VICARIOUS LEARNING: THE RELATIONSHIP BETWEEN PERCEIVED LEADER BEHAVIOR AND WORK GROUP MEMBER BEHAVIOR

Diem Brown, B.S.

Thesis Prepared for the Degree of

MASTER OF SCIENCE

UNIVERSITY OF NORTH TEXAS

December 2002

APPROVED:

Michael Beyerlein, Major Professor and Chair
Douglas Johnson, Committee Member and Coordinator of the Program in Industrial/Organizational Psychology
Terry Halfhill, Committee Member
Ernest H. Harrell, Chair of the Department of Psychology
C. Neal Tate, Dean of the Robert B. Toulouse School of Graduate Studies

Brown, Diem, Vicarious Learning: The Relationship Between Perceived Leader Behavior and Work Group Member Behavior. Master of Science (Industrial Psychology), December 2002, 77 pp., 26 tables, references, 26 titles.

The relationship between perceived leader behavior and work group behavior was examined. Archival survey data was used in the analyses. The company that developed the survey randomly selected 595 employees to complete the survey. Results suggest there is a strong and significant relationship between leader and subordinate behavior. Group members who report that their leader demonstrates a particular behavior also report that their work group demonstrates the same or similar behavior, suggesting that subordinates may be modeling the behavior of their leader. Leadership behaviors related to trust, availability, respect, conflict, and support seem to be the best predictors of work group behavior. Furthermore, whether or not group members have received team training appears to have an effect on their perceptions of their leader and work group. The challenge for leaders is to understand modeling principles so that they can facilitate the modeling of functional rather than dysfunctional behaviors.

ACKNOWLEDGMENTS

The survey on which this research is based was created with the help of several members of a steering team. This work was made possible through their efforts and that of past and present steering team members, and through the guidance of Dr. Michael Beyerlein, Ph.D, from the Center for the Study of Work Teams at the University of North Texas. I would also like to thank Eric Simpson, former associate of The Center for the Study of Work Teams, for all of the work he put into leading the development of the survey and managing the data collection process.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION: LEADERSHIP CONCEPTS

For decades, researchers have been studying leadership behavior in terms of its effects on individuals and organizations. In the workplace, leadership has been judged to be important because of its assumed and demonstrated connection to organizational effectiveness. Specifically, the relationship between leader behavior or traits and subordinate satisfaction, performance, and behavior has been the focus of much of the literature. Many studies have tried to identify characteristics that would make a leader more effective, while others have chosen to investigate the effects of those attributes that are considered undesirable for leadership. In this paper, the primary concern is with the relationship between a leader's behavior and the behavior of his or her work group.

Defining Leadership

According to Bowers and Seashore (1966), leadership is essentially a collection of behaviors that can be classified in a number of ways. They describe it as "organizationally useful behavior by one member of an organizational family toward another member or members of that same organizational family" (p. 240). In 1957, Hemphill and Coons conducted a factor analysis of 11 leadership behavior dimensions, nine of which were taken from the dimensions used in the Leader Behavior Description Questionnaire (? J. Hemphill and A. Coons, Bureau of Business Research, College of Commerce and Administration, The Ohio State University, Columbus, OH). Based upon

data from a sample composed largely of educational groups, they obtained three orthogonal factors:

1. Maintenance of membership character -- behavior by a leader which allow him to be seen as socially agreeable to his work group.
2. Objective Attainment Behavior -- behavior related to the productivity of the group, such as setting group goals and objectives.
3. Group interaction facilitation behavior -- behavior that encourages communication among group members, reduction of conflicts, and a positive group atmosphere

With data collected from air-force crews, subsequent studies on the dimensions in the Leader Behavior Description Questionnaire yielded four orthogonal factors:

1. Consideration -- behavior associated with friendship, mutual trust, respect, and warmth.
2. Initiating Structure -- behavior that organizes and defines relationships, roles, channels of communication, and ways of getting jobs done.
3. Production emphasis -- behavior that motivates the group by emphasizing the mission or job to be done.
4. Sensitivity (social awareness) -- behavior that demonstrates a sensitivity and awareness of social interrelationships and pressures inside or outside the group.

Researchers eventually dropped the third and fourth factors because they accounted for too little variance. Thus, consideration and initiating structure became more widely known and used. Some refer to these concepts as the Ohio State leadership dimensions (Bowers and Seashore, 1966, p.242). There is evidence to show that managers do demonstrate behaviors associated with these dimensions. Brown and Dalton (1980), for

instance, found that business managers use consideration and initiating structure as leadership styles concurrently.

Studies conducted at the University of Michigan Survey Research Center focused on identifying leadership behaviors that correlated with each other and with effectiveness criteria. Researchers discovered two elements of leadership, which they labeled employee orientation and production orientation. Employee orientation is described as behavior by a supervisor that indicates he takes an interest in his group members, takes an interest in their personal needs, and feels interpersonal relationships are an important aspect of the job. Production orientation, on the other hand, has to do with behaviors that emphasize the production and technical aspects of a job. This dimension, in particular, corresponds with the Ohio State dimensions of initiating structure and production emphasis (Bowers & Seashore, 1966, p. 242).

According to Bowers and Seashore (1966), Katz and Kahn, based upon the Research Center findings and additional studies, presented their model of leadership, which consists of four dimensions:

1. Differentiation of supervisory role -- behavior that is considered truly supervisory in nature, as opposed to spending time doing paperwork and performing the work of the manager's subordinates.
2. Closeness of supervision -- behavior related to the delegation of authority, such as checking on subordinates and giving them instructions less frequently, and allowing them to perform their work in their own way, at their own pace.

3. Employee orientation -- behavior that creates supportive relationships and indicates a personal interest in employees, such as being more understanding, less punishing, and willing to help mentor employees.
4. Group relationships -- behavior that creates cohesiveness, pride by subordinates in their work group, a feeling of membership in the group, and mutual help on the part of those subordinates.

Following these studies and building upon their findings, Floyd Mann (1965) proposed that leadership consists of three necessary skills rather than behaviors. The first is human relations skills. This is the ability to work with people, including knowledge of the principles of human behavior, interpersonal relations, and human motivation. The second is technical skills, which Mann defines as the ability to use technical knowledge, techniques, and equipment to perform the necessary tasks. The third and final competency is administrative skills. This is the ability to plan, organize, coordinate, assign, and inspect work. According to Bowers and Seashore (1966), skills and behaviors requiring a particular set of skills, although not perfectly aligned, can still be considered as corresponding with each other.

Similar to the University of Michigan's employee orientation and production orientation concepts, Cartwright and Zander (1960), on the basis of studies conducted at the Research Center for Group Dynamics, describe leadership in terms of only two functions:

1. Goal achievement functions -- behavior associated with helping members stay focused on the goal.

2. Group maintenance functions -- behavior that sustains positive interpersonal relationships, resolves conflict, and promotes interdependence among group members (Bowers & Seashore, 1966).

According to Bowers and Seashore (1966), these dimensions appear to encompass a broad range of behaviors. For instance, goal achievement functions include behaviors associated with dimensions previously mentioned, such as initiating structure, production emphasis, objective attainment behavior, and production orientation. Group maintenance functions include behaviors related to the dimensions of consideration, maintenance of membership character, and employee orientation.

There seems to be a great deal of overlap in how researchers have conceptually defined leadership. Bowers and Seashore (1966) have attempted to integrate the findings from various studies in order to develop a basic set of behaviors to characterize leadership. They contend that leadership is essentially comprised of four major dimensions:

1. Support -- behavior that increases someone else's feeling of personal worth and importance.
2. Interaction facilitation -- behavior that promotes members of the group to develop close, mutually satisfying relationships.
3. Goal emphasis -- behavior that encourages enthusiasm for meeting the group's goal or achieving excellent performance.
4. Work facilitation -- behavior that helps achieve goals through such activities as scheduling, coordinating, planning, and by providing resources such as tools, materials, and technical knowledge.

Table 1

Correspondence of Different Leadership Concepts

<table>
<tr><th>Bowers and Seashore</th><th>Hemphill and Coons</th><th>Halpin and Winer</th><th>Katz et al.</th><th>Katz and Kahn</th><th>Cartwright and Zander</th></tr>
<tr><td>Support</td><td>Maintaining membership character</td><td>Consid-eration</td><td>Employee orientation</td><td>Employee orientation</td><td rowspan="3">Group maintenance functions</td></tr>
<tr><td rowspan="2">Interaction Facilitation</td><td rowspan="2">Group facilitation behavior</td><td rowspan="2">Sensitivity</td><td rowspan="2"></td><td>Closeness of supervision</td></tr>
<tr><td rowspan="3">Group relationship</td></tr>
<tr><td>Goal Emphasis</td><td rowspan="3">Objective attainment behavior</td><td>Production emphasis</td><td rowspan="3">Production orientation</td><td rowspan="3">Goal achievement functions</td></tr>
<tr><td>Work Facilitation</td><td>Initiating structure</td><td>Differen-tiation of supervisory role</td></tr>
<tr><td></td><td></td><td></td><td>Closeness of supervision</td></tr>
</table>

Note. Adapted from “Predicting Organizational Effectiveness with a Four-Factor Theory of Leadership,” by D.G. Bowers and S.E. Seashore, 1966, *Administrative Science Quarterly*, 11(2), p.248.

Bowers and Seashore (1966) compared their dimensions to every one of the dimensions discussed earlier. According to the researchers, each of their four dimensions appears in all but one of the frameworks previously mentioned, as shown in Table 1. Leadership has been conceptualized as consisting of categories of behaviors like the ones discussed thus far. Bowers and Seashore (1966) contend that these behaviors must be present in order for a group to be effective. They may be provided by a formally designated leader, by members of the group, or by both. However, the researchers believe that a formally designated leader, through his or her leadership behavior, acts as a role model for subordinates. Subordinates, in turn, will supply each other with mutual leadership.

Theories on Human Behavior

There are a number of theories that attempt to explain human behavior in organizations. These theories are based upon concepts such as motivation, satisfaction, leadership, and learning. Social exchange theory, for instance, tries to explain behavior in terms of motivation. The basic principle is that individuals are motivated by a desire to increase rewards and reduce losses. Hence, exchanges must occur between the supervisor and subordinate that produces mutually beneficial results. For example, in the workplace, the supervisor provides a subordinate with support and monetary rewards while in exchange, the subordinate contributes expertise and devotion to the work. Supervisor-subordinate relationships providing more rewards than costs will produce lasting mutual trust and attraction (Deluga, 1994).

Leader-member exchange (LMX) theory can also be understood in terms of social exchanges. This theory asserts that supervisors treat individual subordinates differently.

Consequently, some individuals have higher-quality exchanges with their supervisor, while others have lower-quality exchanges. LMX has been found to be positively correlated with job satisfaction, satisfaction with the supervisor, and stronger organizational commitment. Higher-quality exchanges are characterized by mutual trust and support, interpersonal attraction, friendly working relationships, and loyalty. Higher-quality exchange subordinates receive rewards such as favorable performance appraisals, promotions, and greater job responsibilities (Liden & Graen, 1980). In return, supervisors receive committed and conscientious subordinates. Subordinates with lower quality exchanges receive less leader attention, support, consideration, and communication, and suffer more work problems. They also receive less challenging assignments, get fewer promotions, and experience slower career progress that high LMX employees (Townsend, Phillips, & Elkins, 2000). Because of the obvious advantages, higher-quality exchanges are likely to arouse feelings of unfairness among lower-quality exchange subordinates (Deluga, 1994).

Measurement of leader-member exchange relationships has generally been from the subordinate's perspective. Studies comparing the perspective of the leader with that of the subordinate reveal moderate to low agreement. Agreement between leaders and subordinates on mutually experienced events varied as a function of LMX quality. Specifically, agreement with leaders was stronger for members reporting higher LMX. Although subordinate LMX perceptions are correlated with leader performance ratings, the relationship is not as strong as the correlation between leader LMX and performance ratings (Gerstner & Day, 1997). Some researchers suggest that a leader's higher expectations of a subordinate would result in higher performance. According to Gerstner

and Day (1997), leaders may change the actual performance levels of employees by creating positive or negative expectations about an employee through the development of LMX relationships (i.e., self-fulfilling prophecies). When a leader delegates authority and responsibility to a subordinate, the subordinate will likely value this behavior because it demonstrates the leader's trust in that subordinate. When the subordinate perceives the leader's trust to be high, his or her attitudes will become more positive and his or her sense of obligation to the leader will increase. In addition, the subordinate will be more satisfied, committed, and likely to engage in behaviors that go beyond their job requirements (Brower, Schoorman, & Tan, 2000). These behaviors are referred to as "citizenship behaviors," and will be discussed further in the following sections.

