | Exceptions x Self-Efficacy      | -.62    |       |              |
|      | Analyzability x Self-Efficacy   | -.07    |       |              |
|      | Discretion x Self-Efficacy      | .44     | .17** | .03*         |

\*  $p \leq .05$ ; \*\*  $p \leq .01$ \* $p \leq .10$

Hypotheses 13, 13a, 21, 21a, 29, 29a, 37, and 37a. These hypotheses examined how job characteristics and self-efficacy were related to inquiry of coworkers for functional information. The results of the moderated hierarchical regression testing these hypotheses are presented in Table 22. The first step in the regression equation, tenure, was significant ( $\beta = -.28$ ). The second step in the regression equation was also significant. Specifically, self-efficacy had a negative relationship ( $\beta = -.18$ ) and interdependence had a positive relationship ( $\beta = .25$ ) with inquiry of coworkers for functional information. These results provided support for hypothesis 13. The third step in the equation, consisting of the interaction terms, did not reach significance. Thus, hypotheses 13a, 21, 21a, 29, 29a, 37, and 37a were not supported by the results, although self-efficacy was related to inquiry of coworkers for functional information in the predicted direction.

Hypotheses 14, 14a, 22, 22a, 30, 30a, 38, and 38a. These hypotheses examined how job characteristics and self-efficacy were related to observation for functional information. The results of this regression are presented in Table 23. The first step in the equation accounted for a significant amount of variance in the dependent variable. Specifically, interdependence ( $\beta = .36$ ) and exceptions ( $\beta = .17$ ) were positively related to observation for functional information. These results were opposite to those predicted by hypotheses 14 and 22. The second step in the equation was not significant, indicating that job characteristics and self-efficacy do not interact to predict observation for functional information. These results do not support hypotheses 14a, 22a, 30, 30a, 38, and 38a.

Table 22

## Moderated Hierarchical Regression Results

Dependent Variable: Inquiry of Coworkers for Functional Information

| Step | Predictors                      | $\beta$ | $R^2$ | $\Delta R^2$ |
|------|---------------------------------|---------|-------|--------------|
| 1    | Tenure                          | -.28**  | .08** | .08**        |
| 2    | Self-Efficacy                   | -.18**  |       |              |
|      | Interdependence                 | .25**   |       |              |
|      | Exceptions                      | .13     |       |              |
|      | Analyzability                   | -.01    |       |              |
|      | Discretion                      | -.04    | .22** | .14**        |
| 3    | Interdependence x Self-Efficacy | -.66    |       |              |
|      | Exceptions x Self-Efficacy      | -.11    |       |              |
|      | Analyzability x Self-Efficacy   | .14     |       |              |
|      | Discretion x Self-Efficacy      | -1.30*  | .25** | .03*         |

\*  $p \leq .05$ ; \*\*  $p \leq .01$ \*  $p \leq .10$

Table 23

## Moderated Hierarchical Regression Results

Dependent Variable: Observation for Functional Information

| Step | Predictors                      | $\beta$           | $R^2$ | $\Delta R^2$ |
|------|---------------------------------|-------------------|-------|--------------|
| 1    | Self-Efficacy                   | -.07              |       |              |
|      | Interdependence                 | .36**             |       |              |
|      | Exceptions                      | .17*              |       |              |
|      | Analyzability                   | .12               |       |              |
|      | Discretion                      | -.01              | .18** | .18**        |
| 2    | Interdependence x Self-Efficacy | -.38              |       |              |
|      | Exceptions x Self-Efficacy      | .46               |       |              |
|      | Analyzability x Self-Efficacy   | -.14              |       |              |
|      | Discretion x Self-Efficacy      | -.95 <sup>a</sup> | .19** | .01          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$ <sup>a</sup>  $p \leq .10$

Hypotheses 15, 15a, 23, 23a, 31, 31a, 39, and 39a. These hypotheses concerned how job characteristics and self-efficacy were related to experimentation for functional information. The results of the moderated hierarchical regression are presented in Table 24. The first step in the equation, examining the linear effects of job characteristics and self-efficacy on the dependent variable, was significant. Discretion was positively related to experimentation for functional information ( $\beta = .33$ ), as predicted by hypothesis 39. The second step in the regression, containing the interaction terms, was not significant. These results did not support hypotheses 15, 15a, 23, 23a, 31, 31a, and 39a.

Hypotheses 16, 16a, 24, 24a, 32, 32a, 40, and 40a. These hypotheses examined how job characteristics and self-efficacy were related to inquiry of supervisors for evaluative information. The results of this regression equation are presented in Table 25. The first step in the equation was statistically significant. Specifically, interdependence was positively related to inquiry of supervisors for evaluative information ( $\beta = .15$ ), as predicted by hypothesis 16. Analyzability was also positively related to inquiry of supervisors for evaluative information ( $\beta = .16$ ), in opposition to the prediction of hypothesis 32. Finally, exceptions was positively related to inquiry of supervisors for evaluative information ( $\beta = .22$ ), in support of hypothesis 24. The second step in the equation, containing the interaction terms, was not significant. These results do not support hypotheses 16a, 24a, 32, 32a, 40, and 40a.

Table 24

## Moderated Hierarchical Regression Results

Dependent Variable: Experimentation for Functional Information

| Step | Predictors                      | $\beta$           | $R^2$ | $\Delta R^2$     |
|------|---------------------------------|-------------------|-------|------------------|
| 1    | Self-Efficacy                   | .09               |       |                  |
|      | Interdependence                 | -.06              |       |                  |
|      | Exceptions                      | -.04              |       |                  |
|      | Analyzability                   | -.14 <sup>a</sup> |       |                  |
|      | Discretion                      | .33**             | .14** | .14**            |
| 2    | Interdependence x Self-Efficacy | -.27              |       |                  |
|      | Exceptions x Self-Efficacy      | 1.92**            |       |                  |
|      | Analyzability x Self-Efficacy   | 1.55*             |       |                  |
|      | Discretion x Self-Efficacy      | -.84              | .17** | .03 <sup>a</sup> |

\*  $p \leq .05$ ; \*\*  $p \leq .01$ <sup>a</sup>  $p \leq .10$

Table 25

## Moderated Hierarchical Regression Results

Dependent Variable: Inquiry of Supervisor for Evaluative Information

| Step | Predictors                      | $\beta$ | $R^2$ | $\Delta R^2$ |
|------|---------------------------------|---------|-------|--------------|
| 1    | Self-Efficacy                   | -.03    |       |              |
|      | Interdependence                 | .15*    |       |              |
|      | Exceptions                      | .22*    |       |              |
|      | Analyzability                   | .16*    |       |              |
|      | Discretion                      | -.03    | .07** | .07*         |
| 2    | Interdependence x Self-Efficacy | .51     |       |              |
|      | Exceptions x Self-Efficacy      | .27     |       |              |
|      | Analyzability x Self-Efficacy   | -.56    |       |              |
|      | Discretion x Self-Efficacy      | -.96    | .09** | .02          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$ \*  $p \leq .10$

It is surprising that exceptions and analyzability had different relationships with inquiry of supervisors for evaluative information, since they were conceptualized as two dimensions of job complexity. However, there is some indication that analyzability acted as a suppressor variable. First, it was highly intercorrelated with exceptions ( $r = -.56$ ). Further, while its intercorrelation with inquiry of supervisors for evaluative information was almost nonexistent ( $r = .02$ ), its beta-weight when entered into the regression was much stronger ( $\beta = .16$ ). The beta-weight for exceptions also increased compared to its correlation with inquiry of supervisors for evaluative information.

Hypotheses 17, 17a, 25, 25a, 33, 33a, 41, and 41a. These hypotheses focused on how job characteristics and self-efficacy were related to inquiry of coworkers for evaluative information. The results of this moderated hierarchical regression are presented in Table 26. The first step in the equation explained a significant amount of variance in the dependent variable. Interdependence was positively related to inquiry of coworkers for evaluative information ( $\beta = .29$ ), as predicted by hypothesis 17. Exceptions ( $\beta = .16$ ) was also positively related to the dependent variable, supporting hypothesis 25. The second step in the equation was not statistically significant. These results do not support hypotheses 17a, 25a, 33, 33a, 41, and 41a.

Hypotheses 19, 19a, 27, 27a, 35, 35a, 43, and 43a. These hypotheses examined how job characteristics and self-efficacy were related to experimentation for evaluative information. The results of this regression equation are presented in Table 27.

Table 26

## Moderated Hierarchical Regression Results

Dependent Variable: Inquiry of Coworkers for Evaluative Information

| Step | Predictors                      | $\beta$ | $R^2$ | $\Delta R^2$ |
|------|---------------------------------|---------|-------|--------------|
| 1    | Self-Efficacy                   | .05     |       |              |
|      | Interdependence                 | .29**   |       |              |
|      | Exceptions                      | .16*    |       |              |
|      | Analyzability                   | .05     |       |              |
|      | Discretion                      | -.04    | .12** | .12**        |
| 2    | Interdependence x Self-Efficacy | -.16    |       |              |
|      | Exceptions x Self-Efficacy      | -.06    |       |              |
|      | Analyzability x Self-Efficacy   | -1.09   |       |              |
|      | Discretion x Self-Efficacy      | -.53    | .13** | .01          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

Table 27

## Moderated Hierarchical Regression Results

Dependent Variable: Experimentation for Evaluative Information

| Step | Predictors                      | $\beta$ | $R^2$ | $\Delta R^2$ |
|------|---------------------------------|---------|-------|--------------|
| 1    | Self-Efficacy                   | .26**   |       |              |
|      | Interdependence                 | .19**   |       |              |
|      | Exceptions                      | .04     |       |              |
|      | Analyzability                   | .09     |       |              |
|      | Discretion                      | .16*    | .14** | .14**        |
| 2    | Interdependence x Self-Efficacy | -.68    |       |              |
|      | Exceptions x Self-Efficacy      | .37     |       |              |
|      | Analyzability x Self-Efficacy   | .59     |       |              |
|      | Discretion x Self-Efficacy      | -.13    | .15** | .01          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

The first step in the equation accounted for a significant amount of variance in the dependent variable. Self-efficacy was positively related to experimentation for evaluative information ( $\beta = .26$ ), in an opposite direction to that hypothesized. Discretion was positively related to experimentation for evaluative information ( $\beta = .16$ ), as predicted in hypothesis 43. Finally, interdependence was also positively related to experimentation for evaluative information ( $\beta = .19$ ), in an opposite direction to that predicted by hypothesis 19. The second step in the regression equation did not reach statistical significance. These results do not support hypotheses 19, 19a, 27, 27a, 35, 35a, and 43a.

#### Workgroup Relations and Information-Seeking

Hypotheses 45 through 53 examined how supervisor and coworker information-sharing, the leader member-exchange (LMX) relationship, and the team-member exchange (TMX) relationship, related to the newcomer's willingness to seek information through all four information-seeking strategies. Specifically, it was hypothesized that these constructs would have a positive relationship with the newcomer's information-seeking attempts. However, three hypotheses (50, 54, and 55) could not be tested because TMX and observation for evaluative information were dropped as constructs in the present analyses. For the remaining hypotheses, seven separate regression analyses were conducted, one for each of the remaining seven information-seeking strategies.

In the first step of the equation, the covariate(s) were entered. Job status was used as a covariate in all seven analyses. In addition, tenure was used as a covariate for two strategies as in the previous regression analyses: inquiry of supervisors for

functional information; and inquiry of coworkers for functional information. In the second step of the equation, the variables of interest were entered.

Hypotheses 44 and 52. Hypotheses 44 and 52 predicted that supervisor and coworker information-sharing, and leader-member exchange, would be positively related to inquiry of supervisors for functional information. Results of the regression analysis are presented in Table 28. The first step of the equation, the covariates, was statistically significant. The tenure covariate was negatively related to the dependent variable ( $\beta = -.18$ ). The second step in the equation accounted for a significant amount of variance in the dependent variable beyond that accounted for by the covariates. The results indicated that supervisor information-sharing was positively related to inquiry of supervisors for functional information ( $\beta = .69$ ). In addition, the results indicated that LMX was negatively related to inquiry of supervisors for functional information ( $\beta = -.10$ ). However, the beta weight for this variable had an opposite sign compared to the correlation between LMX and inquiry of supervisors for functional information ( $r = .12$ ). It is also clear from the intercorrelations between the predictor variables (e.g., see Table 20), that LMX was significantly related to supervisor information-sharing. Therefore, LMX was acting as a suppressor variable in this analysis. These results provide partial support for hypothesis 44; only supervisor information-sharing was found to be positively related to inquiry of supervisors for functional information. The suppressor effect found for LMX did not support hypothesis 52.

