Technical Report 1144

Identifying and Validating a Model of Interpersonal Performance Dimensions

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14. ABSTRACT *(Maximum 200 words)*:

Current models of job performance recognize its multidimensional nature but do not provide a comprehensive picture of the interpersonal requirements of jobs. As a first step toward developing a more cogent and comprehensive understanding of interpersonal performance, a taxonomy of the interpersonal requirements of jobs was developed and validated. An extensive literature review of interpersonal performance behaviors was conducted to develop a proposed taxonomy of interpersonal performance. Two studies were then completed to validate the proposed taxonomy. In the first study empirical evidence for the taxonomy was gathered using a content analysis of critical incidents taken from a job analysis. In the second study, confirmatory factor analysis was used to recreate the model based on ratings of the importance of and time spent on each interpersonal performance behavior identified in the model. Raters represented a variety of Army jobs and ranks. Confirmatory factor analyses supported the proposed taxonomy. Results also indicated that the criticality of several dimensions of interpersonal performance increased with increasing enlisted ranks. The importance of the results toward the identification of predictors of interpersonal performance is discussed.

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Personnel Performance
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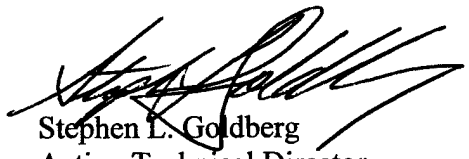
FOREWORD

The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) conducts research on manpower, personnel performance, leader development and training in support of Army goals. New and increasing demands are being placed on the Army including a need for adaptive responses within changing cultural settings. As the Army transitions to meet the demands of the new millennium, Soldiers will need to effectively make use of all resources available to them to meet Army missions. ARI has a number of research efforts in progress to help the Army with these new requirements. One effort, labeled PerforM21, focuses on developing a Soldier performance assessment system for the 21st century. One element of performance that has been identified as critical for current and future performance requirements is interpersonal performance.

The objective of the present research is to provide better definition to the interpersonal performance criterion space, comprehensively identifying performance requirements that involve interacting with others and using the social environment to achieve goals within a work setting. The model of interpersonal performance developed in this research can be used to define training requirements in the area of interpersonal skills and to identify selection tools that can predict success in jobs requiring interpersonal performance.



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IDENTIFYING AND VALIDATING A MODEL OF INTERPERSONAL PERFORMANCE DIMENSIONS

EXECUTIVE SUMMARY

Research Requirement:

As the United States fights the global war against terrorism, the missions required of the Armed Forces are complex and variable. Soldiers who are fighting one day using tactical and navigational skills may need interpersonal and intercultural awareness skills the next in order to maintain a delicate balance of peace. Current models of job performance recognize multiple dimensions of performance, but they do not provide a comprehensive description of the interpersonal performance criterion space. A detailed description of the elements of interpersonal performance is required to ensure that we can adequately assess interpersonal performance, as well as provide performance feedback, develop training programs, and identify predictors of success in this domain. As a first step toward developing a more comprehensive understanding of interpersonal performance, a taxonomy of the interpersonal requirements of jobs was developed.

Procedure:

An extensive literature review of interpersonal performance behaviors was conducted to develop a proposed taxonomy of interpersonal performance. Two studies were completed to validate the proposed taxonomy. In the first study empirical evidence for the taxonomy was gathered by content analyzing a database of critical incidents of interpersonal performance. Over 1,000 critical incidents previously collected from U.S. Army Special Forces Soldiers for a job analysis were examined to identify dimensions of interpersonal job performance. The interpersonal critical incidents were then sorted by a team into the dimensions of the proposed taxonomy of interpersonal performance to provide a preliminary validation of the model.

In the second study, the model was empirically validated using a sample of 431 U.S. Army Soldiers representing a range of military occupational specialties (MOS) and ranks. Behaviorally-based items were developed based on the critical incidents used in the initial sorting task. Participants were asked to rate the importance of and time spent on each interpersonal performance behavior. These ratings were then weighted and combined to create a criticality score for each behavior. Confirmatory factor analysis of these criticality scores was predicted to recreate the proposed model.

Findings:

Results indicated that overall, Soldiers from all MOS and ranks rated interpersonal performance factors as important. Interestingly, when responses were compared across ranks, results showed significant differences in the criticality of several dimensions of interpersonal performance for different ranks. These differences showed that for the enlisted Soldiers, dimensions such as influencing others, coordinating, and informing increased in importance

from entry level to senior level Soldiers. For the most part, the behaviors that increased in importance are those that are particularly important for leaders. Confirmatory factor analyses supported the proposed taxonomy. Evidence for model fit was provided by the significance and magnitude of the hypothesized paths, fit indices, as well as the significantly better fit of the hypothesized model than alternative models.

Utilization of Findings:

This research provides definition to the criterion space of interpersonal performance and provides a foundation to identify competencies and processes that lead to interpersonal performance. Future research can use these dimensions as criteria to develop effective training programs as well as selection systems that focus on interpersonal performance.

Identifying and Validating a Model of Interpersonal Performance Dimensions

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Introduction

With the end of the Cold War, the U.S. Army began facing the challenge of defending the United States in a radically altered world, and this adjustment to a changing world is ongoing. The role that the U.S. Army and its Soldiers are being called upon to play in this new world order requires an expanded skill set, including interpersonal skills such as the ability to manage and leverage social relationships, use personal and institutional influence in productive ways, and form cooperative relationships that maximize benefits toward the goals of the Army and the United States.

In 1993 the Chief of Staff of the Army established the U.S. Army Peacekeeping Institute, highlighting the Army's response to a changing world. According to Colonel Mark Walsh (1996), assistant professor at the U.S. Army War College, when managing peace operations in the field, those involved need a set of interpersonal competencies which include team building skills, the ability to reduce interpersonal friction, an understanding of social conditions, and the ability to connect and cooperate with peace keeping partners such as volunteer organizations and other nongovernmental organizations.

In addition to their importance for successful peacekeeping operations, social skills are critical for the success of special operations units such as Army Special Forces. For example, Special Forces Soldiers work in team settings, and often work away from direct supervision of their chain of command. They serve as diplomats and teachers, working closely with people from other countries to train indigenous forces, assist host nation forces, and provide humanitarian assistance. Meeting their missions requires social skills such as intercultural sensitivity, the ability to build relationships, skill in communication, and the ability to motivate others.

Leadership is another area of critical importance as the Army seeks to adapt effectively to the changing world. Successful leadership depends on interpersonal skills. Dr. Roderick Magee II (1998), professor at the U.S. Army War College, lists several interpersonal competencies as necessary for successful leadership in the Army including the ability to build consensus within an organization, the ability to negotiate with external agencies or organizations to shape the external environment, and the ability to communicate effectively both within and between organizations.

Despite the importance of interpersonal interactions for performance, little progress has been made in theory-building and research involving interpersonal skill in work settings. Although theories and research about interpersonal skill have appeared for decades, a cohesive understanding of the construct has not emerged. Interpersonal skill, social skill, social knowledge, social competence, and social intelligence are all common terms, and it is unclear whether they refer to the same construct or where the conceptual differences between the constructs lie. The inability to define and even consistently name the construct of interpersonal skill reflects an incomplete understanding of the construct. The problem of defining the construct is so pronounced that many social skill researchers refrain from giving a specific definition of interpersonal skill, instead offering a discussion of issues and conceptual questions (Becker & Heimberg, 1988; Ruisel, 1991). The lack of clear definition

of the interpersonal skill construct or constructs has resulted in problems in measurement and interpretation (Jones & Day, 1995). Few researchers have been able to identify significant predictors of interpersonal behaviors, and those that have generally find low predictive validities (e.g. Jones & Day, 1997; Riggio & Throckmorton, 1988).

Our inability to develop consensus on an understanding of interpersonal skill and to identify predictors of interpersonal behaviors is likely the result of, at least in part, a lack of identification and understanding of organizationally relevant interpersonal behaviors. Without an understanding of the interpersonal behaviors that are part of effective job performance, it is difficult to identify those psychological constructs and processes that lead to effective interpersonal performance. The comprehensive review of the literature on interpersonal performance for the current research found no published work that presents a validated model of interpersonal job performance behaviors.

In addition, researchers attempting to predict interpersonal performance often focus the much greater portion of their efforts on developing predictors rather than criteria (e.g. Lowman & Leeman, 1988, Riggio & Throckmorton, 1988). It is not surprising that a lack of focus on the criterion results in low or insignificant predictive validities when considered within a classic construct validity framework. Without a careful and accurate identification of the performance domain, the identification of predictor samples of behaviors is problematic. In addition to the identification of effective predictors, careful delineation of the performance domain can lead to greater understanding of interpersonal phenomena. As Guion (1998) states, clarity in understanding the constructs that criteria represent provides clarity for the meaning of predictions. Therefore, understanding the interpersonal performance requirements of jobs is the first step toward developing a better understanding of interpersonal skill constructs and identifying effective predictors of interpersonally-skilled behavior. The purpose of this research is to develop and validate a taxonomy of interpersonal job performance behaviors.

Current Models of Job Performance

Current models of job performance recognize its multidimensional nature but do not fully capture interpersonal performance dimensions. Campbell et al. (1993) propose a hierarchical model of job performance with eight dimensions at the most general level. The eight dimensions are as follows: job-specific task proficiency, non-job specific task proficiency, written and oral communication, demonstrating effort, maintaining personal discipline, maintaining peer and team performance, supervision/leadership, and management/administration.

In addition to the Campbell et al. model (1993), Borman and Motowidlo describe a two-dimensional model of performance including task and contextual performance (1993). Task performance includes those behaviors that contribute either directly or indirectly to the technical core. Contextual performance includes those behaviors that support the organizational, social, and psychological environment in which the technical core functions.

As Campbell et al. (1993) suggest, their model represents the beginning stages of work in understanding the latent structure of performance, and future work will most likely reveal even more meaningful ways to understand job performance. Recently, for example, Pulakos et al. (2000) suggested an addition to previous descriptions of job performance in the area of adaptability. Using content analysis techniques, Pulakos et al. examined critical incidents of job performance to create a taxonomy of adaptive job performance. They then empirically confirmed their proposed taxonomy using the Job Adaptability Inventory (JAI), which was developed based on their eight dimensions of adaptive job performance.