Equity theory explains organizational behavior as a consequence of satisfaction. This theory maintains that subordinates are most satisfied when the ratio between benefits received and their contributions is similar, compared to that of their coworkers. If unfairness is believed to exist, equity theory anticipates subordinates will respond by reducing their contributions or expect additional rewards to eliminate the inequities (Deluga, 1994). This theory is consistent with research suggesting that employees with poor LMX relationships may retaliate by engaging in negative behaviors, especially when they are aware that their leader's treatment of them is worse than that of their peers. Examples of negative behaviors may include taking excessively long or undeserved breaks, calling in sick when healthy, and damaging equipment or work processes (Townsend, Phillips, & Elkins, 2000). Subordinates rather than supervisors may be more likely to engage in retaliatory behavior because poor exchange relationships can affect their status in the organization. On the other hand, high LMX employees will tend to

reciprocate for benefits they receive at work. In an attempt to reduce feelings of imbalance for example, rewarded employees my increase attendance, improve performance, and engage in citizenship behaviors. Research on LMX also indicates that subordinates with high LMX perceive their organization as more supportive than those with low LMX. Subordinates who view their organization as more supportive are also more likely to exhibit safety-conscious behaviors (Townsend et al., 2000).

Social exchange, leader-member exchange, and equity theory all have leader reward behavior as a key component of their model. Past research does provide evidence of a relationship between supervisor reward behavior and subordinate behavior. A significant amount of research indicates rewards such as recognition, social support, and merit increases are positively related to subordinate performance (Sims and Szilagyi, 1975; Williams and Podsakoff, 1992). In addition, Podsakoff and Todor (1985) found that work group cohesiveness increases when leaders reward productivity. Group cohesiveness has been defined as 'the resultant of all the forces acting on members to remain in the group' (Dobbins & Zaccaro, 1986). Highly cohesive groups tend to have characteristics such as less conflict, higher member trust, and better group interaction (Dobbins & Zaccaro, 1986). A cohesive work team seems to be more loyal to the organization and has more enthusiasm and drive toward work (Putti, 1985).

Past research has also focused on behaviors that are not associated with rewards. These behaviors are referred to as organizational citizenship behaviors (OCBs). As mentioned previously, OCBs exist when the subordinate, of his or her own accord, goes beyond the stated job requirements and performs non-mandatory behaviors without the expectation of receiving explicit recognition or compensation. OCBs have been linked

with organizational effectiveness, job satisfaction, trust in and loyalty to the leader, and perceptions of supervisor fairness. Deluga (1994) found data to support the idea that fairness is the supervisor behavior most closely associate with the organizational citizenship behaviors of conscientiousness, sportsmanship, courtesy, and altruism. Thus, utilizing principles of equity theory, one can argue that subordinates who receive fair treatment may go beyond formal job requirements and voluntarily perform acts which benefit the organization. According to Deluga (1994), organizational citizenship behaviors are essential for peak productivity since organizations cannot predict the entire range of subordinate behaviors needed for achieving goals. Thus, identifying supervisor behaviors that induce OCB is essential.

Theories on Organizational Behavior

Theoretical frameworks for organizational behavior have been summarized into three major approaches. One approach explains organizational behavior as a function of the person. Specifically, "internal psychological constructs such as motivation, perception, attitudes, expectancies, and personality characteristics are used to explain why people behave the way they do" (Davis & Luthans, 1980, p. 281). A second approach takes the opposite view, and explains behavior as a function of the environment. Most closely associated with theory of operant conditioning, this approach claims that all behavior is controlled by environmental consequences. The third major theory of organizational behavior combines both approaches and asserts that behavior is a function of the person and the environment. However, there is a fourth explanation for human behavior that has generally gone unnoticed by organizational behavior researchers. Social learning theory, as it is called, is a behavioral model derived from a

combination of several organizational behavior theories and theories unique to social learning.

According to Davis and Luthans (1980), existing frameworks provide only a partial explanation of organizational behavior. In their opinion, social learning theory seems to best fill some of these deficiencies because it is able to integrate all the variables of organizational behavior – the behavior itself, the environment, and the person. Social learning theory asserts that the person and the environment determine each other in a reciprocal manner, rather than functioning as independent units. Through their actions, people produce the environmental conditions that affect their behavior. The environmental conditions created by behavior also partly determine what a person becomes and can do, which affects subsequent behavior (Davis and Luthans, 1980). Therefore, organizational behavior is seen as affecting and being affected by the person, the environment, and the interaction of all three organizational behavior variables.

One way to better understand social learning theory is to distinguish it from B.F. Skinner's more established theory of operant conditioning. The two theories are similar in that both derive learning from the consequences of behavior. In other words, the person learns from the consequences that a certain behavior has on the environment. However, the theories are different on the basis of three major elements. The first element pertains to the effects of cognitive processes. Operant theory sees a person as 'operating' on the environment, but that behavior is controlled by environmental consequences. Social learning theory however, views each person as responding not only to the environment but also to a cognitive representation of the environment. This suggests that an individual's interpretation of the environment may be different from

another individual's interpretation of the same environment. In addition, people can create consequences entirely through their own imagination, which allow them to think through possible courses of action and imagine the consequences without having to experience them directly (Davis and Luthans, 1980).

The second major difference between social and operant theory involves the part played by self-control processes. Operant theory places almost total control of behavior on the environment. Social learning theory, on the other hand, emphasizes self-control. Davis and Luthans (1980) explain their interpretation of self-control processes as follows:

> A given action typically produces two outcomes – an external environmental consequence and an internal self-evaluative consequence. In other words, people are affected not only by the external consequences of their behavior but also by the consequences they create for themselves…this suggests that people learn to modify their behavior when their own self-created consequences or standards are not fulfilled. The self-reinforcement consequence is particularly important to virtually all sustained goal-oriented behavior and explains how behavior persists despite the lack of immediately compelling external support (p. 286).

Bandura (1976) provides an example of self-controlling processes by explaining that authors do not need someone sitting at their sides, reinforcing each written statement until an acceptable version is produced. Rather, authors possess a standard of what constitutes acceptable work and they repeatedly self-edit their own work.

The third element that distinguishes social learning theory from operant conditioning theory is the role of vicarious processes (i.e., modeling). Operant theory, as

it applies to organizations, contends that work behavior is a function of its consequences. In other words, people are more likely to increase the frequency of behavior that has resulted in positive consequences. Likewise, people will tend to decrease the frequency of behavior that has resulted in negative consequences (Manz & Sims, 1981). Although social learning theory agrees with the operant view that learning takes place as a result of experiencing the consequences of one's behavior, it also emphasizes that learning can take place by observing the consequences of someone else's behavior. This is called 'antecedent learning' because it occurs before the behavior (Manz & Sims, 1981, p. 105). Vicarious learning, or modeling is an example of antecedent learning. According to Bandura (1976), most of the behaviors that people exhibit are learned either intentionally or inadvertently, through the influence of example. Thus, direct experience of the consequences of behavior is not needed in order for learning to take place. Learning by observing others allows people to avoid making costly errors (Manz & Sims, 1981).

A substantial amount of research has shown that people quickly duplicate the actions, attitudes, and emotional responses exhibited by models (Davis & Luthans, 1980). According to Kahn and Cangemi (1979), the majority of socially desirable behavior is learned through imitation or modeling others such as parents and teachers. "Vicarious, imitative learning seems to better explain the rapid transference of behavior than does the tedious selective reinforcement of each discriminable response" (Davis and Luthans, 1980, p. 283). Therefore, operant learning theory is correct, but incomplete in its explanation of organizational behavior. Social learning theory presents a more comprehensive view of learning by taking into account learning through observation or modeling the behavior of others.

There are generally three types of learning associated with modeling. The first type, which has already been discussed, is learning by observing a model. The second type has to do with inhibitory and disinhibitory effects associated with observing the consequences of a model's behavior. If the model's behavior is punished, then the observer is likely to be inhibited. If the model's behavior is reinforced, then the observer is likely to be disinhibited (Manz & Sims, 1981, p. 106). Essentially, individuals are less likely to model the behavior if they believe there will be a negative effect than if they anticipate a positive outcome (Robinson & O'Leary-Kelly, 1996). The third type of learning is called a behavioral facilitation effect. This effect occurs when a model acts as a cue for the observer to begin a previously learned behavior (Manz & Sims, 1981). For example, in a courtroom, everyone is expected to stand when the judge enters the room. When the judge sits down, this action acts as a cue for everyone in the courtroom to sit as well. Thus, the observers have modeled or imitated the behavior of sitting down.

According to Manz and Sims (1981), one view of how models influence observers' behavior is by influencing their expectations. There are two kinds of expectations thought to be susceptible to influence. The first is self-efficacy expectations, which is defined as the belief that one can successfully carry out the behavior required to produce the outcomes (Manz & Sims, 1981). The greater the perception of self-efficacy, the more effort an individual will put into the task. The second type of expectation is called outcome expectations. In this instance, the belief is that by observing the consequences of a model's behavior, the observer forms expectations of outcomes. In other words, the observer expects to achieve the same outcome as the model if he or she were to perform the same behavior as the model.

However, characteristics of the model and the observer can influence whether or not the behavior is imitated. Models who possess interpersonal attraction are sought out and those who do not are generally rejected or ignored (Manz & Sims, 1981). Therefore, it is possible that models who are perceived to be successful exert greater influence than those who are not seen as successful. Some argue that modeling-based training programs will be more successful if the models are of high status and competence (Manz & Sims, 1981). A study by Weiss (1977) lends some credence to this assertion. Weiss found that subordinates showed greater similarity in behavior to superiors who were believed to be competent and successful.

The way a model carries out a task can also affect how much influence the modeled behavior has on the observer. Models who display no apprehension or difficulty in completing a task are less effective than those who do show apprehension and difficulty. One explanation for this finding is that an observer can more readily identify with a model who struggles and overcomes difficulties than one who has no problems. Thus, to the observer, an individual perceived to have greater abilities might not be an ideal person to emulate (Manz & Sims, 1981).

Characteristics of the observer can also act as a moderator in the modeling process. If the observer does not value the rewards received by the model, then the modeled behavior is less likely to be adopted (Weiss, 1977). In addition, Brown and Inouye (1978) suggest that observers exposed to models unsuccessful in completing a task may be less likely to perform the task at a later time. By observing the model's failure, the observer may lower his self-efficacy expectations. According to Manz and

Sims (1981), researchers believe that individual characteristics such as self-esteem, self-expectations, and personal fears can influence vicarious learning.

Organizational Behavior Modeling

There is a substantial amount of research on the topic of behavior modeling; yet, very little of it has focused on modeling within organizations. Still, some researchers contend that modeling does occur in the workplace. Robinson and O'Leary-Kelly (1996) found that the presence of aggressive workplace models is associated with a higher degree of individual aggressive behavior. In addition, the findings of Haunschild and Miner (1997) indicate organizations model the practices of other organizations. The researchers refer to this practice as "interorganizational imitation" (p. 472). However, the area of subordinate modeling of leader or supervisor behavior has not been studied at length. Manz and Sims (1981) believe the implications to managers and their organizations are great because modeling is a process whereby undesirable as well as desirable behaviors can be learned. Modeling can occur on a daily basis through the day-to-day relationships between managers and subordinates, even if the parties are unaware of it (Manz & Sims, 1991). In addition, evidence does indicate employees are more likely to model the behavior of a manager than a co-worker because of the status, experience, and prestige of those with managerial positions (Manz & Sims, 1981).

