

Technical Report 1018

Tacit Knowledge in Military Leadership: Evidence From Officer Interviews

Joseph A. Horvath
Yale University

**George B. Forsythe, Patrick J. Sweeney,
Jeffrey A. McNally, and John Wattendorf**
U.S. Military Academy

Wendy M. Williams and Robert J. Sternberg
Yale University

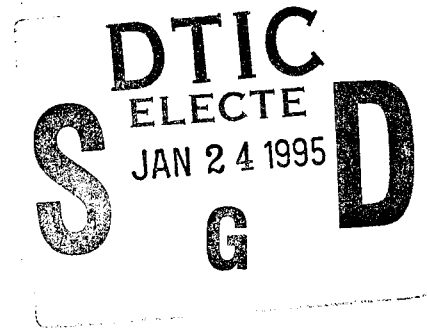
October 1994

19950118 061

DTIC QUALITY INSPECTED 3



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



U.S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

**A Field Operating Agency Under the Jurisdiction
of the Deputy Chief of Staff for Personnel**

**EDGAR M. JOHNSON
Director**

Research accomplished under contract for
the Department of the Army

Yale University

Technical review by

Kenneth L. Evans
Trueman R. Tremble, Jr.

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

NOTICES

DISTRIBUTION: Primary distribution of this report has been made by ARI. Please address correspondence concerning distribution of reports to: U.S. Army Research Institute for the Behavioral and Social Sciences, ATTN: PERI-POX, 5001 Eisenhower Ave., Alexandria, Virginia 22333-5600.

FINAL DISPOSITION: This report may be destroyed when it is no longer needed. Please do not return it to the U.S. Army Research Institute for the Behavioral and Social Sciences.

NOTE: The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

REPORT DOCUMENTATION PAGE

Form Approved
OAS No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 1994, October	3. REPORT TYPE AND DATES COVERED Final Apr 93 - Jul 94
----------------------------------	---------------------------------	-----------------------------------------------------------

4. TITLE AND SUBTITLE Tacit Knowledge in Military Leadership: Evidence from Officer Interviews	5. FUNDING NUMBERS MDA903-92-K-0125 62785A 790 1111 C03
------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------

6. AUTHOR(S) Horvath, Joseph A. (Yale University); Forsythe, George B.; Sweeney, Patrick J.; McNally, Jeffrey A.; <div style="text-align: right;">(Continued)</div>	
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Yale University, Department of Psychology P.O. Box 11A, Yale Station New Haven, CT 06520-7447	8. PERFORMING ORGANIZATION REPORT NUMBER ---
-----------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Research Institute for the Behavioral and Social Sciences ATTN: PERI-RM 5001 Eisenhower Avenue Alexandria, VA 22333-5600	10. SPONSORING / MONITORING AGENCY REPORT NUMBER ARI Technical Report 1018
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------

11. SUPPLEMENTARY NOTES
Contracting Officer's Representative, Trueman R. Tremble, Jr.

12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.	12b. DISTRIBUTION CODE ---
----------------------------------------------------------------------------------------------------------	-------------------------------

13. ABSTRACT (Maximum 200 words)
Eighty-one U.S. Army officers representing three organizational levels (platoon, company, and battalion) and all three branch categories were interviewed to elicit stories and observations revealing tacit knowledge for military leadership: the practical, action-oriented, leadership knowledge they had learned from practical experiences. Analyses of interview materials produced items of tacit knowledge for military leadership that were then cluster analyzed to identify groupings of knowledge. Results of the interviews are described with respect to patterns across leadership levels in the quantity, structure, and content of tacit knowledge for military leadership; implications of the patterns for development through experiential learning; and the functions of tacit knowledge in making concrete or augmenting Army leadership doctrine.

14. SUBJECT TERMS Tacit knowledge Leader knowledge Leadership effectiveness Job knowledge	15. NUMBER OF PAGES 123
	16. PRICE CODE ---

17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited
----------------------------------------------------------	-------------------------------------------------------------	------------------------------------------------------------	---------------------------------------------

6. AUTHORS (Continued)

Wattendorf, John (U.S. Military Academy); Williams, Wendy M.; and
Sternberg, Robert J. (Yale University)

Technical Report 1018

**Tacit Knowledge in Military Leadership:
Evidence From Officer Interviews**

Joseph A. Horvath
Yale University

**George B. Forsythe, Patrick J. Sweeney,
Jeffrey A. McNally, and John Wattendorf**
U.S. Military Academy

Wendy M. Williams and Robert J. Sternberg
Yale University

Leader Development Research Unit
Trueman R. Tremble, Jr., Chief

Manpower and Personnel Research Division
Zita M. Simutis, Director

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

Office, Deputy Chief of Staff for Personnel
Department of the Army

October 1994

Army Project Number
2Q162785A790

**Human Performance Effectiveness
and Simulation**

Approved for public release; distribution is unlimited.