Just as the work of Pulakos et al. (2000) begins to meet the growing need to understand and enhance adaptability in organizations, the development of a taxonomy of interpersonal performance will provide a framework to understand and enhance employees' abilities to interact effectively with others and use their social environments to facilitate organizational goal attainment.

While aspects of interpersonal performance are included in the Campbell et al. (1993) and Borman and Motowidlo (1993) taxonomies, these models were designed to provide a general description of job performance. To provide this description with necessary parsimony the dimensions of performance are broad. Aspects of interpersonal performance are described in the Campbell et al. (1993) and Borman and Motowidlo (1993) models as subsets of other elements of performance. This provides a useful summary of overall job performance; however, these models were not intended to provide a comprehensive model of interpersonal performance with discrete, measurable dimensions, in the same way that they were not intended to provide a comprehensive model of adaptive performance.

For example, the leadership/supervision dimension of the Campbell et al. (1993) model includes several aspects of interpersonal performance such as coaching, modeling, and providing reinforcement. While potentially related, these three dimensions are not completely overlapping. How well a supervisor coaches other employees may differ from how well that supervisor models appropriate behaviors. Identifying criterion at appropriate levels of specificity for the predictors is important in order to enhance our understanding of predictor-criterion linkages and possibly generate greater validities in the prediction of performance (Dunnette, 1963). Therefore it is important to group similar behaviors together in modeling the interpersonal performance domain in order to provide clarity and maximize the power of predictors.

A model of interpersonal behaviors is needed that defines the elements of interpersonal performance that are relevant for successful performance in an organization. The model must comprehensively identify performance requirements that involve interacting with others and using the social environment to achieve goals in a work setting. An initial model framework will be developed based on relevant behaviors identified in the research literature. Behaviors found in the literature will be included in the model if the behavior in some way makes use of the social environment for the purposes of attaining organizational goals.

These behaviors will then be organized to form the categories of a taxonomy based on similarity of function. First and second-order categories will be identified based on the

behaviors in the list and constructs found in the literature. Once the taxonomy is developed we will assess its validity in two ways. First by sorting a series of critical incidents into the established categories and examining the reliability of the raters in using the taxonomy categories. Second, by collecting ratings based on the scales and using confirmatory factor analysis to evaluate the fit of data to the taxonomic structure. The following section describes in more detail the development of the taxonomy, and the subsequent section will describe the validation.

Model Development

Several sectors of literature were searched to find ways in which employees use their social environment to facilitate organizational goal attainment. Articles, book chapters, and books dealing with social intelligence (e.g. Ford & Tisak, 1983; Marlow, 1986; Sarason, 1986; Wong, Day, Maxwell, & Meara, 1995), social psychology (e.g. Fiske & Taylor, 1991; Bandura, 1986; Zimbardo & Leippe, 1991), general business strategies (e.g. Peters & Austin, 1985; Sayles, 1979), and leadership (e.g. Yukl, 1998; Mintzberg, 1973; Bass, 1998; House, 1971; MacKenzie, 1969) were reviewed. The leadership literature in particular provided a rich area for identifying interpersonal performance behaviors given that much of what leaders do involves working with others.

A list of relevant interpersonal behaviors was developed, and behaviors were included in the list if the action described made use of the social environment for the purposes of attaining an organizational goal. In total, 274 behaviors from 54 sources were identified (see Appendix A). Elimination of highly redundant behaviors (e.g. leadership and leading others) left a total of 167 unique interpersonal behaviors. The redundant behaviors and the number of times they were listed can be found in Table 1. While the complexities of human social environments create the potential for an infinite number of unique interpersonal performance behaviors, we believe the behaviors in this list are sufficiently extensive to provide a broad representation of all relevant categories of interpersonal performance behavior. The next task was to identify categories of interpersonal behaviors based on the behaviors in the list and the literature.

Upon preliminary examination of the 167 identified behaviors at least two distinct categories of interpersonal performance were apparent. The first type reflected individuals impacting the behavior of others, labeled "Affecting/Influencing Others." With this type of interpersonal performance, individuals sought to affect the behavior of others in order to facilitate attaining organizational goals. For example, a manager might affect employees' behavior by helping them set performance goals, providing rewards, or establishing control systems. A manager might impact a peer's behavior through logical argumentation or negotiation. The second category of interpersonal performance involved creating a social network, with behaviors that reflected building relationships with others that facilitate job performance, labeled "Building and Maintaining Relationships." Examples of these behaviors include showing consideration, supporting others, and networking. These two categories of performance are consistent with two of the four categories that Yukl (1998) uses to describe managerial activity – Influencing Others and Building and Maintaining Relationships.

Table 1.

Redundant Interpersonal Behaviors.

Behavior	Number of times behavior appears
1. Arbitration	2
2. Coaching	2
3. Consideration of others	2
4. Disciplines	2
5. Helping others	2
6. Influencing others	2
7. Motivate subordinates	2
8. Punishing	2
9. Representing	2
10. Set standards	2
11. Supporting	2
12. Define goals	3
13. Evaluating	3
14. Obtain information	3
15. Monitoring	3
16. Persuading	3
17. Leading	4
18. Training	4
19. Coordinating	5
20. Informing	5
21. Being cooperative	6
22. Delegating	6
23. Developing	6
24. Directing	6
25. Acting assertively	6
26. Managing conflict	6
27. Negotiating	6
28. Staffing	6
29. Controlling	7
30. Motivating	7
31. Rewarding	7
32. Supervising	7
33. Communicating	9

The Affecting/Influencing Others dimension is quite broad and was further split into two dimensions representing distinct types of behavior – energizing the behavior of others and directing the behavior of others, labeled Energizing Behavior and Directing Behavior, respectively. Energizing behavior refers to serving as the impetus for behavior and includes such actions as using incentives, reward, or flattery in order to stimulate performance. Directing behavior refers to guiding behavior that is already in progress and includes such actions as clarifying work roles or establishing feedback systems. This resulted in three model dimensions: Building and Maintaining Relationships, Energizing Behavior, and Directing Behavior.

Exchanging Information was identified as a fourth interpersonal performance dimension, referring to information exchange that involves communicating with others. When communication is involved, exchanging information is interpersonal performance because the social environment is being used to gain or disseminate information in order to facilitate organizational goals. This category is distinct from the other three in that it refers to exchanging information in order to inform or be informed. It does not refer to communicating with others in order to energize behavior, direct behavior, or build and maintain relationships.

Of the 167 interpersonal performance behaviors several were identified that did not fit into this initial four–dimensional categorization scheme, such as, "selecting the most effective individual for a specific function" and "allocating personnel resources." Individuals can assist in organizational goal attainment by structuring their social environment in ways that facilitate individual, group, and organizational performance. Staffing is the primary mechanism through which individuals in organizations can create social environments that maximize performance benefits. Staffing refers to effectively matching the qualities of individuals to the demands of the work setting. Thus, Staffing provides a fifth category of interpersonal performance, creating a five-dimensional taxonomy – Building and Maintaining Relationships, Energizing behavior, Directing behavior, Exchanging information, and Staffing.

Within each of these categories, the behaviors that refer to using the social environment to attain organizational goals are considered interpersonal performance. There are, however, behaviors in each of these categories that will not be considered part of interpersonal performance because they do not refer to using the social environment for organizational goal attainment. For example, some activities associated with Staffing do not involve the use of the social environment and are therefore not an example of interpersonal performance.

Sixteen first-order factors within the five categories (Building and Maintaining Relationships, Energizing Behavior, Directing Behavior, Exchanging Information, and Staffing) were identified by examining the 167 examples of interpersonal performance and by searching the literature for theoretically-based means of categorizing the behavior. The five second-order factors, and 16 first-order factors are defined and discussed in the following paragraphs, beginning with Energizing Behavior, followed by Directing Behavior, Exchanging Information, Building and Maintaining Relationships, and last, Staffing.

Energizing Behavior

Energizing Behavior refers to stimulating goal-directed behavior in others. This second-order factor includes any action that utilizes the social environment to energize the behavior of others towards organizational goal attainment. Two bodies of literature were especially helpful in understanding how individuals energize behavior: research on rewards, contingent rewards (e.g. Yammarino & Bass, 1990) and operant conditioning (Lutz, 1994), as well as research on influence tactics (e.g. Yukl & Falbe, 1990; Yukl & Tracey, 1992).

Both proactive and reactive tactics can be used to energize behavior (Yukl, 1998). Reactive strategies are used after a behavior has been executed and serve to reinforce that behavior. Proactive strategies involve influencing an individual to engage in a desired behavior. Reward, a reactive approach, and influence, a proactive approach, are two strategies for energizing behavior (Cascio, 1991; Yukl & Falbe, 1990). These first-order factors are discussed in the paragraphs below.

Rewarding others. Reward as a mechanism for energizing behavior is consistent with the principle of operant conditioning that the consequences of a behavior serve to reinforce that behavior (Lutz, 1994). Podsakoff, Todor, Grover, & Huber (1984) reviewed the literature on contingent rewards and found that contingent rewards usually increase subordinate performance. Subsequent research on contingent reward also found a relationship between reward and desired outcomes (e.g. Yammarino & Bass, 1990; Yukl, Wall, & Lepsinger, 1990). Rewarding refers to providing praise, appreciation, tangible rewards, or whatever an individual desires for effective performance, significant achievements, special contributions, or demonstrated competence.

Influencing others. Yukl and colleagues (Yukl & Falbe, 1990; Yukl & Tracey, 1992) identified nine proactive influence tactics characterized by attempts to energize the behavior of others. Each of these behaviors is intended to influence target commitment to a task, plan, or activity and can be directed toward supervisors, peers, or subordinates. There are nine influence tactics in all. However, three types of influence behaviors, coalition tactics, legitimating tactics, and pressure, seldom result in target commitment (Yukl, 1998). Because job performance refers only to those behaviors that contribute to organizational goals (Campbell et al., 1993), the six influence tactics that potentially result in target commitment will be considered part of the Influencing Others factor in the interpersonal performance taxonomy. These six are rational persuasion, inspirational appeal, consultation, ingratiation, personal appeal, and exchange (Yukl & Falbe, 1990; Yukl & Tracey, 1992; Yukl, 1998).