Relationships Between Leadership and Work Group Behavior

There is some evidence that demonstrates the relationships between leadership behavior variables and group behavior variables are strong and significant. According to Putti (1985), correlations between leader and group behavior variables suggest that leadership variables seem to influence group variables such as cohesiveness, loyalty, and

drive in a positive way. His study also indicates that certain leadership variables are better predictors of group variables than others. Particularly, the ability of the leader to coordinate the activities of the group and make them work as a team is strongly related to group cohesiveness, productivity, drive, and loyalty. To be more specific, results reveal that loyalty and drive variables of work improvement teams demand the ability of the leader to reconcile conflicts and restore order (interaction facilitation behavior). Group cohesiveness also requires the leader to demonstrate interaction facilitation behavior, as well as consideration behavior. Putti (1985) asserts that a leader needs to exhibit production emphasis and interaction facilitation behaviors in order to affect group productivity. In terms of how work group members define leadership, Putti's (1985) findings reveal that work improvement teams describe a leader as one who shows concern for the welfare of the team members (consideration); one who has the ability to coordinate the activities of the group (work facilitation); keeps the members working as a team (interaction facilitation); and actively exercises the leadership role (differentiation of supervisory role).

In a study of leadership and subordinate characteristics, Bowers and Seashore (1966) found there is a strong and significant relationship between a manager's behavior and that of his subordinates. Their findings also reveal that in regards to leadership characteristics, the best predictor of group member leadership behavior is managerial leadership behavior. They suggest that if a manager wants to increase the degree to which his subordinates support one another, he must also increase his support. If he wants to increase subordinate emphasis on goals, he must increase his interaction facilitation and goal emphasis behaviors. By increasing his work facilitation behavior, he

will increase the likelihood that his subordinates will do the same. Finally, if a manager increases his facilitation of group interaction, his subordinates will in turn facilitate interactions among themselves.

As mentioned earlier, Bowers and Seashore (1966) have integrated the findings from various research programs and have come up with four dimensions of leadership:

1. Support -- behavior that increases someone else's feeling of personal worth and importance.
2. Interaction facilitation -- behavior that encourages positive interactions among group members.
3. Goal emphasis -- behavior that emphasizes group goal achievement.
4. Work facilitation -- behavior that helps accomplish goals.

This study will utilize past research findings and the four leadership dimensions developed by Bowers and Seashore as the basis for the hypotheses. This study will also try to answer the following questions:

1. What kind of relationship exists between perceived leader behavior and work group behavior?
2. Which leadership behaviors are the best predictors of work group behavior?

Hypotheses

The research hypotheses proposed are as follows:

1) There is a significant positive correlation between the leadership behavior scale and the work group behavior scale.

2) There is a significant positive correlation between specific work group behaviors and the perceived behaviors of their leader.

The following items within the leadership and work group behavior scales will be examined as sub-hypotheses:

2a) There is a significant positive correlation between the perception of a leader's trust building behavior and the degree of trust between group members.

2b) There is a significant positive correlation between the perception of the degree of respect leaders show their group members and the degree of respect group members have for each other.

2c) There is a significant positive correlation between the perception of a leader's conflict resolution behavior and the degree of conflict resolution behavior demonstrated by group members.

2d) There is a significant positive correlation between the perception of a leader's communication practices (i.e., listens openly to group members' concerns, ideas, and suggestions) and the communication practices of group members.

2e) There is a significant positive correlation between the perception of a leader's supportive behavior (i.e., supports team members when there are problems) and the degree of support between group members.

3) Leadership behaviors related to trust, conflict resolution, and support will have the highest correlation (R squared value) with the work group behavior scale, indicating they account for the most variance in the work group behavior scale and are the best predictors of work group behavior.

CHAPTER 2

METHOD

Participants

This research utilizes archival survey data from a manufacturing facility in Texas. The survey was jointly developed by associates of The Center for the Study of Work Teams at the University of North Texas and a committee consisting of production and support employees and managers. The subjects range in age from 18-51+ years. 56% of the subjects were male and 42% were female. Employees from each major division of the company were asked to participate in the survey. Calculations determined that approximately 30% of the facility's entire population would need to complete the survey in order to obtain a representative sample. Since the majority of the population consisted of production workers, 20% of the survey participants were from this group. The second largest group of employees worked in various departments serving in a support role. Therefore, calculations revealed that 9% of the survey participants should be employees in support positions. Managers were the third group of participants and they made up 1% of the subjects surveyed. At the time the survey was administered, 80% of the participants had been members of their work group for at least six months. 59% were members of their work group for one year or more. Data from all 595 participants will be utilized in the analysis.

Instrument

In 1999, a steering committee was formed to begin the design and implementation of a Team Based Organization (TBO) within the facility. As part of this initiative, the TBO Steering Committee decided that more detailed information would be needed, in key areas, to develop a baseline of current practices, identify changes as they occur in the system, and to determine how well the initiative was being implemented. To gather this information in a systematic and efficient manner, a company-specific survey was needed. Members of the TBO Steering Committee, which consisted of management, support, and production workers, created items for the survey and then grouped them into categories or scales, prior to conducting any factor analyses. A draft of the survey was shown to several focus groups for further development. These focus groups consisted of randomly selected employees from various departments within the organization. Each focus group session lasted 90 minutes and consisted of two phases. During the first phase, the attendees were asked to fill out the survey in its current form (this took about 30-45 minutes). Following a short break, phase two consisted of attendees providing the survey development sub-team with some direct feedback on the content, administration process, and general appearance of the TBO Survey. These focus groups were conducted by associates of the Center for the Study of Work Teams. The final version was ready for use across the facility in August 1999.

Participants were asked to respond to each survey question by choosing the number that best reflects their opinion. The questions are divided into eight constructs or scales. Each scale was developed by asking the survey development sub-team to group together questions that appeared to relate to one another. Focus group participants were

also asked to examine the categorization of the questions. Using feedback from both the survey sub-team and focus groups, the following scales emerged: 1) leadership and morale, 2) recognition, 3) customer focus, 4) information, measurement and performance improvement, 5) decision-making, 6) training, 7) team (work group) environment, 8) relationships. The relationship scale is made up of five distinct sub-scales. This study is primarily concerned with the sub-scales pertaining to "relationships within the team," as it is referred to in the survey, and relationships between work group members and their leader. Although the survey refers to employees as "team members," survey administration was conducted during a time when the organization was in the early stages of team implementation. Therefore, it would be more accurate to say that employees were organized into work groups rather than teams. Hence, this study will refer to survey participants as "work group members" rather than "team members."

The survey developers were more concerned with the actual questions than with whether or not they formed true constructs or scales. Therefore, for this study, the questions were reviewed and re-grouped to form categories containing questions that appeared to be related to the same construct. As a result, two new scales were created. The first scale will be referred to as "work group behavior." This scale will consist of questions 51-62 of the survey. The second scale will be called "perceived leader behavior." This scale consists of questions 38 and 76-93 of the survey. The scales are labeled in this manner because they describe behaviors performed by specific groups of individuals – leaders and work group members. Responses were measured on a four-point Likert scale with 1= Rarely, 2 = Some of the time, 3 = Most of the time, and 4 = Always. A "Not Applicable" column was also added for participants who felt a question

did not pertain to their work. Demographic information was collected regarding gender, job title, shift, length of employment, length of time on current work group, and age. Several questions pertaining to the amount of training they have received in the past were also included as part of the demographics section. Finally, a glossary was included to define unique and less widely known terms.

Procedure

Work groups from different shifts and functions within the company were randomly selected to complete the survey. The survey was administered in groups of 30 employees at various times over a two to three week period. The administration process took approximately one hour and began with a brief explanation of the material, how employee confidentiality would be protected, how survey results would be utilized, and that filling out the survey was strictly voluntary. Participants were asked not to include their names on the survey form. To ensure confidentiality, an outside party - the UNT Center for the Study of Work Teams (CSWT), conducted the survey administration and analysis. Surveys were collected and sealed by survey administrators and sent directly to the CSWT where results were tabulated and analyzed. The data were compiled for plant-wide analysis and shared with all employees.

Analysis

In order to carry out more advanced computations, the data were imported into SPSS (Statistical Package for the Social Sciences) for further analysis. The study focuses on variables within two key areas of the survey. The first area deals with a leadership behavior scale, and asks participants to rate how often their immediate supervisor performs certain behaviors. The second scale, work group behavior, likewise asks

participants to rate how often the members of their work group perform behaviors similar to the ones in the leadership scale. An exploratory factor analysis and item analysis were carried out to determine whether the items chosen to measure leadership behavior and work group form true scales. Correlation coefficients were run to determine the relationship between each leadership behavior and the work group behavior scale. A correlation coefficient was also conducted between the leadership behavior and work group behavior scales, and between the items within each scale. The independent variable is leadership behavior and the dependent variables are items in the work group behavior scale. A stepwise regression analysis was conducted to determine which leadership behaviors best predict work group behavior. Separate correlations and regression analyses were conducted for group members classified as production workers. Separate analyses were not run for the support or managerial groups because the sample sizes were too small to obtain valid data.

CHAPTER 3

RESULTS

Item analyses were conducted on the 19 items hypothesized to assess perceived leadership behavior. Each of the 19 items was correlated with the total score for leadership behavior. All of the correlations were greater than or equal to .56. Item analyses were also conducted on the 12 items hypothesized to assess work group behavior. All correlations were greater than or equal to .67. Coefficient alphas were computed to obtain internal consistency estimates for the leadership behavior and work group behavior scales. The alphas for the leadership behavior and work group behavior scales were .96 and .94, respectively. Tables 2 and 3 show the item total statistics for the work group behavior scale and the leadership behavior scale, respectively.

A principal components factor analysis using a Varimax rotation was conducted on all of the survey questions. The analysis reveals that items chosen for the leadership behavior scale had high loadings on factor one. Items chosen for the work group behavior scale loaded highly on factor two. Factor one items had low loadings on factor two and vice versa, as shown in Tables 4 and 5. Based upon results of the item and factor analyses, no items were dropped from the work group behavior and leadership behavior scales.

Table 2

Item Total Statistics for Work Group Behavior Scale

Variable	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted	*n*
RW51	29.0521	59.1590	.7289	.5891	.9362	576
RW52	29.0937	58.4782	.7852	.6709	.9342	576
RW53	28.9913	58.4260	.8146	.7179	.9332	576
RW54	29.0694	58.8891	.7799	.6594	.9344	576
RW55	29.0087	59.0730	.7172	.5745	.9367	576
RW56	29.1285	59.4269	.7504	.5954	.9355	576
RW57	29.0000	59.3670	.7164	.5596	.9367	576
RW58	29.0816	58.7672	.6934	.5025	.9378	576
RW59	28.4687	61.9190	.6753	.4713	.9382	576
RW60	29.1007	59.4507	.7519	.5950	.9354	576
RW61	29.0139	60.1320	.6759	.5243	.9381	576
RW62	29.2483	59.6130	.7060	.5571	.9370	576

Reliability Coefficients 12 items

Alpha = .9411 Standardized item alpha = .9416

Table 3

Item Total Statistics for Leadership Behavior Scale

Variable	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted	*n*
RL76	50.2690	191.2712	.7720	.6503	.9598	512
RL77	50.3197	195.1867	.6335	.4913	.9616	512
RL78	50.0975	190.8420	.7609	.6203	.9599	512
RL79	50.0741	193.1547	.7027	.5872	.9607	512
RL80	50.0370	189.4225	.8235	.7081	.9590	512
RL81	49.8519	192.4546	.7529	.6651	.9600	512
RL82	49.9201	190.2651	.8292	.7455	.9590	512
RL83	50.1248	189.6719	.7925	.6633	.9595	512
RL84	49.7934	191.1916	.7909	.6946	.9595	512
RL85	50.0019	194.3496	.7173	.5614	.9605	512
RL86	49.8577	191.2590	.7884	.6775	.9595	512
RL87	49.7758	194.9243	.6882	.5962	.9609	512
RL88	49.6160	197.0261	.5649	.4368	.9625	512
RL89	49.7700	194.8532	.7090	.6455	.9606	512
RL90	50.1150	191.5746	.8048	.6940	.9594	512
RL91	49.9649	192.6003	.7548	.6223	.9600	512
RL92	50.1618	192.5617	.7869	.6619	.9596	512
RL93	50.1579	191.5121	.7256	.5625	.9604	512
DM38	50.1267	192.6773	.7047	.5280	.9607	512

Reliability Coefficients 19 items

Alpha = .9622 Standardized item alpha = .9623

Table 4

Results of Factor Analysis for Work Group Behavior Items

Variable	Factor 1	Factor 2
Q51		.745
Q52	.208	.748
Q53	.221	.753
Q54		.727
Q55	.202	.703
Q56		.710
Q57		.776
Q58	.291	.626
Q59	.259	.691
Q60	.217	.598
Q61		.584
Q62		.559