FOREWORD

A primary mission of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is to enhance military readiness through programmatic research that supports the effective performance of Army leaders. To accomplish this, ARI and the United States Military Academy (USMA) established the Center for Leadership and Organizations Research (CLOR) at USMA to conduct research as part of ARI's research program in the areas of organizational leadership and leader development, education, and training. The research here is part of the ARI exploratory development research program formulated and undertaken by the CLOR.

This report is the second product of a project jointly undertaken by researchers at USMA and at Yale University. The overall objective of the project is to test the applicability of a theory of tacit knowledge to military leadership. Previous research has shown that tacit knowledge, acquired through practical on-the-job experiences, is related to executive and managerial effectiveness in civilian organizations.

This report elaborates a preliminary description of the tacit knowledge in military leadership found in military literature. The report presents and organizes specific items of tacit leadership knowledge that commissioned Army officers acquired through practical experiences. Subsequent research will verify further the obtained knowledge structure for use in measuring the tacit knowledge held by effective Army leaders.

If successful, this research will have practical implications for leader development. In particular, findings will identify and provide means for measuring knowledge acquired through the types of operational assignments and experiences the Army uses as part of its system for leader development.

EDGAR M. JOHNSON
Director

TACIT KNOWLEDGE IN MILITARY LEADERSHIP: EVIDENCE FROM OFFICER INTERVIEWS

EXECUTIVE SUMMARY

Requirement:

To support the identification, assessment, and teaching of tacit knowledge for military leadership by (1) reviewing theory and research on tacit knowledge in civilian and military settings, (2) reporting results of an interview study of U.S. Army officers' tacit knowledge for military leadership, and (3) discussing the implications of these results for identification and teaching of tacit knowledge for military leadership.

Procedure:

Eighty-one U.S. Army officers were interviewed to elicit practical action-oriented knowledge learned from leadership experience (i.e., tacit knowledge). Subjects were drawn from three branch categories (combat arms, combat support, and combat-service support) and from three organizational levels (battalion, company, and platoon). Subjects' leadership stories and observations were collected, culled, coded, and sorted by a panel of military-leadership experts. Coded and sorted leadership knowledge was cluster analyzed to reveal natural groupings in the data. Results of the interview study were used to support inferences concerning (1) similarities and differences across levels in the quantity, structure, and content of tacit knowledge for military leadership, and (2) the function of tacit knowledge for military leadership with respect to U.S. Army leadership doctrine.

Findings:

Analysis of the interview data revealed differences, across levels, in the quantity, structure, and content of tacit knowledge for military leadership. First, the amount of tacit knowledge obtained per subject increased with level. Second, tacit knowledge obtained from battalion commanders was judged to be more complex in its structure than that for company commanders and platoon leaders. Third, categories of tacit knowledge varied across levels in their identity, relative frequency, and composition. The pattern of similarities and differences across levels presented a coherent picture of the milestones in experiential learning that face leaders at each level. For platoon leaders, these milestones included self-management and the establishment of credibility with others. For company commanders, these milestones included balancing company and battalion-level interests. For battalion commanders, these milestones

included managing organizational change and communication. An analysis of tacit knowledge for military leadership in terms of its function revealed important areas of leadership knowledge not addressed well by Army doctrine. These areas included the exercise of influence up through the chain of command and the transmission of unpopular directives.

Utilization of Findings:

The results of the interview study provide support for future leader-development efforts. The analysis of tacit knowledge for military leadership by level has identified lessons of experience that appear to be of particular importance for leader development at each level. The analysis of tacit knowledge by function has identified areas of leadership knowledge that Army doctrine fails to address adequately. Finally, the interview study has provided a corpus of tacit-knowledge items and leadership stories out of which scenario-based training and testing materials may be constructed.

TACIT KNOWLEDGE IN MILITARY LEADERSHIP: EVIDENCE FROM OFFICER INTERVIEWS

CONTENTS

	Page
INTRODUCTION	1
TACIT KNOWLEDGE	3
Tacit Knowledge Is Procedural	3
Tacit Knowledge Is Practically Useful	4
Tacit Knowledge Is Acquired Without Direct Help From Others	5
What Sort of Concept Is Tacit Knowledge?	5
WHAT TACIT KNOWLEDGE IS NOT	6
Tacit Knowledge Is Not Synonymous With Knowledge Acquired in Informal Settings	6
Tacit Knowledge Is Not a Proxy for General Intelligence	6
Tacit Knowledge Is Not Sufficient for Effective Performance	7
RESEARCH ON TACIT KNOWLEDGE	7
Research in Civilian Settings	7
Research in a Military Setting	9
INTERVIEW METHODS	11
Acquisition of Tacit Knowledge	11
Identification and Coding of Tacit Knowledge	14
Analysis of Tacit Knowledge	17
Tacit-Knowledge Acquisition and Expert-System Development	19
RESULTS AND DISCUSSION	20
Quantity of Tacit Knowledge	20
Structure of Tacit Knowledge	21
Comparisons Among Levels	22
Platoon Leaders	29

CONTENTS (Continued)

