

Technical Report 1104

**Platoon Readiness as a Function of Leadership,
Platoon, and Company Cultures**

Bernard M. Bass and Bruce J. Avolio
Binghamton University

August 2000



**United States Army Research Institute
for the Behavioral and Social Sciences**

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**EDGAR M. JOHNSON
Director**

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Bernard M. Bass and Bruce J. Avolio
Binghamton University

Research and Advanced Concept Office
Michael Drillings, Chief

U.S. Army Research Institute for the Behavioral and Social Sciences
5001 Eisenhower Avenue, Alexandria, Virginia 22333-5600

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FOREWORD

Leadership for Change is a basic research program of the Research and Advanced Concepts Office (RACO) of the United States Army Research Institute for the Behavioral and Social Sciences (ARI). ARI is a directorate of the Total Army Personnel Command and the Army's principal agency for soldier-oriented research and development in personnel and training. ARI's mission is to maximize Army effectiveness through research and development in the acquisition, training, development, utilization, and retention of Army personnel.

ARI has initiated a program to study military leadership, understand its effects on unit performance, and determine how it might be enhanced. One major area of interest in ARI's leadership program is the effect of transformational leadership on unit performance. The goal of *Leadership for Change* is to determine whether and how well platoon leadership in home station and in simulated combat can predict platoon readiness. This research has been designed to test the theory of transformational leadership by determining whether platoon leaders and platoon sergeants who were more inspirational, intellectually stimulating, and individually considerate led platoons that were more effective at both home station and in mission accomplishment in the near-combat conditions of the Joint Readiness Training Center (JRTC).

This research has produced a series of findings that support that transformational leadership is a key element leading to more effective unit performance. However, we do not know to what extent we can train to produce higher levels of transformational leadership. This has triggered a new program to better understand the answer to this question.



EDGAR M. JOHNSON
Director

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Finally, we want to especially thank the U.S. Army and the commanders who gave us access to Ft. Campbell, Ft. Drum, Ft. Bragg, Ft. Benning, as well as all of the platoon leaders, sergeants, NCOs, and soldiers who gave us the kind of quality data that helped make this project a success.

EXECUTIVE SUMMARY

Requirement:

The platoon is the most significant unit for both the individual soldier and the Army for enhancing the effectiveness of operations. The core leadership rests with the platoon sergeant and the platoon leader (usually a commissioned second lieutenant). Squads and squad leaders play secondary leadership roles, usually for shorter periods of time, since turnover is higher in squads and squad leaders than in platoon sergeants and platoon leaders.

The hypotheses being tested in this research are that platoon effectiveness in home station and mission performance at JRTC correlates positively with platoon leader transformational and contingent reward leadership, less so with active and passive managing-by-exception, and negatively with laissez-faire leadership. Home station effectiveness, itself, is expected to predict JRTC performance. Platoon and company climate at home station should also contribute to subjective effectiveness and observed platoon readiness.

Procedure:

Over the course of this 3-year investigation this research worked on developing leadership survey instruments that could be reliably used in military contexts to predict individual and unit performance. This involved working with military consultants to revise existing leadership survey measures. These steps were taken at the outset of the project to assure the leadership survey measures would be both reliable and valid. In this final report, the results are presented for the surveys taken with a total of 90 platoons, and for predicting the performance of 72 platoons that went to JRTC. The JRTC criterion data and correlations with their predictors are thus based on 72 platoons. However, correlations among the home station data are based on 90 platoons.

Approximately one to two months prior to each platoon attending JRTC, 360° evaluations of the platoon commander and sergeant were collected in garrison using the Multi-factor Leadership Questionnaire (MLQ). Evaluations of the platoon's collective leadership profile and culture were also gathered in garrison from different rater sources in the platoon to reduce the effects of common source bias. Platoon commanders were rated by the CO, XO, CO-sergeant, sergeant, peers from two other platoons in their company and subordinates within the platoon, including squad leaders, fire team leaders, and squad members. Sergeants were rated by the CO, XO, CO-sergeant, peers from two other platoons in their company and subordinates including squad leaders, fire team leaders, and squad members. Ratings of collective leadership and culture were based on the same dimensions/constructs contained in the MLQ, escalated to a group and company level of analysis. For example, measures were taken of the platoon's collective transformational leadership using the Team Multi-factor Leadership Questionnaire (TMLQ), as well as whether the platoon had a transformational culture using the Organizational Description Questionnaire (ODQ).

Performance in JRTC was evaluated by observer-controllers (OC's), who accompanied the platoons carrying out their assignments over a two-week period. A survey measure was

developed to assess the platoon leader's (PL) performance, platoon sergeant's performance (PSG), their ability to work together in the field and the platoon's overall performance. A consulting team, who had extensive experience in the military, working in conjunction with the two PI's, developed the criterion evaluation measure. OC rater input was also solicited in the development of the criterion measure. The criterion data collected at JRTC assessed the platoon's readiness and consistency of the platoon commanders' and sergeants' leadership with Army policy governing combat leaders. Ratings by the OC evaluators were collected at three points during JRTC, following the completion of each of three phases.

Utilization of Findings:

The results of this research indicate that transformational leaders are generally more effective in home station and in JRTC combat readiness missions. The best predictors of performance in near combat conditions came from other sources of ratings, not from self-ratings of leadership.

The findings of this research support the utility of transformational and transactional leadership theory for predicting the readiness of units in military settings. Results indicated that selecting and developing leaders who are more proactive and transformational should result in both more effective platoons in garrison and in extreme conditions, such as at JRTC. Although many leadership training programs concentrate on the positive styles of leadership, the results of this research point to the importance of examining and eliminating passive avoidant styles as well. Results indicate that leaders who were more passive and/or avoidant in home station, led platoons that performed worse at JRTC. Moreover, the qualitative observations collected from the O/Cs at JRTC confirm that leaders who were either passive or simply focused on correcting problems as they arose, lead lower performing platoons at JRTC.

Transformational leadership (TL) may become an even more powerful model for leader training and development at higher levels in the organization where elements of self-motivation and coordination are typically more critical to organizational effectiveness. Additional research is needed, however, in determining whether transformational behaviors can be learned by leaders. ARI is continuing further study and experimentation in this area.

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INTRODUCTION

Objectives

The purpose of the contracted project was to determine whether and how well platoon leadership in home station and in simulated combat could predict platoon readiness. Findings would test the theory of transformational leadership by showing that platoon leaders and platoon sergeants who were more inspirational, intellectually stimulating, and individually considerate, led platoons that were more effective and satisfying in home station and subsequently higher in mission accomplishment, in the near-combat conditions of the Joint Readiness Training Center (JRTC).

More specifically, this research project set out to examine the relative contributions to platoon home station and combat readiness; (1) the transformational/transactional leadership behavior of the platoon leaders (PLs and PSGs) as seen in multiple-source appraisals by superiors, peers, platoon members, and selves; (2) the different transformational/transactional leadership styles and (3) the transformational/transactional team leadership of the platoon and company culture. The results were expected to have implications for policy, recruitment, leadership training, selection, and classification.

Such research and its potential applications are needed for at present because,

“ there are no highly visible, heavily resourced efforts to define, inculcate, and monitor the creation and sustainment of organizational climates that challenge, inspire and motivate all ranks... the Army's interest in the values of duty, loyalty, selfless service, honor, courage, respect and integrity represent the core of a noble tradition. Announcing them is necessary but insufficient however, for shaping leaders behavior and for demonstrating what the Army considers 'best practices' in this respect” (Ulmer, 1998, p. 11).

Changing Requirements

In the Post-Cold War environment, adaptability to change in the many situations the U.S. may be called into action is key to the effectiveness of the required leadership and unit performance. Obvious changes that are required of the U.S. military result from changes in the international scene, changes in technology and changes in U.S. society. “Force reductions and recent high usage of marginally guided military organizations, have enacted a toll on morale and readiness that may have long term cultural impact” (CSIS, 2000).

For the Army, the time increasingly is reduced for force build-up and entry into action. Readiness to fight two regional wars or several “little” wars simultaneously must be present in less time than was available for the Gulf War, Bosnia and Kosovo. Units must be ready to project U.S. power on any continent in the shortest possible time.

The Army's leadership has to be ready to deal with several security threats simultaneously (Avant, 1994). At the time of this writing, Iraq, Yugoslavia, and North Korea remain threatening violent confrontations. The Bosnian Muslims, Serbs and Croats, and the Albanians of Kosovo require extensive investment in peacekeeping as did Panama, Haiti, Somalia. Peace treaties between Israel and Egypt in the Sinai and most probably between Israel and Syria on the Golan will further stretch the requirements. The importance of attention by the military leadership to "the hearts and minds" of the local civilian populations is seen as a crucial requirement for success (Avant, 1994).

The exclusive use of air power in Yugoslavia lacked deterrence until the threat of using ready ground forces was made apparent. Such ground forces need to be highly flexible in their capabilities for war-fighting, peace-making and peace-keeping. These forces must be able to incorporate new technologies such as digitization as they become available and to be engaged in continuous learning and improvement throughout the unit.

The new Army units also reflect the multicultural society that the U.S. has become as minority membership continues to increase (Moskos & Burk, 1994). Leadership must weld together soldiers of mixed race, ethnic background, and sex into effective collaborative units. These units must in turn, be able to handle the high levels of stress associated with conflict and the difficulties of addressing an indigenous population that may or may not be supportive of U.S. intervention. At the same time, the military must also have the leadership and support of the American public, which has been consistent in its willingness to support the use of force for humanitarian ends and/or to counterbalance aggressive behavior. For instance, in a 1993 Times Mirror General Survey of the U.S. population, 91% of those questioned agreed that the United States should take a leadership role in world affairs. The characteristics and challenges of situations in which the U.S. has and may become involved, requires that we develop and maintain a highly equipped military force with the appropriate leadership.

For the Army of volunteers, increasingly based on education and intelligence, Army service is either a career or a prelude to a career in civilian life. While honor, duty and country can still provide a sense of purpose, the moral relativism and the substitution in our society of anti-heroes and celebrities for heroes, requires new forms of leadership. Such leadership can generate commitment, loyalty and involvement based on the alignment of the member's interests and those of the units at various levels to which the enlisted personnel and officers belong. Leadership at all levels can align the interests of the Army, its units, and its members to the Army's core values and its ultimate objectives.

The Army can no longer afford the perception that it is so bureaucratic that "Catch 22" is the rule rather than the exception and that snafus are the norm. Rather than the revealed wisdom that, "There's the Army way and there's the right way", the Army way has to become and be seen as the right way, exhibiting the highest degrees of authentic leadership.

In the past decade, new problems have emerged that have added implications for the leadership required of U.S. forces. China has emerged as a global, military, and economic power along with a weakened and less stable Russia. The nature of conflicts the U.S. has and expects it might become engaged change over time. The booming U.S. economy has

made recruiting and retaining personnel difficult. The professional army shares missions with the reserves. The perceived threats are often subnational and non-military ranging from terrorist threats organized in Afghanistan, to the flow of drugs from Colombia.

Effective leadership is instrumental in the readiness for war-fighting, peacemaking, and peacekeeping in order to raise morale, and to create the combination of legitimacy, commitment and moral violence in the service of social goals (Gal, 1990). Today, and into the foreseeable future, American soldiers will need to be prepared to go in harm's way when most of the nation is at peace going about its regular business.

The Concern for Improving Leadership

General R. R. Fogelman (1993) declared that the difference between a good unit and a bad unit is leadership. J.H. Dalton, Secretary of the Navy, added that trust in its leadership is central to military readiness:

"The question of military character and ethics is not an abstract topic for discussion. It is a readiness issue. It is a readiness issue because without ethical leadership in our Armed Forces, there can be no trust by subordinates in the orders of their superiors. There can be none of the special spirit or bonding that we consider essential to the teamwork required for combat. And there would be little confidence by the American people in the rightness of our actions. Without trust and confidence, there cannot be an effective military for America." (Dalton, 1994, p. 296)

Self-interest must be transcended by the military. As S.L.A. Marshall noted: "The sole difference distinguishing the professional soldier from the civilian is that the professional soldier places the line of duty above the line of self interest." (Dalton, 1994, p. 297)

Based on the climate survey of 9000 military service personnel and 90 focus groups , William J. Taylor, Senior Vice-President, Center for Strategic & International Studies, concluded that "Among problems inside the service are significant differences in the quality of local leadership" (Taylor, 1999). According to Lieutenant General Howard D. Graves (1994), "We continue to face a woeful shortage of good leadership in our country today. The encouraging trend is that there is a rising concern about that shortage (p.3)." Most relevant to the focus of our three-year project, he went on to say, "we are beginning to recognize that leaders may be good or bad, and that the command climate set by the leadership of an organization has a major effect on the efficiency and interaction of its members, and thus on the effectiveness of the organization. We are also learning that frequently the difference between good and bad leaders is more a question of character than technical proficiency (p.3)."

A New Paradigm of Leadership

Paralleling the post-Vietnam and post-cold War changes in military leadership requirements has been the introduction of a new paradigm of leadership –

transformational/transactional leadership. Beginning with the seminal book by Burns (1978), attention was centered on issues raised by Fogelman, Dalton, Marshall and Graves, of trust, confidence, transcending self-interest, and character. By 1985, a set of measures and models became available for empirical research, assessment and training (Bass, 1985). These measures were extensively refined and validated in the following years. (Avolio, Bass & Dong, 1999; Avolio & Bass, 1993)

While the U.S. Army may have been practicing some of the components of transformational leadership since George Washington assumed command in 1775, the conception, measurements, and available modeling have not been exploited by the Army for basic research which, could further applications in training, development and selection (Bass, 1998). The earliest demonstrations of the validity of U.S. Army colonels' ratings in combat and combat-service units of their superiors' transformational/transactional leadership as it related to their effectiveness was completed by 1982 (reported in Bass, 1985). A sufficient number of empirical research studies were completed between 1982 and 1992 to provide a meta-analysis comparing military and civilian findings (Gaspar, 1992). The empirical research both inside and outside the US Army, Navy, Air Force and Marine Corps have supported the greater effectiveness of transformational leadership in contrast to transactional leadership, in generating subordinate extra effort, commitment, satisfaction and contribution to military readiness. Replications supporting these findings also have been carried out with U.S., German and Canadian officers in NATO (Boyd, 1988) and in the Israeli Defense Forces (Zakay, 1995). Recently, Dvir (1998) demonstrated that transformational leadership could be developed in Israeli platoon officers, and have significant positive impact on unit readiness six months following the close of a 3-day training program. Yet, a full understanding of what was actually involved in improving unit effort and performance remains unclear. Often the available studies have not utilized the survey instruments designed to measure transactional/transformational leadership, and in no instance has prior research examined the associated unit and organizational levels. Numerous studies repeatedly test the same few hypotheses and often have failed to tie these hypotheses to a multi-level framework and theory of organizational leadership.

In today's Army, as is true of all other organizations, inspiring leadership is needed, along with the type of character to determine the difference between right and wrong, while having the courage to choose the right alternative. We also need leaders at all levels in the Army, who can exemplify the highest levels of ethical and moral conduct, who are able to gain the confidence of followers to make the ultimate sacrifice, who have the analytical ability to overcome problems that were unanticipated and who focus throughout their careers on their own leadership development and the development of others. Such leaders were originally described by Burns (1978) as being transforming.

The Transformational/Transactional Model of Leadership

Burns (1978) introduced a new model of leadership. Leadership was conceived to be transactional and transformational. Empirical evidence accumulated that transformational leadership can move followers to exceed expected levels of motivation and performance, (Avolio, 1999; Bass, 1998; Bass & Avolio, 1993a; Onnen, 1987; Seltzer, Numeof & Bass,

1989). It has been seen extensively as a particularly significant source of effective leadership in Army, Navy, Marine Corps and Air Force settings (e.g. Bass, 1998; Boyd, 1989; Curphy, 1992; Longshore, 1988; O'Keefe, 1989; Salter, 1990; and Yammarino & Bass, 1990). This fact was implicitly recognized by many in the military long before the model was codified. For example, the Air Force included some of Burns' original writings in the Air Force Academy curriculum shortly after his 1978 book appeared in print.

Overall, the codification of a new range of leadership styles has permitted some systematic exploration of transformational leadership and the effects of its application to specific conditions. It has led to a whole new focus in leadership evaluation and training both at the individual and team level (Avolio & Bass, 1991, 1994; Avolio, Waldman, & Einstein, 1988; Bass, Waldman, Avolio, & Bebb, 1987; Kotter & Heskett, 1992; Onnen, 1987). And, it has also resulted in new ways of identifying more successful and effective junior Naval officer leaders (Yammarino & Bass, 1990; Yammarino, Bass & Spangler, 1993). Finally, this new model and its components have been extended to examining the characteristics that differentiate successful from unsuccessful groups and organizational cultures (Bass, 1990; Bass & Avolio, 1993b).

Social scientists, historians and military analysts long recognized leadership that went beyond contingent reinforcement (Levinson, 1980). Weber's (1924/1947) seminal work on charisma as the alternative to bureaucratic management epitomized such study. However, most psychologists, economists and military managers concentrated on testing and applying contingent reinforcement as the fundamental basis of effective leadership. For them, leadership was transactional. Followers agreed with, accepted or complied with the leader in exchange for praise, rewards, and resources or the avoidance of disciplinary action. Reward was contingent on the follower's carrying out roles and assignments as directed or consensual.

Leadership must also deal with the individual follower's sense of self-worth, with the group's sense of collective efficacy, and the meaningfulness in what is to be done, in order to engage the motivation of followers to willingly provide total commitment and involvement in the task at hand. Transformational leadership secures higher levels of commitment and involvement, by building personal identification among followers with the goals of the leader and organization. The process of gaining this identification is critical to success in military units. And that among other things is what transformational leadership adds to the transactional exchanges of contingent reward for compliance, or the exchange of correction, negative feedback, reproof, or disciplinary action for failure to meet role requirements (Avolio, 1999; Bass, 1998).

Transformational leaders motivate others to do more than they originally intended and more than they thought possible. They set more challenging expectations, raise levels of self and collective efficacy, and typically achieve significantly higher performance.

Transformational leadership does not substitute for transactional leadership. It augments the effects of transactional leadership in both civilian and military organizations as shown in two meta analyses of prior empirical literature that used the Multifactor Leadership

Questionnaire (Lowe, Kroeck, & Sivasubramaniam, 1996; Patterson, Fuller, Hester, & Stringer, 1995).

Components of Transformational Leadership

The components of transformational and transactional leadership and their meaning have been identified in a variety of ways: factor analyses, observations, interviews, and descriptions of the ideal leader that people carry around in their heads.

Transformational leaders do more with colleagues and followers than set up simple exchanges, contracts, or agreements. They behave in ways to achieve superior results by employing one or more of the components of transformational leadership. Factor studies from Bass (1985), Howell and Howell (1993), Bycio, Hackett, and Allen (1995), Jung, Bass, and Avolio (1995), and most recently by Avolio, Bass, and Jung (1999) have identified the components of transformational leadership. Leadership is idealized or charismatic such that followers seek to identify with their leaders and emulate them in terms of their values and beliefs. The leader inspires the follower with challenge and persuasion, providing a broader meaning and understanding, as well as enhancing the followers, the individual and collective efficacy. The leader is intellectually stimulating, expanding the followers creative use of their cognitive and analytical abilities. Finally, the leader is individually considerate, treating each of the followers as an individual, and providing the follower with support, mentoring, and coaching to enhance the developmental potential of the followers. Each of these components has been reliably measured with the MLQ (Bass & Avolio, 1990). These components were the bases for the measurements of the MLQ, suitably modified where necessary, for the current military context.

Descriptions of the components are presented below.

Idealized Influence (or Charismatic Leadership) (II). Transformational leaders become role-models for their followers. The leaders are admired, respected, and trusted. Followers identify with the leaders and want to emulate them. In order to earn this credit the leader considers the needs of others over his or her own personal needs. The leader shares risks with followers and is consistent, rather than arbitrary. He or she can be counted on to do the right thing, demonstrating high standards of ethical and moral conduct. He or she avoids using power for personal gain, but will use it when needed.

The most recently developed MLQ, Form 45, also calculates an *attributed* idealized influence (IIA) scale as opposed to idealized influence or charismatic behaviors *observed* in the leader (IIB). Superiors, peers, subordinates, and self can complete comparable forms for 360° assessment of the leader.

Inspirational Motivation (IM). Transformational leaders behave in ways that motivate and inspire those around them by providing meaning and challenge to their followers' work, resulting in individual and team spirit being aroused, and enthusiasm and optimism being displayed. The leader gets followers involved in envisioning attractive future states, which they can ultimately envision themselves, as they develop their full potential. The leader

creates clearly communicated expectations that followers strive to meet and also demonstrates commitment to goals and the shared vision.

Intellectual Stimulation (IS). Transformational leaders stimulate their followers' effort to be innovative and creative by questioning assumptions, reframing problems, and approaching old situations in new ways. There is no ridicule or public criticism of individual members' mistakes. New ideas and creative problem solutions are solicited from followers, who are included in the process of addressing problems and finding solutions. Followers are intellectually challenged to try new approaches and their ideas are not criticized because they differ from the leaders' ideas. Differences are encouraged to maximize the best solution to problems.

Individualized Consideration (IC). Transformational leaders pay attention to each individual's needs for achievement and growth by acting as coach or mentor. Followers and colleagues are developed to successively higher levels of potential. New learning opportunities are created along with a supportive climate. Individual differences in terms of needs and desires are recognized. The leader's behavior demonstrates acceptance of individual differences (e.g., some followers receive more encouragement, some more autonomy, still others firmer standards, and still others more task structure). A two-way exchange in communication is encouraged. Interactions with followers are personalized (e.g., the leader remembers previous conversations, is aware of individual concerns, and sees the individual as a whole person rather than as just an employee). The individually considerate leaders listen effectively. The leaders delegate tasks as a means of developing followers. Delegated tasks are monitored to see if followers need additional direction or support and to assess progress; ideally, followers do not feel they are being checked on. Such leaders continually develop followers and themselves to increasingly higher levels of potential.

Components of Transactional Leadership

Transactional leadership occurs when the leader rewards or disciplines a follower depending on the adequacy of a follower's performance. Transactional leadership depends on contingent reinforcement, either positive contingent reward (CR) or the more negative active or passive forms of management-by-exception (MBE-A or MBE-P). Other possibilities such as noncontingent rewards and punishments have been measured and found valid and useful in a four-year longitudinal study of cadets at Virginia Military Academy by Atwater, Lau, Bass et. al., (1994).

Contingent Reward (CR). This constructive transaction has been found to be reasonably effective, although not as much as any of the transformational components in motivating others to achieve higher levels of development and performance. With this method, the leader assigns or gets consensual agreement on what needs to be done and promises rewards or actually rewards others in exchange for satisfactorily carrying out the assignment.

Management by Exception. Although this corrective transaction tends to be more ineffective than CR, it may be required in certain situations. This corrective transaction has

two main components representing active (MBE-A) or passive (MBE-P) styles of leadership. In MBE-A, the leader arranges to actively monitor deviances from standards, mistakes, and errors in followers' assignments and to take corrective action as necessary. MBE-P implies waiting passively for deviances, mistakes, and errors to occur and then taking corrective action. Management by exception is active if the leader monitors follower performance for failure to meet standards and takes corrective or disciplinary action when failure is observed. Management is passive if corrective or disciplinary action only occurs when unsought problems arise. Most recently it has been found to combine with laissez faire leadership into a single passive leadership factor.

Laissez Faire (LF). This style is the avoidance or absence of leadership and is, by definition, most inactive, as well as most ineffective and dissatisfying according to almost all research on the style. As opposed to transactional leadership, laissez-faire represents a nontransaction. Passive management by exception is less effective than active. Least effective is the laissez faire style in which the leader avoids the role of leading altogether (Avolio & Bass, 1991; Bass, 1998; Bass & Avolio, 1994; Podsakoff & Schriesheim, 1985).

Validation of the Leadership Measurement Model

Burn's concept of the transforming leader was used to elicit accounts of leaders who fit the description. These were converted to 141 behavioral statements. Eleven judges agreed on 73 as transformational or transactional. Principal component factor analyses were completed of the frequency which 196 US Army colonels said each of the items described one of their immediate superiors. Numerous subsequent factor analyses and more recent LISREL and Partial Least Squares analyses, supported a three-factor solution that emerged (Bass, 1985; Howell & Avolio, 1993; Avolio, et al., 1999).

Three factors were obtained whose items beforehand had been judged-transformational: charismatic/inspirational, intellectually stimulating, and individually considerate. Since the dynamics and literature on charisma and inspiration were quite different, we opted to maintain them as separate components early on in the present study. Salient in charisma is the identification of the follower with the charismatic and the desire to emulate him or her. Salient to inspiration is the providing of meaning and challenge to the follower. Leaders who do a lot of one are also likely to do a lot of the other, but the dynamics, content, focus, antecedents and consequences may be different. Avolio, et al. (1999) recently confirmed the construct validity of an inspirational factor containing both the components of idealized influence and inspirational motivation leadership. Bass (1985) had found both components highly intercorrelated.

In the earliest factor studies of the MLQ (Bass, 1985), the transactional items formed factors of contingent reward, management by exception and laissez-faire leadership. Additional analyses supported splitting contingent reward into promises, rewards, management-by-exception, and laissez-faire leadership (Yammarino & Bass, 1990). Subsequent analyses also supported splitting management-by-exception into active and passive components (Hater & Bass, 1988). Most recently a factor of empowerment has been found separable from the laissez-faire leadership factor (Bass, 1998).

In the most definitive MLQ study containing 14 samples, three transactional/nontransactional factors emerged: contingent reward, active management-by-exception, and passive avoidant leadership (PA). Passive Avoident leadership combined passive MBE with laissez-faire (LF) leadership. Furthermore, there was an overlapping second order factor containing individualized consideration (IC) and contingent reward (CR) of the non-material aspects of reward such as praise.

In addition to survey studies of the MLQ, qualitative analyses of diaries and interviews have also been conducted.

Diaries

In another ARI-supported investigation, Virginia Military Academy cadets reported in unstructured logs or diaries the leadership behavior they observed during a given set of days. These logs could be reliably scored in terms of all of the transformational and transactional leadership components noted earlier. The log data have been linked to independently obtained MLQ survey results for the components of transformational/transactional leadership (Atwater, Avolio & Bass, 1992; Atwater, Lau, et al., 1994). Also, the transformational leadership behaviors collected via these diaries were positively linked to higher peer rankings of the more effective cadet leaders at VMI.

Interviews

Interviews with executives about the leadership they had seen produced numerous other behavioral examples of transformational leadership that matched the MLQ components (Yokochi, 1989). Charismatic leadership was attributed to the interviewees' bosses for setting an example, showing determination, exhibiting extraordinary talents, taking risks, creating in subordinates a sense of empowerment, showing dedication to "the cause," creating a sense of a joint mission, dealing with crises using radical solutions, and engendering faith in the subordinates for the leadership. Inspirational leadership included providing meaning and challenge, painting an optimistic future, molding expectations by creating self-fulfilling prophecies, and thinking ahead. Intellectual stimulation was judged present when superiors questioned assumptions, encouraged subordinates to employ intuition, entertained ideas that may have seemed silly at first, created imaginative visions, and asked subordinates to rework the same problems they thought they had solved before, but not completely. Individualized consideration was apparent to interviewees when their bosses answered them with minimum delay, showed they were concerned for their subordinates well-being, assigned tasks based on subordinate needs and abilities, encouraged two-way exchanges of ideas, were available when needed, encouraged self development, practiced walk-around management, and effectively mentored, counseled and coached.

When peers of VMI military cadet leaders were asked what characterized the important traits of a good leader, they tended to describe traits of charismatic, inspirational, intellectual stimulation, and individualized consideration such as: self-confidence,

persuasiveness, concern for the well-being of others, the ability to articulate one's ideas and thoughts, providing role models to be emulated by others, holding high expectations for oneself and others, keeping others well informed, maintaining high motivation in oneself (Atwater, Lau, et al., 1994).

The 'Full Range Leadership' development program (Avolio & Bass, 1991) begins with participants describing their implicit theories of leadership as evidenced by an ideal leader each has known. For well over 2000 trainees, from diverse backgrounds, the characteristics of their "ideal leader" have consistently included the components of transformational and contingent reward leadership described above. Moreover, the list of attributes is mainly oriented towards most or all of the components of transformational leadership.

Correlations with Independent Criteria of Effectiveness

In previous military research, transformational leadership as measured by subordinates' ratings correlated more highly than did transactional leadership with various criteria of leader effectiveness. When subordinates provide the criteria of effectiveness and satisfaction, ordinarily the correlations with the components of transformational leadership are highly positive. Nonetheless, lower but still moderately positive findings have been obtained when the criteria of effectiveness were obtained independently of the subordinates.

In the military environment, transformational mean scores as gauged by subordinates were higher among Marine Corps commanders of more effective helicopter squadrons (Salter, 1990), as well as among junior Naval officers in the surface fleet, who were more often recommended by superiors for early promotion and given better-fitness reports (Yammarino & Bass, 1990). The charisma scores of 20 Israeli battalion commanders alone predicted 74 percent of the variance in their subordinates' satisfaction with their leadership. The lieutenant colonels commanded infantry and armor units. Additionally, the commanders' individualized consideration accounted for 45 percent of their subordinates' extra effort and the commanders' intellectual stimulation accounted for 8 percent of the variance in subordinates' extra effort (Zakay, 1995).