Table 5

Results of Factor Analysis for Leadership Behavior Items

Variable	Factor 1	Factor 2
Q38	.635	
Q76	.701	.262
Q77	.545	
Q78	.677	.245
Q79	.634	
Q80	.772	
Q81	.754	.216
Q82	.832	
Q83	.744	
Q84	.804	
Q85	.655	
Q86	.783	
Q87	.630	
Q88	.546	
Q89	.632	
Q90	.700	
Q91	.656	
Q92	.739	
Q93	.671	.233

The first hypothesis states that there is a significant positive correlation between the leadership behavior and work group behavior scales. The overall mean and standard deviation of the work group behavior scale was 2.63 and .70, respectively. The mean and standard deviation of the leadership behavior scale was 2.78 and .76, respectively. Overall descriptive statistics for all scale items are shown in Table 6. High mean scores for the leadership behavior items indicate that the supervisor is perceived as being a good leader. Likewise, high mean scores for the work group behavior items indicate that the group is perceived as being effective in terms of how well members work together. Low mean scores indicate just the opposite. Pearson correlation coefficients were computed between the leadership behavior and work group behavior scales and between the leadership behavior items and the work group behavior scale. The correlation between the scales was significant, $\underline{r}$ (592) = .56, $\underline{p} < .001$. Using the Bonferroni approach to control for Type 1 error across the 19 correlations between the leadership behavior items and the work group behavior scale, a p-value of less than .003 was required for significance. All 19 correlations were statistically significant and were greater than or equal to .32. Leadership behavior related to trust (i.e., the leader develops group member trust) appears to have the highest correlation with the work group behavior scale, $\underline{r}$ (588) = .51, $\underline{p} < .001$. Inter-item correlations for the work group behavior scale and the leadership behavior scale are indicated in Tables 15 and 16, respectively. Table 17 shows all correlations between the work group behavior and leadership behavior scales and items, and Table 18 shows the correlations between the scales for each job title.

Whether or not a participant received team training in the past was examined as a moderator variable. For those group members who have received team training in the

past, the mean and standard deviation of the work group behavior scale was 2.66 and .70, respectively. The mean and standard deviation of the leadership behavior scale was 2.81 and .78, respectively. Descriptive statistics for the scale items for group members who have received team training is shown in Table 7. Correlations for this group were computed between the leadership behavior and work group behavior scales, and between the leadership behavior scale items and the work group behavior scale. The correlation between the scales was significant, r (412) = .59, p < .001. All 19 correlations between the leadership behavior scale items and the work group behavior scale were statistically significant and were greater than or equal to .33. Leadership behavior related to trust appears to have the highest correlation with the work group behavior scale for group members who have received team training in the past, r (408) = .52, p < .001.

For those group members who have not received team training in the past, the mean and standard deviation of the work group behavior scale was 2.57 and .70, respectively. The mean and standard deviation of the leadership behavior scale was 2.72 and .71, respectively. Descriptive statistics for scale items for group members who have not received team training are shown in Table 8. Correlations for this group were computed between the leadership behavior and work group behavior scales, and between the leadership behavior scale items and the work group behavior scale. The correlation between the scales was significant, r (174) = .45, p < .001. All 19 correlations between the leadership behavior scale items and the work group behavior scale were statistically significant and were greater than or equal to .23. Leadership behavior related to trust appears to have the highest correlation with the work group behavior scale for group members who have not received team training in the past, r (173) = .46, p < .001.

Pearson correlations were also computed for production workers only (i.e., those who marked "0" under "Job Title" on the survey). The mean and standard deviation of the work group behavior scale was 2.62 and .69, respectively. The mean and standard deviation of the leadership behavior scale was 2.76 and .75, respectively. Descriptive statistics production workers are shown in Table 9. The correlation between the scales was significant, r (362) = .54, p < .001. All 19 correlations between the work group behavior scale and the leadership behavior scale items for production workers were statistically significant and were greater than or equal to .30. Leadership behavior related to support of group decisions (i.e., the leader is supportive of the decisions the group makes) appears to have the highest correlation with the work group behavior scale for production workers overall, r (351) = .47, p < .001. However, leadership behavior related to trust was also highly correlated with the work group behavior scale, r (360) = .45, p < .001.

Team training was once again examined as a moderator variable. For those production workers who have received team training in the past, the mean and standard deviation of the work group behavior scale was 2.65 and .70, respectively, and the mean and standard deviation of the leadership behavior scale was 2.79 and .77, respectively. Descriptive statistics for production workers who have received team training are shown in Table 10. Pearson correlations were computed between the leadership behavior and work group behavior scales, and between the leadership behavior scale items and the work group behavior scale. The correlation between the leadership behavior scale and work group behavior scale was significant, r (240) = .59, p < .001. All 19 correlations between the leadership behavior scale items and the work group behavior scale were

statistically significant and were greater than or equal to .30. Once again, leadership behavior related to support of group decisions appears to have the highest correlation with the work group behavior scale for production workers who have received team training in the past, r (232) = .52, p < .001. Other leadership behaviors that were highly correlated with the work group behavior scale were feedback (i.e., provides feedback in a positive manner), r (239) = .52, p < .001, and trust, r (238) = .49, p < .001.

For production workers who have not received team training in the past, the mean and standard deviation of the work group behavior scale was 2.56 and .65, respectively, and the mean and standard deviation of the leadership behavior scale was 2.73 and .70, respectively. Descriptive statistics for production workers who have not received team training are shown in Table 11. Descriptive statistics for all other groups (i.e., management and support combined) can be found in Tables 12 through 14. Correlations were computed between the scales and between the leadership behavior scale items and the work group behavior scale. The correlation between the leadership behavior scale and work group behavior scale was significant, r (117) = .37, p < .001. 13 of the 19 correlations between the leadership behavior scale items and the work group behavior scale were statistically significant and were greater than or equal to .26. Leadership items that had the highest correlation with the work group behavior scale were balancing needs (i.e., balance company needs with group member needs), r (115) = .36, p < .001, and trust, r (116) = .35, p < .001. Correlations between perceived leadership behaviors related to giving feedback, respect, listening skills, appreciation, approachability (i.e., is approachable when problems occur), and Ergo (i.e., encourages participation in Ergonomic exercises), and the work group behavior scale were not statistically

significant. In general, leadership behaviors related to Ergo sharing information on group performance [i.e., shares Quality, Cost, Delivery, Safety, Morale (QCDSM) information with our group], and training (i.e., helps group members receive the training they need) had the lowest correlation with the work group behavior scale.

Table 6

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.63	.70	593	RLSCALE	2.78	.76	595
RW51	2.61	.92	589	DM38	2.68	1.02	579
RW52	2.56	.92	590	RL76	2.49	1.02	588
RW53	2.65	.90	593	RL77	2.42	1.00	569
RW54	2.58	.89	593	RL78	2.67	1.04	588
RW55	2.63	.95	593	RL79	2.66	1.02	593
RW56	2.52	.87	591	RL80	2.75	1.03	591
RW57	2.66	.92	593	RL81	2.94	.99	591
RW58	2.56	.99	590	RL82	2.89	.99	593
RW59	3.19	.74	590	RL83	2.66	1.07	590
RW60	2.56	.87	591	RL84	2.99	.99	590
RW61	2.64	.90	592	RL85	2.77	.93	593
RW62	2.41	.90	588	RL86	2.94	.99	583
				RL87	3.02	.95	581
				RL88	3.18	1.00	586
				RL89	3.03	.91	575
				RL90	2.66	.97	582
				RL91	2.81	.96	589
				RL92	2.62	.95	581
				RL93	2.62	1.07	570

Table 7

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items for Group Members Who Have Received Team Training

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.66	.70	412	RLSCALE	2.81	.78	414
RW51	2.64	.91	411	DM38	2.78	1.02	402
RW52	2.60	.91	409	RL76	2.53	1.01	408
RW53	2.68	.89	412	RL77	2.46	1.02	397
RW54	2.63	.89	412	RL78	2.71	1.04	408
RW55	2.64	.96	412	RL79	2.69	1.04	412
RW56	2.54	.87	411	RL80	2.79	1.06	411
RW57	2.71	.91	412	RL81	2.96	.98	410
RW58	2.60	.99	411	RL82	2.88	1.00	412
RW59	3.19	.74	411	RL83	2.66	1.08	410
RW60	2.60	.86	411	RL84	2.99	.99	411
RW61	2.65	.91	412	RL85	2.81	.94	413
RW62	2.44	.90	411	RL86	2.97	.98	404
				RL87	3.04	.95	405
				RL88	3.21	.99	407
				RL89	3.07	.91	403
				RL90	2.70	.95	405
				RL91	2.85	.97	410
				RL92	2.69	.93	402
				RL93	2.67	1.05	396

Table 8

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items for Group Members Who Have Not Received Training

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.57	.70	174	RLSCALE	2.72	.71	174
RW51	2.55	.91	172	DM38	2.47	1.01	170
RW52	2.47	.92	174	RL76	2.43	1.03	173
RW53	2.60	.92	174	RL77	2.36	.96	166
RW54	2.49	.90	174	RL78	2.61	1.02	173
RW55	2.62	.92	174	RL79	2.59	.96	174
RW56	2.51	.90	173	RL80	2.68	.93	173
RW57	2.54	.95	174	RL81	2.93	1.01	174
RW58	2.49	1.01	172	RL82	2.91	.96	174
RW59	3.20	.73	172	RL83	2.68	1.06	173
RW60	2.46	.90	173	RL84	3.02	.99	172
RW61	2.62	.87	173	RL85	2.68	.91	173
RW62	2.36	.91	170	RL86	2.90	1.02	172
				RL87	2.96	.93	169
				RL88	3.14	1.03	172
				RL89	2.95	.89	165
				RL90	2.60	.99	170
				RL91	2.75	.94	172
				RL92	2.47	.96	172
				RL93	2.49	1.09	167

Table 9

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items for Production Workers Only

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.62	.69	363	RLSCALE	2.76	.75	365
RW51	2.59	.90	359	DM38	2.56	1.04	351
RW52	2.51	.92	362	RL76	2.48	1.01	360
RW53	2.62	.88	363	RL77	2.43	.99	354
RW54	2.56	.87	363	RL78	2.65	1.06	362
RW55	2.66	.95	363	RL79	2.73	.99	364
RW56	2.52	.87	362	RL80	2.72	1.00	362
RW57	2.63	.91	363	RL81	2.90	1.01	362
RW58	2.52	1.02	362	RL82	2.87	.99	363
RW59	3.23	.73	360	RL83	2.64	1.07	361
RW60	2.50	.87	361	RL84	2.94	.99	361
RW61	2.67	.89	362	RL85	2.71	.94	363
RW62	2.40	.89	358	RL86	2.87	1.00	356
				RL87	2.98	.98	360
				RL88	3.19	.99	360
				RL89	3.01	.93	358
				RL90	2.67	.95	354
				RL91	2.83	.95	361
				RL92	2.58	.95	354
				RL93	2.64	1.06	350

Table 10

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items for Production Workers Who Have Received Training

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.65	.71	240	RLSCALE	2.79	.77	242
RW51	2.61	.91	239	DM38	2.63	1.04	232
RW52	2.56	.92	239	RL76	2.51	1.01	238
RW53	2.66	.87	240	RL77	2.47	1.01	237
RW54	2.61	.87	240	RL78	2.72	1.06	240
RW55	2.71	.96	240	RL79	2.80	1.00	241
RW56	2.56	.88	240	RL80	2.78	1.03	240
RW57	2.68	.91	240	RL81	2.90	1.01	239
RW58	2.55	1.02	240	RL82	2.85	1.00	240
RW59	3.23	.75	239	RL83	2.62	1.08	239
RW60	2.57	.85	239	RL84	2.93	.99	240
RW61	2.68	.92	240	RL85	2.73	.96	241
RW62	2.43	.89	239	RL86	2.87	.99	235
				RL87	3.02	.98	238
				RL88	3.21	.98	238
				RL89	3.03	.93	239
				RL90	2.70	.94	235
				RL91	2.87	.95	240
				RL92	2.65	.94	233
				RL93	2.73	1.04	233

Table 11

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items for Production Workers Who Have Not Received Training