	Page
Company Commanders	30
Battalion Commanders	32
Comparison With Literature Review	34
Relationship to Army Leadership Doctrine	38
ASSESSMENT AND TEACHING OF TACIT KNOWLEDGE	40
CONCLUSION	42
REFERENCES	45
APPENDIX A. INTERVIEW PROTOCOL	A-1
B. SUMMARY STATISTICS FOR SORT DATA	B-1
C. CLUSTER-ANALYSIS OUTPUT	C-1
D. TACIT-KNOWLEDGE ITEMS	D-1

LIST OF TABLES

Table	1. The Structure of Tacit Knowledge for Military Leadership	10
	2. Composition of the Sample of Army Officers by Organizational Level, Branch Category, and Gender	12
	3. Mean Number of Tacit-Knowledge Items Obtained per Subject by Organizational Level	21
	4. Percentage of Interviews that Yielded Tacit Knowledge by Organizational Level	21
	5. Median Number of Tacit-Knowledge Items Acquired in Interviews Yielding at Least One Item by Organizational Level	21
	6. Categories of Tacit Knowledge for Battalion Commanders	23

CONTENTS (Continued)

		Page
Table	7. Categories of Tacit Knowledge for Company Commanders	23
	8. Categories of Tacit Knowledge for Platoon Leaders	24
	9. Tacit Knowledge for Military Leadership: Integrated Framework	35
	10. Percent of Tacit-Knowledge Items by Function Classification and Organizational Level	38

LIST OF FIGURES

Figure	1. Proportion of tacit-knowledge items obtained as a function of category and level for categories common to three levels	24
	2. Proportion of tacit-knowledge items obtained as a function of category and level for categories common to two levels and categories unique to one level	25

TACIT KNOWLEDGE IN MILITARY LEADERSHIP: EVIDENCE FROM OFFICER INTERVIEWS

Introduction

What do leaders know about how to lead? This question lies at the heart of our long-term effort to understand and optimize the process of learning through experience for military leaders. In this paper, we report the results of an extensive set of interviews with U.S. Army officers. The goal of these interviews was to elicit knowledge about the practice of leadership—knowledge grounded in the personal experiences of the officers we interviewed. Consider the following example.

As a battalion commander in Army intelligence reflected on his experience as a commander, he described to us a particularly vexing problem he had faced. The problem was that of power structures, based on technical expertise, that develop outside the chain of command. He explained that, in the highly technical area of intelligence gathering, soldiers often receive extensive (and expensive) training in signal technology, computing, or foreign languages. In addition, it is not uncommon for specialists with needed expertise to remain in the same job through many tours of duty. One problem this creates, as the battalion commander described it, is that groups of highly expert soldiers become indispensable to a unit's operation and, thus, may come to wield excessive unofficial power.

The battalion commander had learned that disassembling expert power structures without compromising mission readiness is a complicated and delicate undertaking. He described various factors to be considered in designing a plan of action: availability and skill level of replacements, time remaining in the current tour of a troublesome expert, and "choke points" in the flow of work that enable individual soldiers to wield undue power. He also described a range of possible actions for eliminating the expert power structure: accelerated development of younger soldiers, selective bars to reassignment and/or reenlistment, and work redesign to bypass troublesome experts. In short, this battalion commander knew a great deal about detecting and solving a subtle but important class of organizational problems—his command proved to be an important school of leadership that left him a wiser leader.

Surprisingly, the question of what leaders know has been largely neglected in leadership research and theorizing. Indeed, less than a single page in Bass and Stogdill's monumental Handbook of Leadership is devoted to a discussion of what leaders know (Bass, 1988). Published reviews, as well as our own search of the literature, confirm the impression that what leaders know about leadership has not been explicitly or systematically studied (Hollander, 1985; Yukl, 1989). The lessons of experience have been studied in domains other than leadership, however.

In an extensive program of research, Sternberg and colleagues have examined the role of tacit knowledge in practically intelligent behavior. By tacit knowledge, we mean action-oriented knowledge, acquired without direct help from others, that allows individuals to achieve goals they personally value. Acquiring and using such

knowledge appears to be uniquely important to competent performance in real-world endeavors. The tacit-knowledge research approach has been applied in domains as diverse as bank management, research psychology, and primary education, and it has proven successful in understanding and accelerating the lessons of experience (Sternberg & Wagner, 1993; Wagner & Sternberg, 1985; Wagner, 1987; Sternberg, Wagner, & Okagaki, 1993; Williams & Sternberg, in preparation).

We are currently applying the tacit-knowledge approach to military leadership--identifying, assessing and teaching tacit knowledge for military leadership. We believe that our approach addresses a need for new methods in leadership research generally. During the last twenty years, the field has been dominated by multifactor or contingency models that seek to explain leadership outcomes in terms of the interaction between various leader characteristics or behaviors and a wide range of situational variables (e.g., Fiedler, 1967; House, 1971; Vroom & Yetton, 1974; Yukl, 1971). For example, Yukl's (1971) multiple-linkage model described how situational factors such as subordinate skill levels, the amount of resources at a leader's disposal, and group cohesiveness determine whether leadership based on the initiation of structure will be more or less effective than leadership based on consideration. Another influential theory (Vroom & Yetton, 1974) identified situational variables (i.e., leader knowledge, subordinate commitment, mutual trust) that determine whether directive or participative leadership styles will lead to better outcomes.