Table 28

## Moderated Hierarchical Regression Results

## Supervisor and Coworker Information-Sharing, and Leader-Member Exchange (LMX)

| Dependent Variable            | Step | Predictor                                 | $\beta$      | R <sup>2</sup> | $\Delta R^2$ |
|-------------------------------|------|-------------------------------------------|--------------|----------------|--------------|
| Inquiry Supervisor Functional | 1    | Tenure                                    | -.18**       |                |              |
|                               |      | Job Status                                | .09          | .04**          | .04**        |
|                               | 2    | Supervisor Info-Sharing <sup>a</sup>      | .69**        |                |              |
|                               |      | Coworker Info-Sharing <sup>a</sup><br>LMX | .00<br>-.10* | .47**          | .43**        |
| Inquiry Coworker Functional   | 1    | Tenure                                    | -.25**       |                |              |
|                               |      | Job Status                                | .18**        | .11**          | .11**        |
|                               | 2    | Supervisor Info-Sharing <sup>a</sup>      | .02          |                |              |
|                               |      | Coworker Info-Sharing <sup>a</sup>        | .65**        | .51**          | .40**        |
| Observation Functional        | 1    | Job Status                                | .19**        | .03**          | .03**        |
|                               |      |                                           |              |                |              |
|                               | 2    | Supervisor Info-Sharing <sup>a</sup>      | -.06         |                |              |
|                               |      | Coworker Info-Sharing <sup>a</sup>        | .60**        | .37**          | .34**        |
| Experimentation Functional    | 1    | Job Status                                | -.01         | .00            | .00          |
|                               |      |                                           |              |                |              |
|                               | 2    | Supervisor Info-Sharing <sup>a</sup>      | -.18**       |                |              |
|                               |      | Coworker Info-Sharing <sup>a</sup>        | .04          | .03*           | .03*         |

Table 28 (cont'd.)

| Dependent Variable               | Step | Predictor                            | $\beta$ | $R^2$ | $\Delta R^2$ |
|----------------------------------|------|--------------------------------------|---------|-------|--------------|
| Inquiry Supervisor<br>Evaluative | 1    | Job Status                           | .12     | .01   | .01          |
|                                  | 2    | Supervisor Info-Sharing <sup>b</sup> | .42**   |       |              |
|                                  |      | Coworker Info-Sharing <sup>b</sup>   | .27**   |       |              |
|                                  |      | LMX                                  | -.16*   | .30** | .29**        |
| Inquiry Coworker<br>Evaluative   | 1    | Job Status                           | .21**   | .04** | .04**        |
|                                  | 2    | Supervisor Info-Sharing <sup>b</sup> | -.04    |       |              |
|                                  |      | Coworker Info-Sharing <sup>b</sup>   | .71**   | .51** | .47**        |
| Experiment<br>Evaluative         | 1    | Job Status                           | .01     | .00   | .00          |
|                                  | 2    | Supervisor Info-Sharing <sup>b</sup> | .05     |       |              |
|                                  |      | Coworker Info-Sharing <sup>b</sup>   | .23**   | .06** | .06**        |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

<sup>a</sup> Functional information

<sup>b</sup> Evaluative information

**Hypothesis 45.** Hypothesis 45 examined the relationship between supervisor and coworker-information sharing and inquiry of coworkers for functional information. The results of the regression analysis are presented in Table 28. The first step in the regression equation accounted for a significant amount of variance in the dependent variable. Tenure was negatively related ( $\beta = -.25$ ) and job status was positively related ( $\beta = .18$ ) to inquiry of coworkers for functional information. The second step of the equation was also statistically significant. Coworker information-sharing was found to be positively related to inquiry of coworkers for functional information ( $\beta = .65$ ). These results provide partial support for hypothesis 45, in that only coworker information-sharing was found to be related to the dependent variable.

**Hypothesis 46.** Hypothesis 46 examined the relationship between supervisor and coworker information-sharing and observation for functional information. The regression analysis results are presented in Table 28. The first step in the equation, the job status covariate, was statistically significant ( $\beta = .19$ ). In addition, the second step in the equation also reached statistical significance. Coworker information-sharing was the important contributor to this step in the equation ( $\beta = .60$ ). These results provide partial support for hypothesis 46, in that only coworker information-sharing was found to be related to observation for functional information.

**Hypothesis 47.** Hypothesis 47 examined the relationship between supervisor sharing and coworker sharing of functional information, and experimentation for functional information. Regression results are displayed in Table 28. The first step in the equation, the job status covariate, did not reach statistical significance. The second step in the equation did account for a significant amount of variance in the dependent

variable. Supervisor information-sharing was negatively related to experimentation for functional information ( $\beta = -.18$ ). This result was opposite to what was predicted by hypothesis 47.

Hypotheses 48 and 53. Hypotheses 48 and 53 examined the relationship between supervisor sharing and coworker sharing of evaluative information, LMX, and inquiry of supervisors for evaluative information. Regression results are presented in Table 28. The first step in the equation, the job status covariate, did not reach statistical significance. The second step in the equation did reach statistical significance. Both supervisor information-sharing ( $\beta = .42$ ) and coworker information-sharing ( $\beta = .27$ ) were positively related to inquiry of supervisors for evaluative information. On the other hand, LMX was negatively related to the dependent variable ( $\beta = -.16$ ). Similar to the results for inquiry of supervisors for functional information, LMX acted as a suppressor variable in these analyses as well. The results of this regression support hypothesis 48. Hypothesis 53 was not supported.

Hypothesis 49. Hypothesis 49 examined how supervisor sharing and coworker sharing of evaluative information were related to inquiry of coworkers for evaluative information. Table 28 presents the regression results for this hypothesis. Step one, the job status covariate, was statistically significant ( $\beta = .21$ ). The second step in the equation also reached statistical significance. Coworker information-sharing was positively related to inquiry of coworkers for evaluative information ( $\beta = .71$ ). These results provide partial support for hypothesis 49, in that only coworker information-sharing was found to predict the dependent variable.

Hypothesis 51. Hypothesis 51 examined the relationship between supervisor sharing and coworker sharing of evaluative information, and experimentation for evaluative information. Regression results are presented in Table 28. The first step in the equation, the job status covariate, was not statistically significant. The second step in the equation did reach statistical significance. Coworker information-sharing was positively related to experimentation for evaluative information ( $\beta = .23$ ). These results provide partial support for hypothesis 51.

#### Information-Seeking and Socialization Outcomes

Hypotheses 56-63 examine relationships between information-seeking strategies and socialization outcomes. Coworker ratings of mastery, innovation, and workgroup influence were collected as outcome measures in these analyses. However, newcomers also provided self ratings of mastery, innovation, and workgroup influence. There was low consistency between the newcomer and coworker ratings as follows: self and coworker ratings of mastery were correlated .18; self and coworker ratings of innovation were correlated .38; and self and coworker ratings of workgroup influence were correlated .27. It was decided that the analyses for hypotheses 56-63 would be conducted twice, once using coworker ratings of the outcome variables, and once using newcomer ratings. This decision was based on the low correlations between newcomer and coworker ratings of the outcome variables. Because the hypotheses were based on past research using self ratings, it was not clear whether the same relationships would be found in the present study where there was low consistency between self and coworker outcome ratings. Therefore, the present study compared the relationships between information-seeking strategies and both coworker and

newcomer perceptions of the outcome variables. Thus, it could be determined whether the present study found similar relationships with self ratings as predicted by past socialization research, and whether these relationships would be found when an independent source provided the outcome measures.

As in the previous regression analyses, job status was first entered into each of the analyses as a covariate. In addition, tenure was also entered as a covariate for all analyses concerning socialization outcomes. It was expected that outcomes such as mastery, innovation, and workgroup influence would change with increased time on the job. Therefore, the influence of tenure was controlled before testing the study hypotheses.

Hypotheses 56-58. Hypotheses 56-58 examined the relationship between functional information-seeking strategies and mastery of the job. It was predicted that functional information-seeking across all strategies would be positively related to mastery; in addition, it was hypothesized that tenure would moderate the effect of two strategies, inquiry of supervisors and inquiry of coworkers, on mastery. The results of the moderated hierarchical regression analysis to test these hypotheses are presented in Table 29, first using self ratings of mastery as the dependent variable, next using coworker ratings as the dependent variable.

Results using self ratings of mastery indicate that the first step in the equation, the job status covariates, accounted for a significant amount of variance in the dependent variable. Tenure ( $\beta = .18$ ) was positively related, and job status ( $\beta = -.23$ ) was negatively related to self ratings of mastery. In addition, the second step in the equation, the linear effects of the information-seeking strategies, also reached statistical

Table 29

## Functional Information-Seeking and Mastery

**A. Mastery - Self Rating**

| Step | Predictors                                                                                                                         | $\beta$                       | $R^2$ | $\Delta R^2$ |
|------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------|--------------|
| 1    | Tenure<br>Job Status                                                                                                               | .18**<br>-.23**               | .10** | .10**        |
| 2    | Inquiry of Supervisor - Functional<br>Inquiry of Coworker - Functional<br>Observation - Functional<br>Experimentation - Functional | .00<br>-.24**<br>.16*<br>.13* | .15** | .05**        |
| 3    | Inquiry of Supervisor x Tenure<br>Inquiry of Coworker x Tenure                                                                     | -.24<br>.17                   | .16** | .01          |

**B. Mastery - Coworker Rating**

| Step | Predictors                                                                                                                         | $\beta$                     | $R^2$ | $\Delta R^2$ |
|------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------|--------------|
| 1    | Tenure<br>Job Status                                                                                                               | .11<br>-.09                 | .02   | .02          |
| 2    | Inquiry of Supervisor - Functional<br>Inquiry of Coworker - Functional<br>Observation - Functional<br>Experimentation - Functional | -.02<br>-.18*<br>.05<br>.06 | .05*  | .03          |
| 3    | Inquiry of Supervisor x Tenure<br>Inquiry of Coworker x Tenure                                                                     | .73**<br>-.26               | .09** | .04**        |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

significance. Experimentation ( $\beta = .13$ ) and observation ( $\beta = .16$ ) for functional information were positively related to mastery, while inquiry of coworkers for functional information ( $\beta = -.24$ ) was negatively related to mastery.

The third step in the regression equation, the interaction between tenure and inquiry of supervisors, and tenure and inquiry of coworkers, did not reach statistical significance. Hypothesis 56 had mixed support from these results, while hypotheses 57 and 58 were not supported by the results.

A different set of results was found when coworkers provided ratings of mastery. The first step in the equation did not reach statistical significance. The second step in the equation, the four information-seeking strategies, also failed to reach statistical significance. However, the third step in the regression, the interaction terms, did reach statistical significance. It was found that inquiry of supervisors and tenure had an interactive effect on mastery ( $\beta = .73$ ). Figure 3 displays the interaction. This figure indicates that, for individuals with little tenure on the job, inquiry of supervisors for functional information is negatively related to mastery. For those with greater tenure, inquiry of supervisors for functional information is positively related to task mastery. These results are directly opposite to those predicted by hypothesis 57. In addition, the results of this regression analysis did not support hypotheses 56 and 58.