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.56	.65	117	RLSCALE	2.73	.70	117
RW51	2.57	.84	115	DM38	2.47	1.02	113
RW52	2.41	.93	117	RL76	2.44	1.02	116
RW53	2.56	.90	117	RL77	2.38	.96	112
RW54	2.48	.88	117	RL78	2.55	1.04	116
RW55	2.60	.93	117	RL79	2.62	.96	117
RW56	2.47	.85	116	RL80	2.65	.93	116
RW57	2.57	.91	117	RL81	2.94	1.02	117
RW58	2.49	1.03	116	RL82	2.91	.98	117
RW59	3.24	.67	115	RL83	2.72	1.07	116
RW60	2.37	.89	116	RL84	2.99	1.00	115
RW61	2.66	.82	116	RL85	2.67	.87	116
RW62	2.36	.92	113	RL86	2.89	1.03	115
				RL87	2.95	.94	116
				RL88	3.19	1.00	116
				RL89	3.02	.90	113
				RL90	2.65	.98	113
				RL91	2.79	.96	115
				RL92	2.47	.97	115
				RL93	2.48	1.09	111

Table 12

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items for Management and Support Workers Only

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.60	.67	193	RLSCALE	2.79	.75	193
RW51	2.61	.93	193	DM38	2.87	.97	156
RW52	2.61	.89	191	RL76	2.49	1.01	156
RW53	2.65	.89	193	RL77	2.34	1.03	156
RW54	2.58	.92	193	RL78	2.63	.99	156
RW55	2.52	.92	193	RL79	2.47	1.05	156
RW56	2.44	.84	192	RL80	2.79	1.06	156
RW57	2.67	.90	193	RL81	2.98	.96	156
RW58	2.59	.92	191	RL82	2.90	1.00	156
RW59	3.10	.71	193	RL83	2.66	1.07	156
RW60	2.61	.85	193	RL84	3.07	.98	156
RW61	2.52	.87	193	RL85	2.85	.90	156
RW62	2.38	.86	193	RL86	3.08	.95	156
				RL87	3.08	.87	156
				RL88	3.13	1.05	156
				RL89	3.06	.86	156
				RL90	2.59	.97	156
				RL91	2.73	.98	156
				RL92	2.65	.94	156
				RL93	2.54	1.05	156

Table 13

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items for Management and Support Workers Who Have Received Training

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.61	.65	145	RLSCALE	2.81	.76	145
RW51	2.63	.89	145	DM38	2.97	.95	143
RW52	2.61	.90	143	RL76	2.51	1.01	143
RW53	2.64	.89	145	RL77	2.36	1.04	134
RW54	2.61	.90	145	RL78	2.61	1.00	141
RW55	2.46	.94	145	RL79	2.44	1.07	144
RW56	2.42	.80	144	RL80	2.79	1.11	144
RW57	2.72	.86	145	RL81	3.00	.95	144
RW58	2.60	.93	144	RL82	2.90	1.02	145
RW59	3.08	.68	145	RL83	2.67	1.08	144
RW60	2.59	.85	145	RL84	3.06	.99	144
RW61	2.54	.86	145	RL85	2.90	.88	145
RW62	2.39	.88	145	RL86	3.11	.94	142
				RL87	3.08	.88	140
				RL88	3.18	1.03	142
				RL89	3.12	.85	137
				RL90	2.61	.96	144
				RL91	2.76	.99	143
				RL92	2.70	.92	142
				RL93	2.54	1.05	136

Table 14

Descriptive Statistics for Work Group Behavior (RWT) and Leadership Behavior (RL) Scales and Items for Management and Support Workers With No Training

Variable	Mean	Std. Deviation	*n*	Variable	Mean	Std. Deviation	*n*
RWTSCALE	2.61	.76	47	RLSCALE	2.71	.72	47
RW51	2.55	1.04	47	DM38	2.57	.99	47
RW52	2.64	.87	47	RL76	2.43	1.04	47
RW53	2.70	.93	47	RL77	2.33	1.00	45
RW54	2.49	.95	47	RL78	2.74	.94	47
RW55	2.70	.88	47	RL79	2.51	1.00	47
RW56	2.51	.98	47	RL80	2.77	.91	47
RW57	2.51	1.02	47	RL81	2.94	.99	47
RW58	2.54	.94	46	RL82	2.91	.95	47
RW59	3.15	.81	47	RL83	2.60	1.06	47
RW60	2.66	.87	47	RL84	3.09	.95	47
RW61	2.49	.91	47	RL85	2.70	.98	47
RW62	2.36	.85	47	RL86	2.98	.99	47
				RL87	3.07	.85	44
				RL88	2.98	1.11	46
				RL89	2.83	.85	42
				RL90	2.49	.98	47
				RL91	2.64	.94	47
				RL92	2.49	1.00	47
				RL93	2.53	1.08	47

Table 15

Inter-Item Correlations for Work Group Behavior Scale (RWT Scale)

	RW51	RW52	RW53	RW54	RW55	RW56
RWTScale	.777	.828	.847	.821	.767	.792
RW51	1.000	.687	.646	.576	.558	.571
RW52	.687	1.000	.759	.683	.637	.627
RW53	.646	.759	1.000	.760	.662	.660
RW54	.576	.683	.760	1.000	.663	.641
RW55	.558	.637	.662	.663	1.000	.656
RW56	.571	.627	.660	.641	.656	1.00
RW57	.660	.618	.592	.573	.481	.558
RW58	.506	.566	.578	.554	.494	.531
RW59	.499	.527	.543	.538	.501	.500
RW60	.547	.606	.615	.617	.523	.577
RW61	.500	.505	.543	.506	.475	.508
RW62	.503	.534	.557	.561	.503	.585

	RW57	RW58	RW59	RW60	RW61	RW62
RWTScale	.766	.754	.718	.795	.733	.759
RW51	.660	.506	.499	.547	.500	.503
RW52	.618	.566	.527	.606	.505	.534
RW53	.592	.578	.543	.615	.543	.557
RW54	.573	.554	.538	.617	.506	.561
RW55	.481	.494	.501	.523	.475	.503
RW56	.558	.531	.500	.577	.508	.585
RW57	1.000	.576	.530	.555	.488	.516
RW58	.576	1.000	.540	.574	.542	.535
RW59	.530	.540	1.000	.560	.539	.525
RW60	.555	.574	.560	1.000	.622	.648
RW61	.488	.542	.539	.622	1.000	.636
RW62	.516	.535	.525	.648	.636	1.000

Note: $p < .01$ for all correlations.

Table 16

Inter-Item Correlations for Leadership Behavior Scale (RL Scale)

	RL38	RL76	RL77	RL78	RL79	RL80	RL81	RL82	RL83	RL84
RL Scale	.416	.505	.361	.457	.374	.440	.432	.447	.467	.431
RL38	1.000	.563	.444	.533	.499	.615	.569	.586	.604	.582
RL76	.563	1.000	.574	.626	.512	.656	.648	.670	.654	.657
RL77	.444	.574	1.000	.532	.512	.529	.455	.494	.487	.431
RL78	.533	.626	.532	1.000	.605	.624	.551	.619	.599	.594
RL79	.499	.512	.561	.605	1.000	.639	.466	.536	.577	.509
RL80	.615	.656	.529	.624	.639	1.000	.701	.711	.687	.683
RL81	.569	.648	.455	.551	.466	.701	1.000	.745	.650	.694
RL82	.586	.670	.494	.619	.536	.711	.745	1.000	.712	.726
RL83	.604	.654	.487	.599	.577	.687	.650	.712	1.000	.667
RL84	.582	.657	.431	.594	.509	.683	.694	.726	.667	1.000
RL85	.492	.575	.434	.514	.423	.578	.548	.610	.560	.623
RL86	.571	.628	.458	.564	.452	.642	.637	.676	.624	.713
RL87	.398	.446	.403	.483	.444	.546	.491	.493	.503	.541
RL88	.377	.366	.343	.401	.410	.438	.402	.431	.494	.439
RL89	.467	.478	.439	.492	.469	.532	.491	.536	.525	.545
RL90	.586	.627	.552	.619	.567	.655	.570	.655	.681	.621
RL91	.554	.581	.532	.556	.540	.590	.509	.614	.579	.595
RL92	.603	.635	.557	.573	.512	.660	.607	.637	.631	.625
RL93	.538	.599	.493	.619	.548	.603	.590	.623	.589	.610

	RL85	RL86	RL87	RL88	RL89	RL90	RL91	RL92	RL93
RL Scale	.457	.402	.362	.319	.389	.475	.432	.472	.435
RL38	.492	.571	.398	.377	.467	.586	.554	.603	.538
RL76	.575	.628	.446	.366	.478	.627	.581	.635	.599
RL77	.434	.458	.403	.343	.439	.552	.532	.557	.493
RL78	.514	.564	.483	.401	.492	.619	.556	.573	.619
RL79	.423	.452	.444	.410	.469	.567	.540	.512	.548
RL80	.578	.642	.546	.438	.532	.655	.590	.660	.603
RL81	.548	.637	.491	.402	.491	.570	.509	.607	.590
RL82	.610	.676	.493	.431	.536	.655	.614	.637	.623
RL83	.560	.624	.503	.494	.525	.681	.579	.631	.589
RL84	.623	.713	.541	.439	.545	.621	.595	.625	.610
RL85	1.000	.637	.505	.405	.498	.598	.562	.562	.502
RL86	.637	1.000	.581	.428	.575	.593	.584	.634	.609
RL87	.505	.581	1.000	.503	.698	.582	.544	.506	.462
RL88	.405	.428	.503	1.000	.598	.517	.432	.453	.405
RL89	.498	.575	.698	.598	1.000	.643	.606	.565	.488

Table 16 Continued

Inter-Item Correlations for Leadership Behavior Scale

	RL85	RL86	RL87	RL88	RL89	RL90	RL91	RL92	RL93
RL90	.598	.593	.582	.517	.643	1.000	.675	.705	.584
RL91	.562	.584	.544	.432	.606	.675	1.000	.688	.566
RL92	.562	.634	.506	.453	.565	.705	.688	1.000	.642
RL93	.502	.609	.462	.405	.488	.584	.566	.642	1.000

Note: $p < .01$ for all correlations.

Table 17

Correlations Between Work Group and Leadership Behavior Scales and Items

	RL Scale	RL38	RL76	RL77	RL78	RL79	RL80	RL81	RL82
RWT Scale	.557	.416	.505	.361	.457	.374	.440	.432	.447
RW51	.380	.284	.402	.235	.322	.221	.284	.327	.315
RW52	.488	.409	.462	.293	.410	.302	.398	.386	.403
RW53	.465	.358	.423	.303	.374	.291	.369	.383	.414
RW54	.445	.337	.417	.288	.350	.279	.355	.378	.366
RW55	.427	.306	.381	.268	.357	.344	.331	.288	.354
RW56	.430	.314	.376	.287	.326	.274	.333	.326	.338
RW57	.380	.277	.360	.242	.303	.207	.316	.369	.322
RW58	.500	.385	.413	.340	.411	.365	.401	.367	.388
RW59	.403	.260	.354	.256	.345	.316	.309	.314	.321
RW60	.479	.370	.436	.322	.389	.342	.375	.346	.377
RW61	.381	.250	.331	.234	.328	.250	.295	.261	.304
RW62	.440	.341	.364	.323	.364	.299	.353	.325	.299

	RL83	RL84	RL85	RL86	RL87	RL88	RL89	RL90	RL91
RWT Scale	.467	.431	.457	.402	.362	.319	.389	.475	.432
RW51	.333	.305	.335	.274	.222	.198	.241	.329	.274
RW52	.403	.387	.399	.394	.288	.248	.324	.409	.388
RW53	.386	.374	.384	.366	.292	.251	.316	.368	.365
RW54	.352	.341	.347	.313	.299	.253	.333	.367	.360
RW55	.354	.322	.293	.280	.292	.233	.294	.394	.370
RW56	.365	.356	.381	.307	.274	.216	.282	.388	.328
RW57	.322	.319	.330	.308	.221	.219	.207	.294	.232
RW58	.487	.361	.373	.368	.336	.343	.360	.404	.369
RW59	.308	.321	.335	.247	.297	.242	.353	.352	.329
RW60	.382	.341	.405	.342	.306	.297	.348	.422	.375
RW61	.324	.284	.336	.247	.281	.228	.292	.320	.319
RW62	.340	.307	.358	.310	.299	.281	.324	.401	.355

	RL92	RL93
RWT Scale	.472	.435
RW51	.335	.310
RW52	.407	.366
RW53	.398	.356
RW54	.391	.334

Table 17 Continued

Correlations Between Work Group and Leadership Behavior Scales and Items

	RL92	RL93
RW55	.371	.339
RW56	.388	.366
RW57	.311	.329
RW58	.419	.375
RW59	.298	.290
RW60	.405	.357
RW61	.320	.318
RW62	.389	.344

Note: $p < .001$ for all correlations.