Gaspar (1992) completed a meta-analysis of 20 military and civilian studies. For the military studies, the mean charisma-inspiration, intellectual stimulation, and individualized consideration correlated .53, .46 and .57 respectively with objective organizational criteria of performance. The corresponding average correlations with transactional contingent reward and active and passive managing-by-exception were .46, .26, and .32. The one military-civilian difference occurred for managing-by-exception, which was negative for civilians.

Further Assumptions and Propositions

Further specific theoretical and hypothesized propositions have been tested with affirmative results. Bass (1985) proposed an augmentation relationship between transformational and transactional leadership, i.e., transformational leadership augments transactional leadership in predicting effects on follower satisfaction and performance. Waldman, Bass, and Yammarino (1990) found the augmentation effect among various

samples of industrial managers and military officers as did Seltzer & Bass (1989) for 300 part-time MBA students, each describing their superiors at their full-time work settings. For another sample of 130 MBAs, who each asked three of their followers to complete MLQs about them, the augmentation effect held up when one follower's leadership ratings and a second follower's outcomes were correlated. The same augmentation effect occurred when initiation and consideration, as measured by the Leader Behavior Description Questionnaire (LBDQ), was substituted as the measure of transactional leadership. (Selzer & Bass, 1990) Finally, Howell and Higgins (1988) reported that champions of innovation for research and development teams were also described as more transformational.

Collectively, these results demonstrate a fundamental point emphasized in the Bass (1985) theory of leadership: Transactional leadership, particularly contingent reward, provides a basis for effective leadership, but a greater amount of effort, effectiveness, and satisfaction is possible from transactional leadership if augmented by transformational leadership. Finally, and as reported earlier by Howell & Avolio (1993), transformational leadership also augments transactional in predicting subordinates' levels of innovation, risk-taking, and creativity.

Directive or Participative. Transformational leadership can be directive or participative, as well as democratic or authoritarian. Charismatic leaders may direct dependent followers out of crises with appropriate solutions to their problems. The intellectually stimulating leader may challenge his/her followers to consider ideas and principles they felt were beyond their conceptual capacity. The individually considerate leader may override the demands for equality and may treat his/her followers differently according to their different needs. Nonetheless, transformational leaders may also be participative. They may share the building of visions of a democratic and collective enterprise. They may encourage follower participation to make decisions to change. They may foster mutual consideration among followers. Similarly, transactional leadership may be either directive or participative.

Pseudo-transformational Leadership. Critics may find exploitiveness and abuses of power in the transformational leader. But such leadership is pseudo-transformational (Bass & Steidlmeier, 1999). Idealized influence (II) or charismatic leadership may be socialized or personalized (Howell & House, 1992). Socialized means that the leadership serves collective interests and develops and empowers others for the good of the group.

Personalized charismatic leadership, based on personal influence and authoritarian behavior, is self-aggrandizing, serves self-interests of the leader and is exploitative of others (McClelland, 1975). Personalized leaders rely heavily on manipulation, threat and punishment, and show disregard for the rights and feelings of others. They are impulsively aggressive, narcissistic, and impetuous. They are at lower levels of moral development and perspective-taking (Howell & House, 1992) and fail to inhibit unnecessary use of power.

Pseudo-transformational leaders are self-oriented, self-aggrandizing, exploitative, narcissistic, power-oriented, and openly talk about distorted utilitarian and warped moral

principles. The pseudo-transformational leader caters in the long run only to his or her own self interests.

Burns (1978) believed that to be transforming, a leader had to be morally uplifting. Truly transformational leaders transcend their own self-interest for one of two reasons: utilitarian or moral principles. If utilitarian, their objective is to benefit the organization, society, the group, and/or to meet the challenges of the mission. If a matter of moral principle, the objective is to do the right thing, to do what fits principles of morality, responsibility, sense of discipline, and/or respect for authority, rules and traditions of a society, and for "duty, honor and country." Both reasons apply equally well to the espoused characteristics of leadership being sought by the U.S. Army.

It is clear that the moral character and ethics of leadership in our Armed forces is fundamentally important to readiness. And that where there is no trust in the orders of their superiors, or by the indigenous population whose support is needed to win regional conflicts, the possibility of success is diminished (Dalton, 1994). Moreover, the trust that results in a spirit or bonding essential for teamwork in combat is much more likely to result from transformational leadership displayed by officers and among unit members.

Extension of the Transformational Leadership Model to Groups

The original proposed research called for assessments of squad mores, platoon climate, and company culture, for their effects on platoon leadership. At the first meeting with consultants, it was decided that turnover of squad members and squad leaders were too high to provide reliable results and that main focus should be on platoons and company as the prime sources of infantry effectiveness.

The transformational/transactional model embedded in the Team Multifactor Leadership Questionnaire (TMLQ) could be used by their members to describe the attitudes and behavior of their groups, as groups, such as platoons and companies. Insights could also be obtained of their leadership climate and leadership culture. The same concepts would be measured at three different levels: individual, platoon, and company.

Burns (1996) expanded his original thinking on individual transformational leadership to include a focus on "collective leadership". Burns (1996) wrote in an unpublished paper entitled "Empowerment for Change," that there were "the existence of webs of potential collective leadership" (p.1). Substituting the term 'initiators' for 'leadership' due to the fact that leadership is typically assigned to an individual, Burns went on to suggest, "the initiator may continue as a single dominating 'leader' a la Castro, but more typically he or she will merge with others on a series of participant interactions that will constitute collective leadership...I see crucial leadership acts in the collective process. (pp 2-3)."

In his extension of transformational leadership theory to teams, Bass (1998, p. 157) notes that, "transformational leadership could be shared among the team members". He suggests that in such teams, substitutes for leadership may evolve that help support the team's higher levels of achievement. For example, Bass (1998, p. 157) states, " We might

see a small military team whose esprit had been built by a previous history of success, gallantry, and mutual support of members for each other. Its formally appointed officer might find the membership on the team provided sufficient member self-esteem without any effort on the part of the officer...Instead of motivation being supplied by identification of members with the team...Inspiration would come from sharing of mutually articulated goals...Empowered, self-managed work teams ideally epitomize substitution for much of what was done before by the formal hierarchical leader."

"Structured Groups" vs "Highly Developed" Teams. To be successful, team members must understand each other better and must be willing to address problems by entertaining different perspectives. Trust and commitment become essential to unit success, particularly in combat, which requires a special spirit and bond among members to be willing to make self-sacrifices for the benefit of the unit and its mission. Each of these qualities is incorporated in what has already been discussed as transformational leadership. However, now the unit of analysis is perceptions of the platoon or company and these behaviors or styles can be measured by the Team Multifactor Leadership Questionnaire. (TMLQ)

Group performance is below expectations when individuals are working in an *unstructured* group particularly where an integrated effort is required, at expectations where the individuals in *structured* groups have well-defined roles and expectations, and beyond expectations where individuals are members of highly developed, high performance teams.

Unstructured and semi-structured groups. These groups typically exhibit laissez-faire and passive management-by-exception. Members do not set clear agendas and are confused about priorities and responsibilities. Early on in its development, the unstructured group's priorities and expectations remain diffuse, potentially resulting in conflict among individual members of the group. This may parallel the common stage of group performance known as "storming". We believe that storming is not necessarily a natural stage of group development, and it may be avoided with adequate transactional team leadership. It is the productive conflict of ideas and perspectives that result in profound knowledge and development, as opposed to the lower-level conflict associated with poorly defined roles and expectations. Transformational leadership among team members appears to produce such productive conflict, while at the same time building cohesion, commitment and loyalty to the team's mission. In semi-structured groups, members react to problems rather than anticipate them and hesitate to take initiatives. The boundaries for participation are too ill-defined to be effective.

Structured Groups. The members of structured groups have a clearer sense of what is expected from each other. Guidelines to be followed are in place and reinforced by feedback, rewards, and discipline. Structured groups, as groups, actively manage-by-exception. Members closely monitor each other for deviations from expectations to assure tasks have been satisfactorily completed. They enforce rules and procedures to guide members' participation in the group. In structured groups, members focus on their roles and on accomplishing the group's goals and objectives. Agendas are clear and explicit. Tasks and responsibilities are assigned, constructive feedback and recognition are provided to move the group towards its goals.

Structure is required by highly developed teams concerning the expectations team members have of each other. Structuring at the level of groups, parallels transactional leadership at the individual level. The structure determines what is and is not appropriate behavior, contributions expected from each group member, how the group will evaluate its performance, how the group rewards and disciplines its members, and how decisions will be made and communicated. The structure is the external framework that forms the basis for group interactions (Avolio, 1999).

Highly Developed Teams. Distinguishing between a structured group and a highly developed team involves a transition in perspective. Members shift from adhering to externalized criteria and standards for behavior to their internalized standards based on beliefs, values and commitment to shared ideals. Differences in perspective in the structured group give way in highly performing teams to shared perspectives. This shared perspective enhances the vital force of the team to take on the most formidable challenge, and to reach inside oneself to achieve the uncommon goals.

In highly developed teams, the members contribute their best efforts because of their resolve, because their identity is linked to the teams shared vision, because they take pride in being associated with the team, and because they are willing to provide extraordinary effort to achieve the team's mission. The member of the structured group asks "what's in it for me" and what am "I" supposed to do. The member of the highly developed team asks "what's in it for my team" and where do "we" need to go to accomplish our mission. Members of highly developed teams are willing to sacrifice their own gain to achieve the team's common purposes. High levels of commitment, cohesion, interdependence, and responsiveness to change characterize such teams (Avolio, Jung, Murry, & Sivasubramaniam, 1996; Guzzo, Yost, Campbell, & Shea, 1993). Specifically, Avolio, Jung, et al., showed that the transformational leadership of team members was highly predictive of levels of cohesion, collective efficacy, group effectiveness and satisfaction over periods of 3-4 months.

Highly developed and performing teams, as teams, manifest the components of transformational leadership behavior. Highly developed teams and its members exhibit behaviors that are individually considerate, intellectually stimulating, and inspiring to others on the team. Shared ideals, trust, commitment and cohesion are high and so too is the willingness to sacrifice for other team members, representing the charismatic qualities described above, but now at the team level. Members trust they are each working toward a collective purpose and team ideal. The focus is on working together to maximize the performance of the group and its rewards, as opposed to the unstructured and semi-structured groups, which too often exhibit a "war of the parts" against the whole.

The highly performing teams are optimistic, aroused, and enthusiastic. They are confident they have the talent and the experience to meet and exceed their most challenging goals as demonstrated in their higher estimates of collective efficacy and team potency (Avolio, Jung, et al., 1996). There is a strong sense of synergy and collective efficacy that together the members can accomplish the highest levels of performance. There is a

perceived unity, pride and commitment to the teams shared mission and vision. There is belief in the dependability and integrity of the team members as a whole. Members help align their individual interests with the general missions and visions of the team. Within the teams, members serve as role models for each other's development and performance.

As team members develop beyond structured groups and internalize shared purposes, commitment and cohesion, the teams increase their achievement of team goals and establish the basis for achieving higher levels of performance than would be expected from a simple summation of individual efforts (Campion, Medsker & Higgs, 1993).

In many ways, the members of the platoon, as a group, can substitute for direct intervention of the PL or PSG. In this regard, one can examine the diffusion of leadership to a more macro-level of analysis (Avolio & Bass, 1995). For example, in a platoon where continuous improvement is highly valued and reinforced, one would expect to observe members who are more developmentally-oriented, individually considerate, and rewarded by the organization for being so.

As we moved from the individual member to the level of analysis to the platoon level, and then to the company level, we have created a broader framework for examining leadership. Starting with the platoon or company we can examine how certain style behaviors are more or less relevant, from senior to junior levels. We can also examine how relations between the PL and the PSG affect platoon effectiveness, and satisfaction.

Leadership "of" versus "by" the Team

Most prior research focusing on leadership in teams has assessed the leadership of a single individual leading a team (Cohen, Chang, & Ledford, 1997; Ilgen, Major, Hollenbeck & Sego, 1993). While several authors have introduced the concept of "collective" or "distributed" leadership within teams (Katzenbach, 1997; Kozlowski, et al., 1996; Manz & Sims, 1993), there has been no attempt to examine leadership as a group-level construct. Thus, there are no methods to measure the leadership exhibited by the team as a collective whole. Dunphy and Bryant (1996) reviewed the literature on teams and concluded that future research must include leadership by the team, as well as of the team, when modeling team effectiveness. Similarly, Ilgen et al., (1993) recommended, "as we consider work teams and research on them in the 1990s, we cannot overlook the role of leaders and leadership (p. 248)."

One purpose here was to examine a new measure of team leadership, the TMLQ, which can be used to evaluate the transactional and transformational leadership exhibited by a team. We first provide our justification for measuring these constructs associated with "team leadership".

Team leadership is defined here as representing the collective influence of members in a team on each other. Teams create a particular identity and mental model that guides the behavior of individual members based on shared expectations and beliefs (Martin, 1993), or what Neck and Manz (1994) referred to as "group self leadership". As the team itself

becomes a more central entity for its members, the mental model in each member's head of what the collective accepts, supports, criticizes and so forth will influence the individual and collective actions of team members. For example, the very act of being a part of the collective might inspire and stimulate individual members to reach performance levels beyond expectations in very much the same way as an individual leader influences his or her followers to perform when they are inspired (Bass, 1985). This may explain why Bowers and Seashore (1966) found that peer leadership had a higher positive correlation with unit performance than the leadership exercised by an individual manager.

We define team leadership in terms of how members of the group evaluate the influence of the group, as opposed to one individual within or external to the group. The theoretical meaning and operational definition of team leadership integrates the perspective taken by the team member in assessing leadership, as well as the level at which the phenomenon of leadership is examined, which we define here as the group. Our strategy for measuring team leadership is consistent with recommendations by Tesluck, Zaccaro, Marks, and Mathieu (1997), who suggested that group level phenomena can be assessed by having each individual rate the group (also see Campion, Papper, & Medsker, 1996; Chan, 1998; Hyatt & Ruddy, 1997 for a discussion on methods to evaluate team constructs).

RESEARCH PLAN

Purpose

The infantry platoon, as a platoon, is the most significant unit for both the individual soldier and the Army for enhancing the effectiveness of operations. The core leadership rests with the non-com platoon sergeant and the platoon leader, usually a commissioned second lieutenant. Squads and squad leaders play secondary leadership roles usually for shorter periods of time, since turnover is higher in squads and squad leaders than in platoons and platoon leaders. The purpose of this investigation was to show that platoon readiness and effectiveness is a complex function of its platoon leadership, its platoon and company climate, and the culture of leadership of all its members.

The plan assumed that each company and platoon within it initially contained soldiers with the same distribution of skills, competencies, training and experience. That is, we assumed there were no selection biases that would skew the results.

A major aim of the investigation was to examine whether the joint-readiness of the platoons in terms of the leadership and platoon effectiveness, according to observer-controllers when the platoon's brigade is engaged in joint-readiness exercises, could be predicted from prior transformational and transactional leadership ratings in home station of the PL and PSG and of the platoon as a whole. Also, prior to JRTC, in home station, assessments of the platoon and company satisfaction and extra effort were obtained along with measures of extra effort, cohesiveness, and collective efficacy. The less complex light infantry were studied, rather than more complex heavy infantry. Within each company, only the 3 rifle platoons of each company were engaged in the data collection and analysis. The

heavy weapons platoon was excluded. Data were gathered at Ft. Benning, Ft. Bragg, Ft. Campbell, Ft. Drum and Ft. Polk (the JRTC site).

Hypotheses

It was hypothesized that the transformational/transactional leadership components of the platoon leader and platoon sergeant would predict independently-gathered judgments of readiness in the light infantry platoons. Consistent with Boyd (1988) and Gasper (1992), and the other completed meta-analyses, an overall hypothesis was that platoon effectiveness in home station and mission performance at JRTC would correlate positively with platoon leader transformational and contingent reward leadership, less so with active and passive managing-by-exception and negatively with laissez-faire leadership. Home station effectiveness, itself, would be expected to predict JRTC performance. (See Siebold, 1992, 1994). Platoon and company climate at home station would similarly contribute to subjective effectiveness and observed platoon readiness.

Method and Design of the Study

The method and design built on prior work on home station determinants of squad and platoon performance (Tremble & Alderks, 1991), and its extension to further predicting the performance of platoons at a U.S. Army Joint Readiness Training Center (Siebold & Lindsay, 1991; Siebold & Kelly, 1988). Similar to Siebold and Lindsay, we examined the extent to which the aggregated individual, leadership, and group data collected in of platoons could account for the performance of the platoons and its leadership in achieving higher performance evaluations from observers/controllers (O/Cs) judging platoon mission performance in joint-readiness exercises. Siebold and Lindsay established for 22 platoons that individual squad member motivational satisfaction, pride in the platoon, and cohesion among the platoon and squad leaders measured shortly before JRTC ranged from .53 to .65 in correlation with subsequent joint-readiness of platoon mission performance. Given these findings, we hypothesized that platoon and mission performance would be higher, the higher the transformational leadership of the platoon leaders and platoon sergeants.

Subjective predictors of readiness and effectiveness of the platoon and its leaders would come from the TMLQ suitably modified for Army considerations.

All of the survey scale items to be used in the current study were first examined and suitably modified in discussion with our consultants, Lt. General (Ret.) Walter Ulmer, Colonel Wilder M. Snodgrass and Colonel (Ret.) Michael Shaler. Lt. Col. Washington and General Ulmer each checked at Ft. Benning and Ft. Bragg with focus groups of infantry soldiers for understanding. In all, only two items required changes. Next, a first study of 18 platoons was completed for preliminary analyses and possible revisions to the data collection. These 18 platoons were assessed at home station and again immediately following JRTC. These collections of data were followed by a study of 72 additional platoons excluding the post-JRTC MLQ reassessment since the first 18 platoons were sufficient to provide rate-rerate reliabilities and the effects of JRTC on MLQ ratings. Debriefing sessions led by one of the

principal investigators and one of the consultants were held for senior officers, cadres, PLs and PSGs following the completion of JRTC and return to home site.

Summary of Research Activities

Over the course of this 3-year investigation we have worked on developing leadership survey instruments that could be reliably used in military contexts to predict individual and unit performance. As noted earlier, part of our work involved working with military consultants to revise existing leadership survey measures for this military project. These steps were taken at the outset of the project to assure the leadership survey measures would be both reliable and valid. In our second interim report completed in 1998, evidence was provided to demonstrate the reliability and validity of our measures with a sample of 54 platoons. In this final report, we include the results for the surveys used here with a total of 90 platoons, and for predicting the performance of 72 platoons that went to JRTC. The JRTC criterion data and correlations with their predictors are thus based on 72 platoons. However, correlations among the home station data are based on 90 platoons.

The First Interim Report described results for the first 18 platoons. The Second Interim Report described results for 72 platoons studied, of which 54 went to JRTC. We briefly summarize here the methodology that was used to collect data, the total response rates for all measures, the final psychometric results on measures and our findings regarding the prediction of platoon performance at JRTC. A more detailed description of our methods appears in the Second Interim Report.

Assessments in home station were obtained approximately one month prior to platoons attending JRTC/NTC, using a 360 degree MLQ, which were completed by COs, XO's and FSGs, by other PLs and PSGs, and by platoon EMs. In addition to individual MLQ ratings of the PLs and PSGs by all of the above raters, we also collected ratings focusing on the collective leadership behavior of the platoons and company in home station. These ratings were gathered from the same sources described above using the Team Multifactor Leadership Questionnaire (TMLQ).

During the third year, we had the opportunity to complete all of the data collection in home station and at JRTC. The survey data collected on leadership and our criterion measures collected from the Observer/Controllers (O/C) raters at JRTC and National Training Center (NTC) were all entered into data files and verified. Qualitative coding of O/C rater comments on the technical proficiency of the platoon and its behavioral leadership was also coded and entered into data files. More detailed descriptions of the qualitative analysis appear in the Methods and Results sections of this final report.

METHODS

Sample

We have divided our presentation concerning the procedures used to collect leadership ratings and performance data collection at JRTC. We begin with a discussion of the procedures for home station data collection of the MLQ and TMLQ.

Table 1 provides an overall breakdown of raters and units completing the various survey measures. Most of the members of 90 rifle platoons, 90 Platoon Sergeants, 90 Platoon Leaders and their 30 company cadres (COs, XOs, FSGs), provided the data for the analyses linking leadership and performance at JRTC. Table 2 contains the overall respondent participation rates in the research project. It can be seen in Table 2, rates ranged from 100 percent for COs and FSGs to 86% for platoon members. Most of the non-participating soldiers were on special assignments or on leave.

Participants were surveyed in companies by specially prepared questionnaires. After explaining the purposes of the study and its anonymity and confidentiality, all participants were given the option of sitting quietly and not participating. Only 10 availed themselves of this opportunity.

Table 1

Instruments and Raters

Multifactor Leadership Questionnaire (MLQ)

90 Platoon Leaders
90 Platoon Sergeants

Team Multifactor Leadership Questionnaire (TMLQ)

90* Platoons
30* Companies

MLQ Raters:

MLQ <i>Above</i>	MLQ <i>Peer</i>	MLQ/TMLQ <i>Below</i>	MLQ <i>Self</i>
CO	PL	Squad Leaders	Self
XO	PSG	Fire Team Leaders	
1SG		Squad Members	

Number of Observer/Controllers' (O/C's) rating cards reported: 339

*Those numbers were applicable to all the data collected at home station. However, only 72 PLs, 72 PSGs, 72 Platoons and 24 companies were rotated to JRTC which was the appropriated center for light infantry near-combat experience. One brigade was rated to the National Training Center, Ft. Irwin, which primarily provides near-combat experience for armor and mechanized forces. Light infantry troops are unlikely to receive much training in the missions provided by NTC.

Table 2

Number of Ratings Obtained in Platoon Leader Study

Total number of questionnaires completed by using the military version of the Multifactor Leadership Questionnaire (MLQ):

Multifactor Leadership Questionnaire (MLQ)

Platoon Leader:	Self <u>70</u>	Above <u>187</u>	Peer <u>115</u>	Below <u>710</u>	DK <u>32</u>	Total: <u>1114</u>
Platoon Sgt.:	Self <u>69</u>	Above <u>194</u>	Peer <u>131</u>	Below <u>669</u>	DK <u>24</u>	Total: <u>1087</u>

Using the military version of the Team Multifactor Leadership Questionnaires (TMLQ)

Company	391	18 per company
Platoon	1221	18 per platoon

Using the Observer/Controller Ratings

JRTC Phase 1	<u>90</u>
JRTC Phase 2	<u>125</u>
JRTC Phase 3	<u>124</u>
Total	<u>339</u>

Average Response Rates by Class

CO/XO/1st SGT (Above)	100%
Platoon Leader (Peers)	96%
Platoon Sgt. (Peers)	94%
Platoon Members (Below)	86%

MLQ and TMLQ Data Collection

One of the fundamental assumptions for this project was that leadership measured at multiple levels would provide a more complete evaluation of a platoon's overall leadership potential and performance in near battle conditions simulated at JRTC. The multiple levels included surveys of the PL's leadership, the PSG's leadership, the collective leadership of all members of the platoon, and the leadership characterizing the company culture. Survey measures that assess each of these levels and tap into what Bass and Avolio (1994), as discussed above, have referred to as the Full Range Leadership Model, already existed but were modified for the current military setting. Modifications to the survey measures generally included minor rewording of items by the consultant team of content experts, to "fit" within the Army context. Most items remained unchanged in the survey measures. (See Appendix A for copies of the surveys).

Also, 107 COs, XOs, and FSGs cadre MLQ reratings were collected at the end of the JRTC missions to establish rate-rerate reliabilities. For the analyses in this report, the CO, XO and FSG, or Company Cadre, were labeled as "Above" the PL and PSG, the PLs and PSGs were labeled "Peers" of the PLs and PSGs and all other EMs were labeled as "Below" the PL and PSG. Table 2 contains the numbers and types of instruments that were collected at home station.

Control of Same Source Variance and Order Effects. As previously noted, the MLQ and TMLQ data were gathered about the PLs and PSGs from all personnel of each of 90 platoons, the company leaders (CO), executive officers (XOs) and first sergeants (FSGs) of the 30 companies from all brigades. In order to control for order effects, half of the respondents below the PL and PSG received two questionnaires in a folder and were directed to complete them as presented. Since there were 30 companies of 90 platoons, to even the numbers of completed surveys, the folders contained three times as many Platoon TMLQs as Company TMLQs. These surveys were placed in alternating order in the folders with either PL-MLQ or with PSG-MLQ. These two samples were further subdivided so that the folder presented the TMLQ first and the MLQ second or vice versa.

The CO, XO, and FSG were each asked to complete MLQs on all 3 PLs and 3 PSGs of the 3 rifle platoons in their company, again presented in folders to them in alternating orders. The PLs and PSGs completed self-MLQs and an MLQ on each of their peers in the other two platoons of their company.

Table 2 shows the collection and return rates by company and platoon. We were able to achieve very high return rates, even though some participants had conflicting assignments at the time of data collection, or were on vacation or sick call.

Since each EM platoon member below the PL and PSG completed an MLQ on one or the other, as well as a TMLQ on either the platoon or the total company, it became possible to correlate MLQ and TMLQ responses minimizing same source effects or bias. The number of respondents here for platoon and company was equalized. Anonymity was promised to all

respondents and maintained. There was no individual feedback of results provided to the PL or PSG themselves or to their superiors, peers or subordinates.

Field Performance Data Collection Process by Observer-Controllers (O/Cs)

Approximately one month after the MLQ/TMLQ had been collected in home station, four of the brigades engaged in tactical mission exercises at the JRTC in Ft. Polk, LA, while a fifth brigade participated in exercises at the National Training Center (NTC) at Ft. Irwin, CA. For the five data sets of 18 platoons each, ratings were obtained from two experienced observer/controllers (O/Cs) at the respective training centers. COL(R) Shaler at a special meeting oriented the 36 O/Cs several days prior to their moving into the field with their platoons. At the end of each of three phases, after the first mission, after the middlemost mission and after the last mission, the O/Cs completed the attached performance rating form (see Appendix A).

The O/C ratings, which measured the individual and collective performance of the leaders and platoon participating in 11 simulated combat missions at JRTC, were created specifically for this project. Ratings of 20 behavioral items, then refined to 14 items were based on Army leadership doctrine (FM 22-100). They were developed to assess the PL's and PSG's individual leadership effectiveness (PLE and PSGE) in meeting the doctrinal standards. Additionally, two overall scales assessed the platoon's performance of its mission given the conditions it faced (A) and relative to other platoon's performance at JRTC (B). Answers were solicited to open-ended questions about the platoon's strong and weak points and PL/PSG relationships. The score card used by observer controllers after the first, middlemost and last mission of a platoon at JRTC is shown in Appendix A.

Qualitative analyses were completed of the comments written down by O/C raters on the JRTC scorecards. The comments included the relationship of the PL and PSG, behavioral incidents describing the leaders' behavior with followers, and the appropriate use of Army procedures, equipment and technology by the observed platoon. In most cases, two observer-controllers accompanied the platoons on their missions. The numbers and types of O/C ratings are shown in Table 3.

The JRTC results were to serve as the criterion of platoon effectiveness in near-combat conditions, as well as criteria for PL and PSG effectiveness as leaders (PLE and PSGE). Based on analysis of the first set of data (obtained at Fort Campbell), we modified the structure of the O/C rating card to include more qualitative open-ended questions, and eliminated several items that measured PL and PSG leadership performance. There was also one less item included that assessed platoon performance. This list of items was trimmed because the 20 original PLE items were highly intercorrelated as were the 20 PSGE items. The number of questions assessing overall platoon effectiveness was also reduced from 3 to 2 for the same reason. The O/C Platoon Performance forms used in the 2nd, 3rd, 4th and 5th sets for 72 platoons, included two ratings about the platoon's observed effectiveness. Those ratings were as follows:

A = Tactical Mission Accomplishment (considering weather, terrain, support, and opposition.)

B = Overall Performance as compared to other platoons.

Every quantitative response was based on five anchors and was scored 0 = lowest anchor; 1= low anchor; 2 = middle anchor; 3 high anchor; and 4 = highest anchor.

There remained after the trimming of 6 items, 14 items that assessed the behavior of the PL and PSG. The items measured each leader's consistency with Army doctrinal prescriptions for effective platoon leadership in combat as judged by our military consultants.

The qualitative questions included sections about the platoon, the PL, the PSG, and the PL-PSG relationship. For platoon effectiveness, raters were asked to identify the platoon's 3 strongest and 3 weakest points. Similarly, raters were asked to comment on the PL and PSG strong and weak points, and how well they worked together during the two-week period.

Two O/Cs were assigned to accompany each of the platoons into the field, and to serve as raters for the 18 platoons going through JRTC. Evaluations of each platoon were collected from both raters at the end of the first, middlemost and last mission. Generally, these missions included defense, movement to contact, and attack. A total of 489 ratings were obtained from the O/Cs. For the first 18 platoons, 107 cadre ratings were obtained. Cadre ratings were used as a confirmatory check of the same field data cards against the O/C ratings.