Hypothesis 59. Hypothesis 59 predicted a positive relationship between all strategies for seeking evaluative information and mastery of the job. The results of the regression analyses testing this hypothesis are presented in Table 30. For analyses using self ratings as the dependent variable, the covariate block was statistically

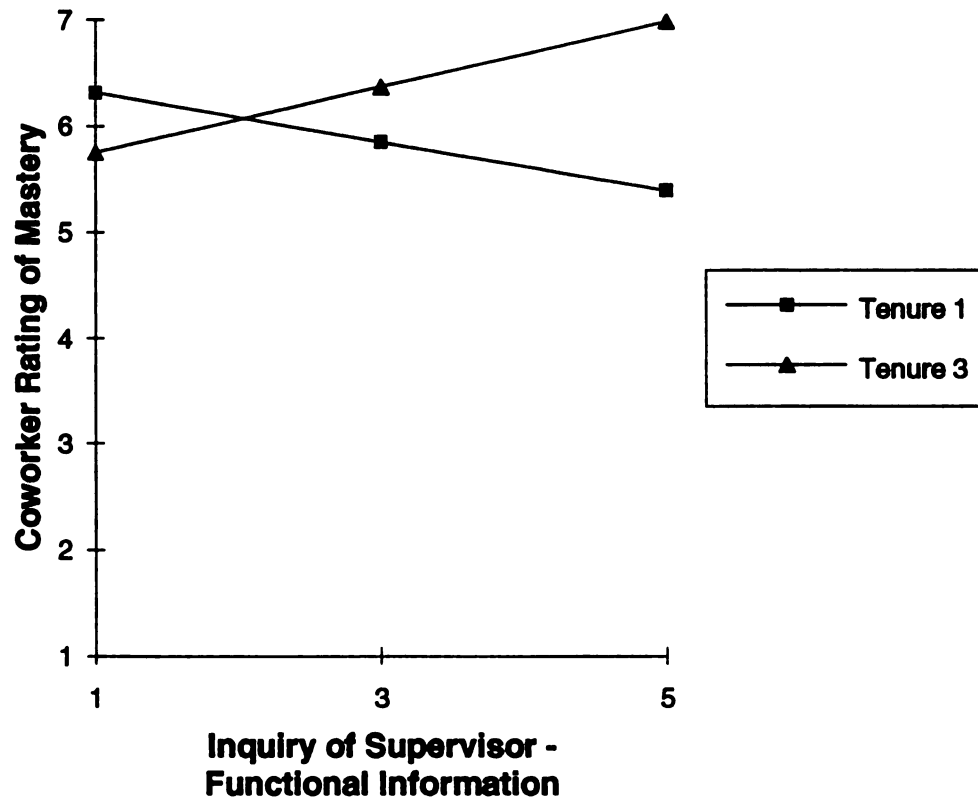


Figure 3. Inquiry of Supervisor (Functional) xTenure Interaction

Table 30

## Evaluative Information-Seeking and Mastery

**A. Mastery - Self Rating**

| Step | Predictors                                                                                             | $\beta$             | $R^2$ | $\Delta R^2$ |
|------|--------------------------------------------------------------------------------------------------------|---------------------|-------|--------------|
| 1    | Tenure<br>Job Status                                                                                   | .18**<br>-.23**     | .10** | .10**        |
| 2    | Inquiry of Supervisor - Evaluative<br>Inquiry of Coworker - Evaluative<br>Experimentation - Evaluative | .03<br>.09<br>.25** | .18** | .08**        |

**B. Mastery - Coworker Rating**

| Step | Predictors                                                                                             | $\beta$            | $R^2$ | $\Delta R^2$     |
|------|--------------------------------------------------------------------------------------------------------|--------------------|-------|------------------|
| 1    | Tenure<br>Job Status                                                                                   | .11<br>-.09        | .02   | .02              |
| 2    | Inquiry of Supervisor - Evaluative<br>Inquiry of Coworker - Evaluative<br>Experimentation - Evaluative | .00<br>.06<br>-.02 | .03*  | .00 <sup>a</sup> |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

<sup>a</sup> The  $\Delta R^2$  values do not add up to the total  $R^2$  due to rounding.

significant, as in the regression analysis for functional information-seeking. In addition, the second step in the equation, the three information-seeking strategies, also reached statistical significance. Experimentation for evaluative information ( $\beta = .25$ ) was positively related to mastery of the job. These results provide partial support for hypothesis 59.

When coworker ratings of mastery were used, no significant results for the covariates or information-seeking strategies emerged. Both the first and second steps in the regression equation failed to reach statistical significance. These results do not support hypothesis 59.

Hypothesis 60. Hypothesis 60 predicted that experimentation and observation would account for unique variance in innovation above and beyond inquiry of supervisors and coworkers, while inquiry of supervisors and coworkers would not account for unique variance in innovation beyond experimentation and observation. Two regression analyses were run, reversing the entry of the two sets of information-seeking strategies, to test these hypotheses. Table 31 presents the regression results.

When self ratings of innovation were the dependent variable, the first step in the equation reached statistical significance. Tenure ( $\beta = .28$ ) was positively related to innovation. The second step in the equation, inquiry of supervisors and coworkers for functional information, did not reach statistical significance. The third step in the equation, experimentation and observation for functional information, did account for a significant amount of variance in innovation. Experimentation for functional information ( $\beta = .23$ ) was positively related to innovation.

When the order of entry of the two sets of information-seeking strategies was reversed, observation and experimentation become the second step in the regression equation. This step did reach statistical significance, and experimentation ( $\beta = .24$ ) was positively related to innovation. In addition, the third step in the equation, inquiry of supervisors and coworkers for functional information, also reached statistical significance. Inquiry of coworkers for functional information ( $\beta = -.18$ ) was negatively related to innovation.

The failure for inquiry of coworkers to reach significance when entered first but to become significant when entered second is due to the presence of observation as a suppressor variable. Observation and inquiry of coworkers for functional information were highly intercorrelated. Observation was almost uncorrelated with innovation ( $r = -.01$ ). In addition, when it was entered first in the regression, its beta-weight was small and positive ( $\beta = .02$ ). However, when inquiry of coworkers was entered, the beta-weight for observation remained positive and became stronger ( $\beta = .12$ ). Therefore, it may have acted as a suppressor variable by removing some of the variance in inquiry of coworkers that was not associated with the dependent variable, allowing the relationship to become significant when entered last in the regression.

These results provide partial support for hypothesis 60. Experimentation for functional information did account for unique variance in innovation above and beyond that accounted for by inquiry of supervisors and coworkers. On the other hand, it was also found that inquiry of coworkers for functional information accounted for unique variance in innovation above and beyond that accounted for by

Table 31

## Functional Information-Seeking and Innovation

**A. Innovation - Self Rating**

| Step | Predictors                                                             | $\beta$       | $R^2$ | $\Delta R^2$      |
|------|------------------------------------------------------------------------|---------------|-------|-------------------|
| 1    | Tenure<br>Job Status                                                   | .28**<br>.07  | .08** | .08**             |
| 2    | Inquiry of Supervisor - Functional<br>Inquiry of Coworker - Functional | -.07<br>-.10  | .10** | .02 <sup>a</sup>  |
| 3    | Observation - Functional<br>Experimentation - Functional               | .12<br>.23**  | .16** | .06**             |
| 2    | Observation - Functional<br>Experimentation - Functional               | .02<br>.24**  | .14** | .06**             |
| 3    | Inquiry of Supervisor - Functional<br>Inquiry of Coworker - Functional | -.04<br>-.18* | .16** | .02* <sup>b</sup> |

**B. Innovation - Coworker Rating**

| Step | Predictors                                                             | $\beta$       | $R^2$ | $\Delta R^2$ |
|------|------------------------------------------------------------------------|---------------|-------|--------------|
| 1    | Tenure<br>Job Status                                                   | .24**<br>.13* | .06** | .06**        |
| 2    | Inquiry of Supervisor - Functional<br>Inquiry of Coworker - Functional | -.01<br>-.12  | .08** | .01          |
| 3    | Observation - Functional<br>Experimentation - Functional               | .01<br>.14*   | .10** | .02          |
| 2    | Observation - Functional<br>Experimentation - Functional               | -.07<br>.15*  | .09** | .03*         |
| 3    | Inquiry of Supervisor - Functional<br>Inquiry of Coworker - Functional | .01<br>-.13   | .10** | .01          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$ .<sup>a</sup> exact value = .018.<sup>b</sup> exact value = .023.

experimentation and observation. However, it was negatively related to innovation, which is consistent with the notion that individuals who rely on their own experimentation and less on other workgroup members will tend to be more innovative.

Table 31 also presents the hierarchical regression results when coworker ratings of innovation were used as the dependent variable. The first step of the equation, the covariates, did reach statistical significance. Both tenure ( $\beta = .24$ ) and job status ( $\beta = .13$ ) were positively related to innovation. The second step in the equation, inquiry of supervisors and coworkers for functional information, did not reach statistical significance. The third step in the equation, experimentation and observation for functional information, also failed to reach statistical significance.

When the order of entry of the two information-seeking strategy blocks was reversed, the second step in the equation did reach statistical significance. Experimentation for functional information ( $\beta = .15$ ) was positively related to coworker ratings of innovation. The third step in the equation, inquiry of supervisors and coworkers for functional information, did not reach statistical significance. Thus, the results for the coworker ratings of innovation were more ambiguous than those using self ratings. Specifically, experimentation and observation did not account for unique variance in innovation above and beyond inquiry of supervisors and coworkers. However, experimentation did account for a significant amount of total variance in innovation and was related to innovation in the predicted, positive direction.

Hypothesis 61. Hypothesis 61 predicted that seeking evaluative information across all strategies would be positively related to innovation. Table 32 presents the regression results testing this hypothesis. Using newcomer ratings of innovation, the first step in the equation, the covariates, was statistically significant (as in the results for hypothesis 60).

Table 32

## Evaluative Information-Seeking and Innovation

**A. Innovation - Self Rating**

| Step | Predictors                         | $\beta$ | $R^2$ | $\Delta R^2$ |
|------|------------------------------------|---------|-------|--------------|
| 1    | Tenure                             | .28**   |       |              |
|      | Job Status                         | .07     | .08** | .08**        |
| 2    | Inquiry of Supervisor - Evaluative | .05     |       |              |
|      | Inquiry of Coworker - Evaluative   | .04     |       |              |
|      | Experimentation - Evaluative       | .14*    | .11** | .03*         |

**B. Innovation - Coworker Rating**

| Step | Predictors                         | $\beta$ | $R^2$ | $\Delta R^2$ |
|------|------------------------------------|---------|-------|--------------|
| 1    | Tenure                             | .24**   |       |              |
|      | Job Status                         | .13*    | .06** | .06**        |
| 2    | Inquiry of Supervisor - Evaluative | .05     |       |              |
|      | Inquiry of Coworker - Evaluative   | .03     |       |              |
|      | Experimentation - Evaluative       | .04     | .07** | .01          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

In addition, the second step in the equation, the information-seeking strategies, also accounted for a significant amount of variance in innovation. Experimentation for evaluative information ( $\beta = .14$ ) was positively related to innovation. These results provide partial support for hypothesis 61.

When coworker ratings of innovation were used, the covariates accounted for a significant amount of variance in the dependent variable (as in the results for hypothesis 60). However, the second step in the equation did not reach statistical significance. The information-seeking strategies for evaluative information were not related to coworker ratings of innovation, providing no support for hypothesis 61.

Hypotheses 62 and 63. Hypotheses 62 and 63 predicted that mastery would be positively related to workgroup influence, and that mastery would moderate the relationship between innovation and workgroup influence, respectively. Table 33 presents the moderated hierarchical regression results testing these hypotheses.

When self ratings of the three outcome variables were used, the first step in the equation did not reach statistical significance. The second step in the equation, the linear effects of mastery and innovation, did reach statistical significance. Specifically, both mastery ( $\beta = .37$ ) and innovation ( $\beta = .15$ ) were positively related to workgroup influence. The third step in the equation, testing the interactive effects of mastery and innovation, did not reach statistical significance. These results provided support for hypothesis 62. Hypothesis 63 was not supported, although innovation was related to workgroup influence in the predicted direction.

When coworker ratings of the three outcome measures were used, similar results were obtained. The first step in the equation, the covariates, did reach statistical significance. Both tenure ( $\beta = .23$ ) and job status ( $\beta = .18$ ) were positively related to workgroup influence. In addition, the second step in the equation, the linear effects of mastery and innovation, did account for a statistically significant amount of variance in workgroup influence. Both mastery ( $\beta = .34$ ) and innovation ( $\beta = .24$ ) were positively related to workgroup influence. The third step in the equation, the interaction between mastery and innovation, did not reach statistical significance. Thus, like the analysis with self ratings, hypothesis 62 was supported and hypothesis 63 was not supported by the regression results.