According to Bass (1988), the complexity of contingency models has outpaced at times the capacity to test them empirically. He describes problems of measurement, effect size, and replication of lower order effects (Bass, 1988). As a consequence, Bass and others (e.g., Bresnan, Beardsworth & Keil, 1988, cited in Bass, 1988; McCall & Lombardo, 1978) have argued for a greater use of idiographic and qualitative methods in leadership research. They have suggested that such methods are better suited to uncovering and understanding the wide range of contextual factors that influence the practice of leadership.

We are in agreement with the argument for qualitative methods and it accords well with our tacit-knowledge approach to understanding leadership. In the study reported here, we looked at context-behavior relationships in military leadership practice. Our approach was idiographic and our method qualitative. By asking leaders what they had learned about effective leadership, and by viewing what they told us through the lens of tacit knowledge, we sought to ground our conclusions, as much as possible, in the everyday experience of our subjects. In addition, by extending the tacit-knowledge approach to a new domain (leadership) and a new setting (military organizations), we sought to increase our understanding of tacit knowledge as a component of practical intelligence.

In this paper, we report the results of an extensive set of interviews with U.S. Army officers on active duty. We begin by briefly describing the theoretical and empirical background for our approach. We then describe the methods by which we acquired, identified, coded, and analyzed tacit knowledge for military leadership. We next report the results of our analysis. In discussing our results, we focus on four

issues: (a) the content and structure of the tacit knowledge we obtained and how it varied across organizational levels, (b) the relationship between the tacit knowledge we obtained in interviews and earlier evidence from the military-practice literature, (c) the function of tacit knowledge with respect to Army leadership doctrine, and (d) what the interview study tells us about how to measure and teach tacit knowledge for military leadership.¹

Tacit Knowledge

Tacit knowledge is a type of knowledge that previous research has shown to be useful in predicting performance in real-world endeavors (e.g., Wagner & Sternberg, 1985). This type of knowledge has three characteristic features. First, it is procedural in structure. Second, it is relevant to the attainment of goals that people value. Third, it is acquired with little help from others. Knowledge with these properties is called tacit because it often must be inferred from actions or statements. This burden of inference falls both on the individuals who seek to acquire tacit knowledge and on the researchers who wish to study these individuals.

The goal of this section is to elaborate on the above description in order to indicate, as clearly as possible, what distinguishes tacit knowledge from knowledge in general.² To accomplish this goal, we consider the structure of tacit knowledge, the conditions of its use, and the conditions under which it is acquired. Please note that, although we have used the term "tacit" to refer to this type of knowledge, the intension or content of the tacit knowledge concept is not fully captured by the meaning of the lexical item "tacit." Tacit knowledge is typically implied rather than stated explicitly—but there is more to the tacit-knowledge concept than this most salient feature.

Tacit Knowledge Is Procedural

Tacit knowledge is intimately related to action. It takes the form of "knowing how" rather than "knowing that." This sort of knowledge (knowing how) is called procedural knowledge, and it is contrasted with declarative knowledge (knowing that). More precisely, procedural knowledge is knowledge that is represented in a way that commits it to a particular use or set of uses (Winograd, 1975). Procedural knowledge can be represented, formally, as condition-action pairs of the general form:

IF <antecedent condition> THEN <consequent action>

For example, the knowledge of how to respond to a red traffic light could be represented as:

¹ This paper includes only samples of the tacit knowledge acquired in the interview study. A complete listing of the tacit-knowledge items acquired in the study is attached as Appendix D.

²Portions of this discussion are taken from Horvath et al., (in press).

IF <light is red> THEN <stop>

Of course, the specification of the conditions and actions that make up proceduralized knowledge may be quite complex. In fact, much of the tacit knowledge that we have observed seems to take the form of complex, multicondition rules for how to pursue particular goals in particular situations. For example, knowledge about getting along with one's superior might be represented in a form with a compound condition:

*IF <you need to deliver bad news>
AND
IF <it is Monday morning>
AND
IF <the boss's golf game was rained out the day before>
AND
IF <his staff seems to be "walking on eggs">
THEN <wait until later>*

As this example suggests, tacit knowledge is always wedded to particular uses in particular situations, or classes of situations. We have found that individuals who are queried about their knowledge will often begin by articulating general rules in roughly declarative form (e.g., "a good leader needs to know people"). When such general statements are probed, however, they often reveal themselves to be abstract or summary representations for a family of complexly specified procedural rules (e.g., rules about how to judge people accurately for a variety of purposes and under a variety of circumstances). This, we believe, is the characteristic structure of tacit knowledge.

Tacit Knowledge Is Practically Useful

Tacit knowledge is instrumental to the attainment of goals people value. The more highly valued a goal is, and the more directly the knowledge supports the attainment of the goal, the more useful is the knowledge. For example, knowledge about how to make subordinates feel valued is practically useful for those officers who value that outcome, but not practically useful for officers who are unconcerned with making their subordinates feel valued.