As described in the First Interim Report, for the first set of 18 platoons, company cadres (CO, XO, FSG) also completed the MLQs of PLs and PSGs a second time at the end of the JRTC rotation. MLQ ratings of the PL and PSG were completed before and after rotation to assess the rate-rerate reliability of MLQ scores and the agreement of home station and JRTC results.

O/Cs also provided the platoons with an after-action review at the end of each phase. A debriefing of general results was also provided at home station for selected PL's, PSGs, company cadres and senior officers.

Qualitative Data Collection Overview

The Field Data Cards used to collect objective data on leader and unit performance were also used to record narrative comments. (See sample Field Data Cards in Appendix A) The card was modified after the first JRTC rotation to include questions on the weaknesses as well as the strengths of the platoon leader, platoon sergeant, and the platoon overall; also, starting with the second rotation, cadre as well as O/C respondents were included in the survey.

In Part C of the final version of the Field Data Card, a total of seven fill-in-the-blank items were provided for respondents to write free-response narrative comments. The first two items asked respondents to describe the three strongest points and the three weakest points of the platoon. The next two items asked for comments on the platoon leaders (PL) strong points and weak points. The next two items ask for comments on the platoon sergeant (PSG) strong points, and weak points. The final item asked how well the platoon leader (PL) and the platoon sergeant (PSG) worked together.

Multiple Respondents. Field Data Cards on most platoons were completed by five respondents: two observer controllers (O/C) and three cadre members. All respondents accompanied each platoon throughout the 14 day JRTC field training exercise. The O/Cs were experienced tactical observers in the grade of Captain (O-3) and Sergeant First Class (E-7) or Master Sergeant (E-8). O/Cs were selected by the Joint Readiness Training Center for O/C duties based on their background and ability; all had received training in their duties and were instructed on how to complete the Field Data Cards. The O/Cs were observing these particular platoons for the first time, but all had performed O/C duties in the past. Their prior experience was recorded on the field data cards and experience ranged from 3 to 30 prior rotations. The average number of prior platoon rotations in the experience of these observer/controllers was calculated to be 11.94 prior rotations. O/Cs were with the platoons day and night, and were in a position to observe the behaviors of the PL, PSG, squad leaders, fire team leaders, and enlisted members on a continuous basis for all four JRTC rotations.

Starting with the second JRTC rotation, Field Data Cards were also completed by three cadre members: the company commander (CO), company executive officer (XO), and company first sergeant (FSG). These cadre were also in the field in close proximity to the platoons--although not always in sight of each platoon-- throughout the exercise; they were always in radio contact, and usually met the PL and /or the PSG face to face at least once a day. The cadre respondents had the advantage of prior knowledge of the platoon personnel. Cadre provide the observer perspective of a higher Headquarters, responsible for the command, control, and continuous supervision of platoon performance throughout the exercise.

Multiple Observations. Starting with the second rotation, a total of nine field data cards were normally collected on each platoon. The two O/Cs with each platoon usually completed three field data cards. The three-company cadre--the company CO, XO and FSG each submitted one card per platoon. The O/C cards were prepared individually at the end of each of the three phases during the 14-day JRTC field exercise. The three cadre cards were completed independently at the end of the 14-day field exercise. In the third rotation, however, the tactical situation was such there were only two phases and therefore only four O/C field data cards were collected altogether from the 2 O/Cs.

A total of 555 field data cards were received and considered in our analyses collectively, they cover four JRTC brigade rotations and contain more than 4000 comments on 72 infantry rifle platoons. The breakdowns of field data cards collected, per type respondent, per JRTC rotation are presented in Tables 3 and 4.

Table 3

Field Data Card Collections by Early, Middlemost, and Latest of Mission of Platoons

<u>Mission Phase</u>	<u>Early</u>	<u>Middlemost</u>	<u>Late</u>	<u>All</u>
No. of O/C Cards Collected	107	143	143	393
No. of Cadre Cards Collected	54	54	54	162

Table 4

Field Data Card Collections by Rotation of Platoons to JRTC

Rotation	1	2	3	4	All
No. O/C Cards Collected	105	108	72	108	393
No. Cadre Cards Collected		54	54	54	162
Total Field Data Cards	105	162	126	162	555

Data Verification and Processing. O/C and Cadre field data cards were collected and audited in the field for legibility, completeness, respondent identification, and subject identification. Missing or incomplete data were requested / corrected on the spot. The response rate on O/C and Cadre field data cards was greater than 99%.

Graduate students at the Center transcribed comments for Leadership Studies. Handwriting on the field data cards was generally legible. A separate record was created for each field data card received; thus the final database contained 555 records. For example, each record, comments were recorded in separate fields as appropriate, so that comments on PL strengths could later be distinguished from comments on PL weaknesses, for example. The same procedures were followed for PSG Strengths, PSG Weaknesses, Platoon Strengths, Platoon Weaknesses, and PL/PSG cooperation. The resulting database of comments was reviewed and edited by researchers familiar with military terminology. A layout for rendering a printout of comments on each item by platoon was designed.

Methodology Overview. The focus of the analysis was to sort through 555 field data cards containing about 4000 free-response comments and draw appropriate inferences. The questions for initial analysis were:

- What were the greatest strengths of the platoon leader, platoon sergeant, and platoon?
- What were the greatest weaknesses?
- How well did the platoon leader and platoon sergeant work together?

The first step in the analysis process was to organize the responses by platoon and to manually read through the records. The idea was to search for recurrent key words that expressed leadership actions and attributes. A Glossary of the military terms and abbreviations encountered was prepared. (See Appendix B.)

Key Words. Key words were selected by reading through all comments on strengths and weaknesses, taking notes on the subject of each comment, and looking for recurrent topics. Most key words to emerge from this process were attributes that soldier/leaders should be or have such as "discipline," "enthusiasm," "stamina," "persistence. . . ." Other key words focused on military skills that soldier leaders should know such as "navigation," "troop leading procedures (TLP)," "use of night observation devices (NOD),. . . ." Still others were process oriented--items a soldier/ leader should do or practice such as: "communication," "delegation," "coordination," "supervision. . . ." As key words were selected, a glossary was prepared defining each term within the military context in which it appeared. Finally, an alphabetical index of all words appearing in the comment database was produced and screened to insure that important key words or concepts were not being overlooked.

Coding. Each key word was reduced to a key word stem, which was tested using a software application to count the frequency of occurrence of all forms of the word throughout the comment database. The occurrences were verified and spot-checked in the comment

database. Spell check routines were used to insure consistent wording and complete searches. "Search and replace" routines were used to normalize key word usage in the comment database. More than a hundred key word stems were explored. Many proved insignificant or duplicative. Ultimately, 64 key word stems were used for the initial analysis and about half were retained for the final analysis. Comments that had analytical significance but did not contain a key word were coded with the appropriate key word in brackets: [key word]. Not all comments were coded. Comments without analytical significance were not tabulated; thus, comments such as "None" or "No weaknesses were observed" were not counted. Likewise, the comment "platoon leader," "platoon sergeant," or "Sergeant X" when listed alone as a strength or weakness was not counted. Individuals mentioned by name were deleted. A Glossary defining all key words based on the military context in which they were used is provided in Appendix B. Finally, the software application was used to search a given data set and to count occurrences of the 64 selected key word stems; there were 3348 "hits" or occurrences in the comment database as shown in Table 23 of the qualitative results section.

The methodology for processing quantitative information from 555 respondents describing performance in 72 infantry platoons is summarized below.

RESULTS

Quantitative Analyses

We began our quantitative analyses for the 90 platoons by trimming data to eliminate respondents whose ratings reflected a pattern with little or no variance at all in their responses to the surveys. Less than 1% of the respondents were so eliminated from the final data set. We then conducted a more in-depth evaluation of both our survey and criterion measures. First, we tested the factor structure of the MLQ and TMLQ, and found support for a six-factor model for both the MLQ and the TMLQ, as described below.

Factor Structure of the MLQ and TMLQ

Our first step was to confirm the factor structure on the first set of data collected from 18 platoons at Fort Campbell. A six-factor model was used as the target model based on results reported by Avolio, Bass & Jung (1999). We employed confirmatory factor analysis (CFA) using LISREL VIII. CFA is a widely used technique for testing the psychometric properties of established measurement instruments, in that it tests a pre-specified factor structure and the goodness of fit of the resulting solution. LISREL compares an implied covariance matrix with the observed matrix and estimates parameters based on the fit between these matrices. The fit is represented in indices such as the Goodness of Fit Index (GFI), NFI2, NCFI, and AGFI. For these indices, values above .9 are indicative of an adequate fit. We also included the Root Mean Squared Residual (RMSR), for which acceptable fit should be less than .05, the change in Chi-square value associated with testing each of several comparison models and several other fit indices that take into account, the number of degrees of freedom.

Results of the CFA for the remaining set of 72 platoons produced consistent support for a six-factor model of individual and team leadership. The six factor model for the MLQ produced a GFI=.93, AGFI=.91, RMSR=.004, NFI2=.94 and NCFI=.94. (A more detailed presentation of these findings are presented in the Second Interim Report).

The same six factor model was replicated for the TMLQ and produced a GFI=.96, AGFI=.95, RMSR=.004, NFI2=.97, and NCFI=.97. The two respective six factor models generated a more parsimonious fit as compared to the alternative models tested and were used as the framework for subsequent analyses. The six-factor model is as follows: Inspiring, Intellectually Stimulating, Individually Considerate, Contingent Reward, Active Management-by-Exception and Passive-Avoidant Leadership.

MLQ, TMLQ, and O/C Ratings' Descriptive Statistics

After confirming the factor structure for the MLQ and TMLQ surveys, we then examined the means, reliabilities, and intercorrelations of the MLQ scales, as well as the means, reliabilities, and intercorrelations for the JRTC performance data according to pairs of O/Cs.

Tables 5a and 5b provide descriptive statistics, estimates of internal consistency and intercorrelations among the six MLQ scales for PL and PSG self ratings of leadership. The coefficient alpha values were all above .6 for self-ratings of leadership generated by the two focal leaders. Transformational scales were more highly intercorrelated than their correlations with the remaining scales, and were as expected, negatively correlated with passive avoidant leadership (PA).

Table 5a

MLQ Means, Standard Deviations, Alpha Reliabilities, and Intercorrelations Among Self Ratings of Platoon Leaders

MLQ Factor	M	SD	Alpha	1	2	3	4	5	6
1. IL	3.19	.54	.85						
2. IS	3.08	.52	.65	.38*					
3. IC	3.14	.55	.62	.51***	.47***				
4. CR	2.96	.59	.67	.50***	.30*	.56			
5. MA	1.75	.98	.61	.23	.16	.16	.13		
6. PA	.58	.48	.68	-.23	-.32*	-.32*	-.35*	.07	

Note: n = 86

*p < .05

**p < .01

***p < .001

Table 5b

MLQ Means, Standard Deviations, Alpha Reliabilities, and Intercorrelations Among Self Ratings of Platoon Sergeants

MLQ Factor	M	SD	Alpha	1	2	3	4	5	6
1. IL	3.34	.47	.83						
2. IS	3.04	.54	.60						
3. IC	3.25	.54	.65	.51***					
4. CR	3.17	.53	.66	.60***	.51***				
5. MA	1.96	.53	.77	.32*	.24	.42***			
6. PA	.47	.56	.67	-.26*	-.14	-.21	.07	.11	

Note: n = 85

*p < .05

**p < .01

***p < .001

MLQ Legend:

IL - Inspirational Leadership

CR - Contingent Reward

IS - Intellectual Stimulation

MA - Management-by-Exception

IC - Individualized Consideration

PA - Passive Leadership

Tables 6a - 6d provide descriptive statistics, estimates of internal consistency and intercorrelations for the six MLQ scales for the combined rater sample. They then are subdivided by rater source for the PL. Tables 7a - 7d provide a parallel set of results for the PSG for the six MLQ scales for the overall sample, and then subdivided by rater source. It can be seen that peers and cadres gave higher MLQ ratings for the transformational scales and contingent reward and lower ratings for management-by-exception and passive leadership than did those below the PL and PSG in rank.

Table 6a
Descriptive Statistics, MLQ Reliabilities, and Intercorrelations Among Multi-source Ratings of Leadership Scales for Platoon Leader

MLQ Factor	M	SD	Alpha	Overall from All Sources					
				1	2	3	4	5	6
1. IL	2.84	.56	.86						
2. IS	2.65	.52	.73	.53***					
3. IC	2.67	.57	.79	.65***	.62***				
4. CR	2.50	.55	.81	.62***	.46***	.67***			
5. MA	1.77	.64	.60	.26*	.14	.21	.16		
6. PA	.79	.51	.81	-.34**	-.34**	-.43***	-.52***	.05	

Table 6b

MLQ Factor	M	SD	Alpha	Ratings from Below					
				1	2	3	4	5	6
1. IL	2.58	.49	.85						
2. IS	2.48	.47	.73	.89***					
3. IC	2.33	.50	.77	.89***	.88***				
4. CR	2.20	.52	.70	.88***	.85***	.87***			
5. MA	1.95	.45	.57	-.26*	-.29*	-.29*	-.27*		
6. PA	.87	.38	.79	-.75***	-.71***	-.66***	-.60***	.13	

Table 6c

MLQ Factor	M	SD	Alpha	Ratings from Peers					
				1	2	3	4	5	6
1. IL	2.97	.51	.79						
2. IS	2.71	.49	.62	.66***					
3. IC	2.81	.55	.60	.61***	.59***				
4. CR	2.54	.48	.55	.62***	.62***	.68***			
5. MA	1.89	.74	.65	.18	.13	.23	.08		
6. PA	.72	.54	.84	-.54***	-.47***	-.52***	-.46***	.11	

Table 6d

MLQ Factor	M	SD	Alpha	Ratings from Above					
				1	2	3	4	5	6
1. IL	3.00	.59	.91						
2. IS	2.77	.65	.72	.78***					
3. IC	2.89	.51	.82	.83***	.76***				
4. CR	2.80	.48	.73	.81***	.76***	.71***			
5. MA	1.47	.59	.54	.12	.05	.14	.06		
6. PA	.78	.60	.87	-.74***	-.62***	-.64***	-.66***	.13	

Note: Overall: (n=254)

*p < .05

**p < .01

***p < .001

MLQ Legend:

IL - Inspirational Leadership

IS - Intellectual Stimulation

IC - Individualized Consideration

CR - Contingent Reward

MA - Management-by-Exception

PA - Passive Leadership

Table 7

Self versus Other MLQ Correlations

MLQ Rater Source	Leader Sergeant		Leader Sergeant		Leader Sergeant	
	Below	Below	Peers	Peers	Above	Above
IL	.25*	.02	.23	.05	.30*	.11
IS	.04	-.14	.02	.22	.17	-.10
IC	.00	.13	.08	-.11	.17	-.12
CR	.19	.01	.38	-.16	.27	-.18
MA	.33	.11	-.07	.22	.04	.14
PA	-.12	.11	.25*	-.06	.19	-.14

Note N: The maximum numbers for the different source correlations are as follows:

Self & Leader Below N=71; Self & Sergeant Below N=72; Self & Leader Peers N=68;
Self & Sergeant Peers N=69; Self & Leader Above N=69; Self & Sergeant Above N=71.

*p < .05

Table 7a
Descriptive Statistics, MLQ Reliabilities, and Intercorrelations Among Multi-Source Ratings of Leadership Scales for Platoon Sergeant

MLQ Factor	M	SD	Alpha	Overall from All Sources					
				1	2	3	4	5	6
1. IL	2.88	.60	.87						
2. IS	2.63	.50	.76	.56***					
3. IC	2.70	.60	.82	.67***	.65***				
4. CR	2.65	.61	.73	.64***	.52***	.70***			
5. MA	1.95	.64	.64	.20	.08	.15	.09		
6. PA	.74	.54	.82	-.35**	-.36**	-.44***	-.50***	.05	

Table 7b

MLQ Factor	M	SD	Alpha	Ratings from Below					
				1	2	3	4	5	6
1. IL	2.52	.50	.91						
2. IS	2.30	.45	.75	.86***					
3. IC	2.32	.51	.81	.91***	.88***				
4. CR	2.18	.48	.79	.84***	.75***	-.23			
5. MA	2.20	.47	.54	-.11	-.12	-.71***	-.19		
6. PA	.97	.43	.90	-.75***	-.65***	.06	-.68***	.09	

Table 7c

MLQ Factor	M	SD	Alpha	Ratings from Peers					
				1	2	3	4	5	6
1. IL	3.07	.54	.86						
2. IS	2.80	.53	.65						
3. IC	2.92	.50	.76	.63***					
4. CR	2.84	.53	.72	.69***	.75***				
5. MA	1.98	.74	.66	.68***	.63***	.68***			
6. PA	.59	.51	.70	-.46***	-.21	-.36**	-.20	.22	

Table 7d

MLQ Factor	M	SD	Alpha	Ratings from Above					
				1	2	3	4	5	6
1. IL	3.05	.58	.85						
2. IS	2.80	.55	.76	.88***					
3. IC	2.97	.46	.80	.86***	.78***				
4. CR	2.93	.53	.69	.83***	.74***				
5. MA	1.66	.59	.64	.09	.06	-.03	.05		
6. PA	.64	.59	.80	-.75***	-.69***	-.68***	-.62***	.09	

Note: Overall (n = 267)

*p < .05

**p < .01

***p < .001

MLQ Legend:

IL - Inspirational Leadership

IS - Intellectual Stimulation

IC - Individualized Consideration

CR - Contingent Reward

MA - Management-by-Exception

PA - Passive Leadership

The pattern of results for the MLQ ratings of the PL and PSG were generally similar and consistent with results reported by Bass (1998) and Avolio (1999). Specifically, the transformational and contingent reward scales were highly positively intercorrelated. These scales had either lower positive or negative relationships with active management-by-exception and were consistently negatively correlated with passive avoidant leadership.

Estimates of internal consistency for all scales were generally sufficient. According to the coefficient alphas, peers were somewhat less reliable than those above or below them in rank. For all respondents combined, all but one was .72 or above. The most problematic scale was MA, with an alphas of ranging from .54 to .66 for the different samples of raters in Tables 6a through 6d, which only retained two items based on the results of the CFA.

TMLQ Statistics. Shifting up our unit of analyses to the platoon's aggregate leadership using the TMLQ, the pattern of intercorrelations among the transformational and transactional contingent reward scales were similar to those reported above for the MLQ. However, in contrast with earlier results, those scales were more positively correlated with ratings of Active Management-by-Exception. Finally, all four measures of "active" leadership were each negatively correlated with the passive avoidant leadership scale.

Tables 8a - 8b provide descriptive statistics, estimates of internal consistency and intercorrelations for the six TMLQ scales. Similar to the MLQ results, we provide a breakdown for the two rater sources: below and peer. All of the scale reliabilities were above .6, except for Active Management-by-Exception (TMA). This scale was also trimmed to two items based on results of the CFA, potentially contributing to its lower estimate of internal consistency.

Table 8a**Descriptive Statistics, TMLQ Reliabilities, and Intercorrelations Among Leadership Scales**

TMLQ Factor	M	SD	Alpha	Ratings from Below					
				1	2	3	4	5	6
1. TIL	2.31	.32	.83						
2. TIS	2.16	.30	.77	.87***					
3. TIC	2.32	.34	.76	.90***	.82***				
4. TCR	2.49	.34	.72	.88***	.79***	.85***			
5. TMA	2.30	.21	.33	.47***	.50***	.53***	.47***		
6. TPA	1.35	.32	.83	-.78***	-.72***	-.82***	-.84***	.45***	

Table 8b

TMLQ Factor	M	SD	Alpha	Ratings from Peers					
				1	2	3	4	5	6
1. TIL	2.86	.57	.77						
2. TIS	2.58	.58	.62	.67***					
3. TIC	2.81	.67	.73	.65***	.51***				
4. TCR	2.97	.61	.72	.74***	.66***	.71***			
5. TMA	1.94	.53	.58	.26*	.43**	.31*	.30*		
6. TPA	.95	.65	.85	-.61***	-.50***	-.57***	-.67***	-.08	

Note: Below (n=90); Peer (n=76)

*p < .05

**p < .01

***p < .001

MLQ**Legend:**

TIL - Inspirational Leadership

TCR - Contingent Reward

TIS - Intellectual Stimulation

TMA - Management-by-Exception

TIC - Individualized

TPA - Passive Leadership

Consideration

Self versus Others' Ratings. Table 9 provides the correlations between ratings of self vs. others' subdivided by rater source for PLs and PSGs. A review of Table 9 indicates that self and others' ratings for the PLs and PSGs were generally uncorrelated except for the Platoon Leader's Idealized Influence (Below, .25; Peers, .23; and Above, .30). A general lack of correlation with the self-other source ratings may be due to each source either perceiving different patterns of leadership behavior, the sources being exposed to different styles and/or, simply due to the fact that raters do not agree on the frequency that leadership behaviors were displayed by their PLs and PSGs. These results are consistent with most other research about self versus others' ratings (Yammarino & Bass, 1990). In general, self-ratings are higher than those from others and don't provide a valid predictor except when used for their discrepancies from other's ratings. Nonetheless, platoon leaders had a somewhat accurate sense of how their influence was seen by others.

Table 9

MLQ Self versus Other Correlations by Rater Source

MLQ Rater Source	Leader Sergeant Below		Leader Sergeant Peers		Leader Sergeant Above	
	IL	.25*	.02	.23	.05	.30*
IS	.04	-.14	.02	.22	.17	-.10
IC	.00	.13	.08	-.11	.17	-.12
CR	.19	.01	.38	-.16	.27	-.18
MA	.33	.11	-.07	.22	.04	.14
PA	-.12	.11	.25*	-.06	.19	-.14

Note N: The maximum numbers for the different source correlations are as follows:

Self & Leader Below N=71; Self & Sergeant Below N=72; Self & Leader Peers N=68;

Self & Sergeant Peers N=69; Self & Leader Above N=69; Self & Sergeant Above N=71.

*p < .05

MLQ Legend

IL: Inspirational Leadership

IS: Intellectual Stimulation

IS: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PA: Passive Leadership

In Table 10a through 10c we provide the mean comparison tests for self versus other ratings. The general pattern that emerged was that both platoon leader and sergeant evaluated themselves higher on the transformational and contingent reward scales, while the reverse pattern was observed for ratings of passive-avoidant leadership.

Table 10a
MLQ Self-Other (Above) Rating Differences For Platoon Leader (PL) and Sergeant (PSG)

	Platoon Leader (PL)			Platoon Sergeant (PSG)		
	Self	Other	T-value	Self	Other	T-value
IL	3.20	3.06	-1.78*	3.31	3.02	-3.24**
IS	3.12	2.85	-3.32*	3.01	2.75	-2.52*
IC	3.19	2.97	-2.77**	3.21	2.92	-3.04**
CR	2.99	2.87	-1.57	3.17	2.92	-2.45*
MBEA	1.68	1.45	-1.68*	2.11	1.66	-3.09*
PL	.60	.78	2.07*	.49	.71	2.06*

Note: N=66

* p <.05; ** p <.01; *** p <.001

Table 10b
MLQ Self-Other (Peer) Rating Differences for Platoon Leader and Sergeant

	Platoon Leader (PL)			Platoon Sergeant (PSG)		
	Self	Other	T-value	Self	Other	T-value
IL	3.20	2.98	-2.64*	3.31	3.06	-2.96**
IS	3.11	2.71	-4.45***	3.05	2.77	-3.47***
IC	3.18	2.83	-3.82***	3.21	2.91	-3.23**
CR	2.97	2.56	-5.48***	3.17	2.84	-3.23**
MA	1.70	1.88	-1.13	2.15	2.09	.36
PL	.60	.78	2.31	.48	.66	1.64

Note: N=66

* p <.05; ** p <.01; *** p <.001

Table 10c
MLQ Self-Other (Below) Rating Differences for Platoon Leader and Sergeant

	Platoon Leader (PL)			Platoon Sergeant (PSG)		
	Self	Other	T-value	Self	Other	T-value
IL	3.20	2.61	-7.78***	3.31	2.49	-9.73
IS	3.13	2.53	-7.09***	3.01	2.28	-7.76***
IC	3.19	2.35	-9.63***	3.20	2.20	-11.71***
CR	2.98	2.21	-9.56***	3.16	2.15	-12.27***
MA	1.68	1.95	2.36*	2.11	2.23	.93
PL	.60	.86	3.39***	.49	1.00	5.98***

Note: N=67

* p <.05; ** p <.01; *** p <.001

Legend:

IL: Inspirational Leadership CR: Contingent Reward
 IS: Intellectual Stimulation MA: Management-by-exception (Active)
 IS: Individualized Consideration PL: Passive Leadership

Interrater Agreement and Intercorrelations for JRTC Performance. Results in Table 11a provide the different agreement rates for the two O/C raters aggregated across the 11 missions. As can be observed in Table 11a, agreement rates for each of the four criterion measures were all adequate ranging .73 for B to .92 for PLE.

Table 11a
Level of Interrater Agreement for OC Ratings Across All Missions for JRTC Performance

	Level of Agreement
PLE	.92
PSGE	.88
A	.78
B	.73

Note: N=72 platoons

JRTC Legend:

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

Perf.LD14: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

Perf.SG14: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Results in Table 11b provide the intercorrelations among the four criterion measures for O/C ratings. As expected, all of the performance measures were moderately and positively intercorrelated. The values in parenthesis are the internal consistency value for each performance rating scale. Both multi-item scales had relatively high values of internal consistency for PL and PSG ratings. Results presented in Table 11b indicated that each of the four dimensions were measuring different aspects of performance at JRTC.

Table 11b
Intercorrelations between O/C Performance Indices

	1	2	3	4	5
A	-----				
B	.70	-----			
PLE	.55	.67	(.94)		
PSGE	.44	.51	.51	(.95)	-----

Note: N=72 platoons; All correlations were significant at p <.001.

Values in parentheses are coefficient alphas for each scale.

JRTC Legend:

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

Perf.LD14: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

Perf.SG14: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

MLQ as Predictor of Home Station Platoon TMLQ Rated Outcomes

We first tested whether the TMLQ ratings could be appropriately aggregated to the platoon level. Specifically, we examined whether the platoon was the appropriate level of analysis using procedures recommended by James, Demaree, and Wolf (1984) called Rwg. Similar to an intraclass correlation, values in excess of .7 indicate it is appropriate to aggregate ratings to the group level, and that there is more variance between the 90 platoons than within the 90 platoons. We present in Table 12 a summary of the results for 90 platoons being rated on the TMLQ. The pattern of results indicated that aggregating to the group level was generally warranted. For all of the leadership scales, nearly 70% of the Rwg values were above the minimum cut off of .7, and were above 90% for ratings of Inspiring and Contingent Reward Leadership.

Table 12

Estimates of Within Group Agreement (Rwg) for the TMLQ Survey

TMLQ Scales	% of Rwg Above .7	Mean Rwg Value
IL	90%	.80
IS	74%	.83
IC	68%	.77
CR	92%	.87
MA	72%	.68
PA	89%	.84

Note: $n = 72$

TMLQ Legend:

IL: Inspirational Leadership

IS: Intellectual Stimulation

IC: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PA: Passive Leadership

Tables 13a and 13b provide the intercorrelations between the MLQ PL and PSG leadership scales and TMLQ outcome measures from a different source of raters from the same organizational level collected in home station. The pattern of correlations for both PL and PSG ratings from below provided strong support for Bass and Avolio's full range model of leadership. Specifically, transformational and contingent reward leadership of raters from below were each positively correlated with five outcome measures, while Active Management-by-Exception (MA) was uncorrelated, and passive avoidant leadership (PA) was negatively correlated with each of the five outcome measures of team extra effort (EE), team potency (TPOT), team cohesion (TCOH), team effectiveness (TEFF), and team satisfaction (SA). Correlations were non-significant if obtained from peers or superiors of the team's PLs and PSGs.