Table 33

## Mastery, Innovation, and Workgroup Influence

**A. Self Ratings**

| Step | Predictors            | $\beta$       | $R^2$ | $\Delta R^2$ |
|------|-----------------------|---------------|-------|--------------|
| 1    | Tenure<br>Job Status  | .10<br>.09    | .01   | .01          |
| 2    | Mastery<br>Innovation | .37**<br>.15* | .17** | .16**        |
| 3    | Mastery x Innovation  | -.09          | .17** | .00          |

**B. Coworker Ratings**

| Step | Predictors            | $\beta$        | $R^2$ | $\Delta R^2$ |
|------|-----------------------|----------------|-------|--------------|
| 1    | Tenure<br>Job Status  | .23**<br>.18** | .07** | .07**        |
| 2    | Mastery<br>Innovation | .34**<br>.24** | .28** | .21**        |
| 3    | Mastery x Innovation  | .45            | .28** | .00          |

\*  $p \leq .05$ ; \*\*  $p \leq .01$

## DISCUSSION

The purpose of this study was to examine how new employees are active in seeking functional and evaluative information in order to adapt to their new jobs. In addition, the research was conducted to identify antecedent influences of the information-seeking process, as well as demonstrate how information-seeking is related to socialization outcomes.

### Patterns of Information-Seeking

The present study was able to shed some light on the process of newcomer adaptation. First, the research examined the relative frequency with which new employees use different information-seeking strategies. Results indicated that individuals rely differentially on information-seeking strategies for functional and evaluative information. Experimentation was the most frequently used strategy for both types of information. For functional information, coworkers were relied on more frequently than supervisors for those with very little time on the job. However, with increased tenure on the job, this difference between the frequency of inquiry of supervisors and inquiry of coworkers disappeared. These shifts in the use of strategies over time are similar to those observed in the Ostroff & Kozlowski (1992) longitudinal socialization study.

For evaluative information, supervisors were asked for information more frequently than coworkers. However, for both functional and evaluative information, the difference between inquiry of supervisors and coworkers was very small. The

more important difference seems to be that new employees rely the most on their own experimentation to learn how to perform their jobs. This certainly makes sense from a training perspective in that practice or hands-on experience is critical to learning (e.g., Baldwin & Ford, 1988; Kozlowski, Ford, & Smith, 1993).

In addition, the results indicated that inquiry of supervisors and coworkers for functional information decreased with increased time on the job. As newcomers begin to learn the basics of their job, they rely less on acquiring information from other organizational members. On the other hand, experimentation remains at its relatively high level, indicating that new employees are still trying out methods to perform their job on their own. Thus, they have become more self-sufficient in handling the demands and difficulties of their new position.

The study did not find that inquiry of supervisors and coworkers for evaluative information increased over time. Instead, it remained at a constant rate. The social costs of asking for evaluative information may prevent employees from asking for evaluative information too frequently (Ashford & Cummings, 1983). On the other hand, the present study provides a cross-sectional description of the learning process; research that examines within-person changes over time may show different results.

#### Antecedent Factors and Information-Seeking

This study also examined factors that may influence newcomer information-seeking. First, seven regression analyses examined how job characteristics and self-efficacy influenced the use of information-seeking strategies. The four information-seeking strategies were conceptualized as falling roughly into two groups: inquiry of supervisors and inquiry of coworkers as one group, and observation and

experimentation as the other group. Observation and experimentation were grouped together from a social learning perspective, and were thought to be more self-sufficient strategies than inquiry. Hypotheses suggested that certain job characteristics would make it more likely for individuals to use inquiry of supervisors and coworkers for information. In contrast, it was hypothesized that other job characteristics made it more likely for individuals to use observation and experimentation.

However, the intercorrelations between the information-seeking strategies indicated that observation was more closely related to inquiry of coworkers. It appears that, when individuals have opportunities to ask coworkers questions, they also have greater opportunities to observe the behavior of others. Thus, as the high intercorrelation between observation and inquiry of coworkers suggested, job characteristics tended to relate similarly to these two information-seeking strategies.

Results of the regression analyses found that certain job characteristics did influence information-seeking. In addition, self-efficacy did impact information-seeking where it could be expected to have its strongest influence. Specifically, interdependence was found to positively influence the following information-seeking strategies: inquiry of coworkers for functional information; observation for functional information; inquiry of supervisors for evaluative information; inquiry of coworkers for evaluative information; and experimentation for evaluative information.

The results for inquiry of supervisors and coworkers were in the direction predicted by the study hypotheses. When new employees had to interact with other employees to get work accomplished, they had more opportunities to ask questions and clear up any difficulties. In addition, there may have been social pressures due to

interdependence that urged new employees to take advantage of the opportunity to ask questions. The positive relationship found with observation for functional information is also consistent with this explanation. Individuals who interacted more frequently with others due to the nature of their jobs had more opportunities to observe their behavior.

On the other hand, interdependence was positively related to experimentation for evaluative information. It was predicted that individuals in jobs with low interdependence would have to rely more on evaluating their own performance, since they would have less opportunities to interact with others and ask for their feedback. Instead, greater interdependence led to greater self-evaluation. It may be that individuals felt more responsible for their work because other workgroup members relied on them, and thus were more proactive in evaluating themselves and insuring that they were doing a good job.

Discretion was also an important job characteristic variable that affected information-seeking. Discretion was negatively related to inquiry of supervisors for functional information, and positively related to experimentation for both functional and evaluative information. These relationships were predicted by the study hypotheses. When new employees entered jobs in which they had the latitude to determine how to accomplish work, they had to rely on their own efforts to learn the job and evaluate their work. Asking supervisors for functional information might show that they could not handle the responsibility of developing their own work methods. In addition, other sources might be unable to provide them with the required information for a job with no standard procedures. Because individuals in high

discretion jobs must rely on experimentation to learn their tasks, they are more likely to engage in role innovation.

One aspect of job complexity, exceptions, influenced the use of three information-seeking strategies. Exceptions was positively related to observation for functional information, and to inquiry of both supervisors and coworkers for evaluative information. The results for inquiry of supervisors and coworkers are consistent with a learning perspective. When new employees are presented with a wide variety of tasks they must perform as part of their job, then it is more difficult for them to determine how well they are performing. Therefore, asking their supervisor and coworkers for evaluative information may help them to understand where their job performance needs improvement. Although the positive relationship between exceptions and observation for functional information was opposite to that predicted, it is still understandable from a learning perspective. The greater the variety in the types of tasks performed, the more difficult it may be to learn the job without assistance. Watching how others handle this variety is an effective way to adapt to the job.

Analyzability was related to only one information-seeking strategy. Analyzability was positively related to inquiry of supervisors for evaluative information. This relationship was opposite to that predicted. The hypothesis predicted that, when jobs were less analyzable, individuals would be less able to understand their work and would have to rely more on the input of others to understand how well they were performing. When the job was more analyzable, individuals would understand their job duties better, and would not have to ask others for evaluative information. However, the results indicated that individuals asked

supervisors for evaluative information more frequently when jobs were more analyzable. This result is hard to explain from a learning perspective. It may be the result of the suppressor effect described in the results section. It may also be understandable from an impression management point of view (Morrison & Bies, 1991). In more complex jobs, new employees are likely to be making mistakes, and they may not want to call attention to them by asking for evaluative information. On the other hand, in less complex jobs, individuals may learn their tasks relatively quickly. They may then ask their supervisor for evaluative information more frequently to attract attention to their good performance.

Finally, self-efficacy was found to have main effects on several of the information-seeking strategies. Self-efficacy was negatively related to inquiry of supervisors and inquiry of coworkers for functional information, as predicted by the hypotheses. These results are consistent with previous research (Major & Kozlowski, 1990). In addition, self-efficacy was positively related to experimentation for evaluative information, in a direction opposite to that hypothesized.

These results indicate that, for functional information, individuals who are less confident of their ability to succeed on the job do rely more on other individuals to learn how to perform their tasks. Because they feel they do not have the expertise to succeed at their tasks, they rely on the expertise of others to show them the best way to get their work accomplished. In contrast, new employees who are more confident of their abilities rely less on other individuals to acquire functional information. They may have previous experiences similar to their new job that increase their confidence and provide them with methods to perform their jobs.

It was hypothesized that individuals low on self-efficacy would be less likely to ask others for information because of the social costs of appearing incompetent. However, it was assumed that evaluative information would still be perceived as important by newcomers, so that they would find some means to acquire it. Thus, it was expected that they would acquire this information in a less costly manner, through self-evaluation. The results seem to indicate that self-evaluation is also costly, because low self-efficacy individuals were less willing to evaluate their own performance compared to high self-efficacy individuals. Individuals who feel little confidence in their performance may avoid self-evaluations, because they know they are not doing as well as they would like. This may be problematic from the position that information-seeking leads to greater learning and mastery of the job. This failure to seek evaluative information may limit the potential for low self-efficacy individuals to improve their performance, unless supervisors and coworkers are proactive in providing evaluative information to them.

Unfortunately, the regression analyses failed to find the hypothesized interaction effects between job characteristics and self-efficacy. A major problem with the analyses was the lack of statistical power to detect these moderator relationships. A power analysis estimated that a sample size of 348 would be necessary for an 80 percent probability that a block of interactions, accounting for 3 percent of the variance, would be statistically significant ( $p < .05$ ) beyond the estimated 15 percent of the variance accounted for by the main effects of job characteristics and self-efficacy. This study attempted to obtain a sample of this size; however, the actual sample obtained was almost one-third smaller than that required by the power analysis.

In addition, the analyses failed to support many of the hypotheses specified. Statistical power was one problem. Furthermore, the information-seeking strategies were not compensatory as expected (i.e., experimentation did not compensate for the lack of opportunities for inquiry). Therefore, many of the opposing relationships for inquiry v. experimentation were not found. On the other hand, job characteristics and self-efficacy did influence the information-seeking strategies where they could be expected to have the most impact. Interdependence was found to mainly influence strategies involving interactions with others. Discretion had its major influence on experimentation. In addition, self-efficacy did have an influence on inquiry of supervisors and inquiry of coworkers, where the costs of appearing incompetent could be expected to be higher.

This research also examined how interpersonal relationships between new employees, their supervisor, and coworkers would impact their information-seeking. In general, results indicated that, when supervisors and coworkers were more proactive in providing functional and evaluative information, newcomers were more willing to actively seek this information on their own. This is consistent with research indicating that workgroups have norms for information-seeking (e.g., Dewhirst, 1971). In addition, the relationships between coworker and supervisor information-sharing and newcomer information-seeking tended to be specific to the strategy involved. For example, supervisor information-sharing was critical for inquiry of supervisors for functional information. Coworker information-sharing had a positive impact on inquiry of coworkers for both functional and evaluative information, and was the important contributor to observation for functional information as well.

On the other hand, both supervisor and coworker information-sharing positively influenced inquiry of supervisors for evaluative information. For experimentation, supervisor information-sharing was negatively related to experimentation for functional information, while coworker-information sharing was positively related to experimentation for evaluative information.

The study hypotheses were more general in their predictions, specifying that both supervisor and coworker information-sharing would be positively related to the information-seeking strategies. However, it appears that supervisor and coworker willingness to share information influence different information-seeking strategies. It is easy to explain that, for example, supervisor information-sharing should be the important influence on inquiry of supervisors. It is less easy to explain why supervisor v. coworker information-sharing has the impact on experimentation, for functional v. evaluative information, respectively.

Nonetheless, when newcomers perceive that other workgroup members are willing to share information, they are more proactive in asking for information they need. Thus, newcomers do not seek information more frequently when others fail to provide information, which might be expected from the perspective that information is a valued and scarce resource (Ashford & Taylor, 1990; Jablin, 1984). It appears instead that supervisor and coworker willingness to provide information operate more like a norm or climate for information-sharing. The one exception to this finding is that newcomers are less likely to experiment on their own when their supervisors provide them with information on how to perform their jobs. This result suggests that, if supervisors are very directive about how to accomplish work, newcomers will be

less likely to experiment and find their own methods for performing work. Thus, if supervisors are too explicit in how they want work accomplished, newcomers are less likely to be innovative on the job.