Table 18

Correlations Between Work Group and Leadership Behavior Scales by Job Title

Job Title	Correlations Between Scales (r)	*n*
Overall	.56**	593
Production	.54**	357
Support	.54**	167
Management	.59*	26

Note: * $p = .001$. ** $p < .001$.

The second hypothesis states that there is a significant positive correlation between specific work group behaviors and the behaviors of their leader. As shown in Table 19, Pearson correlation coefficients were computed between the work group behavior and leadership behavior items. Hypothesis 1a) asserts that there is a significant correlation between the perception of a leader's trust building behavior and the perception of trust between group members. The correlation between perceived leader and group member trust behavior was significant, r (583) = .40, $p < .001$. Hypothesis 1b) states there is a significant positive correlation between the perceived degree of respect leaders show their group members and the perceived degree of respect group members show for each other. The correlation between perceived leader and group member respect behavior was significant, r (589) = .37, $p < .001$. Hypothesis 1c) states there is a significant positive correlation between the perception of a leader's conflict resolution behavior (i.e., addresses conflict when needed) and the perception of conflict resolution behavior demonstrated by group members (i.e., solves conflicts constructively). The correlation between perceived leader and group member conflict resolution behavior was significant, r (583) = .41, $p < .001$. Hypothesis 1d) states there is a significant positive correlation between the perception of a leader's listening behavior (e.g., listens openly to group members' concerns, ideas, and suggestions) and the perceived listening behavior of group members. The correlation between perceived leader and group member communication behavior was significant, r (591) = .41, $p < .001$. Finally, hypothesis 1e) states there is a significant positive correlation between perceived leader support behavior (i.e., supports members when there are problems related to work or personal matters) and perceived support between group members (e.g., group members help each other when

needed). The correlation between perceived leader and group member support behavior was significant, r (579) = .25, p < .001.

Pearson correlations were also computed between the leadership behavior and work group behavior items for those group members who have and have not received team training in the past. For those members who have received team training, all five correlations were statistically significant and were greater than or equal to .24, as shown in Table 19. For group members who have not received team training, all five correlations were statistically significant and were greater than or equal to .24.

Pearson correlations were computed between the scale items for production workers only. As shown in Table 20, all five correlations were statistically significant and were greater than or equal to .29. The five correlations for production workers who have and have not received team training were also statistically significant and were greater than or equal to .32 and .19, respectively, as indicated in Table 20.

Table 19

Overall Correlations Between Leadership Behavior and Work Group Behavior Items

Variables	Overall	*n* Overall	Training	*n* Training	No Training	*n* No Training
Trust	.40*	584	.42*	407	.34*	237
Respect	.37*	590	.36*	409	.37*	238
Conflict	.41*	584	.44*	404	.33*	237
Listens	.41*	592	.46*	411	.30*	239
Support with Problems	.25*	580	.24*	403	.24*	234

Note: * p < .001.

Table 20

Correlations Between Leadership Behavior and Work Group Behavior Items for Production Workers Only

Variables	Overall	*n* Overall	Training	*n* Training	No Training	*n* No Training
Trust	.33***	356	.39***	171	.20*	114
Respect	.30***	361	.33***	174	.24**	117
Conflict	.40***	359	.44***	173	.29*	116
Listens	.37***	362	.45***	174	.19*	117
Support with Problems	.29***	353	.32***	170	.19*	113

Note: * p < .05. ** p < .01. *** p < .001.

Hypothesis three states that leadership behaviors related to trust, conflict resolution, and support (i.e., supports members when problems occur) will have the highest correlation (R squared value) with the work group behavior scale. A stepwise regression analysis was conducted to determine how well items in the leadership behavior scale predict work group behavior. The independent variables were the 19 leadership behavior scale items, while the dependent variable was the work group behavior scale. The first step in the regression procedure involved entering all 19 leadership behavior scale items as independent variables, all at once, using the "Enter" method. Items with a p-value of less than .05 were then chosen for the second step in the regression procedure, which involved entering these items as independent variables one at a time, using the "Stepwise" method. Items were entered in order of descending beta weights.

Results of the analysis indicate that perceived leader trust behavior is significantly related to the work group behavior scale, R square = .26, adjusted R square = .26, F (1, 580) = 199.65, p < .001. Perceived leader behavior related to availability (i.e., is available when needed) was significantly related to the work group behavior scale, R square = .30, adjusted R square = .29, F (1, 579) = 32.58, p < .001. Finally, perceived leader behavior related to conflict (i.e., addresses conflict when needed) was significantly related to the work group behavior scale, R square = .31, adjusted R square = .31, F (1, 578) = 14.64, p < .001. However, perceived leader support behavior (i.e., supports team members when there are problems) was not a predictor. As shown in Table 21, all of the bivariate and partial correlations between the leadership behavior items and the work group behavior scale were positive, as expected, and statistically significant.

Table 21

Overall Bivariate and Partial Correlations of the Predictors with the Work Group Behavior Scale

Predictors	Correlation Between Each Predictor and the Work Group Behavior Scale	Correlation Between Each Predictor and the Work Group Behavior Scale Controlling for All Other Predictors	*n*
Trust	.51*	.51*	580
Available	.45*	.23*	579
Conflict	.46*	.16*	578

Note: * p < .001.

For those group members who have received team training in the past, a stepwise regression analysis was also conducted to determine how well items in the leadership behavior scale predicted work group behavior. The independent variables were the 19 leadership behavior scale items, while the dependent variable was the work group behavior scale. Perceived leader behavior related to availability was significantly related to the work group behavior scale, R square = .26, adjusted R square = .26, F (1, 395) = 138.05, p < .001. Perceived leader behavior related to conflict was significantly related to the work group behavior scale, R square = .33, adjusted R square = .33, F (1, 394) = 42.42, p < .001. Perceived leader behavior related to support of group decisions was also significantly related to the work group behavior scale, R square = .36, adjusted R square = .35, F (1, 393) = 14.37, p < .001. As shown in Table 22, all of the bivariate and partial correlations between the leadership behavior items and the work group behavior scale were positive and statistically significant.

Table 22

Overall Bivariate and Partial Correlations of the Predictors with the Work Group Behavior Scale for Group Members Who Have Received Team Training

Predictors	Correlation Between Each Predictor and the Work Group Behavior Scale	Correlation Between Each Predictor and the Work Group Behavior Scale Controlling for All Other Predictors	*n*
Available	.51*	.51*	395
Conflict	.50*	.31*	394
Supports Decisions	.48*	.19*	393

Note: * p < .001.

For those group members who have not received team training in the past, regression analyses indicate that perceived leader behavior related to respect (i.e., treats all group members with respect) is significantly related to the work group behavior scale, R square = .16, adjusted R square = .16, F (1, 172) = 33.09, p < .001. Perceived leader trust behavior was also significantly related to the work group behavior scale, R square = .23, adjusted R square = .22, F (1, 171) = 15.31, p < .001. All bivariate correlations were positive and statistically significant. As shown in Table 23, all partial correlations were positive and statistically significant.

Table 23

Overall Bivariate and Partial Correlations of the Predictors with the Work Group Behavior Scale for Group Members Who Have Not Received Team Training

Predictors	Correlation Between Each Predictor and the Work Group Behavior Scale	Partial Correlation Between Each Predictor and the Work Group Behavior Scale Controlling for All Other Predictors	*n*
Respect	.40*	.40*	172
Trust	.46*	.29*	171

Note: * p < .01.

A stepwise regression analysis was also conducted to determine how well items in the leadership behavior scale predicted work group behavior for production workers only. Results of the analysis indicate that perceived leader behavior related to support of group decisions was significantly related to the work group behavior scale, R square = .22, adjusted R square = .22, F (1, 349) = 98.84, p < .001 and perceived leader behavior related to availability was significantly related to the work group behavior scale, R square = .28, adjusted R square = .28, F (1, 348) = 28.72, p < .001. All bivariate and partial correlations were positive and statistically significant, as indicated in Table 24.

Table 24

Bivariate and Partial Correlations of the Predictors with the Work Group Behavior Scale for Production Workers Only

Predictors	Correlation Between Each Predictor and the Work Group Behavior Scale	Correlation Between Each Predictor and the Work Group Behavior Scale Controlling for All Other Predictors	*n*
Supports Decisions	.47*	.47*	349
Available	.45*	.28*	348

Note: * p < .001.

For those production workers who have received team training in the past, perceived leader behavior related to support of group decisions was significantly related to the work group behavior scale, R square = .28, adjusted R square = .27, F (1, 230) = 87.16, p < .001 . The bivariate correlation, r (230) = .52, p < .001, and partial correlation, r (230) = .52, p < .001, was positive and statistically significant.

For those production workers who have not received team training in the past, perceived leader behavior related to availability was significantly related to the work group behavior scale, R square = .10, adjusted R square = .09, F (1, 114) = 12.49, p = .001. The bivariate correlation, r (115) = .31, p = .001, and partial correlation, r (115) = .31, p = .001, were positive and statistically significant, as shown in Table 25. A summary of all the predictors by group and training history is represented in Table 26.

Table 25

Bivariate and Partial Correlations of the Predictors with the Work Group Behavior Scale for Production Workers Who Have Not Received Team Training

Predictors	Correlation Between Each Predictor and the Work Group Behavior Scale	Correlation Between Each Predictor and the Work Group Behavior Scale Controlling for All Other Predictors	*n*
Available	.31*	.31*	115

Note: * p = .001.

Table 26

Summary of Predictors By Group and Training History

Overall	Overall Train	Overall No Train	Production	Production Train	Production No Train
Trust	Available	Respect	Supports Decisions	Supports Decisions	Available
Available	Conflict	Trust	Available		
Conflict	Supports Decisions				

CHAPTER 4

DISCUSSION

The purpose of this study was to examine the relationship between perceived leader behavior and work group behavior. Results of the item and factor analyses suggest that the items used in the study form true scales. Overall, the results supported the predictions. The first hypothesis that there is a significant positive correlation between the leadership behavior scale and the work group behavior scale was confirmed. Correlations between the leadership behavior items and the work group behavior scale were also positive and significant. The results suggest that indeed there is a relationship between perceived leader behavior and work group behavior. In general, leadership behavior related to trust had the strongest relationship with the work group behavior scale. Whether or not a group member received team training in the past was examined as a potential moderator variable. Correlations between the leadership behavior and work group behavior scales and items for members who have received team training in the past were higher than those who have not received team training. This suggests that whether or not a group member has received team training does affect their perception of their leader's behavior and the behavior of their peers.

The second hypothesis that there is a significant positive correlation between work group and leadership behaviors was confirmed. Specifically, there is a significant positive correlation between the perception of leader and work group behaviors related to trust, respect, conflict resolution, listening, and support. In other words, these results

suggest that there is a positive relationship between group members' perceptions of the how often their leader demonstrates a particular behavior and their perception of how often they see the same behavior in their peers. Once again, the correlations between perceived leader behavior and work group behavior are higher for group members who have had team training in the past. It is possible that groups who have had team training are more receptive to modeling their leader because training has taught them to see the value of demonstrating leadership characteristics, which are typically taught as part of team training. As discussed previously, studies have shown that subordinates showed greater similarity in behavior to superiors who were believed to be competent and successful. Supervisors who demonstrate leadership characteristics may be perceived by their group members as being competent; thus, these supervisors are more likely to be imitated.