Table 13a

Correlation Between MLQ Ratings of Platoon Leader and Team Climate Based on Different Sources at Home Station

		TMLQ Outcomes				
		TEE	TPOT	TCOH	TEFF	TSAT
IL	Below	.28*	.46**	.55**	.46**	.42**
	Peer	.14	.13	.05	.14	.07
	Above	-.05	-.04	.04	.07	.02
IS	Below	.26*	.43**	.54**	.49**	.48**
	Peer	.12	.04	.09	.06	.00
	Above	-.02	-.05	.02	.04	.05
IC	Below	.21	.34**	.46**	.40**	.42**
	Peer	.08	.01	.04	-.06	-.01
	Above	.00	-.02	.05	.11	.02
CR	Below	.33**	.46**	.59**	.46**	.52**
	Peer	.12	-.03	-.04	-.02	.02
	Above	-.14	-.17	-.04	-.08	-.06
MA	Below	.05	-.04	-.11	-.13	.07
	Peer	.24*	.12	-.03	.04	.00
	Above	.09	.03	-.06	-.06	-.10
PL	Below	-.24*	-.46**	-.51**	-.45**	-.41**
	Peer	-.04	-.11	-.16	-.06	-.08
	Above	.00	.04	-.02	-.03	.03

Note: n-size varied from 67 to 85

*p<.05

**p<.01

MLQ Legend:

IL - Inspirational Leadership

IS - Intellectual Stimulation

IC - Individualized Consideration

CR - Contingent Reward

MA - Management-by-Exception

PL - Passive Leadership

TMLQ Legend:

TEE: Team Extra Effort

TPOT: Team Potency

TCL: Team Cohesion

TEFF: Team Effectiveness

TSAT: Team Satisfaction

Table 13b

Correlation Between MLQ Ratings of Platoon Sergeant and Team Climate Based on Different Sources at Home Station

		TMLQ Outcomes				
		TEE	TPOT	TCOH	TEFF	TSAT
IL	Below	.30**	.47**	.59**	.52**	.48**
	Peer	.09	.09	.16	.23	.22
	Above	.13	.14	.11	.14	.09
IS	Below	.25*	.43**	.60**	.53**	.51**
	Peer	.05	-.08	.03	.19	.09
	Above	.14	.08	.12	.12	.06
IC	Below	.30*	.40**	.58**	.47**	.50**
	Peer	-.02	-.05	.08	.18	.15
	Above	.12	.06	.08	.09	-.03
CR	Below	.34**	.43**	.52**	.42**	.39**
	Peer	.03	-.01	.12	.18	.20
	Above	-.02	.00	.05	.02	-.01
MA	Below	-.28*	-.35**	-.39**	-.36**	-.35**
	Peer	.19	.09	.17	.26*	.14
	Above	.14	.14	.08	.20	.13
PL	Below	-.21	-.38**	-.47**	-.48**	-.36**
	Peer	.14	.09	.14	.03	.11
	Above	-.15	-.08	-.06	-.10	-.01

Note: n-size varied from 67 to 85

*p<.05

**p<.01

MLQ Legend:

IL - Inspirational Leadership

IS - Intellectual Stimulation

IC - Individualized Consideration

CR - Contingent Reward

MA - Management-by-Exception

PL - Passive Leadership

TMLQ Legend:

TEE: Team Extra Effort

TPOT: Team Potency

TCOH: Team Cohesion

TEFF: Team Effectiveness

TSAT: Team Satisfaction

In sum, for both platoon leaders and sergeants the ratings from below provided strong support for Bass and Avolio's Full Range model of leadership. Specifically, the transformational and contingent reward leadership scales were all positively correlated with the five outcome scales, while passive avoidant leadership was negatively correlated. Management by exception was either not correlated with the outcome ratings or negatively correlated, as observed with the below ratings of sergeants.

Table 14a summarizes results linking Platoon Leader MLQ ratings collected in home station with JRTC performance.

An inspection of the correlations in Table 14a, provided support for the main premise of the current study. Although the magnitude of relationships varied by source, transformational and contingent reward leadership was each positively correlated with JRTC unit and individual-level leadership performance. Active Management-by-Exception was generally uncorrelated with JRTC performance, while Passive Avoidant Leadership was negatively correlated with each of the four JRTC performance measures.

The correlations presented in Table 14a were subdivided by source of MLQ such as peers. We explored different "below" ratings and uncovered some variations in the observed relationships. For example, in Table 14a, we provide in parentheses, ratings from fire team leaders with the four JRTC measures derived from the O/C's appraisals. In many instances, the validity coefficients for ratings generated by fire team leaders were higher than the aggregate pool of ratings from "below" for transformational and contingent reward leadership.

In Table 14b, we provide the correlational results partitioning the ratings category into three sources: CO, XO, and FSG. The correlation coefficients presented in Table 14b for the platoon leader were generally higher if the source of ratings were the XO and FSG. This pattern was particularly evident for the correlations between IS, IC, and the JRTC overall measures of performance (A and B outcomes).

Table 14a

Correlations by Source between Platoon Leader MLQ Ratings Platoon Performance and Effective Leadership in JRTC

MLQ Factor	Source	JRTC Criterion Measures			
		A	B	PLE	PSGE
IL	Below	.25* (.29*)	.17 (.24*)	.34** (.25*)	.06 (.04)
	Peer	.11	.22	.27*	.31**
	Above	.04	.35**	.30*	.26*
IS	Below	.26* (.31*)	.17 (.25*)	.27* (.26*)	.00 (.01)
	Peer	-.06	.26*	.22	.17
	Above	.20	.37**	.25*	.26*
IC	Below	.26* (.30*)	.16 (.26*)	.32** (.25*)	.06 (.01)
	Peer	-.01	.08	.17	.24*
	Above	.07	.35**	.24*	.24*
CR	Below	.27* (.32*)	.18 (.24*)	.28* (.25*)	.14 (.09)
	Peer	-.04	.14	.17	-.04
	Above	.10	.30*	.27*	.30*
MA	Below	-.06 (-.06)	-.04 (-.04)	.02 (.08)	.09 (.17)
	Peer	.11	.00	.02	-.03
	Above	.07	.13	.16	.28*
PL	Below	-.24* (-.06)	-.16 (-.14)	-.29* (-.15)	-.07 (.03)
	Peer	.02	-.16	-.25*	-.34**
	Above	-.06	-.27*	-.28*	-.23

Note: (n = 762 below; n = 122 peer; n = 192 above; n = 228 Fire Team Leaders; n = 49 XO's)

*p<.05

**p<.01 level.

Values in parentheses are based on ratings provided by fire team leaders.

MLQ Legend:

IL: Inspirational Leadership

IS: Intellectual Stimulation

IS: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PL: Passive Leadership

JRTC Legend

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Table 14b

Correlations by Source between Platoon Leader MLQ Ratings, Platoon Performance and Effective Leadership in JRTC

MLQ Factor	Source	JRTC Criterion Measures			
		A	B	PLE	PSGE
IL	CO	.03	.20	.15	.25
	XO	.13	.22	.18	.04
	FSG	.12	.21	.18	.01
IS	CO	.05	.29*	.07	.29*
	XO	.38**	.44**	.16	.17
	FSG	.36**	.43**	.14	.18
IC	CO	-.02	.18	.12	.18
	XO	.41	.45**	.27	.18
	FSG	.41**	.45**	.28*	.18
CR	CO	.06	.24	.00	.31*
	XO	.25	.29*	.25	.23
	FSG	.25	.29*	.23	.25
MA	CO	-.20	-.11	-.13	.10
	XO	.05	.02	.12	.03
	FSG	.04	.02	.12	.03
PL	CO	-.06	-.06	-.20	-.11
	XO	-.04	-.16	-.18	.03
	FSG	-.00	-.11	-.15	.10

Note: n = 52 (FSG); n = 49 (XO); n = 50 (CO)

*p<0.05

**p<.01 level.

MLQ Legend:

IL: Inspirational Leadership

IS: Intellectual Stimulation

IS: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PL: Passive Leadership

JRTC Legend

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Table 15a provides results for (PSG) MLQ ratings by source correlated with the four JRTC measures. Again, there was evidence provided to support the predictions of the full range leadership model of leadership. Correlations with the O/C raters' evaluation of platoon sergeant performance in JRTC provided the strongest evidence in support of the model.

In Table 15b we provide the correlational results for the PSG from MLQ ratings from the CO, XO and FSG, three above sources, paralleling the results presented for predicting PSGE from the platoon leader. In general, the validity coefficients for IL, IS, IC and CR were higher when broken out by the different sources and particularly from the two positions, CO and XO.

Table 15a

Correlation between Ratings by Source of Platoon Sergeant MLQ Ratings, and Platoon Performance and Effective Leadership at JRTC

MLQ Factor	Source	JRTC Criterion Measures			
		A	B	PLE	PSGE
IL	Below	.02 (.03)	.05 (.09)	-.05 (.04)	.19 (.10)
	Peer	.24*	.25*	.12	.36**
	Above	.00	.06	.01	.35**
IS	Below	.13 (.07)	.06 (-.01)	.00 (.00)	.23* (.10)
	Peer	.20	.20	.11	.23*
	Above	.11	.10	-.03	.37**
IC	Below	.06 (.05)	-.02 (-.02)	-.05 (-.01)	.12 (-.05)
	Peer	.23	.30*	.19	.27
	Above	.04	.09	.00	.31**
CR	Below	.13 (.20)	.03 (.21)	.00 (.05)	.23* (.14)
	Peer	.16	.19	.10	.16
	Above	.00	.05	.00	.26*
MA	Below	-.03 (.09)	-.02 (.03)	-.12 (-.03)	.19 (.18)
	Peer	.00	-.02	-.02	.08
	Above	-.05	.02	-.20	.03
PL	Below	-.02 (-.01)	-.02 (.03)	-.02 (-.06)	-.20 (-.13)
	Peer	-.09	-.06	.02	-.14
	Above	-.05	-.03	.00	-.30*

Note: (n = 734 below; n = 126 peer; n = 196 above; n = 231 Fire Team Leaders; n = 51 XO's)

*p<0.05

**p<.01

level.

Values in parentheses are based on ratings provided by fire team leaders.

MLQ Legend:

IL: Inspirational Leadership

IS: Intellectual Stimulation

IS: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PL: Passive Leadership

JRTC Legend:

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Table 15b

Correlations by Source between Platoon Sergeant MLQ Ratings, Platoon Performance and Effective Leadership at JRTC

MLQ Factor	Source	JRTC Criterion Measures			
		A	B	PLE	PSGE
IL	CO	-.02	.10	.03	.34*
	XO	.09	.22	.02	.42**
	FSG	-.02	.07	-.01	.29*
IS	CO	.07	.17	.05	.31*
	XO	.11	.20	-.05	.39**
	FSG	.01	.07	-.09	.30*
IC	CO	.09	.16	.03	.32*
	XO	.10	.29*	.06	.39**
	FSG	-.08	-.00	-.11	.21
CR	CO	.07	.20	.04	.31*
	XO	.06	.19	-.02	.39**
	FSG	-.07	.00	-.00	.24
MA	CO	.05	.08	-.10	-.13
	XO	-.11	-.16	-.14	.12
	FSG	-.01	.07	.02	.11
PL	CO	-.04	-.02	.07	-.27
	XO	.01	-.06	-.06	-.33*
	FSG	.05	-.03	-.04	-.18

Note: n = 63 (FSG); n = 49 (XO); n = 51 (CO)

*p<0.05

**p<.01

level.

MLQ Legend:

IL: Inspirational Leadership

IS: Intellectual Stimulation

IS: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PL: Passive Leadership

JRTC Legend:

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

We examined the relationships between the TMLQ ratings provided by two sources (below and peer) in Tables 16a and 16b, for both the leadership and outcome scales. There were no significant relationships obtained with the four JRTC performance measures. The correlations with the TMLQ outcome scales produced several significant relationships between ratings of platoon cohesion and satisfaction by peers with the B outcome and ratings of platoon leader effectiveness (PLE). The best predictors of JRTC performance were peer ratings of platoon cohesiveness and satisfaction, which generated positive correlations in the range of $r=.15$ to $.45$. However, the overall pattern of results did not support the full range model of leadership.

Table 16a
Correlation Between TMLQ Ratings at Home Station, and Platoon Performance and Effective Leadership at JRTC

TMLQ Factor	Source	JRTC Criterion Measures			
		A	B	PLE	PSG
IL	Below	.04	.00	-.06	.09
	Peer	-.09	.08	-.06	-.06
IS	Below	.12	.08	.00	.19
	Peer	-.02	.04	-.03	.10
IC	Below	.01	-.09	-.12	.08
	Peer	-.14	.05	.04	-.15
CR	Below	.02	-.04	-.07	.14
	Peer	-.05	.07	-.03	.03
MA	Below	-.06	-.17	-.13	.08
	Peer	-.23	.09	.11	.01
PL	Below	-.03	-.01	.09	-.08
	Peer	.04	-.06	-.10	.00

Note: n = 72

*p < .05

**p < .01

TMLQ Legend:

IL: Inspirational Leadership

IS: Intellectual Stimulation

IS: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PL: Passive Leadership

JRTC Legend:

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Table 16b

Correlation between TMLQ Outcome Ratings from "Below" and "Peer" at Home Station, and Platoon Performance and Effective Leadership at JRTC

TMLQ Factor	Source	JRTC Criterion Measures			
		A	B	PLE	PSGE
TEE	Below	-.02	-.01	-.07	.12
	Peer	-.21	.05	.03	.00
TPOT	Below	.08	.10	.03	.19
	Peer	-.10	.09	.05	-.12
TCOH	Below	.10	.05	.04	.17
	Peer	.16	.29	.47**	.25
TEFF	Below	.04	.10	.06	.06
	Peer	-.04	.01	.06	-.14
TSA	Below	.13	.04	-.01	.02
	Peer	.15	.38**	.45**	.17

Note: n=72

*p < .05

**p < .01

TMLQ Legend:

TEE: Team Extra Effort

TPOT: Team Potency

TCL: Team Cohesion

TEFF: Team Effectiveness

TSAT: Team Satisfaction

JRTC Criterion Legend

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Effects of Tenure

To explore these findings further, we examined whether the results would differ for squad leaders in the platoon who were in the top and bottom half in terms of tenure in their platoon using a median split on tenure. Squad leaders are pivotal leaders in the platoon and may have a unique view of the platoon's collective leadership as they are in a lower ranked leadership position. The squad leaders were sorted into high and low tenure in service by a median split.

Results presented in Table 17 indicated there were generally higher positive correlations between the TMLQ leadership ratings for the platoons and JRTC performance where more tenured squad leaders were higher in tenure in the platoon. Specifically, for the B criterion measure and PSG leadership effectiveness ratings of performance at JRTC, the transformational and contingent reward TMLQ scales were each more positively correlated with JRTC performance, for platoons with higher tenured squad leaders. Whereas, there were generally no differences in results for squad members ratings of their platoons on the TMLQ and their relationships to JRTC performance for higher versus lower tenured members.

Moving to Table 18, there was some additional evidence provided that higher tenured squad leader ratings on several outcome measures were more positively correlated with the B criterion measure and PSG leadership. Indeed for potency, the relationship with PSG effectiveness went from a $-.31$ to a positive $.30$ for low to high tenured squad leaders. However, for the most part, the results concerning the TMLQ did not provide consistent evidence linking platoon-level leadership to JRTC performance.

Table 17

Correlation between TMLQ Ratings by Tenure, Rank and JRTC Platoon Performance and Leadership Effectiveness at JRTC

TMLQ Factor	Source	JRTC Criterion Measures			
		A	B	PLE	PSG
IL	High Tenure Squad Member	-.04	-.10	-.15	-.14
	Low Tenure Squad Member	.11	.14	.05	.21
	High Tenure Squad Leader	.14	.34*	.11	.30*
	Low Tenure Squad Leader	-.25	-.19	-.12	.13
IS	High Tenure Squad Member	.03	-.07	-.04	-.02
	Low Tenure Squad Member	.10	.20	.02	.25*
	High Tenure Squad Leader	.04	.34*	.11	.40*
	Low Tenure Squad Leader	-.16	-.12	-.17	.20
IC	High Tenure Squad Member	-.10	-.21	-.13	-.04
	Low Tenure Squad Member	.11	.14	.03	.13
	High Tenure Squad Leader	.05	.18	-.03	.29
	Low Tenure Squad Leader	-.12	-.10	-.11	.10
CR	High Tenure Squad Member	-.05	-.13	-.14	-.08
	Low Tenure Squad Member	.05	.08	.05	.19
	High Tenure Squad Leader	.10	.27	.00	.41**
	Low Tenure Squad Leader	-.04	-.11	-.14	.20
MA	High Tenure Squad Member	.11	.00	.02	.12
	Low Tenure Squad Member	-.15	-.21	-.15	-.05
	High Tenure Squad Leader	-.04	.02	.02	.15
	Low Tenure Squad Leader	-.18	.03	-.06	.16
PL	High Tenure Squad Member	-.02	.08	.12	.01
	Low Tenure Squad Member	-.04	-.13	-.07	-.14
	High Tenure Squad Leader	.12	-.11	.13	-.04
	Low Tenure Squad Leader	.09	-.03	.18	-.12

Note: High and Low tenured squad leaders/members were based on a median split on tenure in the platoon

*p < .05

**p < .01

TMLQ Legend:

IL: Inspirational Leadership

IS: Intellectual Stimulation

IS: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PL: Passive Leadership

JRTC Legend:

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Table 18

Correlation between TMLQ Outcome Ratings at Home Station and JRTC Platoon Performance and Leadership Effectiveness

TMLQ Factor	Source	JRTC Criterion Measures			
		A	B	PLE	PSGE
TEE	High Tenure Squad Member	-.18	-.25*	-.15	-.01
	Low Tenure Squad Member	.01	.10	-.06	.21
	High Tenure Squad Leader	-.09	.16	-.02	.27
	Low Tenure Squad Leader	-.17	-.09	-.20	.13
TPOT	High Tenure Squad Member	-.10	-.12	-.14	-.05
	Low Tenure Squad Member	.14	.19	.07	.23
	High Tenure Squad Leader	.07	.15	-.02	.30*
	Low Tenure Squad Leader	-.05	-.03	-.12	-.31*
TCOH	High Tenure Squad Member	.05	-.01	.02	.07
	Low Tenure Squad Member	.05	.10	.06	.13
	High Tenure Squad Leader	.23	.28	.14	.23
	Low Tenure Squad Leader	-.02	.02	-.10	.22
TEFF	High Tenure Squad Member	-.84	-.08	-.05	-.09
	Low Tenure Squad Member	.10	.14	.08	.03
	High Tenure Squad Leader	.13	.20	.12	.28
	Low Tenure Squad Leader	-.09	.01	-.08	.11
TSA	High Tenure Squad Member	.12	.00	-.06	-.11
	Low Tenure Squad Member	.15	.16	.06	.10
	High Tenure Squad Leader	.09	.24	.07	.09
	Low Tenure Squad Leader	.05	.10	-.02	-.01

Note: (n = 68 for Squad Member High; n = 71 for Squad Member Low; n = 43 Squad Leader High; n = 45 for Squad Leader Low) High and Low tenured squad leaders/members were based on a median split on tenure in the platoon

*p < .05

**p < .01

TMLQ Legend:

TEE: Team Extra Effort

TPOT: Team Potency

TCOH: Team Cohesion

TEFF: Team Effectiveness

TSAT: Team Satisfaction

JRTC Criterion Legend

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

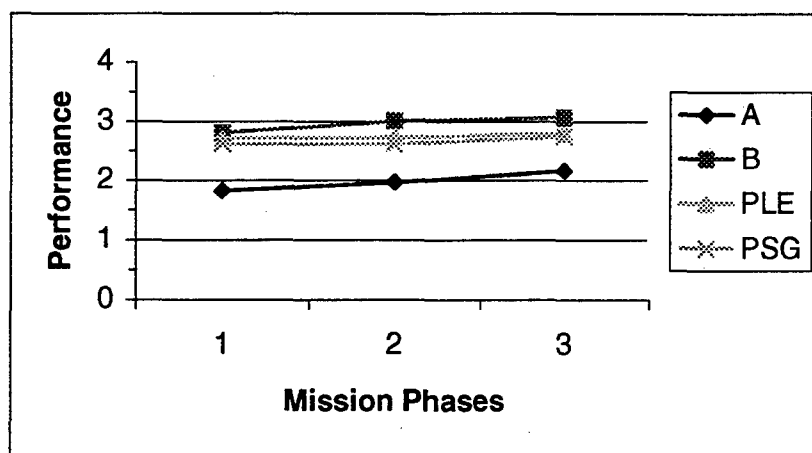
PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Trends in JRTC Performance

JRTC performance was based on evaluations of three sets of missions. To determine whether there were any significant changes in aggregate performance, we ran separate one way ANOVAs for each of the four performance measures. Graphical results of the means for each performance indice across the three sets of missions are presented in Figures 1a, 1b and 1c.

The only significant difference in mean ratings of performance, which trended upward for the three sets of missions, was with the A performance index ($F(2,372) = 4.74, P < .01$). Based on post hoc Scheffe tests, the difference appeared to be due to an increase in performance from the second and third sets of missions. The upward trends suggest that AARs by O/Cs at the end of a mission may have resulted in either improved performance or more lenient judgements/ratings.

Figure 1a - Trends in JRTC Platoon Performance and Leaders' Effectiveness Over 3 Mission Phases

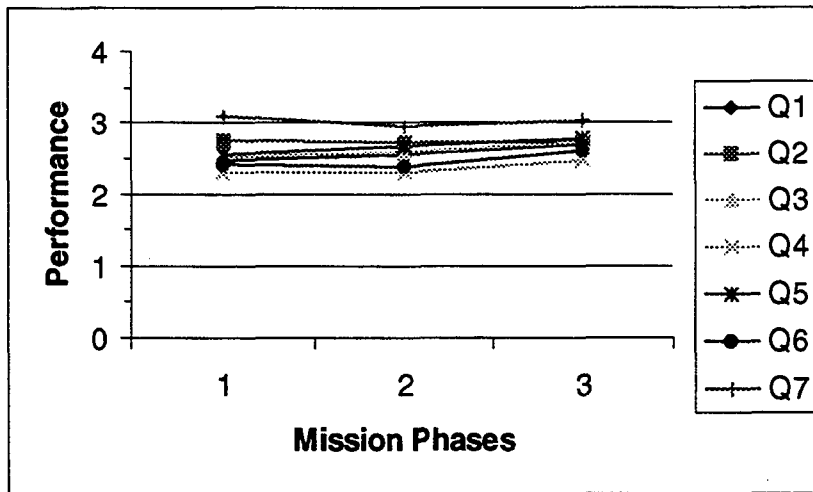


Phase 1 = 107; Phase 2 = 143; Phase 3 142 OC Observations in 72 platoons

Note:

A	1.83	1.97	2.16*	Mission Set 2 vs. 3 (significant at p<.05)
B	2.81	3.01	3.07	
PLE	2.72	2.73	2.8	
PSG	2.62	2.62	2.75	

Figure 1b - Trends in Leaders' Effectiveness in JRTC Performance Over 3 Mission Phases



Phase 1 = 107; Phase 2 = 143; Phase 3 142 OC Observations in 72 platoons

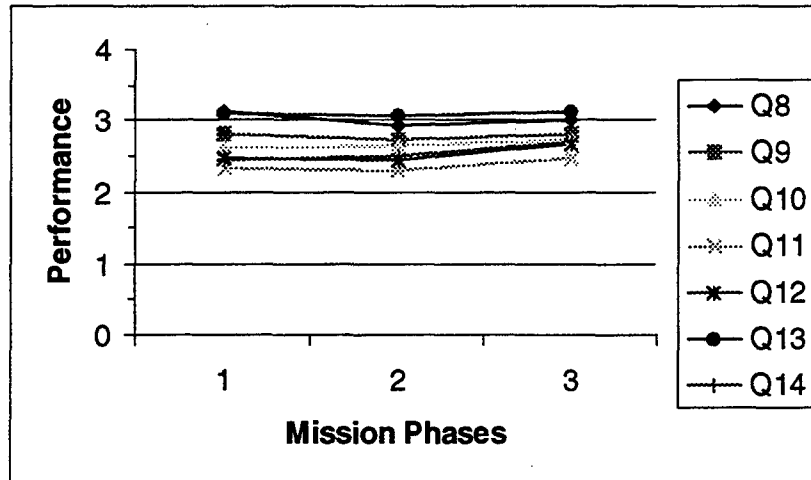
Note:

A	1.83	1.97	2.16*	Mission Set 2 vs. 3 (significant at p<.05)
B	2.81	3.01	3.07	
PLE	2.72	2.73	2.8	

Legend for JRTC Questions:

- Q1 - Persisted in dealing with difficult challenges
- Q2 - Kept focused on accomplishing the mission
- Q3 - Shared knowledge of the situation
- Q4 - Established and maintained appropriate priorities.
- Q5 - Contributed to cohesiveness and teamwork
- Q6 - Maintained high performance standards for completing tasks
- Q7 - Was receptive to new information and ideas

Figure 1c - Trends in JRTC Performance Over 3 Mission Phases



Phase 1 = 107; Phase 2 = 143; Phase 3 142 OC Observations in 72 platoons

Note:

A	1.83	1.97	2.16*	Mission Set 2 vs. 3 (significant at $p < .05$)
B	2.81	3.01	3.07	
PLE	2.72	2.73	2.8	

Legend for JRTC Questions

- Q8 - Used AARs and debriefings constructively
- Q9 - Set an example by his behavior
- Q10 - Communicated clearly and precisely
- Q11 - Coordinated effectively internally and externally
- Q12 - Raised morale and enthusiasm
- Q13 - Took responsibility for his actions
- Q14 - Recognized outstanding performance

Multiple Regressions

Table 19 provides a summary of the significant regression results, for each rater source, predicting the four JRTC outcome measures. Due to the relatively small sample size for platoons ($n = 72$), we collapsed the three transformational scales into one scale to maximize our degrees of freedom in these analyses. Also, we have reported in earlier research, which tested the factor structure of the MLQ, that each of the transformational scales loaded on a higher order latent construct of transformational leadership see (Avolio et al., 1999). Thus to reduce problems with multi-collinearity, the three transformational scales were aggregated for these regression analyses.

Table 19

Summary of Regression Results for PL and PSG Transformational Ratings Predicting JRTC Performance with MLQ Leadership Ratings Collected at Home Station

Performance Index	Below		Peer		Above	
	R ²	Beta	R ²	Beta	R ²	Beta
A	.07	PL-TL (.26**)	.06	PSG-TL (.25**)		
B			.10	PSG-TL (.24**)	.16	PL-TL (.40***)
PLE	.12	PL-TL (.35**)	.07	PL-TL (.22*)	.10	PL-TL (.30**)
PSGE	.10	PL-PA (-.33**)	.15	PL-TL (.22*)	.18	PL-TL (.22*)
		PSG-PA (.14)		PSG-TL (.27**)		PSG-TL (.32***)
				PL-PA (-.34**)		PL-PA (-.18)
				PSG-PA (-.16)		PSG-PA (-.27*)

Note: $n=72$

PL-TL: Platoon leaders' - Transformational leadership

PL-PA: Platoon leaders' - Passive-Avoidant leadership

PSG-TL: Sergeants Transformational leadership

PSG-PA: Sergeants Passive-Avoidant Leadership

* $p < .01$

** $p < .05$

*** $p < .001$

Legend

TL: MLQ Transformational Leadership

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

The regression results paralleled the correlational results presented earlier. Indeed, the 4 main predictors of JRTC performance were the transformational leadership ratings of the PSG and PL, as well as the passive avoidant scale for each of these respective leaders in the platoon. It is interesting to note that the passive avoidant leadership style of the

platoon leader and sergeant had as great a negative relationship in predicting performance at JRTC, as the transformational leadership scale had in terms of a positive relationship with performance. In terms of the two overall measures of platoon performance, *both* peer and above ratings were the strongest predictors with the respective JRTC outcome measures.

Regression analyses were then run using self and other transformational ratings (by source) to predict the four JRTC outcome measures. A summary of the significant results is presented in Table 20. Overall, self-ratings only marginally predicted JRTC performance as compared to below, peer and above ratings on the MLQ for PLs and PSGs. Moreover, in several instances, the beta values were opposite to those generated with 'other' ratings, indicating that higher self-ratings by the platoon leaders correlated with lower JRTC performance.

Table 20

Summary of Regression Results for Self/Other PL and PSG Transformational Ratings Predicting JRTC Performance and Leadership Effectiveness

	Below			Peer			Above		
	r ²	Self Beta	Other	r ²	Self Beta	Other	r ²	Self Beta	Other
A	.07 ^a	-.15	.25*	----		----	----		
B	----	----	----	----		----	.18*	-.12	.43**
PLE	.08 ^a	.09	.26*	.08 ^a	.09	.25*	.10*	.07	.30**
PSGE	----	----	----	.09	.05	.28*	.12*	.05	.33**
							(.13) ^b	(-.14)	(.34**)

Note: n=72

a: p < .08, * p < .05, ** p < .01

b: Values in parentheses are for PSG ratings

JRTC Legend

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Company Culture

For every three soldiers in each company, the TMLQ survey rated was based on their respective platoon. A fourth soldier used the TMLQ to rate his company's leadership culture. The company's home station team leadership and home station outcome assessments of the TMLQ were seen to be proxy measures of the company's culture and climate. Analyses were run examining the relationship between company culture and JRTC performance. Summaries of these analyses appear in Table 22. Generally, all of the leadership culture

scales had sufficient levels of reliability except MA. Problems with the MA scale have been consistent across all three levels of measurement.

The company culture results showed there was some positive relationships between transformational, contingent reward and an active management by exception culture in home station with the (A) overall measure of JRTC performance. Similar to earlier findings, a passive-avoidant culture in home station negatively predicted overall platoon performance. A parallel, but somewhat weaker pattern emerged for the (B) measure of overall platoon performance.

In sum, the company leadership culture survey showed some promise for predicting platoon outcomes in JRTC. Further exploration and refinements to the survey are needed.