Directing Behavior

Directing Behavior is the second higher-order factor in the taxonomy. Directing Behavior refers to maintaining the goal directedness of behavior once it is energized. The leadership literature was particularly helpful in identifying ways in which individuals guide and direct the behavior of others. Seven distinct behaviors were identified from various leadership and management sources (e.g. MacKenzie, 1969; Mintzberg, 1973; Yukl, 1998). These behaviors are Coordinating, Clarifying, Training and Developing, Managing Perceptions, Negotiating, Building and Maintaining Relationships Among Others, and Controlling.

Coordinating. Both Mintzberg (1973) andYukl (1998) include coordinating as an important responsibility for managers. Morse and Wagner (1978) found that managers who organize and coordinate better were given higher job performance ratings by colleagues. Coordinating refers to directing the behavior of others so that they function in a smooth concerted way. It can include such behaviors as orienting individuals to their social environment, structuring work in such a way that activities and work coincide effectively, and bringing about the congruence of goals.

Clarifying. Clarifying is important when there is role ambiguity or role conflict for employees in an organization and it has been repeatedly linked to managerial effectiveness (Yukl, 1998). Clarifying also plays a role in goal setting theory. Locke & Latham (1990) have demonstrated that setting difficult goals that are also specific results in better performance. In addition, clarifying is an important element of the path-goal theory of leadership. According to House (1971), leaders help subordinates achieve work-related success by clarifying the path to goal achievement. Clarifying refers to making roles, tasks, plans, objectives, performance expectations, responsibilities, or values clear and understandable to others.

Training and developing. Training is highly valued by organizations. Goldstein (1993) lists several statistics that highlight the importance of training to organizations. He states that 91% of Fortune 500 firms provide training for management and that industrial corporations spend 40 billion a year on training programs. Training and Developing is defined as promoting the growth of, fostering the potential of, or developing the skills, concepts, or attitudes of others that result in improved performance. It can involve both formal training and more informal training in the form of coaching or mentoring.

Managing perceptions. Perception is important in the workplace. How one's self, workgroup, or organization is perceived impacts the behavior of others. Lord and Smith (1999) argue that the perception of an individual as a leader is at the heart of successful leadership. Influencing the perceptions of others then becomes key to effective leadership. In addition, creating a favorable impression can lead to several organizational benefits such as being hired for a job or receiving large orders from customers (Giacalone & Rosenfeld, 1989). Managing Perceptions refers to directing and influencing the observations and awareness of others. It can include such activities as promoting company image, conducting promotional activities, and communicating about the nature of one's self, unit or organization to others.

Negotiating. Negotiation has a long history of importance in job performance. Mintzberg (1973) included negotiating as one of his ten managerial roles. Bass (1990) states that negotiation about the distribution of effort and rewards between leaders and followers is necessary for successful organizational performance. Negotiating refers to the use of bargaining to resolve conflict or the bringing about of a solution through discussion and compromise. It can include resolving disputes with unions, customers, suppliers, consultants, peers, supervisors, or subordinates.

Managing Others' Relationships. Relationships within an organization are important for the organizations to function effectively. Interpersonal cohesion, or the degree to which positive interpersonal relationships exist among members of a group, has been shown to relate to task commitment, frequency of interactions among group members, and success on tasks requiring

group interaction (Zaccaro & Lowe, 1986; Zaccaro & McCoy, 1988) In order to work effectively, employees generally must interact with one another, with the amount of interpersonal interaction ranging from seldom to minute-to-minute contact. To the extent that good relationships are maintained, work will be facilitated. Therefore one way in which employees can use the social environment to aid in organizational goal attainment is to maintain and enhance relationships among others. Managing Others' Relationships refers to building, improving, or sustaining the relationships among co-workers, members of a group or team, subordinates, or individuals in other units. It can include maintaining group cohesiveness, managing differences among people, maintaining communication among others, team building, and facilitating interactions.

Controlling. Control is important for managers because it aids in the adjustment of subordinate behavior to correspond with organizational goals. In 1967, MacKenzie included control as one of five important managerial functions. Controlling refers to regulating the activities of others. This factor includes such behaviors as enforcing rules and procedures, maintaining discipline, advising, monitoring performance, setting performance standards, and establishing reporting systems.

Exchanging Information

The third second-order factor in the taxonomy is Exchanging Information. Exchanging Information refers to both disseminating information to and gathering information from others. While some behaviors in the Directing Others factor require exchanging information, the difference between the Directing Others and Exchanging Information factors is that Exchanging Information refers solely to facilitating work by gathering or disseminating necessary information. In contrast, Directing Others involves using information to direct and channel behavior. Both the academic management literature (e.g. Yukl, 1998; Mintzberg, 1973) and the popular business literature (Peters & Austin, 1985) provided sources for understanding the importance of information exchange in organizations. Exchanging Information has two first-order factors – Informing and Gathering Information.

Informing. Research suggests that informing is an important part of job performance. Mintzberg (1973) describes part of a manager's role as functioning as a "nerve center" in the communication network. According to Peters and Austin (1985), managers who keep their subordinates informed are more effective than those who do not. Informing is likely an important part of job performance for non-managers as well. For example, non-managers may need to provide product information to clients or keep peers informed about the status of projects on which they are working. Informing refers to communicating to others knowledge needed to do their work. It can include providing oral and written information, responding to information requests, and editing information appropriately for the person receiving it.

Gathering information. The second factor in Exchanging Information is Gathering Information. Peters and Austin (1985) emphasize the importance of gathering information. They suggest that productivity depends on "tangible, visceral ways of being informed" (p. 8), namely gathering information from people instead of computer printouts or slide presentations. They especially emphasize the importance of gathering information directly from customers since most new

product and service ideas come from users. In addition, frequency of information seeking is related to how well newcomers master their job, define their role, and become socially integrated (Morrison, 1993). Gathering Information refers to accumulating information that one's self, others, or an organization needs to succeed.

Building and Maintaining Relationships

The fourth second-order factor in the taxonomy is Building and Maintaining Relationships. Rarely does work occur in a social vacuum and the relational bonds of employees often aid in job performance. For example, according to Yukl (1998), a manager who has his subordinates' friendship and loyalty can draw on these emotional bonds for the cooperation and support needed to get the work done. Goleman (2000) also contends that when managers develop strong emotional bonds, they create loyalty among employees that drives performance. Other people aid performance in several ways such as providing advice, problem solving assistance, and opportunities. Building and maintaining interpersonal bonds gives one access to these resources, which in turn influences job performance. Three first-order factors were identified: Demonstrating Courtesy, Helping Others and Networking. Each first-order factor is defined and discussed below.

Demonstrating courtesy. Being courteous may become an increasingly important aspect of job performance as the service industry continues to grow. According to Austin and Peters (1985), an often-neglected key to successful customer and supplier relationships is common courtesy. Demonstrating Courtesy refers to being considerate and cooperative in one's interactions with others. It connotes a generosity of manner and includes being friendly and considerate, getting along with others, being understanding, and being socially aware.

Helping others. The second factor in Building and Maintaining Relationships is Helping Others. Helping Others refers to giving assistance and support to others. It goes beyond demonstrating courtesy in that it entails not just getting along, but actually meeting the needs of another person or people. It can include such behaviors as demonstrating emotional support, doing favors, and providing assistance. Helping others is an important aspect of contextual performance (Borman & Motowidlo, 1993), which predicts overall performance (Motowidlo & Van Scotter, 1994).

Networking. Networking is important because it can help provide information, support, and opportunities. According to Michael and Yukl (1993), rate of advancement for managers is predicted by networking behavior. Networking refers to establishing and maintaining an interconnected group of contacts that can include professionals, customers and potential customers, employees in other work units or divisions, and employees at the same, higher, or lower organizational levels.

Staffing

The fifth second-order factor in the taxonomy is Staffing. Staffing refers to "linking human knowledge, skills, abilities and dispositions to the demands of the work setting" (Pulakos & Ilgen, 1999, p. 4). Individuals have characteristics that allow them to perform effectively at various activities. Successfully identifying and linking those characteristics to the demands of

work is an important way in which employees use the social environment to facilitate organizational performance.

Formal staffing. Staffing can occur at both micro and macro levels in an organization. For example, managers at the top of the organization may adopt staffing as a key business strategy. At a more micro level, a manager may hire the candidate best qualified for an entry-level position. Staffing includes activities such as recruiting, selection, appraisal, and promotion (Snow & Snell, 1993). Formal Staffing is defined as those activities, conducted as part of an organizationally established protocol or system, involving linking individuals with job demands. These activities include recruiting, selection, appraisal and promotion.

Informal staffing. As the nature of job performance continues to change, implications for staffing are beginning to emerge. According to Murphy (1999) as the definitions of jobs and job performance become less clear and more dynamic, conventional staffing practices may become less useful. Our understanding of staffing should be broadened to include behaviors that involve matching individuals to job demands beyond what we conventionally consider to be staffing; for example, recruiting the appropriate co-worker to help with a task, knowing who to ask to be a member of team, or delegating effectively. Informal Staffing is defined as those activities involving linking individuals with job demands that are not part of a formal organizational system.

Making a Distinction with Leadership

Many dimensions in the interpersonal performance taxonomy are important for leaders and much of the support for the development of the taxonomy was drawn from the leadership literature. At this point a note about how interpersonal performance differs from leadership seems warranted. According to Yukl (1998) leadership can be defined as influencing other group members toward the attainment of shared goals. Leaders can use many of the behaviors described in the interpersonal performance taxonomy to influence others towards the attainment of group goals (e.g. Rewarding, Influencing, Coordinating, Role Modeling, and Training and Developing). However, several of the interpersonal performance dimensions are important for non-leaders as well as leaders. For example, non-leaders may need to disseminate information to their peers in order for work to proceed effectively (Informing), to help a co-worker meet a deadline (Helping Others), and to know who to ask to help staff a project (Informal Staffing). Therefore, it seems likely that the taxonomy of interpersonal performance overlaps with leadership, but is distinct from leadership.