We do not believe that practically useful knowledge must be acquired in any particular context or forum. Useful knowledge is, of course, acquired in classrooms, from experience in duty assignments, through mentoring relationships, and in self-study. We distinguish practically useful knowledge not from formally acquired knowledge but, rather, from knowledge (however acquired) that is not relevant to practical goals an individual values.

Tacit Knowledge Is Acquired Without Direct Help From Others

Tacit knowledge is acquired on one's own. It is knowledge that is unspoken, underemphasized, or poorly conveyed relative to its importance for practical success. Tacit knowledge is acquired under conditions of minimal environmental support. By environmental support, we mean either people or media that help the individual to acquire knowledge.

When people or media support acquisition of knowledge, they facilitate three knowledge acquisition components: selective encoding, selective combination, and selective comparison (Sternberg, 1988). That is, when an individual is helped to distinguish more from less important information, is helped to combine elements of knowledge in useful ways, and is helped to identify knowledge in memory that may be useful in the present, then we say that the individual has been supported in acquiring this knowledge. To the extent that this help is absent, we say that the individual has not been supported.

What Sort of Concept Is Tacit Knowledge?

Having described the characteristic features of tacit knowledge, we need to say something about tacit knowledge as a theoretical concept. As mentioned above, tacit knowledge is a concept developed in empirical studies of practical intelligence. Sternberg and colleagues used the term "tacit knowledge" to refer to a type of knowledge, the possession of which, they found, distinguished practically successful from less practically successful individuals. Tacit knowledge is thus an ostensive term, one that "points to" an important type of knowledge.

Tacit knowledge is a natural and not a nominal or classical concept (Smith & Medin, 1981). As such, it is held together by the resemblance of tacit-knowledge items to one another and not by a set of individually necessary and jointly sufficient features. Note that this lack of necessary and sufficient features does not mean that tacit knowledge is an incoherent or meaningless concept. Two people may be unable to generate the critical features that all items of furniture (and no items of non-furniture) share, but they will still be able to agree that furniture exists and that a coffee table is furniture and an oil painting is not.

Because tacit knowledge is a natural concept, we should not expect that judgments about what is and is not tacit knowledge will be "all or none." Rather, judgments should depend on an item's strength of resemblance to the concept. Thus, some knowledge will seem to be a particularly clear example of tacit knowledge and other knowledge will seem marginal. For marginal items, individuals may disagree about whether or not the item is a valid instance of the tacit knowledge (just as individuals may differ over whether or not a hammock is a piece of furniture). Given acceptable levels of agreement among judges, however, the "tacitness" of knowledge can be determined with some confidence.

What Tacit Knowledge Is Not

Having said what tacit knowledge is, and what sort of concept we believe it to be, it is helpful to distinguish tacit knowledge from related concepts.

Tacit Knowledge Is Not Synonymous With Knowledge Acquired in Informal Settings

In previous writings on tacit knowledge, the construct has frequently been contrasted with formally-acquired or academic knowledge. This contrast has been drawn because, typically, tacit knowledge is acquired outside the classroom. However, the relationship between tacitness and the setting in which knowledge is acquired is not a strictly necessary one. In other words, what makes an item of knowledge tacit is not the context or venue in which it is acquired (e.g., classroom, job site, etc.) but rather the level of support for knowledge acquisition that the environment provides. In practice, this criterion often means that knowledge acquired "on the job" is more likely to be classified as tacit than is knowledge acquired in the classroom. Thus, tacit knowledge is typically but not necessarily acquired in informal settings.

Similarly, tacit knowledge is not synonymous with job knowledge. Rather, we use the term tacit knowledge to refer to a natural category or subset of job knowledge. This subset contains knowledge that has certain characteristic features (enumerated above), as well as an empirically demonstrated relationship to job performance (described in a later section).

Tacit Knowledge Is Not a Proxy for General Intelligence

Measures of tacit knowledge are not proxies for measures of general intelligence. Neither are they proxies for personality or cognitive style. Although these resources may support the acquisition and use of tacit knowledge in important ways, tacit knowledge is not reducible to any one of them. Research by Sternberg, Wagner, and others (see Sternberg & Wagner, 1993) shows that the predictive value of tacit knowledge with respect to job performance is not due simply to correlations of measures of general intelligence, personality, or cognitive style with scores on tacit-knowledge inventories. In general, correlations between tacit knowledge and conventional ability measures are trivially low. When scores on a tacit-knowledge inventory for management were entered into a hierarchical regression analysis after IQ scores, the incremental contribution to the prediction of performance in a managerial simulation was .32. By contrast, the incremental contribution of adding IQ scores to tacit knowledge was .09. Similarly, tacit-knowledge scores have been shown to be significantly better predictors of job performance than have measures of personality or cognitive style. In summary, there is good reason to believe that tacit knowledge is an important dimension of practical intelligence that conventional ability, personality, and style assessments fail to measure adequately.