Table 21
Correlation between Company TMLQ and JRTC Platoon Performance

TMLQ Factor	JRTC Criterion Measures			
	A	B	PLE	PSG
IL	.25*	.19	.11	.02
IS	.22	.08	.08	.05
IC	.28*	.22	.21	.15
CR	.33**	.26*	.18	.21
MA	.21	.24*	.11	.19
PL	-.35*	-.26*	-.11	-.17

*p < .05

**p < .01

TMLQ Legend:

IL: Inspirational Leadership

IS: Intellectual Stimulation

IS: Individualized Consideration

CR: Contingent Reward

MA: Management-by-exception (Active)

PL: Passive Leadership

JRTC Legend:

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Unit Leadership Strength as a Predictor of JRTC Performance

Chan (1998) recently suggested that estimates of within group agreement on measures of climate could be interpreted as assessing 'climate strength' in a unit. Chan argued that the mean and the variance could both be used on measures such as climate to predict performance. In the current context, we examined the Rwg values on the TMLQ, as a measure of unit leadership strength. For each platoon, we calculated an Rwg value for the six respective TMLQ scales. We then regressed each of the 4 JRTC measures on the six Rwg scores for each of the 72 platoons.

Examining the overall sample, we found the regression analysis containing all six scales was marginally significant in predicting the B criterion measure from JRTC ($R^2 = 16$, $p < .07$). The two TMLQ scales significantly contributed to the prediction of performance were: IS Rwg $B = .32$ ($p = .05$) and MA Rwg $B = .25$ ($p = .05$). These preliminary results indicated that the variance in platoon member perceptions of their own collective leadership helped predict one overall measure of JRTC performance.

We next ran separate regressions entering on the first step of each regression analysis the aggregate mean measure of transformational leadership followed by its aggregate Rwg value for each platoon. The dependent variable for each regression analysis was one of the four JRTC performance measures. Similar to the correlational results presented for the TMLQ earlier, the above transformational mean scores did not predict JRTC performance entered on the first step in the regression analysis. However the Rwg value for transformational leadership entered on the second step, predicted the following three measures: For (A) TF Rwg $R^2 = .14$, $p < .01$, $B = .40$, $p < .01$; for (B) TF Rwg $R^2 = .07$, $p < .08$, $B = .28$, $p < .03$; and for (PSGE) TF Rwg $R^2 = .09$, $p < .05$, $B = .30$, $p < .05$.

In sum, the level of agreement in the platoon member's perception of its collective leadership style was a unique predictor of JRTC performance. Indeed, when we created a total TMLQ leadership scale Rwg, using each scale score as an item, we found an $r = .25$, $p < .05$, for the overall measure of agreement with the A measure of overall platoon performance.

Table 22
Summary of Regression Results for TMLQ Rwg Values Predicting JRTC Performance

Independent	Overall	Squad Member	Squad Leader
	R ²	R ²	R ²
A	.14*	.09	.03
B	.11+	.06	.07
PL Leadership Effectiveness	.06	.04	.06
PSG Leadership Effectiveness	.11+	.05	.06

Note: n = 72

p < .05

p < .10

JRTC Legend:

A: Taking into account the weather, terrain, support & opposition, how well did this platoon accomplish its tactical mission?

B: Overall assessment - compared to similar platoons, this platoon performed overall in the bottom 1/5, next lower, middle 1/5, next higher or top 1/5.

PLE: How frequently the Platoon Leader contributed to the platoon's effectiveness according to 14 criteria.

PSGE: How frequently the Platoon Sergeant contributed to the platoon's effectiveness according to 14 criteria.

Exploratory Analyses

Next, we examined how the overall transformational ratings for platoon leader, sergeant and team transformational ratings blocked together, predicted each of the four JRTC performance outcomes. Results indicated that the combined ratings accounted for 11% of the variance in JRTC overall performance (A) and on up to 24% with respect to the platoon leader's performance at JRTC. Generally, the effects were largely attributable to the platoon leader's transformational leadership.

TEXT ANALYSIS OF OBSERVER/CONTROLLER (O/C) AND CADRE COMMENTS ON PLATOON LEADER, PLATOON SERGEANT, AND PLATOON PERFORMANCE AT NTC

In addition to testing the quantitative performance data, we also examined qualitative results, using trained research assistants to code data concerning the quality of the PL-PSG relationship. Specifically, each rater went through training on the transformational leadership components, and then was asked to independently evaluate the comments from the O/C raters regarding the question that refers to the quality of the relationship and observed interactions between the PL and PSG. The qualitative codings were repeated for each of the JRTC data sets. The interrater reliabilities were all above .88.

Dr. Avolio, Dr. Berson and COL (R) Snodgrass went through all of the qualitative data from the O/C raters to identify and evaluate the strong and weak points for the platoons, PL,

and PSG. Col. Snodgrass also developed a comprehensive list of categories representing both interpersonal aspects of performance (e.g., teamwork) and technical military expertise (e.g., navigation) that could impact on platoon performance. Each platoon was scored on these respective categories. Additional categories were also created to examine the technical proficiency of these platoons, and were used to code additional comments made by the O/C raters during JRTC. All of these categories are described in detail below.

This section presents findings and conclusions from O/C and cadre comments. Comments focused on strengths and weaknesses of the platoon leader, platoon sergeant, and the platoon as revealed during the 14 day field training exercise at the JRTC.

Frequency and Significance

Narrative comments cannot be readily "averaged." Each narrative comment of any length is unique and potentially of significance to interpreting platoon performance. Yet, many comments are common and their meanings are the same, and generalizations are both possible and appropriate. In such cases, the more frequently a key word appears in the comment database, the more relevance it may have to how the raters judged performance at JRTC.

In Table 23, it can be seen that "experience" was the *most* frequently occurring key word in the comment database. The high occurrence bears further consideration, later in this section, in terms of differentiating level of experience within a platoon and general overall military experience.

It should be noted that the software used to tabulate key words, by design, would not count repeated occurrences of the same key word within the same comment. In any given comment, only the first occurrence of each key word was tabulated. Where there were two or more key words in a single comment, the software used will pick up all such unique occurrences. (The average rate of occurrence is 1.31 key words per comment in an uncoded data set, and 1.73 key words per comment for coded data sets.) The software screening a single comment such as, "The leadership was poor because the leadership lacked experience" would return two findings: one for the key word "leadership" (even though "leadership" appeared twice) and one for the key word "experience."

At the opposite end of the spectrum shown in Table 23, the **least** frequently occurring topic is "POW processing", which occurs in less than 0.12% of all key word hits. Its place at the very end of this list is largely a function of the cut-off point for list preparation.¹

¹ Even small numbers can be of potential significance. "Honesty" for example, which is not even listed in Table 23, is mentioned only twice in the database. "Integrity," "truthfulness," and "candor" are each mentioned only once. It may be reassuring to note that these four occurrences all appear as strengths, but one might ask: Why so few "hits" on such key concepts? It is probably because core values for the Army such as "integrity" and "candor," etc. are taken for granted as being present, and in any case are so sensitive in the negative that most observers are reluctant to identify those subjects. There was one comment in which a PSG was called "disloyal" because he did not make appropriate suggestions to his platoon leader --a seemingly exaggerated indictment-- and one poignant comment on integrity: "he chose the easier wrong over the more difficult right."

Regarding frequency and significance, the question is where should the line be drawn to establish a threshold for analytical purposes and to draw conclusions? In this case, we decided to focus on individual key word findings, which numbered at least one percent of all key word findings. Those attributes occurring less frequently (about 25% of the initial findings) are not considered significant for the analytical purposes of this report, though all the findings have face validity and their relative infrequency may be of future interest to certain military audiences, including the Joint Readiness Training Center.

Attributing comments as Strengths or Weaknesses by Subject

In every case, the respondent's original comments were categorized by subjects or the target of evaluation (PL, PSG, or platoon overall) and were further categorized as either a strength or a weakness. The software tabulates across all six categories: PL strengths, PL weaknesses, PSG strengths, PSG weaknesses, platoon strengths, and platoon weakness.

Table 23 shows a complete distribution of findings for all key word occurrences greater than one percent of total occurrences. The distribution shows the count of each occurrence as either a strength, or a weakness relative to each attribute or topic.

Table 23

Comments Listed Initially of Key Words by Frequency of Occurrence

O/C Cadre Field Data Cards n=450

No. CMTS	% CMTS	Key Words describing Attributes /Topics	No. CMTS	% CMTS	Key Words describing Attributes /Topics
210	5.86%	Experience	33	0.92%	Attitude
188	5.25%	Knowledge (technical / tactical)	33	0.92%	Marksmanship
155	4.32%	Planning	32	0.89%	Morale
134	3.74%	Aggressiveness	32	0.89%	SOP
131	3.66%	Discipline	32	0.89%	Time Management
124	3.46%	Communication	31	0.86%	OPORD (operations orders)
123	3.43%	Motivation	28	0.78%	Patience
113	3.15%	Security	26	0.73%	Accountability
108	3.01%	Standards	26	0.73%	Skills, Collective
108	3.01%	Leadership	26	0.73%	Decisiveness
106	2.96%	Mission	25	0.70%	Receptive
103	2.87%	Initiative	24	0.67%	Listen
100	2.79%	Learn	23	0.64%	Care
88	2.46%	Rehearsals	21	0.59%	Confidence
76	2.12%	Flexibility	20	0.56%	Enthusiasm
68	1.90%	CASEVAC (casualty evacuation)	20	0.56%	Responsibility
67	1.87%	Willingness	19	0.53%	Teamwork
67	1.87%	Priorities	18	0.50%	Resupply
64	1.79%	Supervision	15	0.42%	Dedication
61	1.70%	Control	15	0.42%	Improvement
59	1.65%	Navigation	11	0.31%	Shares (knowledge)
56	1.56%	NOD (use of night obsrvtn dvcs)	11	0.31%	Endurance
53	1.48%	Focus	11	0.31%	Skills, Individual
52	1.45%	Cohesion	11	0.31%	Strength
52	1.45%	PCI (Pre-combat inspections)	9	0.25%	Obstacle Employment
47	1.31%	Maintenance	8	0.22%	Fitness
47	1.31%	Coordination	8	0.22%	Toughness
46	1.28%	Proficiency	7	0.20%	AAR (After Action Rvw prcptn)
36	1.00%	Example	7	0.20%	Stamina
35	0.98%	Awareness	5	0.14%	Judgment
34	0.95%	TLP (troop leading procedures)	4	0.11%	Persistence
34	0.95%	Delegation	4	0.11%	POW processing
			3348	100%	Total

Strength Bias. Respondents were asked to identify strengths and weaknesses in equal proportion. An inspection of Table 23, however, reveals that overall, respondents offered a total of 3348 comments; 1784 (53%) were registered as strengths and 1584 (47%) were registered as weaknesses. Thus we can conclude that respondents comments overall reflect a slight (3%) orientation toward commenting on strengths.

Total Net Strength. Attributes are rank ordered by Total Net Strength (TNS). TNS is the sum of the strengths minus the sum of the weaknesses for any given attribute. Where the number of weaknesses outweigh the number of strengths, the number showing the difference appears in parentheses indicating a "negative" strength (a weakness) of that magnitude. TNS serves as a convenient way of rank-ordering all attributes. Those attributes at the top of the list represent soldier/leader functions where performances' were identified as strongest. Toward the bottom of the list, one encounters the attributes where performance was increasingly worse and, presumably, where more training or other corrective action might be recommended. Total net strength are relative values that have significance only in the context of the specific data set in which they occur for the purpose of rank-ordering the relative strengths and weaknesses of all reported attributes, in this case, for the overall data set (N=450 respondents).

For example, in Table 24 it is apparent that *motivation* was identified as the most common strength and (lack of) *experience* is the greatest weakness based on 450 observers of infantry rifles platoons at JRTC between 1997 and 1999. From these findings, one can infer, based on the definition of *experience* (as used by respondents and defined in Appendix A), that longer tenure for rifle platoon officers, junior NCOs / enlisted soldiers, and platoon sergeants, in that order, should be considered for achieving improved platoon performance. Of course, what is learned during their tenure is an area that requires further inquiry, as simply accumulating more overall time may not have the intended positive impact on platoon performance.

Table 24

Distribution of Cadre and O/C Comments on All PL, PSG, and Platoon Strengths and Weaknesses at JRTC n Rank Order by Total Net Strength

Field Data Cards N=450

Actual CMTS	Actual %	Attributes / Topics	PL STR	PL WKS	PL Net STR	PSG STR	PSG WKS	PSG Net STR	PLT STR	PLT WKS	PLT Net STR	TOT STR	TOT WKS	TOT NET STR
123	3.67%	Motivation	19	5	14	23	3	20	66	7	59	108	15	93
134	4.00%	Aggressiveness	23	5	18	10	7	3	76	13	63	109	25	84
100	2.99%	Learn	56	6	50	6	1	5	30	1	29	92	8	84
76	2.27%	Flexibility	15	2	13	2	5	(3)	51	1	50	68	8	60
67	2.00%	Willing	34	3	31	9	1	8	20	-	20	63	4	59
52	1.55%	Cohesion	2	-	2	1	-	1	45	4	41	48	4	44
46	1.37%	Proficiency	10	1	9	18	3	15	10	4	6	38	8	30
188	5.62%	Knowledge	36	19	17	55	31	24	17	30	(13)	108	80	28
68	2.03%	CASEVAC	-	-	-	15	11	4	32	10	22	47	21	26
106	3.17%	Mission	24	22	2	14	11	3	27	8	19	65	41	24
56	1.67%	NOD usage	-	-	-	1	1	-	39	15	24	40	16	24
59	1.76%	Navigation	1	1	-	2	-	2	37	18	19	40	19	21
36	1.08%	Example	11	4	7	13	6	7	2	-	2	26	10	16
53	1.58%	Focus	10	9	1	11	5	6	10	8	2	31	22	9
47	1.40%	Maintenance	1	1	-	16	2	14	11	16	(5)	28	19	9
608	18%	38 Other Topics	DATA OMITTED											
131	3.91%	Discipline	2	5	(3)	20	7	13	43	54	(11)	65	66	(1)
103	3.08%	Leadership	5	9	(4)	11	14	(3)	35	29	6	51	52	(1)
52	1.55%	PCI	2	-	2	6	9	(3)	17	18	(1)	25	27	(2)
103	3.08%	Initiative	9	14	(5)	8	12	(4)	33	27	6	50	53	(3)
108	3.23%	Standards	4	12	(8)	38	29	9	10	15	(5)	52	56	(4)
88	2.63%	Rehearsals	3	3	-	3	2	1	35	42	(7)	41	47	(6)
35	1.05%	Awareness	4	2	2	3	2	1	6	18	(12)	13	22	(9)
34	1.02%	TLP (trp ldg prcd)	2	9	(7)	1	5	(4)	6	11	(5)	9	25	(16)
34	1.02%	Delegation	1	13	(12)	3	12	(9)	1	4	(3)	5	29	(24)
47	1.40%	Coordination	5	8	(3)	2	11	(9)	3	18	(15)	10	37	(27)
124	3.70%	Communication	23	21	2	8	24	(16)	13	35	(22)	44	80	(36)
64	1.91%	Supervision	2	5	(3)	9	24	15	3	21	(18)	14	50	(36)
67	2.00%	Priorities	2	11	(9)	9	13	(4)	4	28	(24)	15	52	(37)
61	1.82%	Control	3	21	(18)	3	8	(5)	2	24	(22)	8	53	(45)
113	3.38%	Security	-	2	(2)	-	7	(7)	32	72	(40)	32	81	(49)
155	4.63%	Planning	26	43	(17)	4	15	(11)	19	48	(29)	49	106	(57)
210	6.27%	Experience	4	68	(64)	29	38	(9)	8	63	(55)	41	169	(128)
3348	100%	Total	462	412	50	457	360	97	865	792	73	1784	1564	220
			14%	12%	1%	14%	11%	3%	26%	24%	2%	53%	47%	7%

* When listed as a weakness, each comment indicating a lack of what the comment is about. Motivation is a strength; lack of motivation is a weakness.

Net Strength by Subject. By rank ordering by PL Net strength, we can also offer a list of potential training achievements and training priorities for the platoon leaders. At the top of the list would be the attributes representing the greatest current strength: *learning* with a net strength of 50. Continuing down from the top: *Willingness* 18, *Knowledge* 17, *Motivation* 14, *Flexibility* 13, and *Proficiency* 9. The greatest weakness for platoon leaders was *experience* with a net strength of (64) at the bottom. Working up from the bottom, areas for PL improvement would be: *tactical control* (18), *planning* (17), *delegation* (12), *setting priorities* (9), *standards* (8), and *troop leading procedures* (7). The same could be done for PSG and for the junior NCO and EM in the platoon overall. No two lists would be quite the same, as can be seen in Table 24 where we present a breakdown based on these target groups.

For example, in total net strength, *motivation* is most frequently occurring strength, as is evident in Table 3, but considering subjects individually, *motivation* ranks 4th in frequency with the PL, and second with the PSG and the platoon overall. *Experience* is most noticeable weakness in PLs and the platoons. Platoon sergeants are somewhat less likely to be *inexperienced*; *communications* is their weakest attribute. Table 24 compares the relative frequency of different findings for the three subjects.

Questions for Analysis

The "distribution analysis" is a simple accounting process that addresses the following questions:

- How many times was a given attribute--"Enthusiasm" for example--mentioned?
- Which attributes were the most frequently occurring?
- How often did a given attribute occur as a percentage of all attributed occurrences?
- To which subject --the platoon leader, platoon sergeant, or the platoon--did each occurrence apply?
- Was the occurrence listed as a strength, or a weakness?
- What is the net effect of all reported strengths and weaknesses for each attribute?

These tabulations, in turn, allows us to address the following questions:

- What were the greatest strengths of platoon leaders and platoon sergeants?
- What were their greatest weaknesses?
- To what extent were the leaders strengths and weaknesses reflected in the platoons?

By running the tabulation application across different sub-sets of platoons, other issues can also be addressed:

- How did the rank ordering of the leadership attributes of top performing platoons differ from the ordering of attributes revealed in bottom ranked platoons?
- How did the observed attributes in platoons that scored highest in transformational leadership behaviors vary from the observed attributes of platoons which scored lowest in transformational leadership behaviors?
- What is the relationship between PL/PSG cooperation and platoon performance?
- What are the implications of these findings for leader training and unit readiness?

Table 25
Differential Analysis Comparing PL, PSG, and Platoon Findings for Top and Bottom 14 Attributes in Descending Order by Net Strengths

Respondents N=450 field data cards

Platoon Leader				Platoon Sergeant				Platoon NCOs and EM			
Attributes / Topics	PL STR	PL WKS	PL Net STR	Attributes / Topics	PSG STR	PSG WKS	PSG Net STR	Attributes / Topics	PLT STR	PLT WKS	PLT Net STR
Learning	56	6	50	Knowledge	55	31	24	Aggressiveness	76	13	63
Willingness	34	3	31	Motivation	23	3	20	Motivation	66	7	59
Aggressiveness	23	5	18	Proficiency	18	3	15	Flexibility	51	1	50
Knowledge	36	19	17	Care for soldiers	17	2	15	Cohesion	45	4	41
Motivation	19	5	14	Maintenance	16	2	14	Learning	30	1	29
Flexibility	15	2	13	Discipline	20	7	13	NOD use	39	15	24
Proficiency	10	1	9	Accountability	17	5	12	CASEVAC	32	10	22
Example	11	4	7	Resupply	12	2	10	Morale	23	2	21
Cohesion	2	-	2	Standards	38	29	9	Willing	20	-	20
Mission	24	22	2	Willing	9	1	8	Mission	27	8	19
PCI	2	-	2	Example	13	6	7	Navigation	37	18	19
Awareness	4	2	2	Attitude	7	1	6	Teamwork	12	2	10
Communication	23	21	2	Focus	11	5	6	Attitude	11	2	9
Focus	10	9	1	Confidence	6	-	6	Proficiency	10	4	6
34 Other Topics	Data Omitted										
Rehearsals	3	3	-	Leadership	11	14	(3)	Strength	-	8	(8)
Security	-	2	(2)	Responsibility	4	8	(4)	Discipline	43	54	(11)
Discipline	2	5	(3)	Patience	-	4	(4)	Awareness	6	18	(12)
Coordination	5	8	(3)	Initiative	8	12	(4)	Knowledge	17	30	(13)
Supervision	2	5	(3)	TLP	1	5	(4)	Time Mgmt	-	14	(14)
Leadership	5	9	(4)	Priorities	9	13	(4)	Coordination	3	18	(15)
Initiative	9	14	(5)	Control	3	8	(5)	SOP	2	19	(17)
TLP	2	9	(7)	Security	-	7	(7)	Supervision	3	21	(18)
Standards	4	12	(8)	Coordination	2	11	(9)	Control	2	24	(22)
Priorities	2	11	(9)	Delegation	3	12	(9)	Communication	13	35	(22)
Delegation	1	13	(12)	Experience	29	38	(9)	Priorities	4	28	(24)
Planning	26	43	(17)	Planning	4	15	(11)	Planning	19	48	(29)
Control	3	21	(18)	Supervision	9	24	(15)	Security	32	72	(40)
Experience	4	68	(64)	Communication	8	24	(16)	Experience	8	63	(55)
Total	462	412	50	Total	457	360	97	Total	865	792	73

Transcripts of Narrative Comments. All narrative comments on the top and bottom 12 platoons based on JRTC evaluations can be obtained from the authors of this report.

Top and Bottom 12 of 72 Platoons. The top and bottom 12 platoons were selected based on ratings for 72 platoons provided by O/C in Parts A and B of the field data cards. A simple sum of ratings for A and B was used to identify the top 12 and bottom 12 platoons.

Platoons were also categorized based on falling into the top 12 and bottom 12 on TMLQ transformational leadership. All of the narrative comments rendered on the high and low 12 platoons in transformational leadership (TL) scores can be obtained from the authors of this report. The high and low TL scores are based on the mean subordinate TL ratings for all 72 platoons completing the TMLQ. The survey was conducted at home station by each platoon a month prior to JRTC deployment. Earlier quantitative results showed that the TMLQ did not appear to differentiate more or less effective platoon performance at JRTC, we decided to explore the aggregate measures of transformational leadership further with additional qualitative analyses.

Strengths and Weaknesses in Top vs. Bottom 12 Performing Platoons

Frequency of comments on strengths and weaknesses overall and by subject were presented in Table 24 and 25.

O/Cs rated the performance of each platoon in parts A and B of the field data cards. An overall rank ordering of all 72 platoons was produced based on these performance scores. The narrative comments on the Top 12 and the Bottom 12 platoons are compared and contrasted in this section. First, narrative findings for the top 12 platoons will be quantified by topic. As before, attributes mentioned most often as strengths will appear at the top of the list.

The strength bias is actually slightly less than for all platoons: 52% of all comments were on strengths in Top performing platoons versus 53% for all platoons.

Findings for Bottom 12 Platoons in JRTC Performance. The results for the Bottom 12 of 72 platoons are presented in Table 26. Topics are listed in descending order by Total Net Strength.

Table 26

Bottom 12 of 72 Platoons at JRTC Distribution of Cadre and O/C Comments on Strengths and Weaknesses

Respondents N=70 Field Data Cards

TOT CMTS	% of CMTS	Attributes / Topics	PL STR	PL WKS	PSG STR	PSG WKS	PLT STR	PLT WKS	TOT STR	TOT WKS	NET STR
28	4.2%	Motivation	5	0	2	1	18	2	25	3	22
24	3.6%	Willing	13	1	4	0	6	0	23	1	22
23	3.5%	Learn	14	1	2	0	6	0	22	1	21
23	3.5%	Flexibility	9	1	0	2	11	0	20	3	17
15	2.3%	CASEVAC	0	0	2	0	12	1	14	1	13
14	2.1%	NOD	0	0	0	0	12	2	12	2	10
9	1.4%	Persist	4	0	1	1	3	0	8	1	7
15	2.3%	Initiative	2	1	2	1	6	3	10	5	5
7	1.1%	Dedication	5	0	1	1	0	0	6	1	5
8	1.2%	Rehearsal	0	0	0	1	6	1	6	2	4
39	5.9%	Knowledge	10	5	7	8	4	5	21	18	3
18	2.7%	Aggressive	0	2	2	0	8	6	10	8	2
23	3.5%	Teamwork	4	0	1	4	7	7	12	11	1
15	2.3%	Standards	2	0	4	4	2	3	8	7	1
7	1.1%	Marksmanship	0	0	0	0	4	3	4	3	1
7	1.1%	Listen	3	3	1	0	0	0	4	3	1
95	14.0%	33 Other Topics	Omitted		Data			Omitted		Data	
8	1.2%	SOP	0	2	1	2	2	1	3	5	(2)
13	2.0%	Skills, Individual	0	0	1	0	4	8	5	8	(3)
10	1.5%	Aware	1	1	1	0	1	6	3	7	(4)
14	2.1%	Supervise	0	1	4	7	0	2	4	10	(6)
24	3.6%	Security	2	0	0	1	5	16	7	17	(10)
16	2.4%	Leadership	0	1	0	5	3	7	3	13	(10)
14	2.1%	TLP	1	4	0	4	1	4	2	12	(10)
16	2.4%	Priorities	0	5	2	2	0	7	2	14	(12)
13	2.0%	Control	0	7	0	0	0	6	0	13	(13)
24	3.6%	Discipline	0	2	3	4	2	13	5	19	(14)
25	3.8%	Skills, Collective	1	1	0	0	3	20	4	21	(17)
39	5.9%	Communication	3	10	2	7	3	14	8	31	(23)
34	5.1%	Planning	3	13	0	3	2	13	5	29	(24)
43	6.5%	Experience	0	11	7	12	2	11	9	34	(25)
663	100%	Total	86	89	68	80	163	177	317	346	(29)
	100%	Percentages of total comments	13%	13%	10%	12%	25%	18%	48%	52%	(4%)

Findings for Top 12 Platoons in JRTC Performance. The strength bias is actually slightly less than for all platoons: 52% of all comments were on strengths in Top performing platoons vs. 53% for all platoons. These findings are presented in Table 27.

Table 27

Findings for Top 12 Platoons Distribution of Cadre and O/C Comments on Strengths and Weaknesses in Top 12 Platoons at JRTC
 Respondents N=72 field data cards

1.769												
TOT CMTS	% CMTS	Attributes / Topics	PL STR	PL WKS	PSG STR	PSG WKS	PLT STR	PLT WKS	TOT STR	TOT WKS	NET STR	
45	5.9%	Knowledge	8	4	16	4	8	5	32	13	19	
25	3.3%	Aggressive	4	1	1	2	16	1	21	4	17	
19	2.5%	Motivation	3	1	4	1	10	-	17	2	15	
30	3.9%	Standards	1	1	17	3	4	4	22	8	14	
20	2.6%	Learning	7	3	3	1	5	1	15	5	10	
10	1.3%	Proficiency	3	-	3	-	4	-	10	-	10	
29	3.8%	Leadership	2	-	5	5	12	5	19	10	9	
14	1.8%	Flexibility	1	1	2	2	8	-	11	3	8	
8	1.0%	Willing	5	-	1	-	2	-	8	-	8	
21	2.8%	Mission	5	2	1	3	8	2	14	7	7	
19	2.5%	OPORD	10	3	-	-	3	3	13	6	7	
11	1.5%	Cohesion	-	-	-	-	9	2	9	2	7	
9	1.2%	Listen	7	1	1	-	-	-	8	1	7	
40	5.2%	Discipline	1	2	7	5	15	10	23	17	6	
10	1.3%	Teamwork	1	-	3	1	4	1	8	2	6	
8	1.0%	CASEVAC	-	-	3	1	4	-	7	1	6	
6	0.8%	Care for soldiers	2	-	4	-	-	-	6	-	6	
11	1.5%	PCI	-	-	1	-	7	3	8	3	5	
16	2.1%	Navigation	1	-	1	-	8	6	10	6	4	
65	9%	28 Topics Omitted	Data Omitted				Data Omitted		Data Omitted			
42	5.5%	Skills, Collective	-	-	-	-	21	21	21	21	-	
16	2.1%	Rehearsal	1	-	-	-	7	8	8	8	-	
8	1.1%	Priorities	2	-	1	1	1	3	4	4	-	
8	1.1%	TLP	3	2	-	-	1	2	4	4	-	
33	4.4%	Planning	8	8	-	2	8	7	16	17	(1)	
29	3.8%	Initiative	4	5	3	3	7	7	14	15	(1)	
9	1.2%	Maintenance	1	-	3	-	-	5	4	5	(1)	
22	2.9%	Skills, Individual	1	-	1	-	8	12	10	12	(2)	
13	1.7%	Patience	2	4	-	3	1	3	3	10	(7)	
13	1.7%	Supervision	-	3	3	5	-	2	3	10	(7)	
10	1.3%	Delegation	-	5	-	3	-	2	-	10	(10)	
22	2.9%	Control	3	7	-	2	2	8	5	17	(12)	
13	1.7%	Coordination	-	2	-	1	-	10	-	13	(13)	
22	2.9%	Security	-	1	-	3	3	15	3	19	(16)	
28	3.7%	Communicate	-	4	2	8	3	11	5	23	(18)	
55	7.3%	Experience	-	26	1	12	1	15	2	53	(51)	
759	100%	Total	103	93	98	74	196	195	397	362	35	
Percentage Total			14%	12%	13%	10%	26%	26%	52%	48%	5%	

Findings in Top 12 Platoons vs. Bottom 12 Platoons in JRTC Performance. Total comments on top platoons registered 52% strengths and 48% weaknesses; in Bottom platoons the figures were reversed: 48% of all comments were strengths vs. 52% weaknesses. What may be of importance are the different qualities mentioned by O/Cs of the strengths in the top versus bottom groups. As will be seen, the greatest absolute differences are in the leadership of these platoons.