Further Development of the Taxonomy

In order to further investigate the extent to which the literature supports the proposed taxonomy, the 167 unique interpersonal performance behaviors were sorted into the dimensions of the proposed taxonomy. Two industrial/organizational (I/O) psychologists independently placed each behavior in one of the first-order factors of the taxonomy. Of the 167 behaviors, 61 were too general to place in a single category. In these cases the actions described could refer to a number of behaviors belonging to multiple categories. For example, leadership is a broad concept that includes behaviors belonging to many of the factors of the taxonomy including

influencing, rewarding, coordinating, clarifying, training and developing, and negotiating among others. Likewise, building commitment may include behaviors that fall into several categories such as rewarding others, influencing others, clarifying, training and developing, and building and maintaining relationships with others. The remaining 106 behaviors were categorized into one of the first-order factors of the taxonomy. Percent agreement for the 106 categorized behaviors was calculated as an index of reliability. Overall percent agreement was 72% (76 out of the 106 behaviors were classified the same). See Table 2 for the categorization of the remaining 106 behaviors. Differences were resolved by consensus.

While conducting the sorting task, the authors were open to the possibility that the sorting of the interpersonal behaviors would reveal additional dimensions of interpersonal performance. After categorizing the behaviors, the researchers agreed that an additional first-order factor needed to be added to the taxonomy.

Two similar interpersonal behaviors, set example and exemplar of behavior, did not fit into an existing factor. These behaviors refer to modeling actions for others to emulate. According to Bandura (1986), the majority of human behavior is learned by observation through modeling, and our capacity to learn by observation expands our knowledge and skill base. Role modeling is an important element of transformational leadership. According to Bass (1998), transformational leaders behave in ways that result in their being role models for their followers such as demonstrating high standards of ethical and moral conduct. Their behavior leads their followers to want to identify with and emulate them. Role modeling was added to the taxonomy as a first-order factor under the second-order factor Directing behavior, and is defined as modeling desired behavior.

Table 2.

Framework-Sorted Interpersonal Performance Behaviors.

Energizing behavior
Influencing others: persuading (3), influencing others (2), influence with superiors, selling
Rewarding others: rewarding (7), use incentives, providing praise and recognition, monitoring reward contingencies
Directing behavior
Coordinating: coordinating (5), coordinating efforts, executive behaviors (i.e. coordinator of group activities), manpower coordination, coordination of other organizational units and personnel, coordinating subordinates and other resources to get the job done
Clarifying: clarifying work roles
Training and developing: developing (6), training (4), coaching (2), developing responsibility and teamwork in employees, helping employees improve their job performance, encouraging goal setting

Table 2, cont.

Managing perceptions: representing (2), external representation, representation of the group, representing the unit, representing the organization to customers and the public, managing others impression of oneself

Negotiating: negotiating (6), mediation, breaking a deadlock through negotiation, conflict handling, obtain group consensus

Role-modeling: exemplar of behavior, set example

Managing others' relationships: interaction facilitation – behaviors that encourage member of a group to develop close, mutually satisfying relationships, team builds, maintaining group cohesiveness, facilitating cooperation and teamwork

Controlling: controlling (7), monitoring (3), evaluating (3), set standards (2), punish (2), discipline (2), arbitration (2), supervising agencies operating to carry out plans, establishing and prioritizing group goals, manpower administration, establish reporting system, measure results, take corrective action, enforces rules and procedures, observing subordinates work activities, settling disciplinary problems, monitors result, design workable controls, defining evaluation criteria, review, performance consequence: indicating knowledge of performance, scheduling and planning, setting goals

Exchanging information

Informing: informing (5), provide information for problem solving, advanced consulting (providing technical expertise), instructing workers in safe work habits, instructing workers in proper use of materials and equipment, providing instructions for performance, state guidelines

Gathering information: obtain information (3), obtain information needed for decision making, seeking proposals, seeking feelings

Building and Maintaining Relationships

Demonstrating courtesy: being cooperative (6), consideration of others (2), treating people respectfully, cooperating with staff and others in higher management, cooperating with staff and others in higher management

Helping and supporting others: helping others (2), supporting, (2), behavior that enhances feelings of personal worth and importance, understands, does favors, providing emotional support, empathizing, engaging in organizational citizenship behaviors, defending, ensuring fair treatment of employees,

Networking: staying in touch

Staffing

Formal staffing: recruit individuals especially fitted for a certain function, hire people with appropriate aptitudes and skills to perform each task, select, establish position qualifications, create position descriptions, placing personnel, designing job systems, obtaining and allocating personnel resources, utilization of personnel resources

Informal staffing: delegating (6), delegating responsibility for execution of plans, assign existing group members to tasks to ensure balance, recognizing and integrating cognitive styles within a group, maximizing the use of group member abilities, delegating authority

Because of the large number of behaviors that were too general to be reliably categorized and because an additional first-order factor was added to the taxonomy, a second I/O psychologist categorized the 106 non-general behaviors into the revised taxonomy. No additional factors resulted from the second sorting task. Overall percent agreement with the original categorization was 75% (80 out of 106 behaviors). In cases of disagreement, results of the first sort took precedence.

Based on this theoretical and empirical development process, it was predicted that this taxonomic structure would be confirmed using data collected from actual jobs.

Model Validation

Overview

A two-study approach was taken to validate the proposed taxonomy. In the first study, empirical evidence for the proposed taxonomy was gathered by content analyzing a database of critical incidents of interpersonal performance. In the second, an instrument was developed to capture frequency and importance data about interpersonal behaviors in Army jobs. This was administered across a variety of jobs to determine if the proposed structure would be supported in the clustering of the ratings. This two-study approach to validating a literature-based taxonomy was used by Pulakos et al. (2000) to validate their taxonomy of adaptive job performance.

Study 1: Development of Interpersonal Performance Model

Method and Results. Empirical support for the taxonomy was assessed using a critical incident sort. Murphy suggests that one way to determine behavioral dimensions of performance is to analyze worker behavior (1989). Content analysis of critical incidents of job performance provides one way of analyzing worker behavior. Content analysis techniques were applied to critical incidents of Special Forces (SF) job performance gathered as part of an SF job analysis (Russell, Crafts, Tagliareni, McCloy, & Barkley, 1996).

At the time of the analysis, SF Soldiers had five primary missions: unconventional warfare, direct action, covert or low-visibility missions, training and assisting host nation forces, and preventing and responding to terrorism (Russell et al., 1996). Many of the job requirements for SF Soldiers involve interpersonal performance. SF Soldiers work in teams, often away from their chain of command, requiring expertise in teamwork. They serve as diplomats and teachers, working closely with people from other countries to train, assist, and work with host nation forces. Because Special Forces Soldiers serve in a variety of roles, the database of critical incidents incorporates activities reflecting an extensive number of performance requirements including a wide range of interpersonal performance behaviors. This suggests that all of the proposed dimensions of interpersonal performance are likely to be covered across a set of critical incidents from this job. The one exception to this is Staffing; because staffing in the military is a centralized function, it is unlikely to be captured in the critical incidents.

Critical incidents had been collected in a series of workshops as part of a job analysis (Russell et al., 1996). Participants were 175 non-commissioned officers and officers from across SF specialty areas including team commanders, weapons specialists, engineers, medics, and communications specialists. On average workshop participants were 33 years old, had been in the Army 13 years, and had been in SF for 8 years. A total of 25 one-day workshops were conducted. Workshop participants were first trained to write critical incidents, then provided approximately 10 critical incidents each.

The 1,186 Special Forces critical incidents generated in the workshops were examined to identify dimensions of interpersonal job performance. The first author examined the incidents and retained those in which the social environment was used to facilitate organizational goal attainment. Thirty-five percent (410) of the critical incidents represented incidents of interpersonal performance, highlighting the importance of interpersonal performance for Soldier effectiveness.

Next a team of three I/O psychologists independently categorized the 410 incidents into dimensions of interpersonal job performance using the proposed taxonomy as a starting point. The team approached the task with the understanding that an alternate dimensionality may emerge as the critical incidents were sorted. First, a subset of 100 critical incidents was categorized and the team met to discuss their preliminary categorization.

One repeated theme in the critical incidents concerned Soldiers altering the way they interacted with others based on the situation. As a result, the team felt that an additional dimension reflecting the ability to change one's interpersonal behavior in a functional way across situations was needed. This dimension was called Interpersonal Adaptability and was added to the taxonomy as part of the second-order factor Building and Maintaining Relationships. In addition, critical incidents were identified during the sorting task that described Soldiers enjoying and encouraging interactions among others, demonstrating social ease, and expressing positive feelings toward others. These behaviors are similar to Networking, but broader in that they reflect an enjoyment of social interactions. Therefore Networking was broadened to include a desire to interact with others. This factor was re-named Socializing and defined as seeking out and facilitating interaction with others.

The remaining incidents were then sorted by the 3-person team into the 17 first-order dimensions of the taxonomy. Percent agreement was calculated as an index of reliability. Over 91% of the 410 incidents (n=377) were placed in the same dimension by at least two-thirds of the team. In cases where all members of the team were not in agreement, differences were resolved by consensus.

At the end of this process, no critical incidents were categorized into 3 of the dimensions of the taxonomy: Clarifying, Negotiating, and Formal Staffing. It was anticipated that there would be no incidents representing Formal Staffing because in the military formal staffing is a centralized function; however, clarifying and negotiating are logically important for SF Soldiers to effectively perform their jobs. During the critical incident sort, members of the team had considered placing incidents in the Clarifying and Negotiating categories, but after deliberation decided that these critical incidents best fit in other related dimensions. For example, in one

critical incident a Soldier needed to have several refugees vacate their area. The Soldier talked with an elder chief and offered concessions for moving the tents. As a result the refugees moved. In this critical incident Negotiating (talking to chief, offering concessions) is a component of Influencing Others (getting the refugees to move), and the team agreed that it was most appropriate to categorize the incident under the higher level dimension, Influencing Others. As Yukl (1998) states, behavioral constructs can be formulated at different levels of generality, and consistency in level of abstraction is important for taxonomy clarity. Because of this, Clarifying and Negotiating were identified as more narrow behavioral categories than the other dimensions in the interpersonal performance model and were removed from the model.