Tacit Knowledge Is Not Sufficient for Effective Performance

Finally, tacit knowledge is not sufficient for effective performance. Effective performance usually requires general intelligence in (at least) the normative range, motivation to succeed, nontacit domain knowledge, and many other resources. Our approach does not deny the importance of these factors, but rather attempts to supplement them and improve upon conventional approaches to understanding, predicting, and improving conventional performance in real-world settings.

Research on Tacit Knowledge

In a wide-ranging program of research, Sternberg and colleagues have used the tacit-knowledge construct to elucidate practical intelligence and performance in domains as diverse as high-technology manufacturing, bank management, academic psychology, and sales. Most recently, in an earlier phase of the current research project, the tacit-knowledge approach was applied to the domain of leadership. In what follows, we briefly recount major findings of the tacit-knowledge research program.

Research in Civilian Settings

Tacit knowledge can be effectively measured (Wagner, 1987; Wagner & Sternberg, 1985; Williams & Sternberg, in press). The measurement instruments employed in this research typically consisted of a set of work-related situations, each with between five and twenty response items. Each situation posed a problem for the subject to solve, and the subject indicated how he or she would solve the problem by rating the various response items. For example, in a hypothetical situation presented to a business manager, a subordinate whom the manager does not know well has come to him for advice on how to succeed in business. The manager is asked to rate each of several factors (usually on a 1 = low to 9 = high scale) according to its importance for succeeding in the company. Examples of factors might include (a) setting priorities that reflect the importance of each task, (b) trying always to work on what you are in the mood to do, and (c) doing routine tasks early in the day to make sure you get them done. The set of ratings the subject generates for all the work-related situations is the measure of his or her tacit knowledge for that domain. The procedure for scoring tacit-knowledge tests has undergone evolution across several studies, and a detailed description is beyond the scope of this article. In general, tacit-knowledge tests have been scored in one of three ways: (a) by correlating subjects' responses with an index of group membership (i.e., expert, intermediate, novice), (b) by computing the difference between subjects' responses and an expert prototype, or (c) by judging the degree to which subjects' responses conform to professional "rules of thumb."

Tacit knowledge has been found to increase, on average, with job experience, but it is not a direct function of job experience (Wagner, 1987; Wagner, Rashotte, & Sternberg, cited in Sternberg, Wagner, & Okagaki, 1993). What matters most is not

how much experience a person has, but how well the person utilizes the experience to acquire and use tacit knowledge. As mentioned above, tacit knowledge is not a fancy proxy for IQ—it almost never correlates significantly with IQ. In the one case when an aspect of tacit knowledge did correlate significantly with IQ, that aspect was a particularly poor predictor of job performance (Wagner, Rashotte, & Sternberg, cited in Sternberg, Wagner, & Okagaki, 1993). Tacit knowledge also correlates trivially with other conventionally measured abilities, in particular, those measured on the Armed Services Vocational Battery. Tacit knowledge is not a proxy for measures of personality, cognitive style, or interpersonal orientation. When tests of these attributes were given to managers, and hierarchical regression was used to predict performance on managerial simulations, tacit knowledge of management was the best single predictor of performance on the simulation (Wagner & Sternberg, cited in Sternberg, Wagner, & Okagaki, 1993). The contribution of tacit knowledge to prediction was still significant after holding all other variables constant.

Although tacit-knowledge measures do not correlate significantly with measures of potentially confounding constructs, subscores within a domain (e.g., tacit knowledge of self, others, or tasks) do correlate moderately with one another (about .3), suggesting that there may be a general factor underlying tacit knowledge, within a domain, that is different from the general factor measured by traditional psychometric tests of intelligence (Wagner, 1987; Wagner & Sternberg, 1985; Williams & Sternberg, in press). Tacit-knowledge scores also correlate across domains (at about the .5 to .6 level), suggesting that there is at least some commonality in the tacit knowledge required for success in different professions (Wagner, 1987). The tacit knowledge required for success in any setting has been found to depend upon the nature of the institution and the level of advancement one has reached within that institution.

Tacit knowledge predicts job performance moderately well, correlating about .3 to .5 with measures of rated prestige of business or institution, salary, performance appraisal ratings, number of publications, etc. (Wagner, 1987; Wagner & Sternberg, 1985; Wagner, Rashotte, & Sternberg, cited in Sternberg, Wagner, & Okagaki, 1993; Williams & Sternberg, in press). These correlations, uncorrected for attenuation or restriction of range, compare favorably with those obtained for IQ within the range of abilities we have tested. Tacit knowledge also predicts both academic performance and self-reported adjustment in a college setting (Williams & Sternberg, cited in Sternberg, Wagner, & Okagaki, 1993). Its prediction of the former is about as good as that of conventional academic-ability tests (with a multiple R of about .6), whereas its prediction of adjustment is better (with a multiple R of about .8).

Acquisition of tacit knowledge appears to require selective encoding, whereby one decides on what aspects of the environment are relevant to one's purposes; selective combination, whereby one decides how to integrate disparate pieces of tacit knowledge; and selective comparison, whereby one decides how to bring tacit knowledge from past experiences to bear on present challenges (Sternberg, Wagner, & Okagaki, 1993). Finally, tacit knowledge can be taught, although when it is taught it may cease to be tacit. Tacit knowledge is best taught through modeling and simulation, rather than through direct instruction (Sternberg & Wagner, 1993).