Frequently Attributed Strengths. Both groups were described as “motivated” and “learning”. However, the bottom platoons were clearly described as being at an earlier stage of development. They are “willing”, while the top performing platoons are more noticeably “proficient” “aggressive”, and “enforcing standards” under strong “leadership” notably from the junior NCOs within the platoons. A comparison of the most frequently noted weaknesses is also revealing. Both groups have frequently observed weaknesses in *experience*, *interpersonal communication*, and maintaining tactical *control*. However, in the Bottom performing group, *few collective skills* and the *lack of control* are frequently combined with lack of *discipline*.

Frequently Reported Strengths

Bottom 12 Platoons

Motivation
Willingness
Learning
Casualty Evacuation
Use of night observation
devices
Persistence
Initiative

Top 12 Platoons

Knowledge
Aggressiveness
Motivation
Enforcing Standards
Learning
Proficiency
Leadership

Frequently Reported Weaknesses

Bottom 12 Platoons

Experience
Planning
Communicating
Skills, Collective
Discipline
Control
Priorities

Top 12 Platoons

Experience
Communicating
Security
Coordination
Control
Delegation
Supervision

Platoon Leaders versus Platoon Sergeants. In the bottom performing platoons, there were a total of 323 comments on the performance of the platoon leaders and sergeants.

154 comments were registered as strengths and 169 as weaknesses: 52% were comments on weaknesses and 48% were comments on strengths.

In the top performing platoons, there were a total of 368 comments on the performance of the platoon leaders and the platoon sergeants. 201 comments were registered as strengths and 167 as weaknesses. 55% were comments on strengths, while 45% on weaknesses.

Qualitative Interpretation of Top and Bottom Differences

Most differences between top and bottom performing platoons in this analysis are probably not attributable to differences in resources such as training time, home station location, or personnel strength--although all such factors are clearly important to overall performance. All platoons, including those scoring among the both the top and bottom 12, were lacking in the *experience*.

Top and bottom performing platoons in this study were frequently to be found in the same brigades, battalions, and even within the same companies. Although seven of the 12 top performing platoons emerge from one brigade rotation, there were platoons from all four brigades that scored in the top and bottom 12. Five of the eight battalions participating in the study, had platoons that were ranked in both the top as well as the bottom 12 of 72 platoons. Three of the 24 companies had platoons ranked in both the top and bottom 12 of 72 platoons. Only one platoon out of 72 came to the JRTC under strength to the point that both O/C respondents mentioned it as a significant factor in their performance.

The difference in the platoon's performance does not seem to be based on the quality of the enlisted soldiers. In the current analysis of cadre and O/C comments, the quality of the performance of enlisted soldiers and junior NCOs (platoon findings) varied between platoons to a far lesser extent than the quality of attributes of the platoon leader. While military skills, technical and tactical knowledge, and high levels of competence are clearly important elements for success in top performing platoons, these attributes were also present only to slightly varying degrees, in all 72 platoons (see platoon tabulations in Tables 24 and 25).

Leadership appears to make a difference between top and bottom performing platoons based on both qualitative and quantitative analyses. The relative importance of platoon leadership is a finding that will be further supported in a comparative analysis of all five subsets of platoon leaders following the next section of this report.

O/C and Cadre Comments According to the Platoon's TMLQ in Home Station Transformational Leadership

Methodology. As noted earlier in our Methods section, platoon members completed the Team Multi-factor Leadership Questionnaires at home station. The TMLQ was designed to measure six leadership factors across a spectrum of transactional and transformational behaviors. Those items on the survey that loaded on indicators of transformational leadership were scored and a transformational leadership (TL) rating was determined for each platoon

on a scale of zero to four. A score of zero indicated no transformational behaviors were observed in the platoon; a score of "4" indicated that transformational behaviors occurred "frequently if not always." The average "TL" mean score for all 72 JRTC platoons was 2.30. The lowest mean platoon score was 1.66. The highest was 2.92.

In this analysis, narrative findings will be compared for the 12 High TL *versus* the 12 Low TL platoons. Tabular data will be presented for both groups as before. Comparisons similar to those made in the analysis of Top vs. Bottom performing platoons will be made. Finally, an overall comparison of the relative strength of platoon leaders in all five groups is presented.

Strengths and Weaknesses in High vs. 12 Low TL Platoons in Transformational Leadership (TL)

Table 28 presents findings for the 12 high TL platoons. Comments are independent observations by O/C and cadre during tactical training at JRTC. The layout is the same as in earlier comparisons, with all attributes/ topics rank ordered by net strength. Again, the most frequently occurring strengths are listed at the top progressing downward to the most frequently occurring weakness at the bottom.

A count of total comments in the high TL data set indicated nearly a 50-50% split on findings of strengths and weaknesses (i.e., 400 strengths vs. 393 weaknesses). The attribute count of comments for platoon leaders favored strengths. The PSG and PL attribute count favored weakness. The most distinctive finding in this set of qualitative data was the very high occurrence of positive comments on *cohesion*.

Frequency of comments for the 12 lowest platoons in transformational leadership were rank ordered by net strength and are presented in Table 29. The strength bias reported earlier for the total data on all platoons was not evident among the comments on low TL platoons. In fact, total weaknesses exceeded total strengths by about 4%--ranking with Bottom 12 in overall performance. There were 247 comments on strengths and 263 comments on weaknesses. Among platoon leaders, the split was nearly equal with 61 comments on strengths versus 62 comments on weaknesses: There was a greater percentage of comments on weakness (8%) in the PSG comments: 57 comments on Strengths versus 67 on weaknesses. Comments on platoon (EM and junior NCOs) also focused more on weaknesses (2%). Comments on cohesion were hard to locate in this group--barely 6 comments of which were on weaknesses.

Table 28

**High 12 Platoons Per Home Station TL Scores: Distribution of Cadre and O/C
Comments on Strengths and Weaknesses**

Respondents N=77 Field Data Cards

TOT CMTS	% CMTS	Attributes / Topics	PL STR	PL WK S	PSG STR	PSG WKS	PLT STR	PLT WKS	TOT STR	TOT WK S	NET STR
18	2.3%	Cohesion	1	0	0	0	17	0	18	0	18
20	2.5%	Flexibility	3	1	1	0	14	1	18	2	16
52	6.6%	Knowledge	17	5	9	9	6	6	32	20	12
18	2.3%	Teamwork	2	0	5	0	8	3	15	3	12
12	1.5%	Proficiency	7	0	2	0	3	0	12	0	12
12	1.5%	Morale	2	0	2	0	8	0	12	0	12
32	4.0%	Discipline	1	0	5	3	15	8	21	11	10
20	2.5%	Motivation	4	1	3	1	8	3	15	5	10
45	5.7%	Communication	16	3	1	7	10	8	27	18	9
13	1.6%	CASEVAC	0	0	6	2	5	0	11	2	9
11	1.4%	Learn	7	0	0	0	3	1	10	1	9
8	1.0%	OPORD	5	0	0	0	3	0	8	0	8
8	1.0%	Willing	4	0	1	0	3	0	8	0	8
30	3.8%	Aggressive	4	2	2	6	12	4	18	12	6
9	1.1%	Accountability	0	0	6	2	0	1	6	3	3
26	3.3%	Mission	6	4	3	4	5	4	14	12	2
9	1.1%	Care	1	2	4	0	0	2	5	4	1
90	11%	22 Omitted Topics			DATA		OMITTED				-
30	3.8%	Initiative	4	3	3	6	7	7	14	16	(2)
26	3.3%	Supervision	1	3	11	7	0	4	12	14	(2)
20	2.5%	Leadership	0	1	2	3	7	7	9	11	(2)
10	1.3%	Maintenance	1	0	1	0	2	6	4	6	(2)
15	1.9%	Standards	1	4	4	3	1	2	6	9	(3)
9	1.1%	Marksmanship	0	0	0	0	3	6	3	6	(3)
20	2.5%	Rehearsal	1	2	1	0	6	10	8	12	(4)
33	4.2%	Skills, Collective	0	0	0	0	14	19	14	19	(5)
23	2.9%	Security	0	0	0	1	9	13	9	14	(5)
9	1.1%	Coordination	1	0	0	5	0	3	1	8	(7)
16	2.0%	Skills, Individual	0	0	0	0	3	13	3	13	(10)
42	5.3%	Planning	8	11	2	6	5	10	15	27	(12)
16	2.0%	Delegation	1	6	0	4	1	4	2	14	(12)
15	1.9%	Priorities	1	5	0	3	0	6	1	14	(13)
16	2.0%	Control	0	6	1	2	0	7	1	15	(14)
15	1.9%	Time Mngmnt	0	9	0	0	0	6	0	15	(15)
45	5.7%	Experience	0	17	6	7	1	14	7	38	(31)
793	100%	Total	115	94	91	96	194	203	400	393	7
			15%	12%	11%	12%	24%	26%	50%	50%	1%

Table 29

Distribution of Cadre and O/C Comments on Strengths and Weaknesses
 Low 12 Platoons Per Home Station TL Scores

Field Data Cards N=50

TOT CMTS		Attributes / Topics	PL STR	PL WKS	PSG STR	PSG WKS	PLT STR	PLT WKS	TOT STR	TOT WKS	NET STR
15	3.30%	Aggressive	4	-	-	-	11	-	15	-	15
27	5.95%	Knowledge	5	2	9	3	6	2	20	7	13
13	2.86%	Motivation	4	1	1	-	7	-	12	1	11
13	2.86%	Standards	1	-	8	1	3	-	12	1	11
10	2.20%	Listen	9	-	1	-	-	-	10	-	10
11	2.42%	Flexibility	3	-	1	1	6	-	10	1	9
11	2.42%	Mission	3	1	4	1	2	-	9	2	7
9	1.98%	Learn	3	1	2	-	3	-	8	1	7
7	1.54%	Proficiency	1	-	3	-	3	-	7	-	7
25	5.51%	Discipline	-	2	3	2	12	6	15	10	5
7	1.54%	Navigation	-	-	-	-	6	1	6	1	5
7	1.54%	Leadership	1	-	-	-	5	1	6	1	5
4	0.88%	Dedication	2	-	2	-	-	-	4	-	4
33	0.072	29 Omitted Topics			Omitted		Data				
8	1.76%	CASEVAC	-	-	1	1	4	2	5	3	2
27	5.95%	Skills, Collective	-	1	-	1	14	11	14	13	1
9	1.98%	Teamwork	1	1	1	2	3	1	5	4	1
16	3.52%	Skills, Individual	-	-	-	-	8	8	8	8	-
4	0.88%	cohesion	-	-	-	-	2	2	2	2	-
6	1.32%	PCI	-	-	1	1	1	3	2	4	(2)
6	1.32%	TLP	1	1	1	1	-	2	2	4	(2)
4	0.88%	Control	-	1	-	1	1	1	1	3	(2)
7	1.54%	Marksmanship	-	-	-	-	2	5	2	5	(3)
12	2.64%	Priorities	1	-	2	4	1	4	4	8	(4)
8	1.76%	OPORD	2	4	-	-	-	2	2	6	(4)
4	0.88%	Patience	-	2	-	-	-	2	-	4	(4)
12	2.64%	Rehearsal	-	1	1	-	2	8	3	9	(6)
20	4.41%	Initiative	1	3	1	3	4	8	6	14	(8)
11	2.42%	Security	-	1	-	1	1	8	1	10	(9)
18	3.96%	Supervision	-	2	4	9	-	3	4	14	(10)
10	2.20%	Coordination	-	2	-	2	-	6	-	10	(10)
11	2.42%	Delegation	-	3	-	7	-	1	-	11	(11)
20	4.41%	Planning	2	12	-	2	-	4	2	18	(16)
21	4.63%	Experience	1	7	1	5	-	7	2	19	(17)
28	6.17%	Communication	1	5	2	6	1	13	4	24	(20)
454	100%	Total	54	57	55	58	112	118	221	233	(12)
			12%	13%	12%	13%	25%	26%	49%	51%	-3%

Among the 12 low ranking platoons in TMLQ transformational leadership, observer comments indicated the Junior NCOs and EM lack initiative. Orders concerning operations were weak and poorly understood at the lowest levels. Lack of communication was the most frequently occurring comment among observers of these platoons. Of the 33 comments registered, all but eight were focused on weaknesses. One observer noted, "Mavericks", where another observer noted "platoon focus only-- no communication or coordination with adjacent unit or up the chain." As with other platoons, the platoon leaders and sergeants lacked experience. In this group, one of the consistent comments concerned the junior NCOs not keeping their soldiers informed or in check. Supervision was also commented on as being a weakness in this group.

Most Frequently Reported Strengths

High 12 TL Platoons	Low 12 TL Platoons
Cohesion	Aggressiveness
Flexibility	Motivation
Knowledge	Flexibility
Teamwork	Knowledge
Proficiency	Standards
Morale	Listening
Discipline	Mission focus

The top ranking for *cohesion* in the High TL group is most noteworthy. In no other data set does *cohesion* rank as the top attribute when sorting by net strength; the highly positive finding is unanimous among O/C and cadre respondents. The platoon leaders received 23 comments on their technical and tactical knowledge. 77% of those comments were favorable. *Teamwork, Proficiency, Morale, and Discipline* all ranked high in this group both for leaders and followers.

Both the high and low TL groups were commented on as being "flexible" and "knowledgeable" in both technical and tactical subjects. Low TL platoons were seen as more often enforcing military standards--something of a weakness in high TL platoons.

The greatest qualitative strength associated with the high TL platoons was their cohesiveness, unmatched in other subsets. Also important were their high ratings on discipline. Of the 32 comments by observers of this attribute, nearly half focused on junior NCOs and EM, and the majority of these were also favorable.

The greatest qualitative strength for low TL platoons was their *aggressiveness*. They also received high marks in *motivation, standards, and mission focus*. There were 35 comments on knowledge, most of which pertained to technical understanding. Of these comments, 66% were positive.

Most frequently Reported Weaknesses

High 12 TL Platoons	Low 12 TL Platoons
Experience	Communications
Time Management	Planning
Control	Experience
Priorities	Delegation
Delegation	Supervision
Planning	Coordination
Skills, Individual	Security

Both the top and bottom TL groups lacked experience and did poorly in planning. Beyond the attributes listed, there were 28 comments on discipline in the low TL platoons: 57% were positive. However, the platoon leaders and sergeants in the low TL platoons, apparently did not set the example in terms of being effective planners.

Comparison of Strengths Among all Platoon Leaders. The final objective of this qualitative analysis was to take a closer look at the overall quality of leadership for the 72 platoon leaders. To undertake this analysis, only narrative data on platoon leaders was considered. The intent here was to compare the consolidated findings on the 72 platoon leaders with findings for each of the four included subsets:

Only comments on the strengths and weaknesses of the platoon leaders were considered. The basis for rank ordering the five groups is the percentage of total comments attributed as strengths; this "strength rating" is calculated by dividing the total comments on strengths by total comments on strengths plus total comments on weaknesses. All comments on the platoon leaders, both strengths and weaknesses, are thereby considered for purposes of comparisons by attribute and for rank ordering of overall results. Only the most frequently occurring attributes/ topics were selected for use in the body of Table 30.

Topics receiving at least one percent of all PL comments are presented in the tabular data; this is the same frequency cut-off point used earlier. There were comments on every attribute in the baseline data set, which included all 72 platoon leaders. In those cases where only a few comments were received, the tabular percentage for each attribute becomes less meaningful. Where the number of comments per attribute is less than 5, the corresponding percentage is shaded in Table 30, as a reminder of the low frequency rate reported for that attribute.

In Table 29, a list of the 32 attributes constituting at least one percent of all PL comments are listed in the left-most column. At the very top of the chart are the total numbers of respondent field data cards that were received for the platoon leaders in each subset. In the first group of comparative data, the number of comments and their strength rates are shown for all 72 platoon leaders. This was used as baseline for comparing platoon leaders.

The findings for the four comparison groups of platoon leaders are shown in subsequent sets of columns: "Top 12" platoon leaders in the first set of data; "High 12 TL"

platoon leaders in the second set; "Bottom 12" in the third set, and "Low 12 TL" platoon leaders in the fourth set. Attributes listed on the left were encountered in at least one percent of all PL comments in the baseline group of 72 platoon leaders. In the body of the chart, for each attribute, the total number of received comments (strengths and weaknesses) is listed, followed by the strength rate for that attribute. The strength rate was the percentage of those comments recorded by respondents as strengths. Thus, both strengths and weaknesses are reflected in the strength rates per attribute. The strength rate per attribute is determined by dividing the total strengths by total strengths plus total weaknesses for each attribute.

Near the bottom of Table 29 are the total numbers of comments and total strength rates recorded for all comments attributed to the platoon leaders in each data set. Again, the total weaknesses are accounted for in the overall strength rate. Thus a strength rate of 50% would indicate half the comments were attributed as strengths and half were attributed as weaknesses. A strength rate of zero indicates all comments were recorded as weaknesses. These totals at the bottom of Table 29 included omitted attributes. Since only the most frequently mentioned attributes are included in the body of the table, the totals at the bottom are greater than the sums for attributes in the body of the table. Total percentages are calculated by dividing total strengths by the sum of total strengths plus total weaknesses.

Comparisons between data sets

In the aggregate, the total numbers of comments in each subset, though lower for the "Low TL" and "Bottom 12" groups, still netted more than a 100 comments on strengths and weaknesses and are considered adequate for purposes of determining overall strength comparisons.

The overall strength rates for the four sub-sets selected for comparison in Table 30 vary from a high of 55% for the High TL group to a low of 48.6% for the Low TL Group. The PL groups are arranged in Table 30 in descending order by overall strength rates from 55% for the High TL group to 48.6% for the low TL group.

The reader should keep in mind, that the total net strength is an appropriate measure for comparing the frequency of attributes within a given subset. However, it is less useful for comparisons between data sets since there were variations in the numbers of respondent field data cards received for the four sub sets. Comparisons across groups should be done with some degree of caution. Note that there was complete source independence of the TMLQ differentiation and the O/C comments while the JRTC differentiation was biased by same source variance as both identification of top and bottom 12 JRTC groups and comments came from the O/Cs.

Table 30

Platoon Leader Strength Comparisons: All vs. Four Selected Subsets

Respondents Attributes / Comment Key Word	All Plat Ldrs N=450		High 12 TL N=76		Top 12 N=72		Bottom 12 N=70		Low 12 TL N=50	
	TOT CMTS	STR RATE	TOT CMTS	STR RATE	TOT CMTS	STR RATE	TOT CMTS	STR RATE	TOT CMTS	STR RATE
Aggressiveness	28	82%	6	67%	5	80%	2	0%	4	100%
Attitude	12	75%	4	100%	3	100%	2	50%	1	100%
Communication	44	52%	19	84%	4	0%	13	23%	6	17%
Confidence	13	31%			4	100%	4	0%		
Control	24	13%	6	0%	10	30%	7	0%	1	0%
Coordination	13	38%			2	0%			2	0%
Decisiveness	21	29%			4	50%	2	0%	2	100%
Dedication	8	100%			2	100%	5	100%	2	100%
Delegation	14	7%	7	14%	5	0%			3	0%
Enthusiasm	16	88%								
Example	15	73%								
Experience	72	6%	17	0%	26	0%	11	0%	8	13%
Flexibility	17	88%	4	75%	2	50%	10	90%	3	100%
Focus	19	53%	2	100%						
Improve	10	90%			2	100%	1	100%		
Initiative	23	39%	7	57%	9	44%	3	67%	4	25%
Knowledge	55	65%	22	77%	12	67%	15	67%	7	71%
Leadership	14	36%			2	100%	1	0%	1	100%
Learn	62	90%	7	100%	10	70%	15	93%	4	75%
Listen	21	67%	5	80%	8	88%	6	50%	9	100%
Mission	46	52%	10	60%	7	71%	2	0%	4	75%
Motivation	24	79%	5	80%	4	75%	5	100%	5	80%
OPORD	26	58%	5	100%	13	77%	6	33%	6	33%
Patience	12	33%			6	33%	4	100%	2	0%
Planning	69	38%	19	42%	16	50%	16	19%	14	14%
Priorities	13	15%	6	17%	2	100%	5	0%	1	100%
Proficiency	11	91%	7	100%	3	100%			1	100%
Receptiveness	16	94%								
Standards	16	25%	5	20%	2	50%	2	100%	1	100%
Time Management	17	0%	9	0%	3	0%	1	0%	3	0%
TLP (trp leading pr)	11	18%	4	0%	5	60%	5	20%	2	50%
Willing	37	92%	4	100%	5	100%	14	93%	3	100%
Total / Avg (ALL)	874	52.9%	209	55%	196	52.5%	175	49.1%	111	48.6%

Findings for Platoon Leader Comparisons

The "High 12 TL" group. This group of officers received a total of 209 comments of which 115 comments described strengths and 94 comments described weaknesses. The High TL group achieved an overall strength rating of 55%, which was higher than any other group of leaders in this study.

The platoon leaders in the High TL group achieved above average strength percentages in 15 of the 22 (68%) attributes in which they were scored. Qualitatively, the areas of above average performance included: *mission, focus, attitude, learning, listening, motivation, communications, knowledge, proficiency, the issuing of operations orders, planning, proficiency, delegation, and willingness*. The group scored at the average for all platoon leaders in one area: that area was *time management* --an attribute in which no group had any observed strengths. The group scored below average for all platoon leaders in 6 of 22 scored areas (27%): *Aggressiveness, Control, Experience, TLP (Troop Leading Procedures), Flexibility, and Standards*.

The "Top 12" JRTC Group achieved a strength rating of only 52.5%, which was nearly identical to the percentage achieved by all 72 platoon leaders (52.9%).

The lieutenants in Top 12 group achieved above average strength percentages in 18 of 28 rated areas (64%): *attitude, confidence, control, decisiveness, improvement, initiative, knowledge, leadership, listen, mission, motivation, OPORD preparation, willingness, troop leading procedures, planning, priorities, proficiency, and standards enforcement*.

This group scored at the average in three attributes: *dedication, patience, and time management*.

The group scored below the average for all platoon leaders in seven of 28 areas (25%): *aggressiveness, learning, communications, coordination, delegation, experience, and flexibility*.

"Bottom 12" JRTC Group. There were 175 total comments received on the "Bottom 12" group; 89 were recorded as strengths. The Bottom 12 platoons achieved a strength rating of 49.1% from the observer group of O/C and cadre--a rating nearly 4% below the baseline average for all lieutenants.

Platoon leaders in the "Bottom 12" group achieved above average strength percentages in nine of 25 rated attributes (36%): *flexibility, improvement, initiative, knowledge, learning, patience, standards, willingness, and troop leading procedures (TLP)*. The group achieved an average score in one attribute: *dedication*. The "average" score was 100%, a finding that is not particularly surprising as will be discussed in our conclusions regarding the qualitative data analysis. Platoon leaders in this "Bottom 12" group scored below average in 15 of 25 attributes (60%): *aggressiveness, attitude, communications, confidence, control, decisiveness, experience, leadership, listening, mission, motivation, OPORD preparation, planning, priorities, and time management*.

“Low 12 TL” Group. The low transformational leadership group received a total of 111 comments from O/C and Cadre observers: 54 comments identified strengths; 57 identified weaknesses. This group had a total strength report of 48.6%--a score that was 4.3% lower than the baseline average of 52.9% achieved by all 72 platoon leaders. The relatively lower numbers of total comments on the strengths and weaknesses of this group is due in part, to the larger number of platoons in this group that participated in the first rotation, before field data cards were modified to provide information equally on strengths and weaknesses. This, in turn, has resulted in lower numbers of comments per attribute, which has reduced the precision of the percentages by which individual attributes are measured. The total number of comments is adequate for measuring a total strength percentage for this group overall, but comparative measurements by attribute is often not possible, due to the fewer numbers of qualified field data cards.

In only seven of 25 attributes are there sufficient numbers to yield comparisons with the baseline group. Above average findings by attribute were found in *experience, listening, motivation, and knowledge*. Below average strength percentages were found in *communication, OPORD preparation, and patience*.

Summary of Qualitative Comment Analysis Findings

The strongest group of leaders was from platoons rated highest in transformational leadership by platoon members at home station. Platoons rated by members as being highest in transformational leadership, accrued the highest strength rating in narrative comments by O/C and Cadre observers a month later in the field at JRTC. The strength rate achieved by the High TL group was 55%, which was higher than the strength rating achieved by any other group of leaders. This top rating was determined by a comparative analysis of O/C and cadre comments on four subsets of leaders.

The weakest group of platoon leaders was from platoons that were rated lowest in transformational leadership by platoon members at home station. Their strength rate at JRTC was 48.2%, which was the lowest of the five groups. The low strength rating was based on comments by O/C and Cadre at JRTC comparing descriptions of strengths and weaknesses on the final version of the Field Data Card--the same methodology used to determine strengths ratings for all platoons. The Low TL group of platoons was selected based on their having achieved the lowest mean transformational leadership scores as determined by Platoon TMLQ instruments completed by platoon members at home station a month prior to JRTC.

Regarding comparisons between the High and Low TL group, the raters who completed the comment cards were totally different from the raters who completed the home station survey. While the company cadre who completed some of the field data cards describing platoon behaviors at JRTC, also completed MLQ questionnaires on the PL and PSG at home station, however these cadre—the company commander, company XO and Company First Sergeant—did not participate in the TMLQ survey used to determine platoon transformational leadership scores. The mean platoon transformational leadership scores

were derived from Platoon TMLQ data collected from platoon members only, and no company cadre were involved in these evaluations.

Comparisons between "Top and Bottom 12" JRTC Platoons involved some raters from the same source: the Observer /Controllers. The Top and Bottom 12 platoons were determined based directly on O/C answers to questions in parts "A" and "B" of the field data cards and also on O/C ratings on 14 points of PL and PSG performance. The strength ratings were determined indirectly from O/C and cadre narrative comments on strengths and weaknesses in part "C" of the field data cards. Six of the nine field data cards per platoon were completed by the O/C.

Methodologies and data used to select the top and bottom 12 platoons were distinctly different from the methods used in this text analysis. However, the O/Cs provided all of the data for platoon selection to high and low groups, and two thirds of the comments used to determine their strengths rates in the narrative analysis.

Inconsistencies between O/C Ratings and O/C Narratives. The "top 12" group, based on O/C performance ratings, also included four platoons, which platoon members had rated as being among the 12 lowest in transformational leadership. Further investigation reveals that two of the "Top 12" platoons were also described by the O/Cs in their narrative comments as having weaknesses which would have ranked them among the lowest 12 TL platoons.

This inconsistency helps to explain why the final strength rate among the "Top 12" JRTC platoons were slightly below the average for all 72 platoons. (All four Low TL platoons might have been so rated, but narratives on strengths and weaknesses on two platoons were collected before the Field Data Cards had been modified to include these items.)

Consistency of findings. An average score of 100% on the attribute *dedication* appears overstated, yet such high marks on dedication are generally consistent with findings from a recent survey of 11,680 respondents in a US military climate and culture survey. The overall strongest levels of agreement found anywhere in that study were in response to the statement, "I am proud to serve in America's armed forces." The strongest levels of agreement in general were with the clusters of questions focusing on pride, duty, and commitment. (American Military Culture in the twenty-first Century, A Report of the Center for Strategic and International Studies, Washington DC. February 2000)

Implications for training

Earlier in the qualitative analysis, the relationship between "motivation" and "experience" was touched upon. In Table 24 it was revealed that *motivation* was the greatest strength and *experience* was the greatest weakness based on more than 3000 comments from 450 observers of infantry rifle platoons at JRTC. From these findings one can infer, based on the common definition of *experience*, that longer tenure for rifle platoon officers, junior NCOs / enlisted soldiers, and platoon sergeants, in that order, could likely result in improved platoon performance at JRTC. In context, *experience* was usually taken to mean

the length of time an incumbent leader had served in his current position (See key word definitions in Appendix B).

A key question for the Army is whether the "experience" gap, is a product of assignment tenure or of not learning from past experience--or a combination? If it is assignment only, then we are bringing into the equation something over which the participants had no control. *Experience* does not fit in the improvement model except to say that most folks need time to learn. Should the duration of assignments at the platoon level be reconsidered? Should the AAR process and other tools for enhancing the lessons of experience be reviewed? These questions are raised by the current findings, but cannot be answered on the basis of the data collected for this study.

Implications for Leadership Training and Development

The implications of these findings are particularly significant for Army leadership training and development. Differences in platoon performance at JRTC appear to be attributable to differences in the frequency of transformational leadership behaviors seen by platoon members at home station.

Transformational leadership (TL) may become an even more powerful model for leader training and development at higher levels in the organization where elements of self-motivation and coordination are typically more critical to organizational effectiveness. What is not at all clear, however, is whether transformational behaviors can be learned by all leaders, or even identified by them, without specific coaching. This must continue to be a critical area for further study and experimentation.