Discussion. The first study provided support for a multidimensional model of interpersonal performance. Support was found for 14 of the proposed 17 dimensions of interpersonal performance. In addition, several modifications were made to the model. As a result of the critical incident sort, Clarifying and Negotiating were eliminated from the model, Networking was expanded and re-named Socializing, and Interpersonal Adaptability was added creating a model with 16 first-order dimensions nested within 5 higher-order factors. The interpersonal performance dimension definitions are reported in Table 3 and the number of critical incidents placed in each dimension is reported in Table 4.

Table 3.

Interpersonal Performance Dimension Definitions

Dimension	Definition
Energizing Behavior	**Stimulating goal-directed behavior in others.**
Rewarding others	Providing praise, appreciation, tangible rewards, or whatever an individual desires for effective performance, significant achievements, special contributions, or demonstrated competence.
Influencing others	Energizing the behavior of others using rational persuasion, inspirational appeals, consultation, ingratiation, personal appeals, or exchange.
Directing Behavior	**Maintaining the goal-directedness of behavior once it is energized.**
Coordinating	Organizing the behavior of others so that they function in a smooth concerted way.
Training and Developing	Promoting the growth of, fostering the potential of, or developing the skills, concepts, or attitudes of others that result in improved performance.

Table 3, cont.

Directing Behavior, cont.	
Managing Perceptions	Directing and influencing the observations and awareness of others.
Managing Others Relationships	Sustaining and/or improving the relationships among co-workers, members of a group or team, subordinates, or individuals in other units.
Controlling	Regulating the activities of others.
Role Modeling	Modeling desired behavior.
Exchanging Information	**Disseminating information to and gathering information from others.**
Informing	Communicating to others knowledge needed to do their work. Includes refraining from communicating unnecessary/irrelevant information.
Gathering Information	Accumulating information that one's self, others, or an organization needs and disregarding unnecessary/irrelevant information.
Building and Maintaining Relationships	**Developing bonds with persons relevant to your work in order to access resources that are helpful for job performance.**
Demonstrating Courtesy	Being considerate and cooperative in one's interactions with others.
Helping Others	Giving assistance and support to others.
Socializing	Seeking out and facilitating interaction with others.
Adapting	Adjusting one's behavior to fit the social environment.
Staffing	**Linking human capabilities to the demands of the work setting.**
Formal Staffing	Those activities involving linking individuals with job demands which are conventionally recognized as staffing and conducted as part of an organizationally established protocol or system such a recruiting, selection, appraisal and promotion.
Informal Staffing	Those activities involving linking individuals with job demands that are not part of a formal organizational system.

Table 4.

Number of Critical Incidents by Interpersonal Performance Dimension

Interpersonal Performance Dimension	Number of Critical Incidents
Rewarding others	8
Influencing others	20
Coordinating	17
Training and developing	60
Managing perceptions	59
Managing others relationships	16
Controlling	22
Role modeling	15
Informing	29
Gathering information	55
Demonstrating courtesy	29
Helping others	30
Socializing	12
Adapting	28
Informal staffing	10

Study 2: Empirical Evaluation of Interpersonal Performance Model

Overview. The purpose of the second study was to empirically evaluate the taxonomy of interpersonal performance that was revised in study one. A measure that captures information about the dimensions of interpersonal performance was developed and administered to individuals in a wide range of jobs. The dimensionality of the taxonomy was then evaluated using confirmatory factor analysis techniques.

Development of the instrument. Using the categorized critical incidents as a foundation, items were developed that describe behaviors in each first-order factor in the taxonomy. Eight items were developed for each of the 16 first-order factors for a total of 128 items. Because no critical incidents representing Formal Staffing were identified in the critical incident sort, other sources were used as a basis for item development including a job analysis of a job known to include a staffing function and book chapters about staffing.

Respondents were asked to indicate the importance of and time spent on the interpersonal performance behavior described in each item. For example, an item assessing Influencing Others reads 'Convince people that your idea, approach, or plan is a good one.' Respondents indicated the importance of this behavior for successful job performance and time spent on this behavior while on the job. The importance scale was a 5-point Likert scale ranging from 1 (not very important for successful job performance) to 5 (extremely important for successful job

performance).[1] The time-spent scale was also a 5-point Likert scale ranging from 1 (I spend very little time doing this on my job) to 5 (I spend a great deal of time doing this on my job).[2] Respondents were also given the option of responding that the action is not part of their job.

Following Pulakos et al.'s (2000) argument that job experts give greater weight to importance than time spent in determining the criticality of behaviors for job performance, criticality scores were based on a composite of importance and time spent ratings. A criticality index was computed for each participant that reflects greater weighting of importance.

$$\text{Criticality index} = [(2 \times \text{importance rating}) + \text{time spent rating}] / 3$$

Sample. Data were collected from 431 military personnel representing a wide range of authority levels and job responsibilities. Eighty-one different jobs were represented in the sample. The number of participants in each job ranged from 1 to 62. Examples of jobs represented include military police, supply and services staff, mechanical maintenance staff, public affairs workers, and air defense artillery personnel. Ranks ranged from entry to senior level enlisted personnel and junior officers. Sample characteristics are as follows: 80.9 % male, 19.1% female, 16.7% Hispanic, 52.1% White, 23.8% Black, 6.9% Other.

Data analyses. Psychometric properties of the interpersonal performance instrument were evaluated by calculating descriptive statistics and scale reliabilities. The hypothesized dimensionality of the interpersonal performance model was tested using confirmatory factor analysis (CFA). Bollen and Long (1993) give several recommendations for assessing model fit, including providing a strong theoretical basis for the model, reporting multiple global fit indices, examining local as well as global fit indices, and assessing alternative models. Each of these recommendations was followed. Multiple types of evidence were considered in evaluating the fit of the proposed model including the magnitude and statistical significance of parameter estimates, local and global fit indices, correlations among latent variables, and the fit of alternative models.

In addition, the issue of parsimony was considered in the assessment of model fit. Parsimony has long been considered important for the advancement of science (see Mulaik et al., 1989 for a discussion) and has practical implications for facilitating use in applied settings. The proposed model is extremely parsimonious; the number of parameters that could be estimated far exceeds the number of parameters estimated. Several global fit indices favor more complex models (Bollen, 1989). Therefore, fit indices that take parsimony into account were considered important for assessing the fit of the hypothesized model.

Analyses were also conducted to test if the criticality of interpersonal performance differed across authority level, which was measured by rank. Participant ranks ranged from Private to Sergeant Major for enlisted Soldiers, and from Second Lieutenants to Captain for commissioned officers. Table 5 shows the distribution of ranks for the sample. MANOVA was used to test for mean differences in the 16 first-order interpersonal performance dimensions by participant rank.

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[1] 2 = somewhat important; 3 = important; 4 = very important

[2] 2 = some time; 3 = a moderate amount of time; 4 = considerable time

Table 5.

Distribution of Ranks for the Sample

Rank	Percent of Sample (N)*
Private to Private First Class	13% (55)
Specialist	26% (106)
Sergeant / Staff Sergeant	35% (144)
Sergeant First Class to Sergeant Major	13% (53)
Officer	13% (54)

*Note that the N values do not equal 411 due to missing data on the Rank variable

Reliabilities and descriptive statistics. Means and standard deviations for the importance, time spent, and criticality scales are shown in Table 6. Means range from to 2.86 to 4.29 for importance, from 2.44 to 3.99 for time spent, and from 2.73 to 4.03 for criticality. Most means for the importance and time spent scales were between 3 and 4 and correspond to the 'important' and 'very important' anchors for the importance scale and 'a moderate amount of time' and 'considerable time' anchors for the time spent scale, indicating the significance of interpersonal performance for successful job performance. Reliabilities for each criticality scale were above .80 and are reported with scale correlations in Table 7.

Table 6.

Importance, Time Spent, and Criticality Means and Standard Deviations

Interpersonal Performance Dimension	Importance Mean (SD)	Time spent Mean (SD)	Criticality Mean (SD)
Rewarding others	3.64 (.85)	2.71 (.92)	3.33 (.78)
Influencing others	3.32 (.77)	2.80 (.83)	3.15 (.73)
Coordinating	3.97 (.80)	3.14 (.88)	3.69 (.74)
Training and developing	4.13 (.81)	3.15 (.97)	3.81 (.76)
Managing perceptions	3.32 (.87)	3.99 (.75)	3.77 (.72)
Managing others relationships	3.70 (.85)	2.74 (.88)	3.37 (.77)
Controlling	4.00 (.85)	2.98 (.97)	3.66 (.80)
Role modeling	4.00 (.79)	3.21 (.88)	3.74 (.74)
Informing	4.29 (.68)	3.51 (.91)	4.03 (.67)
Gathering information	4.10 (.71)	3.27 (.90)	3.77 (.70)
Demonstrating courtesy	3.96 (.75)	3.25 (.88)	3.72 (.71)
Helping others	3.93 (.78)	3.24 (.85)	3.70 (.71)
Socializing	2.86 (.95)	2.44 (.89)	2.73 (.86)
Adapting	3.60 (.76)	3.01 (.80)	3.40 (.70)
Formal staffing	3.79 (.89)	2.92 (1.04)	3.49 (.85)
Informal staffing	4.07 (.78)	3.12 (.94)	3.75 (.74)

Table 7.