In summary, a program of empirical research has shown that tacit knowledge can be measured, that it increases with experience, and that it can predict job performance, perhaps better than IQ, even when job experience is held constant. This research has shown that different aspects of tacit knowledge are correlated among themselves, that tacit knowledge provides a significant increment of prediction above and beyond other psychological measures, and that tacit knowledge can be taught.

Research in a Military Setting

As stated above, the objective of the current program of research is to extend the tacit-knowledge approach to the domain of leadership and to the Army setting. A recent review of the practitioner or "trade" literature on Army leadership provided preliminary evidence concerning the structure and content of tacit knowledge for leadership in the Army setting (Horvath et al., in press). This review raised questions about how tacit knowledge is distributed across aspects of the military leader's role, about how tacit knowledge varies across organizational levels, and about how tacit knowledge is related to Army doctrine. Because these questions are important to our understanding of tacit knowledge for military leadership, as well as to the development of assessment and training materials, we restate them briefly in the remainder of this section. A more detailed treatment is provided in Horvath et al. (in press).

An objective of the literature review was to identify substantive tacit knowledge for military leadership through a review of civilian and military literatures on leadership. That is, we sought a preliminary answer to the question of what military leaders have learned, on their own, about how to be effective leaders. In reviewing the literature, we applied the three above-mentioned criteria (i.e., procedural structure, practical usefulness, and low environmental support) in deciding whether or not a given piece of knowledge would be classified as tacit. We also applied a fourth criterion for distinguishing tacit knowledge for effective military leadership from tacit knowledge in general. According to this criterion, we included only tacit knowledge about how an incumbent of a supervisory role in a military organization can influence others to accomplish the legitimate goals of that organization.

The most productive source of knowledge that met our criteria was found to be the military practice or "trade" literature--branch-specific journals and "lessons-learned" publications from the service and war colleges. The knowledge obtained from these sources was culled, sorted, and analyzed by both military and civilian members of the research team. The result was the structure of tacit knowledge for military leadership shown in Table 1. This table shows the categories and subcategories of tacit knowledge for military leadership, along with an example item of tacit knowledge from each subcategory. Note that, for ease of expression, example items are represented in the form of leadership rules or maxims rather than in the form of condition-action pairings.

Table 1
The Structure of Tacit Knowledge for Military Leadership

INTRAPERSONAL TACIT KNOWLEDGE

Managing the Self

Look for opportunities to remain silent

Seeking Challenges and Control

Treat role ambiguity as an opportunity to increase your responsibility

INTERPERSONAL TACIT KNOWLEDGE

Influencing and Controlling Others

Don't think out loud in front of soldiers

Supporting and Cooperating with Others

When you refer a soldier to another source for help, make the phone call to set up the appointment yourself

Learning from Others

Don't be afraid to learn from, or along with, your subordinates

ORGANIZATIONAL TACIT KNOWLEDGE

Solving Organizational Problems

Evaluate training by phase and not by time

Note. Table provides examples only. See Horvath et al., (in press) for a complete listing of items.

The uneven distribution of tacit-knowledge items across the category structure (not reflected in Table 1) raised questions about the actual distribution of tacit knowledge across aspects of the military leader's role. Specifically, we found less emphasis on self-management, learning from others, and envisioning the future than previous work (on business executives) had led us to expect (Williams & Sternberg, in press). Does this unexpected finding tell us something about leadership in the military setting? That is, are leadership functions such as managing the self and envisioning the future less important for military leaders, at the levels under study, than they are for civilian managers? Alternatively, is knowledge pertaining to these functions simply less likely to be included in the practice literature on which our review relied? This is one of the questions we sought to answer through officer interviews.

A second question raised by the literature review concerned differences in tacit knowledge across organizational levels. Contrary to expectations, we found that most of the tacit knowledge in the practice literature was quite general with respect to organizational level. This generality was observed for all subcategories of tacit knowledge except for knowledge about solving organizational problems. This finding makes sense when one considers that knowledge about solving organizational problems should vary, depending upon the size of the unit under

one's command and, thus, depending upon one's level in the organization. Again, however, this finding might easily have been an artifact of the review process. For example, it might reasonably be due to the ranks at which articles in the practice literature are targeted. Again, an independent source of evidence, such as that provided by an interview study, is needed before a firm conclusion can be reached.

Finally, the literature review raised questions about the function of tacit knowledge for military leadership in relation to Army leadership doctrine. Specifically, we found evidence that tacit knowledge serves to (a) cover areas of knowledge that are important to successful leadership but not addressed in doctrine, (b) instantiate and guide the application of the relatively general prescriptions in Army leadership doctrine, and (c) specify boundary conditions and contraindications for the application of leadership doctrine. One goal of the interview study was to provide additional evidence regarding the function of tacit knowledge for military leadership.