This study also hypothesized that greater leader-member exchange (LMX) relationships would lead to more frequent inquiry of supervisors for functional and evaluative information. However, the results indicated that the quality of the relationship that developed between new employees and their supervisors had little impact on information-seeking. LMX was not significantly correlated with inquiry of supervisors for functional or evaluative information, and it acted as a suppressor variable in the regression analyses. It appears that supervisor information-sharing is the important influence on the willingness of newcomers to ask their supervisor for information.

For the analyses examining how job characteristics, self-efficacy, and workgroup relationship variables affected information-seeking, the results were based on percept-percept relationships. Thus, common method bias is a concern. However, intercorrelations between job characteristics and information-seeking strategies ranged from  $-.26$  to  $.39$ . Intercorrelations between self-efficacy and information-seeking strategies ranged from  $-.27$  to  $.29$ . Finally, LMX was correlated with information-seeking strategies from  $-.06$  to  $.12$ . These intercorrelations do not appear too extreme, and the higher intercorrelations do tend to be found where hypothesized or where they make the most conceptual sense. Therefore, for these variables, method variance may be less of a concern.

On the other hand, as mentioned in the results, supervisor and coworker information-sharing were highly correlated with the information-seeking strategies of inquiry of supervisors and coworkers. The content of these variables was the same, functional and evaluative information, which may indicate a method bias problem. However, the survey instructions were explicit in indicating whether it was the newcomer who was active in asking for the information, or it was the supervisor or coworker who actively approached the new employee and provided the information. In addition, while the large relationships found between supervisor and coworker information-sharing and inquiry of supervisors and coworkers may be partly attributable to method variance, they are still consistent with recent research indicating similar results (Major, 1990; Morrison, 1992).

#### Information-Seeking and Socialization Outcomes

Analyses examining how information-seeking related to socialization outcomes was able to deal with common method bias by examining how information-seeking relates to coworker ratings of socialization outcomes. However, because past research has used self ratings of outcome measures, the analyses were run with both self and coworker ratings to determine if different results would emerge.

When self ratings of mastery were used, experimentation and observation for functional information were positively related to mastery, as predicted by the hypotheses. This is consistent with previous socialization research (Ostroff & Kozlowski, 1992). In addition, inquiry of coworkers for functional information was negatively related to mastery. This was opposite to the relationship predicted, but

consistent with Morrison's (1993) findings. In addition, the interactions between inquiry of supervisors and coworkers, and job tenure, were not significant.

Individuals who were more self-sufficient in learning their jobs through their own observation and experimentation exhibited greater mastery of the job. On the other hand, individuals who asked their coworkers for functional information more frequently exhibited lower mastery. These results are cross-sectional, and it may be that individuals who are not doing very well need to seek more assistance from their coworkers. It is unclear whether this same relationship would hold if mastery was measured at a later point in time.

When coworker ratings of mastery were the dependent variable, there were no significant main effects for information-seeking. Inquiry of supervisors did interact with job tenure to predict mastery, but in a direction opposite to that predicted. For individuals low on job tenure, inquiry of supervisors for functional information was negatively related to mastery. The relationship was positive for individuals with greater job tenure. Coworkers may perceive that individuals who rely to a greater extent on information from their supervisor do not know their job as well at the present time. However, if one were to measure mastery at a later time, these individuals may be rated as having greater mastery of their job. The information they have acquired at the present time may ultimately lead to greater mastery when measured several months later.

When self ratings were used, results indicated that experimentation for evaluative information was positively related to mastery of the job. Individuals who were more active in evaluating their own performance were also more successful at

performing their jobs. However, the results using coworker ratings of mastery indicated no significant relationships between information-seeking for evaluative information and mastery.

When examining how information-seeking for functional information was related to innovation, some significant results were found using both self and coworker ratings as dependent variables. It was hypothesized that experimentation and observation for functional information would account for unique variance in innovation above and beyond the influence of inquiry of supervisors and coworkers on innovation. When self ratings of innovation were used, experimentation for functional information accounted for unique variance in innovation. However, when the order of entry of the information-seeking strategies was reversed, inquiry of coworkers for functional information was also found to account for unique variance in innovation. As explained in the results section, inquiry of coworkers became significant when entered last in the regression because observation acted as a suppressor variable.

Experimentation for functional information was positively related to innovation, and inquiry of coworkers was negatively related to innovation. While these results did not fully support the hypotheses, they are consistent with the conceptual ideas developed in this paper. As expected, individuals who more actively experiment to learn their job find more innovative ways of performing their tasks. On the other hand, individuals who rely to a greater extent on coworkers to discover how to do their work are less likely to perform their tasks in new or innovative ways.

When coworker ratings of innovation were the dependent variable, neither group of information-seeking strategies accounted for unique variance beyond the

other group of strategies. However, experimentation for functional information did account for a significant amount of total variance in the dependent variable.

Experimentation for functional information was found to be positively related to coworker ratings of innovation.

Analyses examining the relationship between evaluative information-seeking and self ratings of innovation indicated that experimentation for evaluative information was positively related to innovation. Individuals who monitored their own performance more frequently were more innovative on the job. However, when coworker ratings of innovation were the dependent variable, no information-seeking strategies were found to significantly predict innovation.

Finally, when using both self and coworker ratings of the outcome variables, mastery and innovation were positively related to workgroup influence. However, the hypothesized interaction between mastery and innovation was not significant. Each factor had a positive main effect on workgroup influence. Individuals who had learned their jobs, and had found better ways to get their work accomplished, were able to participate in decision-making and provide suggestions to their new workgroup.

An obvious aspect of these results is that, when using self ratings of outcome measures, a number of the hypothesized relationships were found, and were consistent with previous literature on newcomer socialization and adaptation. On the other hand, few significant results were found when using coworker ratings of outcome measures. This may be partly attributable to the low reliabilities obtained when averaging the responses from two or three coworkers. This low consistency between coworkers

when rating the same newcomer decreased the power to detect any true relationships between information-seeking and socialization outcomes.

These findings also highlight the difficulty of determining who is in the best position to provide outcome ratings. For example, one may be interested in newcomer perceptions of outcome measures in order to identify those information-seeking strategies that lead new employees to consider that they have mastered their jobs to a higher degree. This would be important from the position that enhancing mastery, for example, will lead to increased self-efficacy. Several studies found that self-efficacy leads to higher performance in learning settings (e.g., Gist, 1987; Gist et al., 1989).

In contrast, the concern for method variance may require an independent source for acquiring outcome measures. Although newcomers report that coworkers are available most of the time (e.g., Louis, et al., 1983), they may not be the best source for these ratings. For example, coworkers who have been on the job longer than newcomers may use a different frame of reference when rating new employees. Even when using the same rating scale, these individuals may have different standards for excellence. In addition, supervisors have traditionally been used as the appropriate source for outcome ratings. Therefore, future research should use supervisor ratings, as well as determine whether supervisors and coworkers tend to exhibit greater consistency and agreement in their ratings than coworkers and newcomers.

Furthermore, the traditional socialization outcomes such as mastery may not necessarily be the most appropriate criteria when examining the learning process. Feldman (1989) has noted that the training and socialization literatures would benefit from integrating some of their ideas. The training literature may suggest some

alternate outcome measures to the traditional mastery criterion. For example, in the training literature, traditional behavioral measures have been joined by more recent criteria that measure cognitive outcomes such as: (1) the individual's mental models, or how their knowledge is structured and organized, and (2) metacognition, or the knowledge and regulation of one's cognitions (Kraiger, Ford, & Salas, 1993). The training literature suggests that experts and novices have different mental models of the job; this may be one explanation for the lack of consistency between newcomer and coworker ratings of outcome measures. While newcomers may have a relatively simple view of their tasks, coworkers are likely to have a much more detailed mental model of what is required on the job.

Further, when measuring skill-based outcomes, the training literature recognizes that there are stages of skill acquisition: (1) initial skill acquisition; (2) skill compilation; and (3) skill automaticity. These stages of skill acquisition can be assessed through observation, hands-on tests, and structured situational interviews (Kraiger et al., 1993). For researchers interested in the learning process during early socialization, these types of outcome measures may be more sensitive and meaningful than more general ratings scales evaluating mastery.

Nonetheless, research on newcomer socialization is difficult because there is a trade-off between capturing the learning process at a level that is generalizable, and understanding the specific learning process that occurs for individual jobs. For example, a number of early socialization studies have focused on only one job at a time (Feldman, 1989), and thus were able to use more sensitive outcome measures such as interviews and observation that were specific to the job in question. However,

if one is interested in understanding the adaptation process across a wide variety of jobs, then it is difficult to develop criteria that are sensitive to the specific challenges and difficulties of each job.

### Summary and Implications

The present study has helped to explain the process through which individuals learn and acquire information early on the job. Self-efficacy, and the job characteristics of interdependence, discretion, and exceptions, influence the strategies used by newcomers to acquire information. In addition, supervisor and coworker information-sharing were important in increasing newcomer proaction in acquiring information. Thus, supervisors and coworkers are powerful socialization agents not only in providing critical information, but also in establishing a climate where new employees feel it is acceptable to ask questions when there is something they do not understand. Organizations may want to sensitize their members to the particular needs and concerns of new employees. This will not only produce a more positive learning atmosphere, but may also facilitate the newcomer's job proficiency and assimilation into the workgroup.

This study also indicates that information-seeking is related to newcomer perceptions of mastery and innovation. Particularly important are newcomer attempts to experiment on their own and monitor and evaluate their own performance. Organizations may want to encourage new employees to experiment with methods to accomplish their tasks. If new employees are explicitly shown only one correct method for performing their jobs, they may experience less opportunities to: (1) make errors, and thus better understand their tasks, and (2) innovate and find better ways to

get their work done. The training literature suggests that practice that leads to conflicts or errors is important for triggering new learning in tasks that are error-prone, when the tasks are being performed incorrectly, and when the tasks require the individual to monitor and correct his/her performance (Kozlowski et al., 1993). Of course, this recommendation must be qualified by the type of job the new employee acquires; if the individual is in a position that is potentially dangerous or costly, then explicit and standardized work procedures would of course be required. On the other hand, in professional jobs where there can be different ways for work to be accomplished, new employees may benefit from some latitude in experimenting with their tasks. In fact, socialization researchers often suggest that innovation within an acceptable range is an indicator of effective socialization for both the individual and the organization (Feldman, 1989; Schein, 1968).

#### Directions for Future Research

While this research was successful in identifying some of the antecedents and outcomes of newcomer information-seeking, there are a number of areas where additional research is needed. One limitation of the present study is that it was cross-sectional, providing only a snapshot of the adaptation process. Longitudinal research is needed to examine how information-seeking changes over time. In addition, longitudinal research can also examine how information-seeking at an earlier point in time influences socialization outcomes measured at a later time. For example, while coworker ratings of outcome measures were not influenced much by information-seeking, it is possible that the influence may be detected over time.

In addition, several interesting moderator relationships were hypothesized between job characteristics and self-efficacy in predicting information-seeking. While the present study failed to find groups of these interactions to be significant (as evidenced by a nonsignificant  $\Delta R^2$ ), several interactions did result in significant beta-weights. For example, the beta-weight for the interaction between interdependence and self-efficacy was significant in predicting inquiry of supervisors for functional information. This interaction suggests that for individuals high on self-efficacy, the hypothesized positive relationship between interdependence and inquiry was found. However, for individuals low on self-efficacy, interdependence was negatively related to inquiry of supervisors for functional information. It may be that, for individuals who are not confident about their abilities, the more other workgroup members rely on them to get their own work done, the less willing they are to let others know of their inadequacies by asking for needed information.

The beta-weight for the interaction between discretion and self-efficacy in predicting inquiry of coworkers for functional information was also statistically significant. For individuals high on self-efficacy, the hypothesized negative relationship between discretion and inquiry of coworkers for functional information was found. For individuals low on self-efficacy, the relationship between discretion and inquiry of coworkers for functional information was positive. It is possible that newcomers who are low on self-efficacy may find jobs high in discretion to be stressful; they probably feel little confidence in their ability to develop their own work procedures and would rather rely on seasoned incumbents who they perceive to have

more expertise. Individuals high on self-efficacy may welcome the challenge of a job high in discretion, and rely less on the help of coworkers in learning their jobs.