Criticality Scale Correlations and Alphas

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Rewarding	(.88)															
2. Influencing	.62	(.83)														
3. Coordinating	.63	.51	(.89)													
4. Training and developing	.66	.49	.75	(.92)												
5. Managing perceptions	.43	.37	.44	.48	(.89)											
6. Managing others relationships	.51	.47	.51	.54	.55	(.88)										
7. Controlling	.54	.49	.63	.66	.52	.61	(.90)									
8. Role modeling	.51	.45	.58	.64	.60	.60	.71	(.88)								
9. Informing	.47	.48	.52	.55	.55	.47	.62	.67	(.91)							
10. Gathering information	.42	.38	.44	.44	.58	.49	.51	.62	.73	(.87)						
11. Demonstrating courtesy	.44	.32	.41	.44	.59	.57	.54	.65	.62	.69	(.88)					
12. Helping others	.54	.47	.54	.57	.58	.62	.64	.67	.61	.62	.76	(.90)				
13. Socializing	.33	.31	.18	.20	.37	.43	.33	.31	.28	.35	.42	.47	(.89)			
14. Adapting	.42	.36	.37	.39	.51	.55	.52	.53	.53	.60	.65	.66	.53	(.82)		
15. Formal staffing	.56	.47	.58	.62	.47	.49	.65	.63	.55	.50	.45	.58	.29	.49	(.87)	
16. Informal staffing	.53	.42	.51	.51	.53	.55	.62	.64	.58	.65	.63	.70	.39	.65	.65	(.91)

Note. All correlations significant at the .05 level

Confirmatory factor analysis. Confirmatory factor analysis was performed to assess the fit of the data to the hypothesized model. The eight items for each interpersonal scale were parceled into bundles of four items each and averaged to create two indicators for each of the 16 first-order factors, following guidance by Tabachnik and Fidell (1996). In order to set the measurement scale for the first-order factors, the factor loadings for one of the two manifest variables for each first-order factor was set to one. Maximum likelihood confirmatory factor analysis using the covariance matrix was conducted with LISREL 8 (Jöreskog & Sörbom, 1993).

First, the paths in the model were examined. Each path in the model was in the hypothesized direction, statistically significant, and was large in magnitude, providing evidence of model fit. Path coefficients from the 16 first-order factors to the 32 manifest variables are reported in Table 8. Path coefficients from the 5 second-order factors to the 16 first-order factors are in Figure 1.

Next fit indices were examined. The chi-square was significant, X^2 (438, N=431) = 1134, $p < .05$, which is not unexpected given that the test is sensitive to sample size and does not necessarily indicate poor model fit (Schumaker & Lomax, 1996; Tabachnik & Fidell, 1996). Other fit indices provide somewhat inconsistent information about model fit (see Table 9). The RMSEA (.06) and SRMSR (.06) were within accepted standards for reasonable model fit, and the NFI (.89) and CFI (.93) approached commonly used fit standards. However, the GFI (.84) was below commonly used fit standards (Millsap, 2002). Unfortunately, interpretation of the parsimony indices (PNFI=.78, PGFI=.70) is difficult because little guidance is available as to what constitutes good fit. Researchers have pointed out that divergent indications of model fit can occur (e.g. Tanaka, 1993), making an overall assessment of model fit somewhat problematic. The inconsistency of global fit indices is discussed further and interpreted in conjunction with other fit evidence at the end of this section.

Table 8.

Standardized Parameter Estimates for Paths From First-Order Factors to Manifest Variables

	B1	B2		B1	B2
Rewarding others	.69	.77	Informing	.86	.89
Influencing others	.77	.79	Gathering information	.90	.80
Coordinating	.81	.86	Demonstrating courtesy	.81	.91
Training and developing	.86	.87	Helping others	.89	.85
Managing perceptions	.77	.89	Socializing	.83	.84
Managing others relationships	.82	.86	Adapting	.87	.73
Controlling	.84	.82	Formal staffing	.67	.80
Role modeling	.87	.81	Informal staffing	.83	.88

Note. All paths were significant, $p < .05$. B1 and B2, refer to item bundle 1 and item bundle 2, respectively. Sample size was 431.

Table 9.

Model Fit Indices

Root mean square error of approximation (RMSEA)	0.06
Standardized root mean square residual (SRSMR)	0.06
Goodness of fit index (GFI)	0.84
Normed fit index (NFI)	0.89
Comparative fit index (CFI)	0.93
Parsimony goodness of fit index (PGFI)	0.70
Parsimony normed fit index (PNFI)	0.78

Note. Sample size was 431.

Next, the modification indices were examined for evidence of local fit. The majority of the modification indices were small, but several large modification indices were identified. However, the additional paths suggested by the large indices were not logical. According to Millsap (2002), the number of model restrictions in moderate and large models results in the generation of a substantial number of modification indices, and large indices may be present due to sampling error. Therefore, because the modification indices did not indicate substantively justifiable modifications, no additional paths were added to the model.

In addition to parameter estimates, global fit indices, and modification indices, intercorrelations among the latent variables were examined. Correlations among the latent variables ranged from .32 to .98 (correlations among first-order factors in the same second-order factor and correlations between first and second-order factors were excluded). The largest correlation (.98) existed between Directing Behavior and Staffing and indicated that these variables shared 96% of their variance. The overlap between Directing Behavior and Staffing had a logical basis because both involved channeling workforce energy to meet organizational goals. Because of the large correlation and substantive basis for the relationship, Directing Behavior and Staffing were treated as a single factor in subsequent analyses.

In order to assess whether another model might fit the data better, alternative models were tested. Distefano and Pryer (1986) in their factor analytic work on measures of job performance found a single interpersonal factor. Therefore a single factor model was tested. In addition, to assess whether each of the five second-order factors is best represented by a single factor or multiple factors, each of the five-second order factors was tested separately in single factor models. As the hypothesized and alternative models are nested, the difference in chi-square was used to test for significant differences in the fit of the models to the data.

To test the overall single factor model, each of the five higher order factors was set to correlate perfectly with the other higher order factors. The resulting chi-square was compared to the chi-square in the full sample (where only Directing Behavior and Staffing were set to

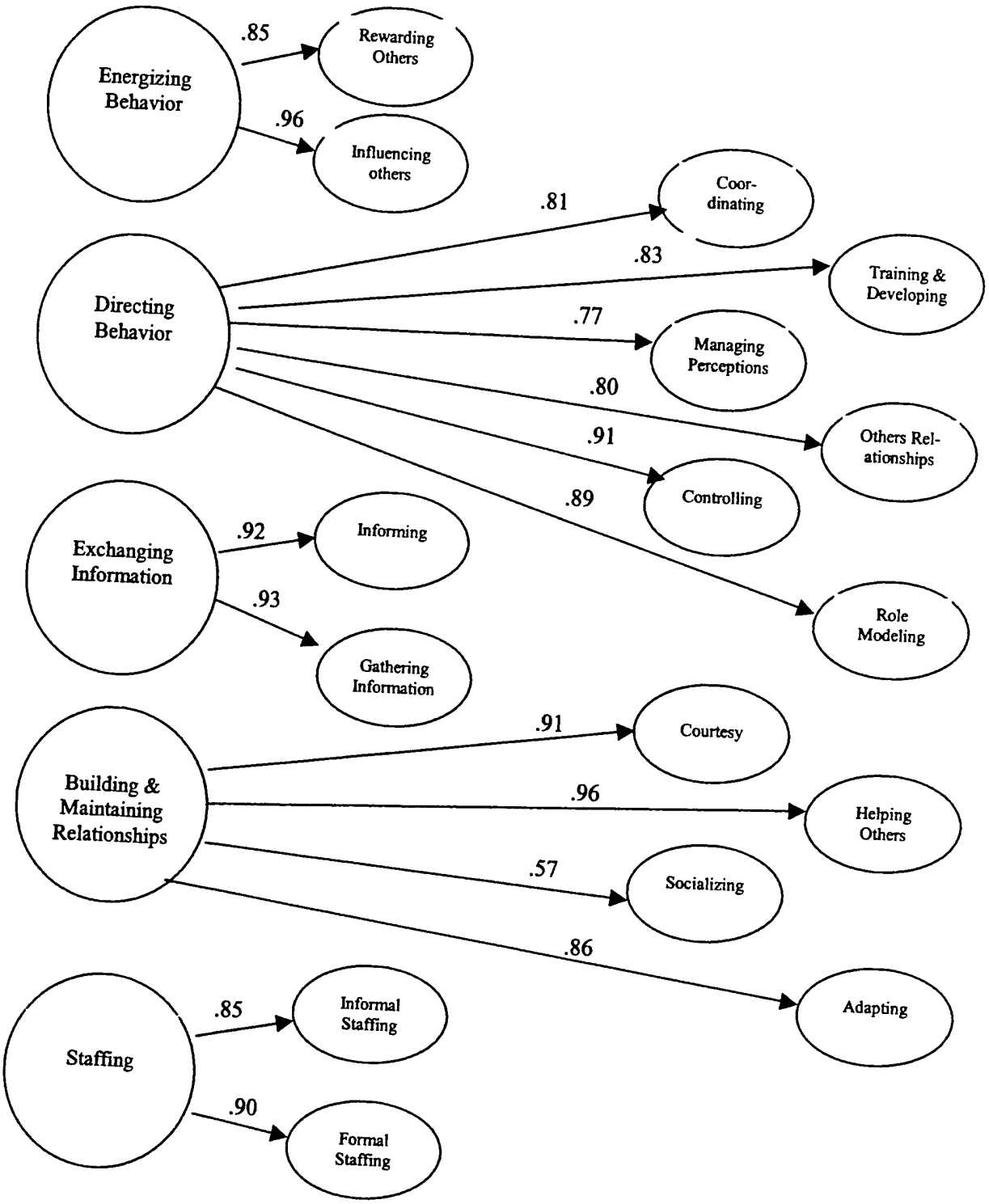

Figure 1.
Standardized Parameter Estimates of Paths Between First and Second-Order Factors
Note: All paths significant, $p < .05$.

correlate perfectly, given their high intercorrelation). The chi-square difference tests showed significant improvement in fit for the hypothesized model over the single factor model, ΔX^2 (9) = 312, $p < .05$). In addition, fit indices for the single factor model indicated poorer fit (see Table 10).

Table 10.

Single Factor Model Fit Indices

Root mean square error of approximation (RMSEA)	0.07
Standardized root mean square residual (SRSMR)	0.06
Goodness of fit index (GFI)	0.79
Normed fit index (NFI)	0.86
Comparative fit index (CFI)	0.90
Parsimony goodness of fit index (PGFI)	0.67
Parsimony normed fit index (PNFI)	0.77

Note. Sample size is 431.