Looking back to the inconsistencies in O/C responses on the field data cards, perhaps O/Cs, being untrained in the identification and importance of TL, might be more inclined to misinterpret or overlook instances of low TL behavior at the platoon level and below. Perhaps, in rifle squads and fire-teams, high or low levels of *transformational leadership* go unnoticed, not because they are undetectable by an O/C, but because they are not seen as the critical issue to comment on given limited space and time. Interviews with O/C on this topic might be fruitful in answering this question. Perhaps those four "Low TL" platoons that were evaluated by O/Cs that ended up in the "Top 12" group, were somehow able to draw upon other attributes and thus perform exceptionally well at JRTC in spite of their low TL scores. Alternatively, JRTC is viewed by many O/Cs as a development lab where leaders and followers can make mistakes. Consequently, the O/Cs may have judged those platoons more on progress than on levels of absolute performance. The type of developmental message they intended to convey to the platoon leaders may have affected the ratings feedback that was given by the O/Cs.

Communication

Another obvious follow-on topic concerns the weaknesses noted in *communication* skills. This attribute is frequently lacking between PL and PSG in low performing units; but *communications* is also a very frequently observed weakness among junior NCOs and EMs in

rifle squads and fire teams. There needs to be additional attention placed on improving communication processes in platoons.

The comments were almost always with reference to interpersonal communications. The comments referred to "cross-talk" which, taken in context, always seemed to be a positive attribute. We know survey respondents were not talking about shortcomings in radio telephone procedures. "Cross-talk" implied recurrent dialogue between and among members and across organizational boundaries focusing specifically on interpersonal communication.

The seemingly broad preference for increasing levels of communication and quantity requires further investigation. Such research might begin with a series of follow-up interviews with O/Cs. Surely, better units do not simply *talk more*. Or do they? Where are the boundary lines where healthy "cross-talk" becomes dysfunctional "back-talk"? And, in very high performing units, where are the boundaries between explicit telling and implicit knowing? To what extent is "cross-talk" a substitute for the lack of excellence and practice in field operating SOPs? Again, interviews with O/C would probably help clarify this issue of *communication weaknesses*.

Tactical training implications

These data are a rich area for distilling training implications. One example will be offered based on four closely related training problems evident in these findings. We have observed weaknesses in *planning, setting priorities, time management* and *troop leading procedures* (TLP). All four are closely related areas of frequently observed weaknesses in infantry platoons operations. The Troop Leading Procedures are a proven checklist of about 14 time sensitive actions, in priority order, that small unit leaders oftentimes should take when preparing for combat operations. When the TLP checklist is most needed, the small unit leaders have the least time to look for it. This simple "time management" tool is probably over due for renewed command emphasis. Small unit leaders could memorize the list in about 50 minutes. It would probably pay big dividends if this checklist could be recalled from memory while small unit leaders, under the stress of combat, are trying to decide what to do next.

Qualitative Model Improvements

In terms of the validity of the model used in these analyses, the use of net strength (or weakness) as calculated, is considered to be an adequate approach for rank ordering leadership attributes within a given data set. In Table 29, the methodology is modified to embrace the notion of *strength rates* to allow comparisons of strengths and weakness across data sets of differing sizes.

Future qualitative analyses will need to take into consideration the relative importance or seriousness of the individual dimensions, beyond simply examining the frequency of their occurrence? For example, should three comments on "motivation" count more than one major comment on demotivational behavior? Maybe.

Finally, to extend our analyses the observed attributes could potentially be classified into larger groupings—such as the *Be, Know, Do*, attributes discussed in FM 22-100. Using this approach might help focus future Army leadership assessment and training on areas of more direct relevance to platoon performance?

Summary of Qualitative Findings

There were several interesting patterns that emerged from the qualitative data analysis. First, the more effective platoons at JRTC had PLs and PSGs that were rated by O/Cs as having significantly better relationships with each other, which could be described as transformational. These relationships were typically described as being more open, supportive, challenging of each others' assumptions, willingness to listen to each other, inspiring each other, etc. We also found that there was a positive correlation between the type of relationship that the PSG and PL had in home station, as seen by members of the platoon, and the relationship observed/described by the O/C raters at JRTC. Finally, the worst performing platoons had PLs and PSGs that did not listen to each other, openly disregarded each other's opinion, intervened with each other only when things went wrong and were not helpful to each other's development.

CONCLUSIONS

Our results suggest that PL and PSG transformational leaders were generally more effective in home station and again in JRTC combat readiness missions. Results varied by source of ratings as well as in terms of the level of agreement across rater groups. The pattern of results observed with respect to rater source indicated that simply combining different source ratings into an overall average would mask some of the leadership differences observed in home station and/or at JRTC. Also, from a developmental perspective, relying only upon self-ratings of leadership is simply inadequate to predict performance. The best predictors of performance in near combat conditions came from other sources of ratings, not from self-ratings of leadership.

Although many leadership training programs tend to concentrate on the positive styles of leadership, our results point to the importance of examining and eliminating passive avoidant styles as well. Results presented here clearly indicated that leaders, who were more passive and/or avoidant in home station, also led platoons that performed worse at JRTC. Moreover, the qualitative observations collected from the O/Cs at JRTC also confirmed that leaders who were either passive or simply focused on correcting problems as they arose, lead to lower performing platoons at JRTC.

We also reported that the level of agreement concerning the collective leadership of the platoon can potentially serve as a proxy for cohesion, and can serve as an important indicator of the platoon's overall effectiveness. Further analysis of different member levels in the platoon are currently being explored to determine whether alternative sources of ratings have more or less shared variance and its implications for predicting platoon performance.

Company culture was also shown to be a potential predictor of platoon performance. Examining how company culture over time effects the pattern of individual and team leadership seems worth pursuing in future research.

Limitations

In any complex project, there are always a number of potential limitations to be considered when interpreting the results. This current study is no exception. First, although the survey scales were well-established, modifications were made to scales for use in the military context. Ironically, the largest number of changes was made to the MA scale, which consistently generated the lowest estimates of internal consistency.

Second, survey ratings only capture a limited set of behaviors. In the current setting, the relationship between the PL and the PSG appeared to be quite relevant to the platoon's performance in JRTC. Collecting field observations of their interactions in home station would likely have helped augment predictions of performance. Third, results presented here were based on an examination of a light infantry platoon's performance as seen by an observer, who was charged with the goal of developing platoons. Hence, we need to restrict our conclusions to this sample and now recommend these leadership measures be used to predict platoon performance with other forces across different evaluation contexts.

Overall, the current study provided ample justification for linking individual transformational and contingent reward leadership to platoon performance. The next obvious step is to see how such leadership can be developed to augment unit performance.

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APPENDIX A

Survey Measures and JRTC Scorecard

TEAM MULTIFACTOR LEADERSHIP QUESTIONNAIRE

by Bernard M. Bass and Bruce J. Avolio

PLATOON

Platoon	Company	Battalion	Date Day/Mo/97
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="1"/> / <input type="text" value="1"/> / 97

DIRECTIONS:

The questionnaire makes it possible to describe the leadership behaviors that you see in your Platoon.

Your marks will be combined with those of others to describe the Platoon. **Your individual responses will be kept confidential. Only the combined results for the unit will be reported, and they will not be reported by unit designation.** Your completion of the survey constitutes voluntary participation.

- First, fill in all the boxes above to indicate your Platoon, Company, Battalion, and today's date. **Do not put your own name or ID anywhere on this form.**
- Following are descriptive statements about the Platoon. Starting with question 1, decide how frequently each statement fits the behavior of the Platoon you are describing and mark your answers in the corresponding circle.
- Use a pencil and fill the circle completely. If you wish to change a response, erase your first mark completely.
- If you are unsure or do not know the answer, leave that answer blank.
- Use the scale below for your responses.

- EXAMPLE: The Platoon engages in training exercises.
The answer marked in this example was "3" indicating that the Platoon engages in training exercises "fairly often."

0 1 2 3 4

○ ○ ○ ● ○

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly Often	Frequently, if not always

FINAL

Product Code MLQTP-Military/Male/Platoon Form, Revised 3/4/97.

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MILITARY PLATOON
MLC

0 Not at all 1 Once in a while 2 Sometimes 3 Fairly often 4 Frequently, if not always

MEMBERS OF THE PLATOON...

0 1 2 3 4

1.	set high standards.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	are proud to be associated with each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	allow performance to fall below minimum standards before trying to make improvements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	emphasize the importance of being committed to our beliefs.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	focus attention on mistakes, exceptions, and deviations from standards.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	avoid getting into arguments.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	clearly communicate what each member needs to do to complete assignments.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	emphasize the value of questioning each other's ways to solve problems.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	avoid dealing with problems.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	listen to each other's concerns.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	delay taking action until problems become serious.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	go beyond their own interests for the good of the platoon.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	closely monitor each other's performance for errors.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	display conviction in the Army ethic and values.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	work out agreements about what's expected of each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	generate exciting future possibilities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	motivate each other to do more than they thought they could do.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	encourage each other to rethink ideas.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	fail to follow-up requests for assistance from each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	focus on developing each other's capabilities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
21.	talk about what we've done wrong but not what we've done right.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
22.	display extraordinary talent and competence.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
23.	spend time dealing with immediate crises.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
24.	clarify the core reasons for our existence and purpose as an Army.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
25.	provide each other with assistance in exchange for each member's effort.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
26.	talk optimistically about the future.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
27.	heighten our motivation to succeed.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
28.	try to find better ways to do things.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
29.	avoid making decisions.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
30.	spend time teaching and coaching each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
31.	wait until things have gone wrong before taking action.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
32.	behave in ways that build respect for one another.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
33.	track each other's mistakes.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
34.	talk about how trusting each other can help overcome our difficulties.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
35.	discuss the level of performance we expect from each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
36.	talk enthusiastically about how we achieve our mission.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
37.	encourage each other to do more than we expected we could do.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
38.	seek a broad range of views when solving problems.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
39.	delay responding to urgent requests from each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
40.	treat each other as individuals with different needs, abilities, and aspirations.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
41.	show we are firm believers in "if it ain't broke, don't fix it."	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
42.	display confidence in each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
43.	direct attention toward failure to meet standards.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
44.	emphasize the importance of having a collective sense of mission.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
45.	recognize member and/or Platoon accomplishments.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
46.	provide each other with a positive view of the future.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
47.	look at problems from many different angles.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
48.	help each other learn new skills.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
49.	have confidence in each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
50.	expect to be a high performance Platoon.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
51.	can solve problems we encounter.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
52.	can face unexpected problems and handle them.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
53.	work hard to fulfill the Platoon's responsibilities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

THE PLATOON LEADER, PLATOON SERGEANT, AND SQUAD LEADERS...

54.	pull together to get the job done.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
55.	respect each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
56.	trust each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
57.	display leadership collectively that is satisfactory.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

58.	In my view, the overall effectiveness of the platoon is...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	0 not effective 1 only slightly effective 2 effective 3 very effective 4 extremely effective					answer here

59.	My position is... (Select one answer only)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1 Squad Member 2 Fire Team Leader 3 Squad Leader 4 Platoon Sergeant or Platoon Leader 5 1st Sergeant, XO, or CO					answer here

60. My military grade is E1, E2, E3, ... 01, 02, 03... (Write in grade) _____ Grade

61. How many months have you been in the Platoon? (Write in) _____ Months

MULTIFACTOR LEADERSHIP QUESTIONNAIRE

by Bernard M. Bass and Bruce J. Avolio

PLATOON SERGEANT

Platoon	Company	Battalion	Date: Day/Mo/Yr
			__/__/97

DIRECTIONS:

The questionnaire makes it possible for you to describe the leadership behavior of the Platoon Sergeant you are describing.

Your marks will be combined with those of several others to describe the Platoon Sergeant's behavior. Your individual responses will be kept confidential. Only the combined results for the unit will be reported, and they will not be reported by unit designation. Your completion of the survey constitutes voluntary consent to participate.

- First, fill in all the boxes above to indicate the Platoon, Company, and Battalion of the Platoon Sergeant you are describing, and today's date. Do not put your own name or ID anywhere on this form.
- Following are statements which you will use to describe the Platoon Sergeant's behavior. Starting with question 1, decide how frequently each statement fits the behavior of the Platoon Sergeant you are describing and mark your answers in the corresponding circle.
- Use a pencil and fill the circle completely. If you wish to change a response, erase your first mark completely.
- If you are unsure or do not know the answer, leave that answer blank.
- Use the scale below for your responses.

• EXAMPLE: The Platoon Sergeant engages in athletics.
 The answer marked in this example was "3" indicating that the Platoon Sergeant engages in athletics "fairly often."

0 1 2 3 4
 ○ ○ ○ ● ○

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly Often	Frequently, if not always

FINAL

Product Code MLCM MLQ Military/Male/Platoon Sergeant Form, Revised 8/29/97

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MULTIFACTOR LEADERSHIP QUESTIONNAIRE

by Bernard M. Bass and Bruce J. Avolio

PLATOON SERGEANT

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always

THE PLATOON SERGEANT I AM DESCRIBING...

	0	1	2	3	4
1. seeks different points of view when solving problems.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. expresses confidence that goals will be achieved.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. fails to take action until problems become serious.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. tries to catch you making mistakes.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. avoids getting involved when important issues arise.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. talks about the importance of Army ethic and values.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. is absent when needed.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. rewards us when we do what we are supposed to do.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. talks optimistically about the future.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. makes us proud to be associated with him.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. states who is responsible for getting the job done.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. waits for things to go wrong before taking action.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. sets high standards.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. specifies the importance of having a strong sense of purpose.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. spends time teaching and coaching Platoon members.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. makes clear exactly what Platoon members will get if performance goals are met.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. dwells on what I have done wrong.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. goes beyond self-interest for the good of the Platoon.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. treats each Platoon member as an individual.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. avoids trying to make improvements until performance falls below minimum standards.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. acts in ways that build respect.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. looks for reasons to make on-the-spot inspections.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. makes moral and ethical decisions based on high standards.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. keeps track of all mistakes.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. displays a sense of authority and confidence.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. talks enthusiastically about what needs to be accomplished.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. directs attention toward failures to meet standards.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. avoids making decisions.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. considers that you have different needs, abilities, and aspirations from others.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. gets you to look at problems from many different angles.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. helps Platoon members to develop their strengths.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. suggests new ways of looking at how to complete assignments.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. delays responding to urgent problems.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. emphasizes the importance of having a collective sense of mission.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. lets Platoon members know when they have met expectations.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. reviews basic assumptions about the way we do things to see if they are appropriate.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. is effective in helping Platoon members get their jobs done.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. uses methods of leadership that are satisfactory.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. gets you to do more than you expected to do.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. is effective in representing your Platoon to higher authority.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. works with you in a satisfactory way.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. heightens your desire to succeed.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. is effective in meeting organizational requirements.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. increases your willingness to try harder.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. leads a group that is effective.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. tells us what we've done wrong rather than what we've done right.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. My position is... (Select one answer only)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	2	3	4	5	answer here
Squad Member	Fire Team Leader	Squad Leader	Platoon Sergeant or Platoon Leader	1st Sgt, XO, or CO	

48. My military grade is: E1, E2, E3... 01, 02, 03... (Write in grade) _____ Grade
49. How many months have you observed the Platoon Sergeant in his current position? (Write in the number of months) _____ Months

MULTIFACTOR LEADERSHIP QUESTIONNAIRE
by Bernard M. Bass and Bruce J. Avolio

PLATOON LEADER

Platoon	Company	Battalion	Date: Day/Mo/
<input type="text"/>	<input type="text"/>	<input type="text"/>	___/___/97

DIRECTIONS:

The questionnaire makes it possible for you to describe the leadership behavior of the Platoon Leader you are describing.

Your marks will be combined with those of several others to describe the Platoon Leader's behavior. **Your individual responses will be kept confidential. Only the combined results for the unit will be reported, and they will not be reported by unit designation.** Your completion of the survey constitutes voluntary participation.

- First, fill in all the boxes above to indicate the Platoon, Company, and Battalion of the Platoon Leader you are describing, and today's date. **Do not put your own name or ID anywhere on this form.**
- Following are statements which you will use to describe the Platoon Leader's behavior. Starting with question 1, decide how frequently each statement fits the behavior of the Platoon Leader you are describing and mark your answers in the corresponding circle.
- Use a pencil and fill the circle completely. If you wish to change a response, erase your first mark completely.
- If you are unsure or do not know the answer, leave that answer blank.
- Use the scale below for your responses.
- **EXAMPLE:** The Platoon Leader engages in athletics.
The answer marked in this example was "3" indicating that the Platoon Leader engages in athletics "fairly often."

0 1 2 3 4
○ ○ ○ ● ○

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly Often	Frequently, if not always

FINAL

Product Code MLQM MLQ Military/Maie/Platoon Leader Form, Revised 3/4/97.

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MULTIFACTOR LEADERSHIP QUESTIONNAIRE

by Bernard M. Bass and Bruce J. Avolio

PLATOON LEADER

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly Often	Frequently, if not always

THE PLATOON LEADER I AM DESCRIBING...

0 1 2 3 4

1. seeks different points of view when solving problems.	○	○	●	○	○
2. expresses confidence that goals will be achieved.	○	○	●	○	○
3. fails to take action until problems become serious.	○	○	●	○	○
4. focuses attention on mistakes, exceptions, and deviations from standards.	○	○	●	○	○
5. avoids getting involved when important issues arise.	○	○	●	○	○
6. talks about the importance of the Army ethic and values.	○	○	●	○	○
7. is absent when needed.	○	○	●	○	○
8. rewards us when we do what we are supposed to do.	○	○	●	○	○
9. talks optimistically about the future.	○	○	●	○	○
10. makes us proud to be associated with him.	○	○	●	○	○
11. states who is responsible for getting the job done.	○	○	●	○	○
12. waits for things to go wrong before taking action.	○	○	●	○	○
13. sets high standards.	○	○	●	○	○
14. specifies the importance of having a strong sense of purpose.	○	○	●	○	○
15. spends time teaching and coaching Platoon members.	○	○	●	○	○
16. makes clear exactly what Platoon members will get if performance goals are met.	○	○	●	○	○
17. shows that he is a firm believer in "if it ain't broke, don't fix it."	○	○	●	○	○
18. goes beyond self-interest for the good of the Platoon.	○	○	●	○	○
19. treats each Platoon member as an individual.	○	○	●	○	○
20. avoids trying to make improvements until performance falls below minimum standards.	○	○	●	○	○
21. acts in ways that build respect.	○	○	●	○	○
22. concentrates his full attention on dealing with mistakes, complaints, and failures.	○	○	●	○	○
23. makes moral and ethical decisions based on high standards.	○	○	●	○	○
24. keeps track of all mistakes.	○	○	●	○	○
25. displays a sense of authority and confidence.	○	○	●	○	○
26. talks enthusiastically about what needs to be accomplished.	○	○	●	○	○
27. directs attention toward failures to meet standards.	○	○	●	○	○
28. avoids making decisions.	○	○	●	○	○
29. considers that you have different needs, abilities, and aspirations from others.	○	○	●	○	○
30. gets you to look at problems from many different angles.	○	○	●	○	○
31. helps Platoon members to develop their strengths.	○	○	●	○	○
32. suggests new ways of looking at how to complete assignments.	○	○	●	○	○
33. delays responding to urgent problems.	○	○	●	○	○
34. emphasizes the importance of having a collective sense of mission.	○	○	●	○	○
35. lets Platoon members know when they have met expectations.	○	○	●	○	○
36. reviews basic assumptions about the way we do things to see if they are appropriate.	○	○	●	○	○
37. is effective in helping Platoon members get their jobs done.	○	○	●	○	○
38. uses methods of leadership that are satisfactory.	○	○	●	○	○
39. gets you to do more than you expected to do.	○	○	●	○	○
40. is effective in representing your Platoon to higher authority.	○	○	●	○	○
41. works with you in a satisfactory way.	○	○	●	○	○
42. heightens your desire to succeed.	○	○	●	○	○
43. is effective in meeting organizational requirements.	○	○	●	○	○
44. increases your willingness to try harder.	○	○	●	○	○
45. leads a group that is effective.	○	○	●	○	○
46. tells us what we've done wrong rather than what we've done right.	○	○	●	○	○
47. My position is... (Select one answer only)	○	○	○	○	○
1	2	3	4	5	
Squad Member	Fire Team Leader	Squad Leader	Platoon Sergeant or Platoon Leader	1st Sgt, XO, or CO	

48. My military grade is: E1, E2, E3... 01, 02, 03... (Write in grade) _____ Grade

49. How many months have you observed the Platoon Leader in his current position? _____ Months
(Write in the number of months)

TEAM MULTIFACTOR LEADERSHIP QUESTIONNAIRE

by Bernard M. Bass and Bruce J. Avolio

COMPANY

Platoon	Company	Battalion	Date: Day/Mo/97
			/ /97

DIRECTIONS:

The questionnaire makes it possible to describe the leadership behaviors that you see in your Company.

Your marks will be combined with those of others to describe the Company. **Your individual responses will be kept confidential. Only the combined results for the unit will be reported, and they will not be reported by unit designation.** Your completion of the survey constitutes voluntary participation.

- First, fill in all the boxes above to indicate your Platoon, Company, Battalion, and today's date. Do not put your own name or ID anywhere on this form.
- Following are descriptive statements about the Company. Starting with question 1, decide how frequently each statement fits the behavior of your Company and mark your answers in the corresponding circle.
- Use a pencil and fill the circle completely. If you wish to change a response, erase your first mark completely.
- If you are unsure or do not know the answer, leave that answer blank.
- Use the scale below for your responses.

- **EXAMPLE:** The Company engages in training exercises. **0 1 2 3 4**
○ ○ ○ ● ○
The answer marked in this example was "3" indicating that the Company engages in training exercises "fairly often."

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly Often	Frequently, if not always

FINAL

Product Code MLQTC-MLQ Team Military/Male/Company Form, Revised 9/11/97.

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Team MFC MILITARY COMPANY

0 Not at all 1 Once in a while 2 Sometimes 3 Fairly often 4 Frequently, if not always

MEMBERS OF THE COMPANY...

0 1 2 3 4

1. set high standards.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. are proud to be associated with each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. allow performance to fall below minimum standards before trying to make improvements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
4. emphasize the importance of being committed to our beliefs.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. try to catch each other making mistakes.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. motivate each other to do more than they thought they could do.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. clearly communicate what each member needs to do to complete assignments.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. emphasize the value of questioning each other's ways to solve problems.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. avoid dealing with problems.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. listen to each other's concerns.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. delay taking action until problems become serious.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
12. go beyond their own self-interests for the good of the Company.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. closely monitor each other's performance for errors.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. display conviction in the Army ethic and values.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. work out agreements about what's expected of each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. generate exciting future possibilities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. dwell on what has been done wrong.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. encourage each other to rethink ideas.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. fail to follow-up requests for assistance from each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. focus on developing each other's capabilities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. talk about what we've done wrong rather than what we've done right.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. display extraordinary talent and competence.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. spend time dealing with immediate crises.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. clarify the core reasons for our existence and purpose as an Army.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. provide each other with assistance in exchange for each member's effort.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. talk optimistically about the future.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. heighten our motivation to succeed.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. try to find better ways to do things.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. avoid making decisions.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. spend time teaching and coaching each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. wait until things have gone wrong before taking action.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
32. behave in ways that build respect for one another.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. obey the rules and regulations without allowing for exceptions.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. talk about how trusting each other can help overcome our difficulties.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. discuss the level of performance we expect from each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. talk enthusiastically about how we achieve our mission.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. encourage each other to do more than we expected we could do.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. seek a broad range of views when solving problems.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. delay responding to urgent requests from each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. treat each other as individuals with different needs, abilities, and aspirations.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. closely monitor each other to assure that no mistakes are made.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. display confidence in each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. focus on failures.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. emphasize the importance of having a collective sense of mission.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. recognize member and/or Company accomplishments.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. provide each other with a positive view of the future.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. look at problems from many different angles.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. help each other learn new skills.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. have confidence in each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. expect to be a high performance Company.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
51. can solve problems they encounter.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
52. can face unexpected problems and handle them.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
53. work hard to fulfill the Company's responsibilities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

THE OFFICERS AND NCO's OF THE COMPANY AND PLATOONS...

54. pull together to get the job done.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
55. respect each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
56. trust each other.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
57. display leadership collectively that is satisfactory.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

58. In my view, the overall effectiveness of the Company is...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	answer here
0 not effective	1 only slightly effective	2 effective	3 very effective	4 extremely effective		

59. My position is... (Select one answer only)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	answer here
1 Squad Member	2 Fire Team Leader	3 Squad Leader	4 Platoon Sergeant or Platoon Leader	5 1st Sergeant, XO, or CO		

60. My military grade is E1, E2, E3, ... O1, O2, O3... (Write in grade) _____ Grade

61. How many months have you been in the Company? (Write in) _____ Months

ALL INFORMATION PROTECTED
S I D I E

PLATOON PERFORMANCE

Post-Rotation Assessment
YOUR POSITION: _____
Company CO _____ PLATOON _____
Company XO _____ COMPANY _____
1st Sergeant _____ BATTALION _____

Date: ____/____/199__

Use the following scale to indicate how frequently the PLATOON LEADER contributed to the platoon's effectiveness by the following actions:

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always

PLATOON LEADER

- Persisted in dealing with difficult challenges.
- Kept focused on accomplishing the mission.
- Shared knowledge of the situation.
- Established and maintained appropriate priorities.
- Contributed to cohesiveness and teamwork.
- Maintained high performance standards for completing tasks.
- Was receptive to new information and ideas.
- Used AARs and debriefings constructively.
- Set an example by his behavior.
- Communicated clearly and precisely.
- Coordinated effectively internally and externally.
- Raised morale and enthusiasm.
- Took responsibility for his actions.
- Recognized outstanding performance.

A. Taking into account the WEATHER, TERRAIN, SUPPORT, and OPPOSITION, HOW WELL DID THIS PLATOON ACCOMPLISH ITS TACTICAL MISSION ?

Circle One } 0 1 2 3 4

Much worse than could have been expected Worse than expected As well as expected Better than expected Much better than could have been expected

B. OVERALL ASSESSMENT -- COMPARED TO SIMILAR PLATOONS, THIS PLATOON PERFORMED OVERALL IN THE :

BOTTOM _____ NEXT _____ MIDDLE _____ NEXT _____ TOP _____
FIFTH _____ LOWER _____ FIFTH _____ HIGHER _____ FIFTH _____

C. For this PLATOON, the THREE:

a) **STRONGEST POINTS** are:

- _____
- _____
- _____

b) **WEAKEST POINTS** are:

- _____
- _____
- _____

ALL INFORMATION PROTECTED
S I D I E

PLATOON PERFORMANCE

Post-Rotation Assessment
PLAT _____
CO _____
BN _____

Date: ____/____/199__

Use the following scale to indicate how frequently the PLATOON SERGEANT contributed to the platoon's effectiveness by the following actions:

0	1	2	3	4
Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always

PLATOON SERGEANT

- Persisted in dealing with difficult challenges.
- Kept focused on accomplishing the mission.
- Shared knowledge of the situation.
- Established and maintained appropriate priorities.
- Contributed to cohesiveness and teamwork.
- Maintained high performance standards for completing tasks.
- Was receptive to new information and ideas.
- Used AARs and debriefings constructively.
- Set an example by his behavior.
- Communicated clearly and precisely.
- Coordinated effectively internally and externally.
- Raised morale and enthusiasm.
- Took responsibility for his actions.
- Recognized outstanding performance.

C. Please comment in your own words on:

1) **PLATOON LEADER STRONG POINTS:**

2) **PLATOON LEADER WEAK POINTS:**

3) **PLATOON SERGEANT STRONG POINTS:**

4) **PLATOON SERGEANT WEAK POINTS:**

5) **How well did the Platoon Leader & Platoon Sergeant WORK TOGETHER:**

APPENDIX B1

Glossary of military terms and abbreviations.

Individual and Organizational Abbreviations & Terms

- BDE: Brigade—a tactical headquarters controlling two or more battalions;
- BN: Battalion—a light infantry organization including 3 rifle companies;
- CO: Company; a light infantry or airborne / airmobile unit including 3 rifle platoons; also
- CO: Commanding officer, usually the company commander, a captain, grade O3
- XO: Executive officer, second in command of the company, usually a first lieutenant. grade O2;
- 1SG: First sergeant, senior enlisted member of the company, usually grade E8--;
- EM: Enlisted members, soldiers in grade E1-E4
- NCO: Noncommissioned officer, soldiers in grade E5-E9;
- PLT: Platoon, a light infantry unit of 2 or 3 rifle squads and a weapons squad;
- PL: Platoon leader, usually a 2d Lt. grade O1;
- PSG: Platoon sergeant—the senior NCO in the PLT. usually grade E7;
- SL: Squad leader, grade E5-E6;
- SQD: Rifle or weapons squad—a light infantry unit of 7-10 soldiers armed with rifles, machine guns, or grenade launchers, usually organized into two fire teams: Alpha and Bravo.
- TL: Fire team leader, E4 or E5 member of an infantry squad who leads a fire team of 4 or 5 EM.
- O/C Observer / controllers; evaluated SQD and PLT performance at JRTC or NTC; E7 & O3;

Technical and Tactical Abbreviations & Terms

- AAR: After action review.
- ARTEP 7-8: Army training and evaluation plan for infantry platoons—a doctrinal publication.
- AT Weapons: anti-tank weapons.
- C of C: Chain of command
- C² Command and Control;
- C³: Command, Control, and Communications;
- CAS EVAC: Casualty evacuation;
- CCP: No code available; Rec id#s: 2-1047.
- CDR: Commander
- CFV: Cavalry fighting vehicle.
- COA: Courses of actions—alternatives considered by PL or CO in making an estimate of the situation.
- CSS: Combat service support; activities related to personnel services, transportation, and logistics.
- CTC: Combat training centers; JRTC and NTC were locations for this data collection.
- CLASS I: Supplies of food
- CLASS II: Supplies of equipment;
- CLASS III: Supplies of fuel; sometimes called POL;
- CLASS IV: Supplies of barrier materials / barbed wire;

APPENDIX B1 - continued

CLASS V: Supplies of ammunition

Combat Multiplier anything that achieves tactical synergy, especially well integrated supporting arms and services, e.g.: defensive barriers covered by pre-planned artillery, etc.
Estimate of the Situation: a structured thought process undertaken by leaders and their staff in preparing an operations order (OPORD) or plan (OPLAN).