Two interactions evidenced significant beta-weights in predicting experimentation for functional information. First, exceptions and self-efficacy interacted to predict experimentation. For individuals low on self-efficacy, the hypothesized negative relationship between exceptions and experimentation for functional information was found. For individuals high on self-efficacy, exceptions was positively related to experimentation for functional information. Individuals low on self-efficacy may find jobs high in variety to be too demanding early on the job; therefore, they may be less able to figure out on their own how to perform their tasks. On the other hand, individuals who are confident in their abilities may be able to handle greater task variety by trying out work methods on their own.

The interaction between analyzability and self-efficacy also showed a significant beta-weight in predicting experimentation for functional information. For individuals low on self-efficacy, analyzability was negatively related to experimentation for functional information, in an opposite direction to that hypothesized. For individuals high on self-efficacy, there appeared to be no relationship between analyzability and experimentation for functional information. Individuals who were highly self-efficacious engaged in relatively high levels of experimentation for functional information, regardless of the degree of job analyzability. In contrast, for individuals low on self-efficacy, it was necessary to engage in high levels of experimentation for functional information when the job was not easily analyzable.

In sum, these interactions suggest some interesting relationships between job characteristics and information-seeking that change depending on the newcomer's self-efficacy. However, the present study had insufficient statistical power to detect these relationships. In addition, the present study hypothesized interactions between all job characteristics and self-efficacy, for all information-seeking strategies. Future research should examine more precise hypotheses that take into account the specific job characteristic and information-seeking strategy in question.

There are a number of other directions for future research to take. For example, this study focused on only two types of information that newcomers acquire, functional and evaluative information related to their jobs. New employees must also acquire information about relationships with their supervisor and coworkers, and about the organization's politics, culture, and values (e.g., Chao, O'Leary, Walz, Klein, & Gardner, 1990; Ostroff & Kozlowski, 1992). Research should examine the strategies individuals use to acquire these additional types of information.

Research should also continue to examine individual differences in the use of information-seeking strategies. The present study indicated that self-efficacy is an important individual difference factor that impacts information-seeking. Two constructs identified as part of the "big five" personality dimensions may also influence how individuals seek information (e.g., Barrick & Mount, 1991). First, conscientiousness may lead to greater information-seeking across all strategies. Second, openness to experience may be an important predictor of an individual's willingness to experiment in a new job. In sum, the present study is just an initial step in understanding how newcomers acquire information, and the factors that

produce differences in information-seeking. Future research should continue to identify information that is important to new employees, and the strategies for acquiring this information that lead to effective adaptation and socialization.

## APPENDICES

## APPENDIX A

**Inquiry of Supervisor - Functional Information Items**

To what extent do you:

1. Ask your supervisor **how to** complete the duties of your job.
2. Ask your supervisor **how to** perform your tasks.
3. Ask your supervisor **how to** accomplish the different parts of your job.
4. Ask your supervisor **how to** establish priorities for your work.\*
5. Ask your supervisor **how to** deal with problems on your job.
6. Ask your supervisor **how to** use equipment and materials necessary to perform your job.
7. Ask your supervisor **how to** do your job.

**Note.** \*Item deleted from the final inquiry of supervisor for functional information scale.

The rating scale ranged from (1) = very infrequently to (5) = very frequently.

## APPENDIX B

Inquiry of Supervisor - Evaluative Information Items

To what extent do you:

1. Ask your supervisor **how well** you are doing on the job.
2. Ask your supervisor **how well** you have established procedures to get your work done.
3. Ask your supervisor **how well** you are meeting your job responsibilities.
4. Ask your supervisor **how well** you are succeeding in meeting your work objectives.
5. Ask your supervisor **how well** you handle difficulties on the job.
6. Ask your supervisor **how well** you are performing your tasks and duties.
7. Ask your supervisor **how well** you are performing on the job.

Note. The rating scale ranged from (1) = very infrequently to (5) = very frequently.

## APPENDIX C

**Inquiry of Coworkers - Functional Information Items**

To what extent do you:

1. Ask your coworkers **how to** handle problems on the job.<sup>a</sup>
2. Ask your coworkers **how to** use equipment and materials necessary to do your job.<sup>a</sup>
3. Ask your coworkers **how to** divide your time among different parts of your job.<sup>a</sup>
4. Ask your coworkers **how to** perform your tasks.
5. Ask your coworkers **how to** do your work.
6. Ask your coworkers **how to** establish priorities for your work.<sup>a</sup>
7. Ask your coworkers **how to** complete your job duties.

**Note.** <sup>a</sup>Items deleted from the final inquiry of coworkers for functional information scale.

The rating scale ranged from (1) = very infrequently to (5) = very frequently.

## APPENDIX D

**Inquiry of Coworkers - Evaluative Information Items**

To what extent do you:

1. Ask your coworkers **how well** you have established methods for getting your work done.\*
2. Ask your coworkers **how well** you handle your job duties.
3. Ask your coworkers **how well** you are performing your tasks.
4. Ask your coworkers **how well** you are performing on the job.
5. Ask your coworkers **how well** you are doing on the job.
6. Ask your coworkers **how well** you are succeeding in meeting work objectives.
7. Ask your coworkers **how well** you are meeting the requirements of your job.

**Note.** \*Item deleted from the final inquiry of coworkers for evaluative information scale.

The rating scale ranged from (1) = very infrequently to (5) = very frequently.

## APPENDIX E

**Observation - Functional Information Items**

To what extent do you:

1. Observe the behavior of others to find out **how to** handle your job responsibilities.
2. Observe those around you to learn **how to** divide your time among different parts of your job.
3. Observe how others work to discover **how to** perform your tasks.
4. Observe your coworkers to find out **how to** use the equipment and materials necessary to do your work.
5. Observe others to determine **how to** establish priorities for your assignments.
6. Observe your coworkers handling problems to find out **how to** handle difficulties on the job.

**Note.** The rating scale ranged from (1) = very infrequently to (5) = very frequently.

## APPENDIX F

**Observation - Evaluative Information Items**

To what extent do you:

1. Observe your coworkers doing their jobs to find out **how well** you are performing your tasks.
2. Observe how your coworkers act towards you to discover **how well** they think you have learned your job.
3. Determine **how well** you are meeting the responsibilities of your job by comparing your performance to that of your coworkers.
4. Observe the performance of others to compare **how well** you are doing on the new job to them.
5. Observe how your boss rewards others to understand **how well** he/she would evaluate your work.
6. Observe how others behave towards you to determine **how well** they think you are performing.

**Note:** This scale was deleted from the final analyses based on factor analysis results.

The rating scale ranged from (1) = very infrequently to (5) = very frequently.

## APPENDIX G

**Experimentation - Functional Information Items**

To what extent do you:

1. Experiment on your own to find out **how to** do your job.
2. Experiment on your own to discover **how to** complete your job duties.
3. Experiment to discover **how to** solve any problems with tasks or assignments on your own.
4. Experiment on your own to learn **how to** use the equipment and materials necessary to do your job.
5. Experiment to find out **how to** perform your tasks.
6. Experiment to learn **how to** accomplish the different parts of your job.

**Note:** The rating scale ranged from (1) = very infrequently to (5) = very frequently.

## APPENDIX H

**Experimentation - Evaluative Information Items**

To what extent do you:

1. Evaluate your own work to determine **how well** you are meeting your work objectives.
2. Evaluate **how well** you are accomplishing the responsibilities of your job.
3. Evaluate your performance of tasks and duties to determine **how well** you are doing on the job.
4. Evaluate **how well** you have learned your tasks.
5. Evaluate **how well** you are performing on the job.
6. Evaluate yourself in terms of **how well** you handle difficulties that arise on the job.

**Note:** The rating scale ranged from (1) = very infrequently to (5) = very frequently.

## APPENDIX I

**Self-Efficacy Items**

1. I am prepared to function effectively on this job because of my past experience.
2. Previous experience has taught me that I can meet my current work responsibilities.
3. My past experiences and accomplishments increase my confidence that I can perform successfully in this organization.
4. Prior training and experience gives me assurance that I can accomplish my work goals.
5. I believe that I will be successful in my new position based on past experience and performance.
6. I feel confident in my skills and ability to perform my job duties based on past experiences.

**Note:** Items 5 and 6 were developed and added to the original Major (1990) 4-item scale.

The rating scale ranged from (1) = strongly disagree to (5) = strongly agree.

## APPENDIX J

**Interdependence Items**

To what extent:

1. Must your job activities be coordinated with those of your workgroup?
2. Do you depend on others to complete their work before you can get your own work done?
3. Do you have to work with your workgroup to get your job done?
4. Do the tasks you perform require you to check with or collaborate with others in your workgroup?
5. Do other workgroup members depend on your work in order to complete their own tasks?
6. Do you have to talk to other workgroup members to get your job done?
7. Is the work you do a result of the combined efforts of several individuals?
8. Do the tasks you perform require you to work with your coworkers?

**Note:** Items 2, 6, and 8 were developed and added to the original Major (1990) five-item scale.

Respondents answered these items on a five-point scale ranging from (1) = very little extent to (5) = very great extent.

## APPENDIX K

## Complexity Items

Exceptions

To what extent:

1. Are your tasks the same from day-to-day?
2. Do you do about the same job in the same way most of the time?
3. Do you basically perform repetitive activities in doing your job?
4. Would you say your work is routine?
5. Are your duties repetitious?

Analyzability

To what extent:

1. Is there an understandable sequence of steps that can be followed in carrying out your work?
2. Is there a clearly defined body of knowledge of subject matter which can guide you in doing your work?
3. Is there an understandable sequence of steps that can be followed in doing your work?
4. Can you actually rely on established procedures and practices to do your work?
5. Is there a clearly known way to do the major types of work you normally encounter?

Note. Respondents answered these items on a five-point scale ranging from (1) = very little extent to (5) = very great extent.

## APPENDIX L

**Discretion Items**

To what extent:

1. Does your job provide you freedom to act independently of your boss?
2. Do you have the freedom to choose the order in which different parts of your job are done?
3. Does your job allow you to set your own work targets/objectives?
4. Can you choose the pace at which you work?
5. Can you choose whom you deal with in order to carry out your job duties?\*
6. Are you allowed to decide how to schedule your work?
7. Are you able to choose the methods you use to do your work?

**Note.** Items 4, 6, and 7 were developed and added to the scale.

\*Item deleted from final discretion scale based on factor analysis results.

Respondents answered these items on a five-point scale ranging from (1) = very little extent to (5) = very great extent.

## APPENDIX M

**Supervisor Functional Information-Sharing Items**

How frequently:

1. Does your supervisor give you information on how to perform your job?
2. Does your supervisor tell you how to complete your job duties?
3. Does your supervisor share information with you on how to deal with problems on the job?<sup>a</sup>
4. Does your supervisor give you information on how to meet your job responsibilities?
5. Does your supervisor explain to you how to use the equipment necessary to perform your job?
6. Does your supervisor describe to you how to perform your tasks?

**Note.** <sup>a</sup>This item was deleted from the final supervisor functional information-sharing scale based on factor analysis results.

Respondents answered these items on a five-point scale ranging from (1) = very infrequently to (5) = very frequently.

## APPENDIX N

**Supervisor Evaluative Information-Sharing Items**

How frequently:

1. Does your supervisor indicate how well you are meeting your job responsibilities?
2. Does your supervisor share with you how well you are performing your tasks?
3. Does your supervisor tell you how well you are succeeding in meeting your work goals?
4. Does your supervisor tell you how well you are doing on the job?
5. Does your supervisor inform you about how well you are handling difficulties on your job?
6. Does your supervisor tell you how well you are performing your assignments?

**Note.** Respondents answered these items on a five-point scale ranging from (1) = very infrequently to (5) = very frequently.

## APPENDIX O

**Coworker Functional Information-Sharing Items**

How frequently:

1. Do your coworkers give you information on how to perform your job?
2. Do your coworkers tell you how to complete your job duties?
3. Do your coworkers share information with you on how to deal with problems on the job?
4. Do your coworkers give you information on how to meet your job responsibilities?
5. Do your coworkers tell you how to use the equipment necessary to perform your job?
6. Do your coworkers describe to you how to perform your tasks?