The third hypothesis states that leadership behaviors related to trust, conflict resolution, and support (i.e., supports members when problems occur) will be the best predictors of overall work group behavior. As predicted, perceived leader trust and conflict behavior was significantly related to the work group behavior scale. Behavior related to leader availability also emerged as a predictor of work group behavior. Therefore, perceptions of whether or not a leader develops group member trust, addresses conflict when needed, and is available when needed has an impact on the performance of his or her work group. Results suggest that leaders who pay attention to these areas have work groups that perform better than leaders who do not emphasize these areas. A stepwise regression analysis of the leadership behavior items with the work group behavior scale was conducted for group members who have and have not received team

training. For team members who have received team training in the past, results indicate that leader behavior related to availability, conflict, and support of group decisions were the best predictors of work group behavior. For team members who have not received team training in the past, leadership behavior related to respect and trust were the best predictors. Group members who have had team training in the past tend to emphasize what Bowers and Seashore call "work facilitation" behaviors (e.g., leader support of group decisions), which are behaviors that help work groups accomplish goals. Group members who have not received team training in the past seem to focus more on "support" behaviors (e.g., trust, respect), which are behaviors that increases a person's feelings of personal worth and importance. One explanation for the results could be that members who have received team training in the past may come to value more advanced teaming behaviors from their leader, such as dealing with group conflict and supporting group decisions. Members who have not received team training may tend to focus on more traditional leadership behaviors such as trust and respect.

A stepwise regression analysis of the leadership behavior items was conducted for production workers only. Results indicate that perceived leader support of group decisions and availability were the best predictors of work group behavior for production workers overall. Leader support of group decisions emerged as the best predictor of work group behavior for production workers who have received team training. For production workers who have not received team training in the past, leader behavior related to availability emerged as a predictor of work group behavior. Results indicate that in general, perceived leader support of group decisions predicts production worker behavior. One explanation for this may be that production workers tend to value support

from their leader when they attempt to make a group decision, since in general, production workers are the group least likely to have the freedom to make decisions on their own, especially when compared to support and management employees. Leader support of group decisions did not emerge as a predictor of work group behavior for production workers who have not received team training. Perhaps group members who have not received team training have not been taught to understand that their group or team has the capability to effectively make decisions on their own, and the role of a true leader is to provide guidance and support.

Leader behavior related to support of team members (when problems related to work or personal matters occur) did not emerge as a predictor of work group behavior overall or for production workers. However, exploratory analyses did determine that for management and support workers combined, support of team members when problems occur did emerge as a predictor of work group behavior, as predicted by the hypothesis. This suggests that perceptions of leader support in general, whether it is support of group decisions or support when problems occur, do impact group behavior.

Implications for Research and Practice

Through modeling, employees can learn desirable as well as undesirable work behaviors. The challenge for managers is to understand modeling principles so that they can facilitate the modeling of functional rather than dysfunctional behaviors (Manz and Sims, 1981). Since leadership behavior related to trust and conflict had the highest correlation with the work group behavior scale, organizations may benefit from focusing their leadership development programs on teaching leaders techniques for building trust and resolving conflict between their group members. Furthermore, behavior modeling

has been used successfully as a technique for interpersonal skills training. According to Manz and Sims (1981), learning through modeling can be easier and more enjoyable than the more traditional approaches to learning. Traditional approaches have been widely criticized for focusing on changing a person's attitude rather than their behavior. Thus, organizations can benefit from incorporating different learning techniques into their training programs, such as the imitation of desirable models. Rather than just demanding that subordinates behave in a certain way, supervisors must display the desired behavior if they want to see that same behavior in their subordinates. Research does indicate that employees are more likely to model the behavior of a manager than a co-worker because of the status, experience, and prestige of those with managerial positions (Manz & Sims, 1981).

Limitations of the Study

This study was only able to examine group members' perceptions of their leader's behavior. Studies on leader-member exchanges have already shown that subordinate perceptions of their leader can depend upon the quality of their relationship with him or her. Therefore, researchers may not get an accurate assessment of a leader's behavior if they rely solely on subordinate ratings. Similar studies on leadership behavior should obtain data from multiple sources, such as group member ratings, leader self-ratings, and possibly ratings from the leader's immediate supervisor. In addition, there is a chance that the correlations are inflated by shared method variance since all variables were measured by items with the same format. Although results of this study seem to support the theory of organizational modeling, it does not prove that work groups demonstrate the same behaviors as their leader because they are modeling him or her. In fact, just the

opposite may be the case. It is possible that the behavior of work group members is influencing how a supervisor or leader behaves.

Future Study

Research has shown that modeling does occur; yet, very few studies have focused on subordinates modeling the behavior of their supervisor or leader. Although results of this study supports the theory that subordinates model the behavior of their leader or supervisor, the topic of behavior modeling within organizations still needs further investigation. Also, future studies may want to explore the effect of team training on employee perceptions of their leader.

Conclusion

The results of this study support past research findings that there is a strong and significant relationship between a leader's behavior and that of his or her subordinates. Moreover, results suggest that group members who report that their leader demonstrates a particular behavior also report that their work group demonstrates the same or similar behavior. The theory of vicarious learning or modeling has been proposed as an explanation for this correlation. Research has shown that subordinates, under certain circumstances, will imitate the behavior of their leader, especially if they perceive their leader to be competent and if they feel modeling the behavior will be of benefit to them. This study's findings seem to support the theory of organizational modeling. Results also support past research findings that suggest leadership behaviors related to trust, respect, and reconciling conflict are the best predictors of group behavior. However, whether or not a group member has received team training affects the results, indicating that group members who have received team training in the past perceive their leader differently and

tend to emphasize different leadership characteristics than those who have not received team training. The topic of the relationship between leader and subordinate behavior still needs further study in order to determine if subordinates are indeed modeling their leaders and what effect team training has on the relationship between leader and work group behavior.

APPENDIX

TEAM BASED ORGANIZATION SURVEY

Team Based Organization Survey

Purpose:
To gather employee feedback in key areas for use in the improvement of Team Based Organization (TBO) processes throughout the facility.

Key Areas:

This survey is based on the following eight broad-based areas of interest:

1. Leadership & Morale
2. Recognition
3. Customer Focus
4. Information, Measurement, & Performance Improvement
5. Decision Making
6. Training
7. Team Environment
8. Relationships

Questions You May Have:

?? **How is my confidentiality protected?**

To help you respond openly and honestly, an outside party will evaluate data collected from this survey. Your responses will be sent directly to the University of North Texas Center for the Study of Work Teams for evaluation and data analyses. Your individual responses will NOT be made available to anyone within the company. Further, results will NOT be presented in a way that identifies individuals.

?? **How should I respond to questions?**

When responding to questions, use your current opinions as a reference point. Also, try your best to answer questions fairly and accurately.

?? **What happens after I complete my survey?**

Surveys will be collected and sealed by survey administrator. They will be sent to the UNT Center for the Study of Work Teams where the results will be tabulated.

?? **How will the results be shared with us?**

After a sufficient number of surveys have been administered, they will be compiled for plant-wide analysis. This information will be shared with all employees via the web, postings on bulletin boards, and publication in the newsletter. Remember: Individual results will not be identified.

?? **Are there plans to do surveys like this in the future so that we can measure our progress on TBO issues?**

Yes

?? **How does this survey relate to other company surveys?**
This survey is unique to this facility and is not connected to other company survey processes.

Definitions

- **Team-Based Organization** – A team-based organization uses teams to perform the core work of the organization. The whole organization consists of various teams who work together to produce a certain product &/or service. People work with their peers in the team, and teams work with other teams to accomplish tasks and make decisions.
- **Team** – A group of employees that can identify with and are responsible for a common deliverable process or service and who work together toward a common goal.
- **Team Environment** – One in which employees are involved in action planning and problem solving. Employees are provided with feedback on their performance. Ideas, suggestions, & opportunities for improvement are handled appropriately. Communication is frequent and effective.
- **FTL** – Functional Team Leaders are senior managers who lead various functions. FTL's supervise several Area Team Leaders.
- **ATL** – Area Team Leaders are managers who lead a work group or team and who report to FTL's.
- **OJT** – On The Job Trainers are individuals who provide technical on the job training to individuals and teams.
- **Coordinator** – Coordinators are individuals who organize the activities of team members within specific areas. They work day-to-day issues to assist the team.
- **Production System (CPS)** – Initiatives focused on removing non-value-added activities from our work processes.
- **CQI** – Continuous Quality Improvement.
- **AIW** – Accelerated Improvement Workshops (part of the CPS Initiative).
- **QCDSM** – Quality, Cost, Delivery, Safety, and Morale.
- **Business Information** – Information pertaining to the operation and maintenance of this facility (see QCDSM).
- **Internal Customers** – Customers within the facility; any team you or your team interact with and provide products &/or services to.
- **External Customers** – Organizations which buy products &/or services from this facility.

Instructions

The following information will be used to better understand the opinions of all employees throughout the facility. These questions will be used for summary purposes only and will not be used to identify you in any way.

✍✍Please read all directions carefully and mark answers only on the answer sheet provided
(Do not mark on this form).

✍✍Please do not put your name on the answer sheet.

✍✍If you have any questions, please let the administrator know.

Begin on the left side of the answer sheet:

Gender
Please enter in the area marked "sex" on your answer sheet

Male Female

Job Title
Please enter in the area marked "grade or educ"

0. Production
(Production Associate, OJT, etc.)

1. Production Support
(Material Associate, Fab Tech, PA Floor Scheduler, Quality Control Associate, Test, etc.)

2. Support – Non-Exempt
(Planner, Production Scheduler, HR Coordinator, Computing Specialist, Technical Specialist, etc.)

3. Support – Exempt
(Accountant, Engineer, Instructor, Nurse, Systems Analyst, Hardware Focal, etc.)

4. Manager – Production
(ATL Production Manager, etc.)

5. Manager – Production Support
(ATL Finance, ATL Engineering, ATL Quality, etc.)

Begin using the numbered area of answer sheet

1. Shift

1. First

2. Second

3. Third

2. Total Length of time employed at this facility (DO NOT including temporary or contract work)

1. Less than 6 months

2. 6 months – 1 year

3. 1 year – 2 years

4. 2 years – 4 years

5. 4+ years

3. Length of time on current team:

1. Less than 6 weeks

2. 6 weeks – 6 months

3. 6 months – 1 year

4. 1+ year

4. Age:

1. 18-24

2. 25-30

3. 31-40

4. 41-50

5. 51+

5.	**Members of our team have participated in Accelerated Improvement Workshops (AIW's).**	1. YES	2. NO	If you are unsure, please answer no.
6.	**Our team has participated in the TBO Chartering Process at this facility**	1. YES	2. NO	
7.	**I have participated in team training in the past (here or elsewhere).**	1. YES	2. NO	

Survey Directions Please respond to each question by choosing the number that best reflects your opinion over the last 6 months: (1) Rarely, (2) Some of the time, (3) Most of the time, (4) Always. If a question does not apply to you or your team, mark 5 (NA) for "Not Applicable" (please use this only as a last resort).		Rarely	Some of the time	Most of the time	Always	Not Applicable
I. Leadership & Morale						
8.	Senior managers (FTL's) show by their actions that they support a Team Based Organization (TBO).	1	2	3	4	NA
9.	ATL's show by their actions that they support a TBO.	1	2	3	4	NA
10.	Leaders show by their behavior that they understand the requirements of a team environment.	1	2	3	4	NA
11.	I feel positive about the direction this facility is moving to remain a preferred electrical supplier for The Boeing Company.	1	2	3	4	NA
12.	I look forward to coming to work.	1	2	3	4	NA
13.	My team's morale is good.	1	2	3	4	NA
14.	I understand how the product &/or service I provide is used.	1	2	3	4	NA
15.	I understand how my team's goals link to company goals.	1	2	3	4	NA