EA development: No code available; Rec id#s: 2-1039, 2-1041.

EM: Enlisted members. Soldiers in the grade E-1(Private) through E-4 (Specialist or Corporal)

EPW: Evacuation of prisoners of war—procedures for their segregation, security, and evacuation;

FRAGO: Fragmentary order; supplementary tactical instructions amending or altering OPORD or implementing an OPLAN

JRTC: Joint Readiness Training Center;

M-60: a 7.62 mm machine gun.

MILES: Multiple integrated laser engagement system;

MDMP: No code available; Record ID # 3-0051

MOU: Military operations in urban terrain / fighting in buildings;

NAV: Navigation / also map reading, terrain orientation, finding one's way.

NBC: Nuclear, biological, and chemical warfare equipment and/or procedures;

NOD: Night observation device.

NTC: National Training Center.

NVG Night vision goggles; (a specific type of NOD used by individuals)

OPORD: Operations order—written or verbal instructions for tactical operations in a pre-set format;

OPLAN: Operations plan—same as OPORD, but includes specified assumptions and requires a separate order or FRAGO for execution. Issued to facilitate contingency planning and rehearsal.

PCC/PCI: Pre-combat checks / pre-combat inspections—EM "check" equipment; NCOs "inspect"

POL: Petroleum, oil, and lubricants; also called CLASS III

R&S: Reconnaissance and security—patrolling and other measures to defend against surprise attack.

RTO: Radio / telephone operator

SOP: Standard operating procedures—pre-set instructions for performing routine tasks to standard.

TDMP: Procedures. No code available; Rec ID: 3-0022.

TLP: Troop leading procedures—a check-list of time-sensitive actions to be completed in a specified sequence by small-unit leaders preparing for tactical operations.;

TTPs: No code available; rec id#2-1076; 3-0083.

WPNs Weapons

APPENDIX B2

Attributes / Topics, Codes, Definitions, and Tentative Classification for Text Analysis of O/C and Cadre Comments

Class (Tentative)	Attribute / Topic	Code	Meaning
Do	Accountability	Account	<ul style="list-style-type: none"> • Keeping track of equipment, supplies, and personnel.
Be	Aggressive	Aggress	<ul style="list-style-type: none"> • Assertive, bold, or forceful pursuit of the mission / enemy.
Be	Alert	Alert	<ul style="list-style-type: none"> • Vigilantly attentive; watchful, perceptive.
Do	Care	Care	<ul style="list-style-type: none"> • Demonstrated concern for the soldier's wellbeing.
Be	Dedicated	Dedicat	<ul style="list-style-type: none"> • To commit oneself to a particular course of thought or action in accordance with Army values.
Be	Discipline	Discip	<ul style="list-style-type: none"> • Duty performance adhering to military code, orders, doctrine, rules, regulations, or standard operating procedures--especially when soldiers are unsupervised by officials from their chain of command
Be	Endurance	Endurance	<ul style="list-style-type: none"> • Physical and mental capacity for sustained effort over time; effective continuance in spite of fatigue.
Be	Fitness	Fitness	<ul style="list-style-type: none"> • Demonstrated strength and physical conditioning of the human body.
Be	Honesty	Honesty	<ul style="list-style-type: none"> • Truthfulness in word and deed.
Do	Initiative	Initiative	<ul style="list-style-type: none"> • Actions taken to understand, identify, and complete the implied tasks in any give situation or circumstance.
Be	Learning	Learn	<ul style="list-style-type: none"> • Indications of improvement based on experience
Be	Patience	Patience	<ul style="list-style-type: none"> • Ability to sustain readiness over a longer period than expected without compromising security.
Be	Persistence	Persist	<ul style="list-style-type: none"> • Never giving up while still having the means to carry on.
Do	Poise	Poise	<ul style="list-style-type: none"> • A state of military bearing, balance or equilibrium; stability.
Be	Stamina	Stamina	<ul style="list-style-type: none"> • Physical endurance.
Be	Toughness	Tough	<ul style="list-style-type: none"> • Physically hardy; rugged.
Do	Attitude	Attitude	<ul style="list-style-type: none"> • A state of mind, feeling, or disposition.
Be	Awareness	Aware	<ul style="list-style-type: none"> • Watchful, attentive, perceptive.
Do	Cohesion	Cohes	<ul style="list-style-type: none"> • Indications that platoon members have formed themselves into a trusting, orderly unit, with implicit understandings about platoon values, purpose, and operations.
Be	Morale	Morale	<ul style="list-style-type: none"> • The state of mind and spirit of a person or unit as exhibited by confidence, cheerfulness, or willingness to perform assigned tasks.
Be	Motivation	Motiva	<ul style="list-style-type: none"> • Any behavior signaling enthusiasm for anything related to unit, mission, or the Army. (E.g.: unit or group cheer, "Hoo Ah!")
Be	Willing	Willing	<ul style="list-style-type: none"> • Acting or ready to act gladly; eagerly compliant.
Know	Communication	Communicat	<ul style="list-style-type: none"> • Human process of giving, receiving, and understanding information, reports, plans, and orders

both within the platoon and between the platoon and the company, through verbal, written, or electronic means. (Not primarily about communications equipment.)

Do	CASEVAC	CASEVAC	<ul style="list-style-type: none"> • Prompt removal of wounded soldiers from the battlefield for treatment (casualty evacuation)
Do	Confidence	Confidence	<ul style="list-style-type: none"> • The display of a feeling of assurance, especially of self-assurance
Do	Control	Control	<ul style="list-style-type: none"> • Demonstrated ability to manage or direct.
Do	Coordination	Coord	<ul style="list-style-type: none"> • Actions taken to insure harmonious interaction between the platoon and adjacent platoons and supporting units.
Do	Decisiveness	Decisiveness	<ul style="list-style-type: none"> • Characterized by decision and firmness; resolute.
Do	Delegation	Delegation	<ul style="list-style-type: none"> • Actions entrusting subordinates with specific responsibilities for mission or task accomplishment.
Do	Experience	Experience	<ul style="list-style-type: none"> • Time in the duty position to which now assigned.
Do	Flexibility	Flexibility	<ul style="list-style-type: none"> • Mental agility; open-minded consideration of practical alternatives for achieving goals.
Do	Garrison Activities	Garrison Activities	
Do	Improvement	Improvement	Learning
Be	Judgment	Judgment	<ul style="list-style-type: none"> • The demonstrated capacity to assess situations or circumstances and draw sound conclusions; good sense.
Know	Knowledge	Know	<ul style="list-style-type: none"> • Understanding of tactical and technical subjects regarding platoon operations.
Do	Leadership	Leadership	<ul style="list-style-type: none"> • Comments using the word "leader" or "leadership" to describe the supervisory behavior or skills of the PL, PSG, SL or TL.
Do	Listen	Listen	<ul style="list-style-type: none"> • That part of communication having to do with hearing and understanding what another person is saying or implying.
Do	Maintenance	Maint	<ul style="list-style-type: none"> • Actions by soldiers to keep equipment in working order
Do	Marksmanship	Marksmanship	<ul style="list-style-type: none"> • Ability to "hit" targets with simulated rifle fire using the multiple integrated laser engagement system (MILES).
Know	Navigation	Nav	<ul style="list-style-type: none"> • Finding the way across terrain using a map, compass, and other means.
Do	NOD Use	NOD Use	<ul style="list-style-type: none"> • Effective employment of night observation devices including starlight scopes, night vision goggles, and similar devices.
Do	Obstacle employment	Obstacle employment	<ul style="list-style-type: none"> • Construction of physical impediments to tactical movement such as barbed wire, mines, and ditches, and their effective integration into an overall plan--usually in platoon defensive operations.
Know	OPORD	OPORD	<ul style="list-style-type: none"> • Operations Order: written or verbal instructions for tactical employment of military units in a preset format; OPLAN Operations Plan; same as OPORD but includes specified assumptions and requires a separate fragmentary order (FRAGO) for execution.
Do	PCI /PCC	PCI	<ul style="list-style-type: none"> • Pre Combat Inspections. Inspections performed by squad and team leaders prior to tactical operations to insure that all pre combat checks (PCC) are completed by squad members and all personnel and equipment are ready for the mission as specified.

Do	POW	POW	<ul style="list-style-type: none"> • Prisoner of War processing. Handling enemy soldiers whom have surrendered or been captured in combat. • Demonstrated sense of the relative importance and timeliness of the various tasks to be performed. • Competence. • An inspection or exploration of an area to gather military information.
Know	Priorities	Priorities	
Know	Proficiency	Proficiency	
Do	Reconnaissance	Recon	
Do	Resupply	Resupply	<ul style="list-style-type: none"> • Providing replenishment of food, fuel, ammunition, clothing and other equipment to the platoon. • Safety or protection from discovery or surprise by the enemy. • Military tasks to be performed to a specified standard by a soldier as part of a crew, team, squad or platoon. • Military tasks to be performed to a specified standard by a soldier alone. • Performance of tasks to an established minimum expectation. • The act of overseeing activities during implementation. • Positioning of soldiers and weapons on the ground so as to achieve a tactical advantage. • Effective implementation of troop leading procedures to fit the time available. • Troop Leading Procedures--a check-list of time-sensitive actions to be accomplished in a specified sequence by small unit leaders preparing for tactical operations. • Working out a scheme, program, or method beforehand to accomplish an objective; the mental process of preparing or implementing the details in an OPORD or OPLAN. • Achieving a tactical end state specified by higher authority by a military unit at a given place and time. • Practicing all or part of an operations plan or order ahead of the time specified for actual implementation. • Cooperative effort by members of the unit to achieve a common goal. • Standard Operating Procedures. Standing instructions for the conduct of certain routine activities to specified unit standards. • Numbers of assigned personnel relative to the total numbers authorizes by Army organizational documents.
Do	Security	Security	
Do	Skills, Collective	Skills, Collective	
Know	Skills, Individual	Skills, Individual	
Know	Standards	Standard	
Do	Supervision	Supervise	
Know	Terrain, Use of	Terrain, Use of	
Do	Time management	Time management	
Know	TLP	TLP	
Know	Planning	Plan	
Do	Mission Accomplishment	Mission	
Do	Rehearsal	Rehearsal	
Do	Teamwork	Teamwork	
Know	SOP	SOP	
Unclassified	Strength:	Strength:	

APPENDIX C

Charts & Graphs

Overview

In this Appendix, we provide a series of charts that can be used for presentations to groups, who do not have advanced statistical background. The charts presented here provide a general overview of our findings in terms of predicting JRTC performance, self-other ratings and general trends with the data.

Charts 1a – 1c

Provide self-other rating differences for the Platoon leader for Above, Peer, and Below ratings. These charts demonstrate that there were greater discrepancies between self-other ratings, as one moves from comparisons with Above to Peer to Below ratings.

Charts 2a – 2c

Provides self-other rating differences for the Platoon Sergeant for Above, Peer and Below ratings. These charts demonstrate that there were greater discrepancies between self-other ratings as one moves from comparisons with Above to Peer to Below ratings paralleling findings with Platoon Leaders.

Charts 3a – 3c

Compares the top and bottom 12 platoons on the 6 leadership scales as rated by the above peer and below raters demonstrating that the top platoon leaders were evaluated as more transformational, and active transactional if they were in the top performing platoons.

Charts 4a – 4c

Compares the top and bottom 12 platoons on the 6 leadership scales for Platoon Sergeants, as rated by the Above, Peer and Below raters. Paralleling the findings for Platoon leaders. Sergeants who were more transformational and transactional in their leadership led the top platoons.

Charts 5a – 5b

Compares the top and bottom platoons based on ratings provided from Below and Peers on the TMLQ Survey. Both charts show that there are relatively minor differences between the top and bottom JRTC platoons based on the TMLQ survey.

Chart 6

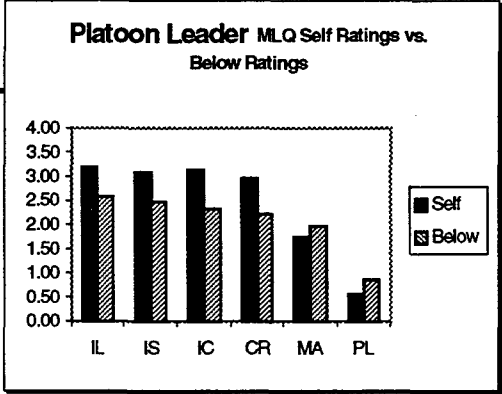
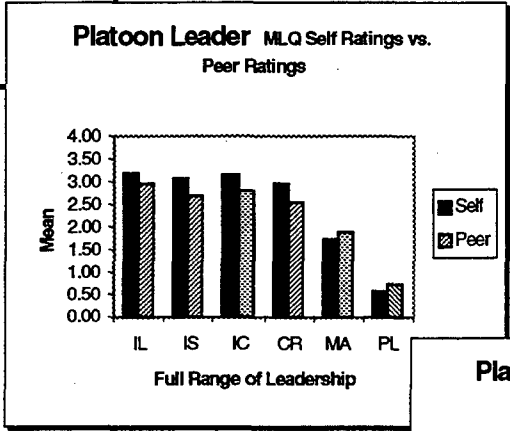
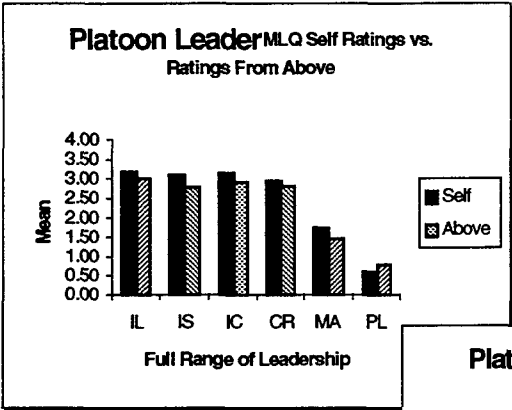
Presents self-other MLQ (combined rater groups) for the Platoon Leader and Sergeant. The values in this chart represent the differences score for self-other ratings. Overall, the leaders in the top platoons tended to have lower differences in terms of their own perceptions of leadership compared to the aggregated group of their raters.

Chart 7

Provides comparisons between Below and Peer evaluations of the Platoon's collective leadership and its Company culture. For the TMLQ, Peers on average evaluated their platoons as more transformational, transactional and less avoidant than did those below. Results for company culture were more mixed. In comparison to those below, peers rated the company culture as more intellectually stimulating, more transactional and less avoidant.

Leader

Charts 1a - 1c



Sergeant

Charts 2a - 2c

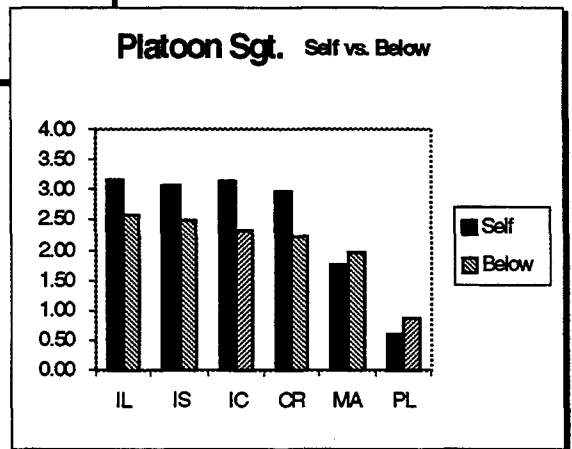
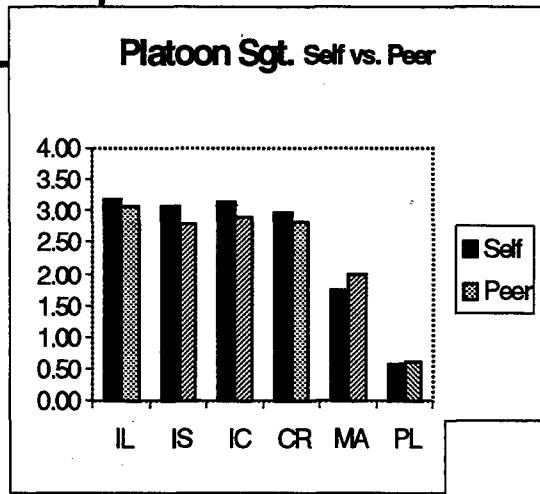
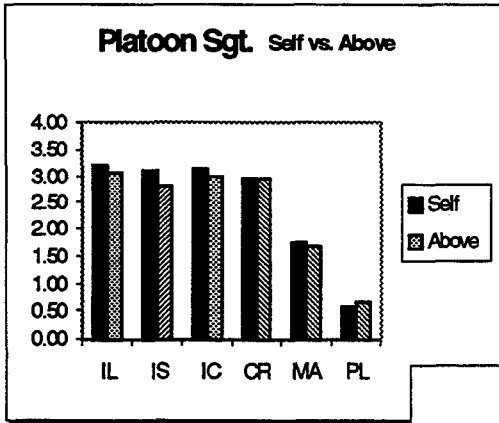
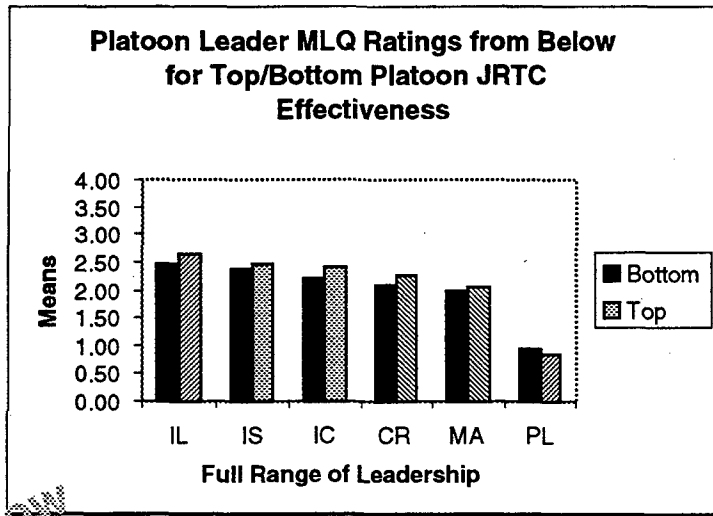
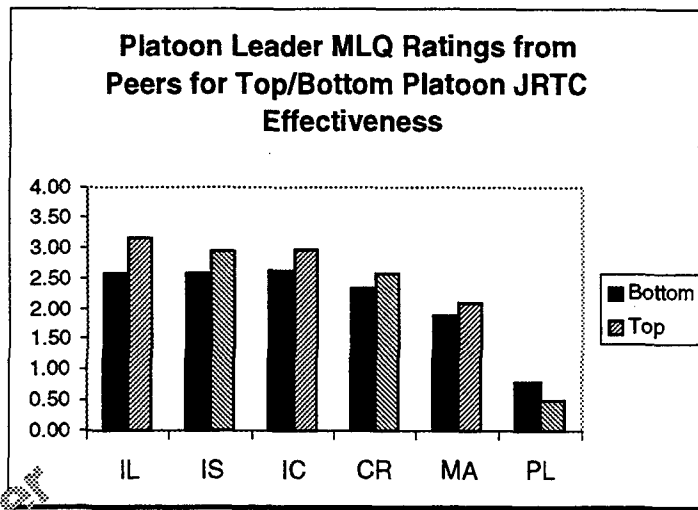


Chart 3a



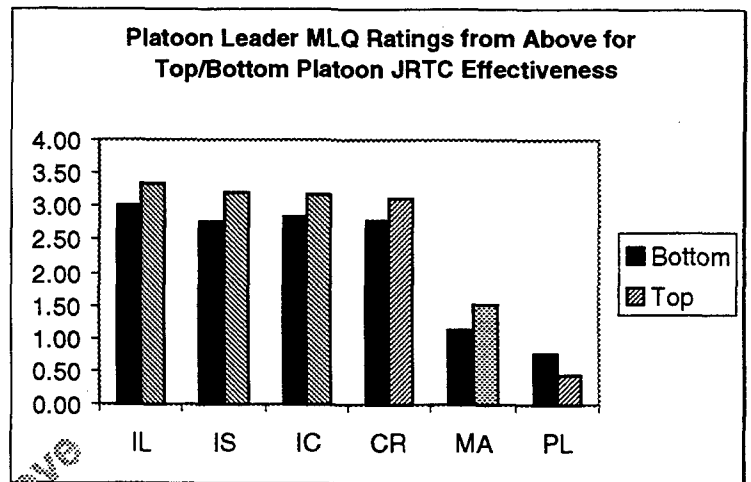
Below

Chart 3b



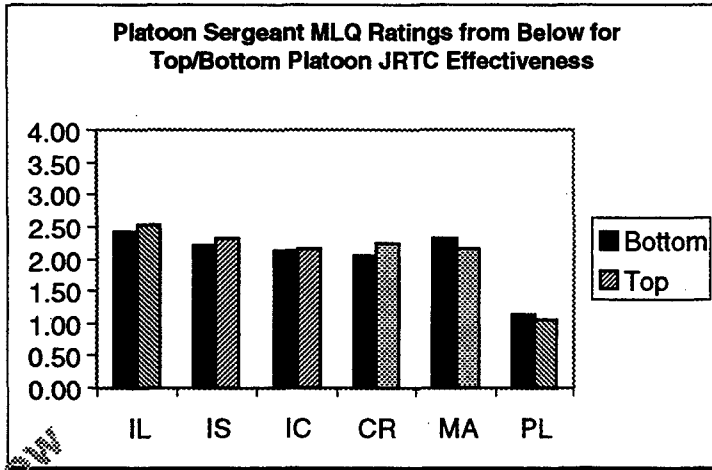
Peer

Chart 3c



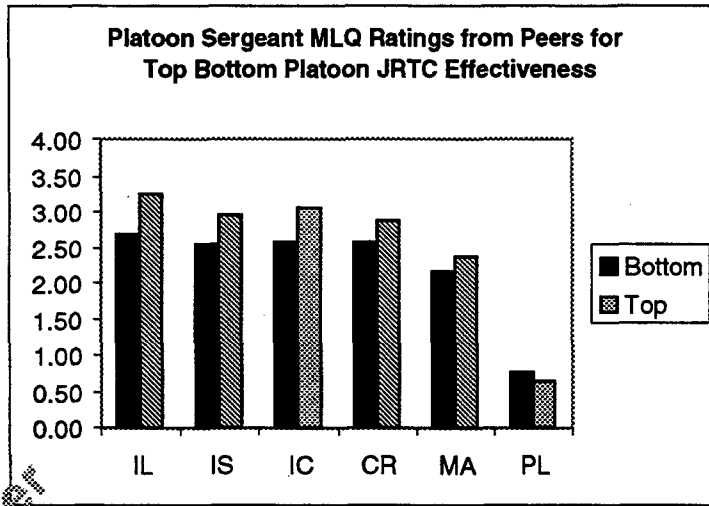
Above

Chart 4a



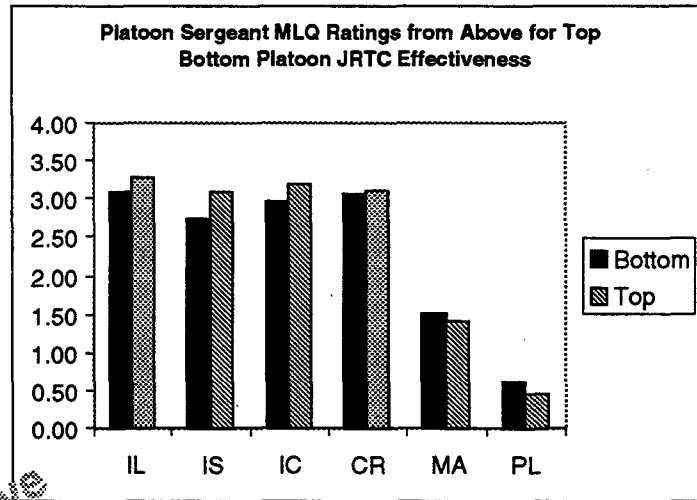
Below

Chart 4b



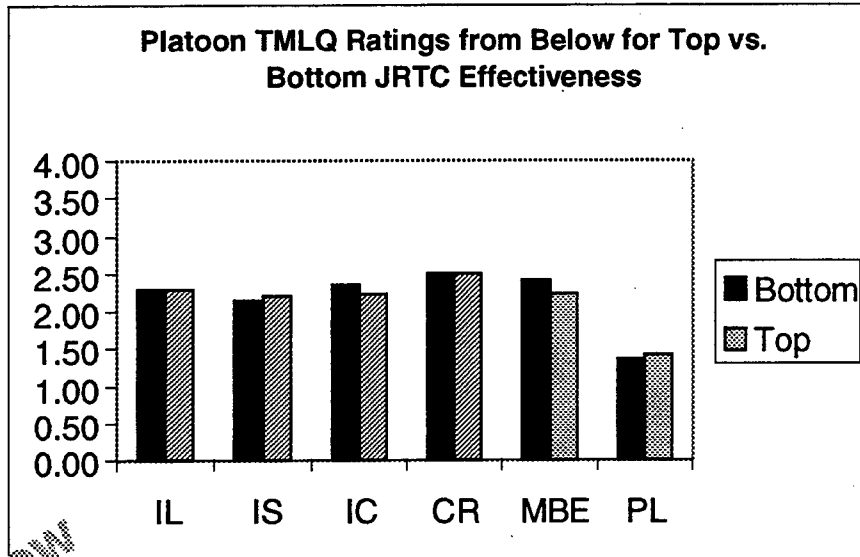
Peer

Chart 4c



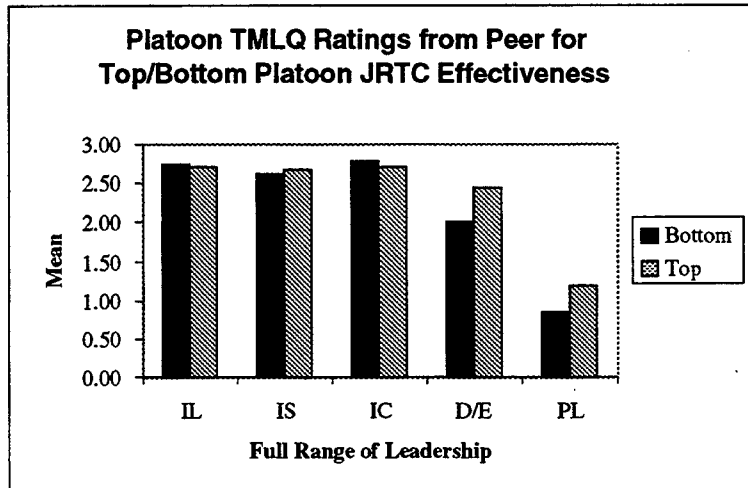
Above

Chart 5a



Below

Chart 5b



Peer

Chart 6

Mean Differences in Self and Other MLQ Ratings in the JRTC Top (n=12) and Bottom (n=12) Platoons

	PL		PSG	
	Bottom	Top	Bottom	Top
IIABM	.72	.32	.52	.13
IC	.44	.50	.96	-.08
IS	.85	.31	.90	.25
CR	.74	.36	.58	.23
MA	-.49	.13	.00	.10
MPLF	-.40	-.18	-.30	-.25

Note: n = 66 Self -other PL
 n = 65 Self -other SGT

Chart 7

Comparisons of Below and Peer Ratings for Platoon Team Leadership and Company Culture

	TMLQ Team				TMLQ Company			
	Below	Peer	T-value	T-test	Below	Peer	T-value	T-test
TII	2.32	2.84	4.81	0.001	2.35	2.49	1.35	NS
IS	2.17	2.55	4.56	0.001	2.09	2.37	2.75	0.006
IC	2.33	2.78	4.22	0.001	2.27	2.52	2.24	<i>0.025</i>
CR	2.49	2.93	4.40	0.001	2.46	2.76	2.97	0.003
MA	2.34	2.22	1.39	NS	2.42	2.4	0.18	NS
MPLF	1.34	0.96	4.15	0.001	1.38	1.04	3.23	0.001

Legend

- TII = Idealized
- IS = Intellectual Stimulation
- IC = Individualized Consideration
- CR = Contingent Reward
- MA = Management-by-Exception (Active)
- MPLF = Management-by-Exception (Passive) & Laissez-Faire