**Note.** Respondents answered these items on a five-point scale ranging from (1) = very infrequently to (5) = very frequently.

## APPENDIX P

**Coworker Evaluative Information-Sharing Items**

How frequently:

1. Do your coworkers indicate how well you are meeting your job responsibilities?
2. Do your coworkers share with you how well you are performing your tasks?
3. Do your coworkers tell you how well you are succeeding in meeting your work goals?
4. Do your coworkers tell you how well you are doing on the job?
5. Do your coworkers inform you about how well you are handling difficulties on your job?
6. Do your coworkers tell you how well you are performing your assignments?

**Note.** Respondents answered these items on a five-point scale ranging from (1) = very infrequently to (5) = very frequently.

## APPENDIX Q

Leader-Member Exchange Items

1. Do you usually feel that you know where you stand or do you usually know how satisfied your immediate supervisor is with what you do?  
(4)       —       Always know where I stand  
(3)       —       Usually know where I stand  
(2)       —       Seldom know where I stand  
(1)       —       Never know where I stand
2. How well do you feel that your immediate supervisor understands your problems and needs?  
(4)       —       Completely  
(3)       —       Well enough  
(2)       —       Some, but not enough  
(1)       —       Not at all
3. How well do you feel that your immediate supervisor recognizes your potential?  
(4)       —       Fully  
(3)       —       As much as the next person  
(2)       —       Some, but not enough  
(1)       —       Not at all
4. Regardless of how much formal authority your immediate supervisor has built into his or her position, what are the chances that he or she would be personally inclined to use power to help you solve problems in your work?  
(4)       —       Certainly would  
(3)       —       Probably would  
(2)       —       Might or might not  
(1)       —       No chance
5. Again, regardless of the amount of formal authority your immediate supervisor has, to what extent can you count on him or her to "bail you out" at his or her expense when you really need it?  
(4)       —       Certainly would  
(3)       —       Probably would  
(2)       —       Might or might not  
(1)       —       No chance

## APPENDIX Q (cont'd.)

6. I have enough confidence in my immediate supervisor that I would defend and justify his or her decisions if he or she were not present to do so.

|     |   |                 |
|-----|---|-----------------|
| (4) | — | Certainly would |
| (3) | — | Probably would  |
| (2) | — | Maybe           |
| (1) | — | Probably not    |

7. How would you characterize your relationship with your immediate supervisor?

|     |   |                     |
|-----|---|---------------------|
| (4) | — | Extremely effective |
| (3) | — | Better than average |
| (2) | — | About average       |
| (1) | — | Less than average   |

## APPENDIX R

**Team-Member Exchange Items**

1. How often do you make suggestions about better work methods to coworkers?  
(4)     \_\_\_     Almost always  
(3)     \_\_\_     Fairly often  
(2)     \_\_\_     Seldom  
(1)     \_\_\_     Almost never
  
2. Do other members of your workgroup usually let you know when you do something that makes their jobs easier (or harder)?  
(4)     \_\_\_     Almost always  
(3)     \_\_\_     Fairly often  
(2)     \_\_\_     Seldom  
(1)     \_\_\_     Almost never
  
3. How often do you let coworkers know when they have done something that makes your job easier (or harder)?  
(4)     \_\_\_     Almost always  
(3)     \_\_\_     Fairly often  
(2)     \_\_\_     Seldom  
(1)     \_\_\_     Almost never
  
4. How well do other members of your workgroup recognize your potential?  
(5)     \_\_\_     Fully  
(4)     \_\_\_     Quite a bit  
(3)     \_\_\_     Some  
(2)     \_\_\_     A little  
(1)     \_\_\_     Not at all
  
5. How well do other members of your workgroup understand your problems and needs?  
(4)     \_\_\_     Not at all  
(3)     \_\_\_     Some but not enough  
(2)     \_\_\_     Well enough  
(1)     \_\_\_     Completely

## APPENDIX R (cont'd.)

6. How flexible are you about switching job responsibilities to make things easier for your coworkers?
- |     |   |                                                      |
|-----|---|------------------------------------------------------|
| (4) | — | I'm always willing to switch                         |
| (3) | — | I'm usually willing to switch                        |
| (2) | — | I'm reluctant, but will switch when I really have to |
| (1) | — | I'm not willing to switch                            |
7. In busy situations, how often do your coworkers ask you to help out?
- |     |   |               |
|-----|---|---------------|
| (4) | — | Almost always |
| (3) | — | Usually       |
| (2) | — | Seldom        |
| (1) | — | Almost never  |
8. In busy situations, how often do you volunteer your efforts to help others in your workgroup?
- |     |   |               |
|-----|---|---------------|
| (4) | — | Almost always |
| (3) | — | Usually       |
| (2) | — | Seldom        |
| (1) | — | Almost never  |
9. How willing are you to help finish work that had been assigned to others?
- |     |   |                                                  |
|-----|---|--------------------------------------------------|
| (4) | — | Not willing -- they should finish their own work |
| (3) | — | Might or might not                               |
| (2) | — | Probably would                                   |
| (1) | — | Certainly would                                  |
10. How willing are other members of your workgroup to help finish work that was assigned to you?
- |     |   |                    |
|-----|---|--------------------|
| (4) | — | Not willing        |
| (3) | — | Might or might not |
| (2) | — | Probably would     |
| (1) | — | Certainly would    |

Note. This scale was deleted from the data analyses based on factor analysis results.

## APPENDIX S

Mastery Items

## COWORKER SURVEY

1. The newcomer has learned how to perform all the tasks required by the job.\*
2. The newcomer is competent in carrying out his/her job assignments.
3. The new employee completes tasks in a timely manner.
4. The newcomer has developed a good "system" for performing his/her duties.
5. The newcomer has acquired sufficient knowledge to perform duties without help.\*
6. The newcomer has mastered the "ins and outs" of the job.\*
7. The newcomer is achieving what is expected of him/her on the job.
8. The new employee is successfully meeting his/her job responsibilities.

## NEWCOMER SURVEY

1. I have learned how to perform all the tasks required by my job.\*
2. I am competent in carrying out my job assignments.
3. I complete my tasks in a timely manner.
4. I have developed a good "system" for performing my duties.
5. I have acquired sufficient knowledge to perform my duties without help.\*
6. I have mastered the "ins and outs" of my job.\*
7. I am achieving what is expected of me on the job.
8. I am successfully meeting my job responsibilities.

Note: \*Items were deleted from the final mastery scale based on factor analysis results.

Rating scale ranged from (1) = strongly disagree to (7) = strongly agree.

## APPENDIX T

Innovation Items

## COWORKER SURVEY

1. The new employee has made an attempt to redefine his/her role and change what he/she is required to do.
2. The newcomer has changed the mission or purpose of his/her role.
3. The new employee performs the job according to normal procedures.\*
4. The newcomer has tried to change the procedures for doing his/her job and to institute new work goals.
5. The new employee has added new responsibilities to his/her role.
6. The newcomer has developed new methods for getting work accomplished.
7. The newcomer has attempted to change the tasks he/she is required to do as part of his/her job.

## NEWCOMER SURVEY

1. I have made an attempt to redefine my role and change what I am required to do.
2. I have changed the mission or purpose of my role.
3. The procedures for performing my job are generally appropriate in my view.\*
4. I have tried to change the procedures for doing my job and to institute new work goals.
5. I have added new responsibilities to my role.
6. I have developed new methods for getting my work accomplished.
7. I have attempted to change the tasks I am required to do as part of my job.

Note: \*Item deleted from final innovation scale based on factor analysis results.

Rating scale ranged from (1) = not at all to (5) = to a great extent.

## APPENDIX U

Workgroup Influence Items

## NEWCOMER SURVEY

1. My supervisor uses my advice.
2. My coworkers or supervisor ask me for advice.
3. My work group includes me in decisions about our work.
4. My coworkers act on my suggestions.
5. My supervisor accepts my suggestions about work.
6. My coworkers accept my ideas for how work can be done better.
7. My supervisor asks me for input on decisions.
8. My supervisor listens to my ideas for improving my job.

## COWORKER SURVEY

1. The supervisor uses advice from the newcomer.
2. Coworkers ask the new employee for advice.
3. The work group includes the newcomer in decisions about work.
4. The work group acts on the newcomers suggestions.
5. The supervisor accepts the new employee's suggestions about work.
6. Coworkers accept the newcomer's ideas for how work can be done better.
7. The supervisor asks the new employee for input on decisions.
8. The supervisor listens to the newcomer's ideas for improving his/her job.

Note: Rating scale ranged from (1) = strongly disagree to (7) = strongly agree.

## APPENDIX V

## Study Analyses

**ANALYSIS 1 - 3 (Strategy) x 2 (Content) x 3 (Time on the Job) ANOVA**

**Hypothesis 1.** A three-way interaction between information content (functional, evaluative), information-seeking strategy, and time on the job will affect information-seeking.

**Hypothesis 2.** Newcomers will use experimentation more frequently than inquiry of coworkers and inquiry of supervisors to acquire functional information.

**Hypothesis 3.** Newcomers will use observation more frequently than inquiry of coworkers and inquiry of supervisors to acquire functional information.

**Hypothesis 4.** Newcomers will inquire of coworkers for functional information to a greater extent than inquiring of supervisors for functional information.

**Hypothesis 5.** Newcomers will use experimentation more frequently than inquiry of supervisors and inquiry of coworkers to acquire evaluative information.

**Hypothesis 6.** Newcomers will use observation more frequently than inquiry of supervisors and inquiry of coworkers to acquire evaluative information.

**Hypothesis 7.** Newcomers will inquire of supervisors for evaluative information to a greater extent than inquiring of coworkers for evaluative information.

**Hypothesis 8.** Inquiry of supervisors for functional information will decrease with greater time on the job.

**Hypothesis 9.** Inquiry of coworkers for functional information will decrease with greater time on the job.

**Hypothesis 10.** Inquiry of supervisors for evaluative information will increase with greater time on the job.

**Hypothesis 11.** Inquiry of coworkers for evaluative information will increase with greater time on the job.

## APPENDIX V (cont'd.)

**ANALYSIS 2 - MODERATED HIERARCHICAL REGRESSION**

**Hypothesis 12.** Task interdependence will be positively related to inquiry of supervisors for functional information.

**Hypothesis 12a.** This relationship will be moderated by the newcomer's self-efficacy. For low self-efficacy individuals, a strong, positive relationship between task interdependence and inquiry of supervisors for functional information is expected; for high self-efficacy individuals this relationship should be weaker.

**Hypothesis 20.** Exceptions (variety) will be positively related to inquiry of supervisors for functional information.

**Hypothesis 20a.** Self-efficacy will moderate this relationship. Exceptions will be positively related to inquiry of supervisors for functional information for individuals low on self-efficacy. For individuals high on self-efficacy, the relationship should be weaker.

**Hypothesis 28.** Analyzability will be positively related to inquiry of supervisors for functional information.

**Hypothesis 28a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, analyzability will be negatively related to inquiry of supervisors for functional information. For high self-efficacy individuals, the relationship will be weaker.

**Hypothesis 36.** Discretion will be negatively related to inquiry of supervisors for functional information.

**Hypothesis 36a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, discretion will be positively related to inquiry of supervisors for functional information. For high self-efficacy individuals, the relationship will be negative.

**ANALYSIS 3 - MODERATED HIERARCHICAL REGRESSION**

**Hypothesis 13.** Task interdependence will be positively related to inquiry of coworkers for functional information.

**Hypothesis 13a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, a strong, positive relationship between task interdependence and inquiry of coworkers for functional information is expected; for high self-efficacy individuals this relationship should be weaker.

## APPENDIX V (cont'd.)

**Hypothesis 21.** Exceptions (variety) will be positively related to inquiry of coworkers for functional information.

**Hypothesis 21a.** Self-efficacy will moderate this relationship. Exceptions will be positively related to inquiry of coworkers for functional information for individuals low on self-efficacy. For individuals high on self-efficacy, the relationship should be weaker.

**Hypothesis 29.** Analyzability will be negatively related to inquiry of coworkers to a greater extent for functional information.

**Hypothesis 29a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, analyzability will be negatively related to inquiry of coworkers for functional information. For high self-efficacy individuals, the relationship will be weaker.