		Rarely	Some of the time	Most of the time	Always	Not Applicable
II. Recognition						
16.	Leaders recognize teams for meeting and/or exceeding their goals.	1	2	3	4	NA
17.	Leaders recognize individuals for their contributions in meeting and/or exceeding group goals.	1	2	3	4	NA
III. Customer Focus						
18.	Our team knows who all our customers are; both internal and external.	1	2	3	4	NA
19.	Our team provides quality products/services to our internal customers (to the next step in the process).	1	2	3	4	NA
20.	Our team provides products/services to our internal customers (to the next step in the process) in a timely manner.	1	2	3	4	NA
21.	We measure our team's customer satisfaction levels on a regular basis.	1	2	3	4	NA
22.	We receive support from our internal suppliers in a timely manner.	1	2	3	4	NA
IV. Information, Measurement, & Performance Improvement						
23.	Our team measures/tracks Quality in our area.	1	2	3	4	NA
24.	We are using that information to improve our Quality.	1	2	3	4	NA
25.	Our team measures/tracks Cost in our area.	1	2	3	4	NA
26.	We are using that information to improve our Cost.	1	2	3	4	NA
27.	Our team measures/tracks Delivery (Scheduling) in our area.	1	2	3	4	NA
28.	We are using that information to improve our Scheduling (Delivery).	1	2	3	4	NA
29.	Our team measures/tracks Safety in our area.	1	2	3	4	NA
30.	We are using that information to improve our Safety.	1	2	3	4	NA
31.	Our team measures/tracks Morale in our area.	1	2	3	4	NA
32.	We are using that information to improve our Morale.	1	2	3	4	NA
33.	Our team has access to the business information we need to develop goals and priorities (i.e. rework, defects, schedule, etc…).	1	2	3	4	NA
34.	Our team is given enough time to discuss, understand, & utilize the information we receive.	1	2	3	4	NA
35.	Our team uses the time it's given appropriately.	1	2	3	4	NA
V. Decision Making						
36.	Our team understands which decisions it is responsible for making	1	2	3	4	NA
37.	Our team makes the decisions needed to perform our work.	1	2	3	4	NA
38.	Our ATL is supportive of the decisions our team makes.	1	2	3	4	NA
VI. Training						
39.	Our team receives the job skills training (i.e., floor training) needed to perform our jobs.	1	2	3	4	NA
40.	Individuals on our team receive the certification training needed to perform their jobs in a timely manner.	1	2	3	4	NA
41.	Our team receives training on how to perform other team members' jobs (i.e., cross training).	1	2	3	4	NA
42.	Our team gets the business training necessary to understand the information we receive on Quality, Cost, Delivery, Safety, & Morale (QCDSM).	1	2	3	4	NA
43.	Our team receives training on how to work together in teams (e.g., team decision-making, resolving group conflict, etc.).	1	2	3	4	NA

		Rarely	Some of the time	Most of the time	Always	Not Applicable
44.	Our team has received the training necessary to understand process improvement activities.	1	2	3	4	NA
45.	Our manager is being trained to deal with a team environment effectively.	1	2	3	4	NA
VII. Team Environment						
46.	Our team discusses problems that occur in our work area and constructive ways to resolve them.	1	2	3	4	NA
47.	Our team maintains an environment in which everyone is listened to and all ideas are considered.	1	2	3	4	NA
48.	Our team utilizes continuous improvement tools (i.e.; CQI, AIW, CPS).	1	2	3	4	NA
49.	In our team, experienced group members help new group members when problems arise.	1	2	3	4	NA
50.	Our team is given time to meet and deal with team issues.	1	2	3	4	NA
VIII. Relationships	**Managers, please consider your management team for all "relationship" questions**					
Relationships within your Team The following questions have to do with the relationship between yourself and the people you work most closely with. Using the scale after each question and your experiences in the last six months of work as a reference point, please circle the number that corresponds with your answer.						
Members of My Team:						
51.	Trust each other.	1	2	3	4	NA
52.	Solve work problems and conflicts in a constructive, positive manner.	1	2	3	4	NA
53.	Listen to each other's suggestions, ideas, and concerns.	1	2	3	4	NA
54.	Use each other's suggestions and ideas to improve work processes.	1	2	3	4	NA
55.	Give each other feedback.	1	2	3	4	NA
56.	Are open to the feedback they receive.	1	2	3	4	NA
57.	Treat each other with respect.	1	2	3	4	NA
58.	Show appreciation for good work.	1	2	3	4	NA
59.	Help others when needed.	1	2	3	4	NA
60.	Behave in ways that show that they understand how their performance effects team goals.	1	2	3	4	NA
61.	Admit mistakes and work to correct them.	1	2	3	4	NA
62.	Take team needs into consideration when making individual decisions.	1	2	3	4	NA
RELATIONSHIP BETWEEN YOUR TEAM AND OTHER TEAMS (SAME SHIFT) WITHIN THIS FACILITY The following has to do with the relationship between team members in your immediate work area and other teams within this facility. Using the scale after each question and your experiences within the last six months as a reference point, please circle the appropriate number.						
Our team:						
63.	Understands how we are linked to other teams within this facility.	1	2	3	4	NA
64.	Communicates important business information to other teams.	1	2	3	4	NA
65.	Solves work problems and conflicts with other teams.	1	2	3	4	NA
66.	Listens to concerns of other teams.	1	2	3	4	NA
67.	Uses other teams suggestions and ideas to improve work processes.	1	2	3	4	NA
68.	Treats other groups with respect.	1	2	3	4	NA
69.	Shows appreciation for good work with other teams.	1	2	3	4	NA
70.	Helps other teams when needed.	1	2	3	4	NA

Relationship between your team and other shifts
The following questions have to do with the relationship between team members in your immediate work area and team members on other shifts. Using the scale after each question and your experiences within the last six months as a reference point, please circle the number that corresponds with your answer.

		Rarely	Some of the time	Most of the time	Always	Not Applicable
Our <u>team</u>:						
71.	Is able to complete work started by other shifts without difficulty (minimal starting over).	1	2	3	4	NA
72.	Communicates important information to the next shift.	1	2	3	4	NA
73.	Receives important information from the previous shift.	1	2	3	4	NA
74.	Has a cooperative relationship with other shifts.	1	2	3	4	NA
75.	Is given time to work out problems with other shifts.	1	2	3	4	NA
Relationship with your Leader (the person you report to directly –- ATL or FTL) The following questions have to do with the relationship between team members in your immediate work area and your Leader. Using the scale after each question and the last six months as a frame of reference, please circle the number that corresponds with your answer.						
The <u>Leader</u> in my work area:						
76.	Develops group member trust.	1	2	3	4	NA
77.	Shares QCDSM information with our group	1	2	3	4	NA
78.	Addresses conflict when needed.	1	2	3	4	NA
79.	Provides feedback on performance regularly.	1	2	3	4	NA
80.	Provides feedback in a positive manner.	1	2	3	4	NA
81.	Treats all group members with respect.	1	2	3	4	NA
82.	Listens openly to group members' concerns, ideas, suggestions, etc.	1	2	3	4	NA
83.	Shows appreciation for good work.	1	2	3	4	NA
84.	Is approachable when problems occur.	1	2	3	4	NA
85.	Is available when needed.	1	2	3	4	NA
86.	Supports team members when there are problems related to work or personal matters.	1	2	3	4	NA
87.	Addresses unsafe practices immediately.	1	2	3	4	NA
88.	Encourages participation in Ergo exercises.	1	2	3	4	NA
89.	Takes steps to prevent accidents and injuries.	1	2	3	4	NA
90.	Removes obstacles to good team performance.	1	2	3	4	NA
91.	Helps us to receive the training we need.	1	2	3	4	NA
92.	Balances company needs with team member needs.	1	2	3	4	NA
93.	Administers discipline in a fair and consistent manner.	1	2	3	4	NA

	Rarely	Some of the time	Most of the time	Always	Not Applicable
Relationship with your OJT or Coordinator The following questions have to do with the relationship between team members in your immediate work area and your OJT or Coordinator. Using the scale after each question and the last six months as a frame of reference, please circle the number that corresponds with your answer.					
The <u>OJT or Coordinator</u> in my work area:					
94. Develops group member trust.	1	2	3	4	NA
95. Shares information with our group	1	2	3	4	NA
96. Provides feedback regularly.	1	2	3	4	NA
97. Provides feedback in a positive manner.	1	2	3	4	NA
98. Treats all group members with respect.	1	2	3	4	NA
99. Is available when needed.	1	2	3	4	NA
100. Trains me in an effective manner (is experienced, knowledgeable of the product/process, etc.…)	1	2	3	4	NA

In the space marked "Special Codes" K & L
(To the left of the numbered area)
Please bubble in your response

K. What do you think of surveys such as this one?			**L.** How likely is it that we will be successful in our mission to create a team-based organization within this facility?		
0	=	They are not useful at all	0	=	Not at all likely
1 thru 8	=	Somewhere in between “not at all” and “extremely useful” (Use whichever number most closely reflects your opinion)	1 thru 8	=	Somewhere in between “not at all” and “extremely likely” (Use whichever number most closely reflects your opinion)
9	=	They are extremely useful	9	=	Extremely likely

Thank you for completing this survey.
Collective results will be shared with you in the near future.

REFERENCES

Bandura, A. (1976). Social learning theory. Behavioral Approaches to Therapy. Morisstown, N.J.: General Learning Press.

Barbuto, Jr., J.E. (2000). Influence triggers: A framework for understanding follower compliance. Leadership Quarterly, 11(3), 365-387.

Bowers, D.G. & Seashore, S.E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. Administrative Science Quarterly, 11(2), 238-263.

Brower, H.H., Schoorman, F.D., & Tan, H.H. (2000). A model of relational leadership: The integration of trust and leader-member exchange. Leadership Quarterly, 11(2), 227-250.

Brown, I., & Inouye, D.K. (1978). Learned helplessness through modeling: The role of perceived similarity in competence. Journal of Personality & Social Psychology, 36, 900-908.

Brown, S.E. & Dalton, S.L. (1980). Relationship between initiating structure and consideration leadership dimensions of school business managers. Education, 100(3), 209-213.

Burnaska, R.F. (1976). The effects of behavior modeling training upon managers' behaviors and employees' perceptions. Personnel Psychology, 29, 329-335.

Cartwright, D. & Zander, A. (1960). Group Dynamics Research and Theory. Evanston: Row, Peterson, & Co.

Davis, T.R.V & Luthans, F. (1980). A social learning approach to organizational behavior. Academy of Management Review, 5(2), 281-290.

Deluga, R.J. (1994). Supervisor trust building, leader-member exchange and organizational citizenship behavior. Journal of Occupational & Organizational Psychology, 67(4), 315-326.

Dobbins, G.H. & Zaccaro, S.J. (1986). The effects of group cohesion and leader behavior on subordinate satisfaction. Group & Organization Studies, 11(3), 203-220.

Gerstner, C.R & Day, D.V. (1997). Meta-analytic review of leader-member exchange theory correlates and construct issues. Journal of Applied Psychology, 82(6), 827-844.

Haunschild, P.R. & Miner, A.S. (1997). Modes of interorganizational imitation: The effects of outcome salience and uncertainty. Administrative Science Quarterly, 42(3), 472-500.

Hemphill, J.K. & Coons, A.E. (1957). Development of the leader behavior description questionnaire. Leader Behavior: Its Description and Measurement. Columbus: Bureau of Business Research, the Ohio State University.

Khan, K.H. & Cangemi, J.P. (1979). Social learning theory: The role of imitation in learning socially desirable behavior. Education, 100(1), 41-46.

Liden, R.C. & Graen, G. (1980). Generalizability of the vertical dyad linkage model of leadership. Academy of Management Journal, 23(3), 451-465.

Mann, F.C. (1965). Leadership and Productivity. San Francisco: Chandler Publishing Company.

Manz, C.C. & Sims Jr., H.P. (1991). Superleadership: Beyond the myth of heroic leadership. Organizational Dynamics, 19(4), 18-35.

Manz, C.C. & Sims Jr., H.P. (1981). Vicarious learning: The influence of modeling on organizational behavior. Academy of Management Review, 6(1), 105-113.

Podsakoff, P.M., & Todor, W. D. (1985). Relationships between leader reward and punishment behavior and group processes and productivity. Journal of Management, 11, 55-73.

Putti, J.M. (1985). Leader behavior and group characteristics in work improvement teams – the asian context. Public Personnel Management, 14(3), 301-306.

Robinson, S.L. & O'Leary-Kelly, A. (1996). Monkey see, monkey do: The role of role models in predicting workplace aggression. Academy of Management Proceedings, 288-292.

Sims Jr., H.P. & Szilagyi, A.D. (1975). Leader reward behavior and subordinate satisfaction and performance. Academy of Management Proceedings, 161-163.

Townsend, J., Phillips, J.S. & Elkins, T.J. (2000). Employee retaliation: The neglected consequence of poor leader-member exchange relations. Journal of Occupational Health Psychology, 5(4), 457-463.

Weiss, H.M. (1977). Subordinate imitation of supervisor behavior: The role of modeling in organizational socialization. Organizational Behavior & Human Decision Processes, 19(1), 89-105.

Williams, M.L.& Podsakoff, P.M. (1992). Effects of group-level and individual-level variation in leader behaviours on subordinate attitudes and performance. Journal of Occupational & Organizational Psychology, 65(3), 115-129.