To test the hypothesis that each second-order factor is best represented by multiple dimensions, each of the first-order factors within a second-order factor was set to correlate perfectly with each other. For example, an analysis was conducted using only the parcels relating to Influencing and Rewarding, and the correlation between these factors was set to 1.0. Directing Behavior and Staffing were again considered a single factor. Then a series of chi-square difference tests were conducted to test the difference in chi-square between each second-order factor represented by multiple dimensions, as hypothesized, or represented by a single dimension. For each second-order factor the chi-square difference test indicated that the multi-dimensional model fit the data significantly better than a single-factor model. Differences in chi-square are reported in Table 11. In addition, fit indices for the multiple factor models indicated better fit (see Table 12).

Table 11.

Differences in Chi-square Between Single and Multidimensional Second-Order Factors

	Energizing Behavior	Directing Behavior/ Staffing	Exchanging Information	Building and Maintaining Relationships
ΔX^2	113	1,226	136	204
DF	1	27	1	6

Note. N=431. All chi-square differences were significant, $p < .05$.

Table 12.

Fit Indices for Second-Order Factors as Single and Multiple Factor Models

	Energizing Behavior		Directing Behavior/ Staffing		Exchanging Information		Building and Maintaining Relationships	
	Factor Model							
	Single	Multiple	Single	Multiple	Single	Multiple	Single	Multiple
RMSEA	.36	.00	.16	.06	.40	.04	.17	.08
SRMSR	.41	.00	.42	.04	.51	.01	.50	.03
GFI	.90	1.00	.76	.93	.89	1.00	.89	.97
NFI	.79	1.00	.72	.95	.87	1.00	.88	.97
CFI	.79	1.00	.74	.97	.87	1.00	.88	.98
PGFI	.18	.17	.55	.66	.18	1.00	.49	.38
PNFI	.26	.17	.58	.76	.29	.17	.63	.49

Note. N=431. Root mean square error of approximation (RMSEA), standardized root mean square residual (SRMSR), goodness of fit index (GFI), normed fit index (NFI), comparative fit index (CFI), parsimony goodness of fit index (PGFI), parsimony normed fit index (PNFI).

Summary of confirmatory factor analysis results. To summarize, the results of the confirmatory factor analysis indicated a substantial correlation between Directing Others and Staffing, suggesting that these factors were almost indistinguishable. Evidence for model fit was provided by the statistical significance and magnitude of the hypothesized paths and the fact that the hypothesized model showed significantly better fit than the alternative models. Finally, most of the fit indices demonstrated good model fit, with the exception of the GFI.

Analyses by rank. In order to test for differences in the criticality of the 16 first-order interpersonal performance dimensions for different ranks, criticality scores were examined using MANOVA . Participants were grouped into 5 levels of rank ranging from lowest rank to highest rank (1: Privates and Privates First Class, 2: Specialists and Corporals, 3: Sergeants and Staff Sergeants, 4: Sergeants First Class through Sergeants Major, and 5: Commissioned Officers, which included only Lieutenants and Captains). Results showed significant differences among the ranks (F (64, 1294) = 3.00, $p < .01$). In addition, univariate tests were also significant for 9 of the 16 factors (Rewarding, Influencing, Coordinating, Training and Developing, Managing Relationships Among Others, Controlling, Role-Modeling, Informing, and Formal Staffing), indicating that for these dimensions the criticality of interpersonal performance varied across rank. The univariate F values as well as criticality index means and standard deviations across levels of rank are reported in Table 13.

Table 13.

Criticality Means and Standard Deviations by Rank

		Rank Level				
Factor	$F(4, 345)$	1	2	3	4	5
Rewarding others	3.65	3.12(.95)	3.15(.87)	3.49(.64)	3.56(.68)	3.25(.68)
Influencing others	4.70	3.00(.82)	2.96(.81)	3.27(.66)	3.41(.64)	3.16(.60)
Coordinating	6.95	3.46(.90)	3.44(.80)	3.80(.68)	4.04(.64)	3.75(.56)
Training and developing	11.95	3.57(.89)	3.51(.85)	4.00(.57)	4.19(.67)	3.66(.69)
Managing others relationships	4.22	3.49(.74)	3.31(.86)	3.39 (.75)	3.63(.68)	3.12(.70)
Controlling	11.30	3.38(.92)	3.44(.84)	3.83(.68)	4.07(.61)	3.49(.68)
Role modeling	6.19	3.59(.84)	3.57(.80)	3.83(.70)	4.04(.62)	3.65(.63)
Informing	9.85	3.80(.79)	3.80(.74)	4.15(.61)	4.30(.48)	4.12(.60)
Formal staffing	6.72	3.30(.88)	3.31(.95)	3.63(.74)	3.89(.73)	3.23(.74)

Note. All F values significant at $p < .01$. Groupings by rank were as follow: 1= Privates and Privates First Class, 2=Specialists and Corporals, 3=Sergeants and Staff Sergeants, 4=Sergeants First Class through Sergeants Major, 5=Commissioned Officers including Second Lieutenants to Captains.

Discussion

The ability to interact effectively with others and to use the social environment to facilitate organizational goal attainment are important for successful performance of personnel in organizations. Researchers have had limited success predicting interpersonal performance likely due, at least in part, to poor specification of interpersonal criteria. The research presented here contributes to the literature by presenting a specification of the interpersonal performance domain that is applicable across jobs. While aspects of interpersonal performance have been discussed in the literature, this is the first research to use a systematic procedure to identify and validate the dimensions of interpersonal performance.

Results from a critical incident sort of over 1,000 critical incidents of SF job performance and from survey data collected from Soldiers representing 81 different jobs supported the taxonomy. Confirmatory factor analysis results, including parameter estimates, fit indices, and the testing of alternative models suggested that the hypothesized model has merit. The analyses did reveal a substantial correlation between Directing Others and Staffing, however, suggesting that these factors are not empirically distinguishable. Nevertheless, the obtained model of interpersonal performance can serve as a baseline for judging the fit of future interpersonal performance models.

One finding of interest is that the criticality ratings increased across rank for 9 of the 16 interpersonal performance dimensions (rewarding, influencing, coordinating, training and developing, managing relationships among others, controlling, role-modeling, informing, and formal staffing). The means that increased across rank were largely from the Energizing Behavior and Directing Behavior factors and, in general, increased in importance from entry

to senior level enlisted ranks. The criticality values for junior level officers were lower than the values for the senior NCOs, often approximating the criticality values for the Specialists or junior NCOs. Both Energizing Behavior and Directing Behavior are critical for leaders (Bass 1990; Yukl, 1998), suggesting that the dimensions that varied across rank are those in which leaders are required to engage. These dimensions are therefore excellent targets for NCO training and development.

While the criticality means of the senior enlisted Soldiers were higher than those of the junior level officers, this is consistent with military roles. While senior level enlisted Soldiers are technically lower in rank than junior level officers, senior enlisted Soldiers have more responsibilities in directly managing personnel in units, so this pattern of results is not surprising. Given that the complete range of officer ranks was not available in this sample, though, the results for the officers should be considered cautiously.

Interestingly, the fact that some, but not all of the interpersonal performance dimensions varied across rank supports the idea that interpersonal performance overlaps with, but is distinct from leadership. It is also interesting to note that the criticality of several interpersonal performance dimensions, including all the dimensions under Building and Maintaining Relationships, did not vary across ranks. This suggests that selecting and training for these dimensions of interpersonal performance would be important for Soldiers regardless of their rank.

Identifying Predictors of Interpersonal Performance

The present research focuses on the interpersonal behaviors that are important to the Army and may have important implications for selection and training. According to Binning and Barrett (1989), the delineation of the performance domain guides the selection or development of assessment procedures. This research provides a framework from which future research can identify the competencies that predict successful performance in each of the interpersonal performance dimensions. Identification of these competencies will facilitate the assessment of interpersonal skills for training needs assessment, promotion decisions, and selection systems.

Multiple avenues in the literature can be pursued to provide insight about interpersonal behavior predictors such as cognitive ability, personality, social skill, emotions and affect, and self-regulation. A number of these areas may have renewed promise, in that predictors that previously demonstrated low or non-existent validities may become effective predictors when used to predict validated dimensions of interpersonal performance. Each of these literatures should be reviewed and reinvestigated with respect to this new specification of the performance domain.

Multi-level Organizational Implications

Equally as important as identifying individual level predictors is the consideration of interpersonal performance from multiple levels, such as squads, companies, and battalions. Following Ployhart and Schneider (2002), it is suggested that solely focusing on individual-

level predictors and criteria limits our understanding of important group and organizational phenomena. The introduction of this report identifies interpersonal performance as important due to several emerging organizational trends such as an increasingly diverse workforce, the proliferation of team-based efforts, and the importance of customer service. The role of interpersonal performance from a multi-level perspective will likely need to be considered if the consequences of these trends for organizations are to be fully understood. For example, interpersonal behaviors are logically important for effective team functioning due to the interdependent nature of teams. Precise explication of the emergent processes linking interpersonal behaviors to team processes and outcomes is needed (Kozlowski & Klein, 2000). Diversity and customer service are also constructs that researchers have suggested require a multilevel perspective (Ployhart & Schneider, 2002).

The taxonomy presented here describes individual-level interpersonal performance and is one piece of the complex puzzle of interpersonal phenomena in organizations. Consideration of the relationship between interpersonal predictors and processes and criteria at and across multiple organizational levels is needed before interpersonal phenomena in organizations can be fully understood.

Conclusions

This research contributes to our understanding of interpersonal phenomena in organizations in several ways. First, it provides evidence for the importance of interpersonal performance in organizations. Over 30% of the critical incidents of job performance sorted for this study contained examples of interpersonal performance, indicating that interpersonal performance is an important aspect of work for SF Soldiers. In addition, raters across a wide range of Army jobs rated the interpersonal performance scales as highly critical to their job.

This study also provides evidence that interpersonal performance is multidimensional in nature. The dimensions in this taxonomy are meant to represent the highest level of the latent interpersonal performance hierarchy and to provide a comprehensive description of interpersonal performance for any job within the Army. It is likely that not every job will require every dimension of interpersonal performance. This is a first attempt to delineate the domain of interpersonal performance. Future research efforts may identify an even more parsimonious representation of interpersonal performance. In addition, because the nature of job performance is always evolving, aspects of interpersonal performance that are of importance to the Army now may change over time.