**Hypothesis 37.** Discretion will be negatively related to inquiry of coworkers for functional information.

**Hypothesis 37a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, discretion will be positively related to inquiry of coworkers for functional information. For high self-efficacy individuals, the relationship will be negative.

#### **ANALYSIS 4 - MODERATED HIERARCHICAL REGRESSION**

**Hypothesis 14.** Task interdependence will be negatively related to observation for functional information.

**Hypothesis 14a.** Newcomer self-efficacy will moderate this relationship. For individuals with low self-efficacy, there should be a negative relationship between task interdependence and observation for functional information. For high self-efficacy individuals, task interdependence should have no relationship to observation for functional information.

**Hypothesis 22.** Exceptions (task variety) will be negatively related to observation for functional information.

**Hypothesis 22a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, exceptions should be negatively related to observation to acquire functional information. For high self-efficacy individuals, exceptions should be positively related to observation for functional information.

## APPENDIX V (cont'd.)

**Hypothesis 30.** Analyzability will be positively related to observation for functional information.

**Hypothesis 30a.** Self-efficacy will moderate this relationship. Analyzability will be positively related to observation for functional information for low self-efficacy individuals. The relationship will be negative for high self-efficacy individuals.

**Hypothesis 38.** Discretion will be positively related to observation for functional information.

**Hypothesis 38a.** Self-efficacy will moderate this relationship. Discretion will be negatively related to observation for functional information for low self-efficacy individuals. For high self-efficacy individuals, the relationship will be positive.

### **ANALYSIS 5 - MODERATED HIERARCHICAL REGRESSION**

**Hypothesis 15.** Task interdependence will be negatively related to experimentation for functional information.

**Hypothesis 15a.** Self-efficacy will moderate this relationship. For individuals with low self-efficacy, there should be a negative relationship between task interdependence and experimentation for functional information. For high self-efficacy individuals, task interdependence should have no relationship to experimentation for functional information.

**Hypothesis 23.** Exceptions will be negatively related to experimentation for functional information.

**Hypothesis 23a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, exceptions should be negatively related to experimentation to acquire functional information. For high self-efficacy individuals, exceptions should be positively related to experimentation for functional information.

**Hypothesis 31.** Analyzability will be positively related to experimentation for functional information.

**Hypothesis 31a.** Self-efficacy will moderate this relationship. Analyzability will be positively related to experimentation for functional information for low self-efficacy individuals. The relationship will be negative for high self-efficacy individuals.

## APPENDIX V (cont'd.)

**Hypothesis 39.** Discretion will be positively related to experimentation for functional information.

**Hypothesis 39a.** Self-efficacy will moderate this relationship. Discretion will be negatively related to experimentation for functional information for low self-efficacy individuals. For high self-efficacy individuals, the relationship will be positive.

**ANALYSIS 6 - MODERATED HIERARCHICAL REGRESSION**

**Hypothesis 16.** Task interdependence will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 16a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, task interdependence will be negatively related to inquiry of supervisors for evaluative information. For high self-efficacy individuals, task interdependence will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 24.** Exceptions (variety) will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 24a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, exceptions will be negatively related to inquiry of supervisors for evaluative information. For high self-efficacy individuals, exceptions will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 32.** Analyzability will be negatively related to inquiry of supervisors for evaluative information.

**Hypothesis 32a.** Self-efficacy will moderate this relationship. For individuals low on self-efficacy, analyzability will be positively related to inquiry of supervisors for evaluative information. For high self-efficacy individuals, the relationship will be negative.

**Hypothesis 40.** Discretion will be positively related to inquiry of supervisors for evaluative information.

**Hypothesis 40a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, the relationship between discretion and inquiry of supervisors for evaluative information will be negative. For high self-efficacy individuals, the relationship will be positive.

## APPENDIX V (cont'd.)

**ANALYSIS 7 - MODERATED HIERARCHICAL REGRESSION**

**Hypothesis 17.** Task interdependence will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 17a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, task interdependence will be negatively related to inquiry of coworkers for evaluative information. For high self-efficacy individuals, task interdependence will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 25.** Exceptions (variety) will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 25a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, exceptions will be negatively related to inquiry of coworkers for evaluative information. For high self-efficacy individuals, exceptions will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 33.** Analyzability will be negatively related to inquiry of coworkers for evaluative information.

**Hypothesis 33a.** Self-efficacy will moderate this relationship. For individuals low on self-efficacy, analyzability will be positively related to inquiry of coworkers for evaluative information. For high self-efficacy individuals, the relationship will be negative.

**Hypothesis 41.** Discretion will be positively related to inquiry of coworkers for evaluative information.

**Hypothesis 41a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, the relationship between discretion and inquiry of coworkers for evaluative information will be negative. For high self-efficacy individuals, the relationship will be positive.

**ANALYSIS 8 - MODERATED HIERARCHICAL REGRESSION**

**Hypothesis 18.** Task interdependence will be negatively related to observation for evaluative information.

**Hypothesis 18a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, interdependence should have no relationship to observation for evaluative information. For individuals high on self-efficacy, there should be a negative relationship between interdependence and observation for evaluative information.

## APPENDIX V (cont'd.)

**Hypothesis 26.** Exceptions will be negatively related to observation for evaluative information.

**Hypothesis 26a.** Self-efficacy will moderate this relationship. Exceptions will be negatively related to observation for evaluative information for low self-efficacy individuals. Exceptions will be positively related to observation for evaluative information for high self-efficacy individuals.

**Hypothesis 34.** Analyzability will be positively related to observation for evaluative information.

**Hypothesis 34a.** Self-efficacy will moderate this relationship. Analyzability will be positively related to observation for evaluative information for low self-efficacy individuals. For high self-efficacy individuals, the relationship will be negative.

**Hypothesis 42.** Discretion will be positively related to observation for evaluative information.

**Hypothesis 42a.** Self-efficacy will moderate this relationship. For high self-efficacy individuals, discretion will be positively related to observation for evaluative information. For low self-efficacy individuals, the relationship will be weaker.

**ANALYSIS 9 - MODERATED HIERARCHICAL REGRESSION**

**Hypothesis 19.** Task interdependence will be negatively related to experimentation for evaluative information.

**Hypothesis 19a.** Self-efficacy will moderate this relationship. For low self-efficacy individuals, interdependence should have no relationship to experimentation for evaluative information. For individuals high on self-efficacy, there should be a negative relationship between interdependence and experimentation for evaluative information.

**Hypothesis 27.** Exceptions will be negatively related to experimentation for evaluative information.

**Hypothesis 27a.** Self-efficacy will moderate this relationship. Exceptions will be negatively related to experimentation for evaluative information for low self-efficacy individuals. Exceptions will be positively related to experimentation for evaluative information for high self-efficacy individuals.

## APPENDIX V (cont'd.)

**Hypothesis 35.** Analyzability will be positively related to experimentation for evaluative information.

**Hypothesis 35a.** Self-efficacy will moderate this relationship. Analyzability will be positively related to experimentation for evaluative information for low self-efficacy individuals. For high self-efficacy individuals, the relationship will be negative.

**Hypothesis 43.** Discretion will be positively related to experimentation for evaluative information.

**Hypothesis 43a.** Self-efficacy will moderate this relationship. For high self-efficacy individuals, discretion will be positively related to experimentation for evaluative information. For low self-efficacy individuals, the relationship will be weaker.

**ANALYSIS 10 - REGRESSION**

**Hypothesis 44.** Supervisor sharing and coworker sharing of functional information will be positively related to the extent to which the newcomer seeks functional information through inquiry of supervisors.

**Hypothesis 52.** Individuals who report a higher quality LMX relationship will be more likely to inquire of supervisors for functional information.

**ANALYSIS 11 - REGRESSION**

**Hypothesis 45.** Supervisor sharing and coworker sharing of functional information will be positively related to the extent to which the newcomer seeks functional information through inquiry of coworkers.

**Hypothesis 54.** Individuals who report a higher quality TMX relationship will be more likely to inquire of coworkers for functional information.

**ANALYSIS 12 - REGRESSION**

**Hypothesis 46.** Supervisor sharing and coworker sharing of functional information will be positively related to the extent to which the newcomer seeks functional information through observation.

## APPENDIX V (cont'd.)

**ANALYSIS 13 - REGRESSION**

**Hypothesis 47.** Supervisor sharing and coworker sharing of functional information will be positively related to the extent to which the newcomer seeks functional information through experimentation.

**ANALYSIS 14 - REGRESSION**

**Hypothesis 48.** Supervisor sharing and coworker sharing of evaluative information will be positively related to the extent to which the newcomer seeks evaluative information through inquiry of supervisors.

**Hypothesis 53.** Individuals who report a higher quality LMX relationship will be more likely to inquire of supervisors for evaluative information.

**ANALYSIS 15 - REGRESSION**

**Hypothesis 49.** Supervisor sharing and coworker sharing of evaluative information will be positively related to the extent to which the newcomer seeks evaluative information through inquiry of coworkers.

**Hypothesis 55.** Individuals who report a higher quality TMX relationship will be more likely to inquire of coworkers for evaluative information.

**ANALYSIS 16 - REGRESSION**

**Hypothesis 50.** Supervisor sharing and coworker sharing of evaluative information will be positively related to the extent to which the newcomer seeks evaluative information through observation.

**ANALYSIS 17 - REGRESSION**

**Hypothesis 51.** Supervisor sharing and coworker sharing of evaluative information will be positively related to the extent to which the newcomer seeks evaluative information through experimentation.

## APPENDIX V (cont'd.)

**ANALYSIS 18 - REGRESSION**

**Hypothesis 56.** Individuals who seek functional information to a greater extent (across all strategies) will exhibit greater mastery of the job.

**Hypothesis 57.** Time on the job will moderate the relationship between inquiry of supervisors for functional information and mastery. With little time on the job, inquiry of supervisors for functional information should be positively related to mastery. With greater time on the job, inquiry of supervisors for functional information should be negatively related to mastery.

**Hypothesis 58.** Time on the job will moderate the relationship between inquiry of coworkers for functional information and mastery. With little time on the job, inquiry of coworkers for functional information should be positively related to mastery. With greater time on the job, inquiry of coworkers for functional information should be negatively related to mastery.

**ANALYSIS 19 - REGRESSION**

**Hypothesis 59.** Individuals who seek evaluative information to a greater extent (across all strategies) will exhibit greater mastery of the job.

**ANALYSIS 20 - HIERARCHICAL REGRESSION**

**Hypothesis 60.** The use of observation and experimentation above and beyond the use of inquiry of supervisors and coworkers to acquire functional information should be positively related to innovation; the use of inquiry of supervisors and coworkers beyond observation and experimentation to acquire functional information should not have a unique impact on innovation.

**ANALYSIS 21 - REGRESSION**

**Hypothesis 61.** Newcomers who seek evaluative information to a greater extent (across all strategies) will exhibit greater levels of innovation on the job.

## APPENDIX V (cont'd.)

**ANALYSIS 22 - REGRESSION**

**Hypothesis 62.** Mastery will be positively related to workgroup influence.

**Hypothesis 63.** Mastery will moderate the relationship between innovation and workgroup influence. Innovation will be positively related to workgroup influence for individuals high on task mastery; innovation should have no relationship to workgroup influence for individuals low on task mastery.

## APPENDIX W

Principle Axis Factor Matrix for Observation  
and Coworker Sharing of Functional Information

|               | Factor     |            |
|---------------|------------|------------|
|               | 1          | 2          |
| Cowork Func6  | <u>.80</u> | .29        |
| Cowork Func1  | <u>.79</u> | .29        |
| Cowork Func4  | <u>.79</u> | .20        |
| Cowork Func2  | <u>.75</u> | .30        |
| Cowork Func3  | <u>.69</u> | .24        |
| Cowork Func5  | <u>.65</u> | .27        |
| Observe Func5 | .21        | <u>.83</u> |
| Observe Func3 | .28        | <u>.79</u> |
| Observe Func2 | .24        | <u>.72</u> |
| Observe Func6 | .24        | <u>.70</u> |
| Observe Func4 | .30        | <u>.66</u> |
| Observe Func1 | .30        | <u>.65</u> |
| EIGEN VALUE   | 6.4        | 1.7        |

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