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Appendix A:
Interpersonal Performance Behaviors

1. Coffin (1944)
   A. Delegating responsibility for execution of plans
   B. Supervising agencies operating to carry out plans
   C. Maintaining control
   D. Coordinating efforts
   E. Gaining cooperation
   F. Supervising

2. Kreech and Crutchfield (1948)
   A. Control of internal relationships
   B. Executive behaviors (i.e. coordinator of group activities)
   C. External representation
   D. Purveying rewards and punishments
   E. Arbitration and mediation
   F. Exemplar of behavior

3. Hemphill (1949, as cited in Fleishman et al. 1991)
   A. Set group goals with the members
   B. Help them reach the group goals
   C. Coordinate the members
   D. Help members fit into the group

4. Roby (1961)
   A. Bring about congruence of goals
   B. Obtain information needed for decision making
   C. Provide group structure for problem solution
   D. Recruit individuals especially fitted for a certain function
   E. Assign existing group members to tasks to ensure balance
   F. Ensure group is committed to task
   G. Provide information for problem solving
   H. Functioning as an arbitrator
   I. Breaking a deadlock through negotiation

4. Flanagan (1961)
   A. Developing responsibility and teamwork in employees
   B. Helping employees improve their job performance
   C. Giving employees reasons and explanations for their actions
   D. Ensuring fair treatment of employees
   E. Cooperating with staff and others in higher management

5. Likert (1961)
   A. Hire people with appropriate aptitudes
   B. and skills to perform each task
   C. Train people to do their respective tasks in the specified best way
   D. Provide supervision
   E. Use incentives

6. Shultz (1961)
   A. Establishing and prioritizing group goals
   B. Recognizing and integrating cognitive styles within a group
   C. Maximizing the use of group member abilities
   D. Helping members solve problems involved in adapting to external realities

7. Prien (1963)
   A. Employee supervision

B. Employee contact and communication
C. Union management relations
D. Manpower coordination and administration

8. Mahoney (1965, as cited in Fleishman et al., 1991)
   A. Coordinating
   B. Evaluating
   C. Supervising
   D. Staffing
   E. Negotiating
   F. Representing

9. Stogdill, Good, and Day (1965, as cited in Fleishman et al, 1991)
   A. General persuasive leadership
   B. Representation of the group
   C. Influence with superiors

10. MacKenzie (1969)
   A. Staff
   B. Select
   C. Orient
   D. Train
   E. Control
   F. Establish reporting system
   G. Develop standards
   H. Measure results
   I. Take corrective action
   J. Motivate
   K. Reward
   L. Communicate
   M. Develop
   N. Direct
   O. Delegate
   P. Motivate
   Q. Coordinate
   R. Manage differences
   S. Establish position qualifications
   T. Create position descriptions
   U. Delegate relationships

11. Bennet (1971)
   A. Obtain group consensus

12. Wofford (1971)
   A. Maintenance of interpersonal relationships
   B. Establishment of interpersonal relationships
   C. Delegating authority
   D. Encouraging goal setting

13. Bowers and Seashore (1972)
   A. Interaction facilitation – behaviors that encourage member of a group to develop close, mutually satisfying relationships
   B. Supporting others – behavior that enhances feelings of personal worth and important
   C. Work facilitation – scheduling, coordinating, planning, and providing resources

14. Miller (1973, as cited in Fleishman et al., 1991)

A. Supporting
B. Information sharing
C. Delegating
D. Persuading
E. Does favors
F. Encourages competition
G. Defines goals
H. Rewards
I. Supervises
J. Enforces rules and procedures
K. Monitoring
L. Negotiating
M. Participation

15. Mintzberg (1973)
    A. Motivate subordinates
    B. Obtain information from others
    C. Transmit information to other organizational members
    D. Negotiate with others

16. Helme (1974, as cited in Fleishman et al., 1991)
    A. Maintain moral
    B. Set example
    C. Define goals
    D. Know members
    E. Communicate
    F. Maintain discipline
    G. Motivate subordinates

17. Koontz and O'Donnell (1976)
    A. Motivating
    B. Controlling
    C. Staffing
    D. Directing and leading
    E. Motivating

18. Oldham (1976)
    A. Rewarding
    B. Punishing
    C. Setting goals
    D. Designing feedback system
    E. Placing personnel
    F. Designing job systems

19. Tornow and Pinto (1976)
    A. Coordination of other organizational units and personnel
    B. Internal business control
    C. Public and customer relations
    D. Advanced consulting (providing technical expertise)
    E. Supervision
    F. Broad personnel responsibility

20. Dowell and Wexley (1968)
    A. Working with subordinates
    B. Instructing workers in safe work habits
    C. Instructing workers in proper use of materials and equipment

D. Observing subordinates work activities
E. Listening to subordinates ideas and problems
F. Settling disciplinary problems
G. Organizing work of subordinates

21. Flavell (1968)
    A. Communicating

22. Morse and Wagner (1978)
    A. Motivating and conflict handling
    B. Providing development
    C. Handling information
    D. Coordinating

23. Winter (1978, as cited in Fleishman et al, 1991)
    A. Disciplines
    B. Rewards
    C. Understands
    D. Monitors result
    E. Influences
    F. Delegates
    G. Develops subordinates
    H. Team builds
    I. Directing
    J. Controlling
    K. Boundary Spanning

24. Schinke and Gilchrist (1979)
    A. Communicating

25. Sayles (1979)
    A. Build commitment and motivation
    B. Handle lateral relations
    C. Design workable controls

26. Greenwald et al. (1980)
    A. Acting assertively

27. Bass (1981)
    A. Providing and maintaining group structures
    B. Maintaining group cohesiveness and member satisfaction
    C. Facilitating group task performance
    D. Explaining how goals will be met
    E. Defining evaluation criteria
    F. Providing feedback
    G. Allocating awards

28. Cribben (1981, as cited in Fleishman et al, 1991)
    A. Staff
    B. Direct
    C. Coordinate
    D. Gain cooperation
    E. Control
    F. Review and evaluate
    G. Set standards

29. Galassi et al. (1981)
    A. Acting assertively

30. Meichenbaum et al. (1981)
    A. Demonstrating affection
    B. Being cooperative

31. Shure (1981)
    A. Identifying others' motives and incorporating them into a plan of action

32. Wine (1981)
    A. Acting assertively

33. Schermerhorn, Hunt, and Osborn (1982, as cited in Fleishman et al., 1991)
    A. Staff
    B. Direct
    C. Control

34. Ford and Miura (1983, as cited in Ford, 1986)
    A. Demonstrating social ease
    B. Being cooperative
    C. Providing emotional support
    D. Leading others

35. Ford and Tisak (1983)
    A. Being cooperative

36. Luthans and Lockwood (1984, as cited in Fleishman et al., 1991)
    A. Socializing
    B. Motivating and reinforcing
    C. Managing conflict
    D. Training and developing
    E. Exchanging information
    F. Monitoring and controlling
    G. Interacting with outsiders

37. Metcalfe (1984, as cited in Fleishman et al., 1991)
    A. Giving information
    B. Stating guidelines
    C. Evaluating
    D. Defending
    E. Supporting
    F. Summarizing
    G. Seeking information
    H. Seeking feelings
    I. Seeking proposals
    J. Testing understanding
    K. Inviting participation

38. Peters and Austin (1985)
    A. Listening
    B. Empathizing
    C. Staying in touch
    D. Asking questions

39. Komaki, Zlotnick, & Jensen (1986)

A. Performance consequence: Indicating knowledge of performance
B. Performance monitoring: collecting information about performance
C. Providing instructions for performance

40. Van Fleet and Yukl (1986)
    A. Showing consideration
    B. Providing praise and recognition
    C. Training and coaching
    D. Disseminating information
    E. Encouraging decision participation
    F. Delegating
    G. Facilitating the work
    H. Representing the unit
    I. Managing conflict
    J. Emphasizing performance
    K. Inspiring subordinates
    L. Career counseling
    M. Clarifying work roles
    N. Administering discipline
    O. Facilitating cooperation and teamwork Monitoring reward contingencies

41. Marlow (1986)
    A. Expressing concern for others
    B. Being cooperative

42. Sarason (1986)
    A. Being cooperative

43. Cartledge (1987)
    A. Communicating
    B. Acting assertively

44. Lowman and Leeman (1988)
    A. Consideration of others
    B. Helping others
    C. Initiating structure

45. Gist et al. (1991)
    A. Negotiating
    B. Managing conflict

46. Lorr, Youniss, and Stefic (1991)
    A. Expressing positive feelings toward others
    B. Acting assertively
    C. Leading others
    D. Defending one's rights

47. Fleishman, Mumford, Zaccaro, Levin, Korotkin, & Hein (1991)
    A. Motivating personnel resources
    B. Developing personnel resources
    C. Obtaining and allocating personnel resources
    D. Utilization and monitoring of personnel resources

48. Borman and Brush (1993)
    A. Guiding directing and motivating subordinates
    B. Training, coaching, and developing subordinates

C. Communicating effectively and keeping others informed
D. Representing the organization to customers and the public
E. Maintaining good working relationships
F. Coordinating subordinates and other resources to get the job done
G. Staffing
H. Monitoring and controlling resources
I. Delegating
J. Selling/influencing

49. Wong, Day, Maxwell, & Meara (1995)
    A. Treating people respectfully
    B. Communicating

50. Baron (1996)
    A. Being cooperative
    B. Helping others
    C. Engaging in organizational citizenship behaviors
    D. Managing others impression of oneself
    E. Influencing others
    F. Leading others

51. Holsbrink-Engels (1997)
    A. Communicating

52. Gist and Stevens (1998)
    A. Negotiating

53. Yukl (1998)
    A. Supporting
    B. Consulting
    C. Delegating
    D. Recognizing
    E. Rewarding
    F. Motivating
    G. Managing conflict and team building
    H. Developing
    I. Clarifying
    J. Informing
    K. Monitoring
    L. Representing
    M. Networking
    N. Supervising
    O. Coordinating

54. Zaccaro (1999)
    A. Negotiating
    B. Persuading others
    C. Managing conflict