In summary, our review of the military practice literature raised a number of questions that we sought to answer in the interview study. We will return to these questions later in this paper, after we have reported the results of the interview study. We now turn to a discussion of the methods used in the interview study.

Interview Methods

The interview study took place in three phases: tacit-knowledge acquisition, tacit-knowledge coding, and tacit-knowledge analysis. During the acquisition phase, we planned and conducted a set of 81 interviews with a representative sample of Army leaders. During the coding phase, we identified knowledge in the interview data that met our stated criteria for tacit knowledge for military leadership. During the analysis phase, we performed hierarchical cluster analysis on the coded and sorted knowledge. In this section, we describe our methods in detail, treating each of the three phases of the study separately.

Acquisition of Tacit Knowledge

We interviewed officers from three categories of branches of the U.S. Army and at three levels within the organizational hierarchy or "chain of command." The three categories of branches of the Army were combat arms, combat support, and combat-service support. The three levels were that of battalion commander, company commander, and platoon leader.³

Table 2 shows the number of officers interviewed at each combination of rank/level and category of branch. Sample sizes are shown for male and female officers separately.

³ A description of the U.S. Army chain of command is provided in Headquarters, Department of the Army (1990b).

Table 2.
Composition of the Sample of Army Officers by Organizational Level, Branch
Category, and Gender

	Combat Arms	Combat Support	Combat-Service Support
Battalion	n = 0 (Female) n = 9 (Male)	n = 0 (Female) n = 4 (Male)	n = 1 (Female) n = 5 (Male)
Company	n = 0 (Female) n = 11 (Male)	n = 0 (Female) n = 8 (Male)	n = 5 (Female) n = 8 (Male)
Platoon	n = 0 (Female) n = 12 (Male)	n = 2 (Female) n = 6 (Male)	n = 0 (Female) n = 10 (Male)

Note. Proportion of females in the sample (.09) is comparable to that in the population of U.S. Army officers (approximately .10).

The interviews were conducted by members of the research team working in pairs. For each interview, one member of the research team acted as the lead interviewer and the other acted as a notetaker. The lead interviewer briefed the subject (as described below) and directed the interview. The notetaker took written notes and played a secondary role in questioning the subject. Members of the research team alternated in taking the lead and the notetaker roles.⁴

One of the interviewers was a civilian researcher (the first author of this report). The other four interviewers were U.S. Army officers (the second, third, fourth, and fifth authors of this report). At the time interviews were conducted, these military interviewers held the ranks of colonel, captain, lieutenant colonel, and colonel, respectively. They conducted interviews in uniform and introduced themselves as members of the Department of Behavioral Sciences and Leadership at the United States Military Academy (USMA). Because of the composition of the interview team, rank differences between interviewer and subject were unavoidable. When such differences existed, they favored the interviewer in all cases. That is, when the lead interviewer was an Army officer (approximately 80% of the time) he equaled or exceeded the subject in rank. In order to minimize the effect of these rank differences, interviewers adopted an informal and nonjudgmental demeanor and explicitly sought to put subjects at ease, as described below.

Access to active-duty units was provided by brigade and/or battalion commanders. These commanders were asked, by USMA members of the research team, to provide a representative sample of officers at each of the specified levels for

⁴ Three interviews were conducted by a single interviewer acting as both lead interviewer and notetaker.

a one-hour interview. Selected officers reported to a location on post (usually an empty classroom) where they were greeted by two interviewers. The interviewers introduced themselves to the subject (as members of either the Department of Behavioral Sciences and Leadership at West Point or of the Department of Psychology at Yale University) and asked the subject what his or her current position was and how many months he or she had been in that position. The lead interviewer then explained the interview study to the subject, according to an interview protocol (attached as Appendix A).

The lead interviewer told the subject that the purpose of the interview was to learn about the leadership experiences of U.S. Army officers. He assured the subject of complete anonymity and confidentiality. The interviewer told the subject that the purpose of the interviews was not to evaluate the subject or compare him or her to other officers. The interviewer told the subject that the purpose of the interview was not to compare West Point graduates to officers from other commissioning sources.⁵ He asked the subject if he or she had any questions about the interview study. After any such questions were answered, the interviewer asked for the subject's consent to participate in the interview and to have the interview audiotaped. All subjects in the study freely consented to be interviewed and to be audiotaped.

The lead interviewer told the subject that the interviewers were interested in lessons about leadership that are not written in books or taught in classes. He told the subject that the goal of the interview was to identify specific examples of informal knowledge about leadership at the subject's current level. He told the subject that this knowledge might be of the sort that is not discussed openly, might be learned because of some challenge or problem faced on the job, or might be learned from watching someone else's success or failure. The interviewer emphasized to the subject that he was not interested in doctrine or theory--the "party line" on Army leadership--nor in purely technical knowledge (e.g., supply procedures, gunnery, etc.). The interviewer asked for background information--type of unit and length of time in the current leadership position. Finally, the interviewer signaled the beginning of the interview by asking the subject to tell a story about an experience from which he or she learned something about leadership.

Asking subjects to tell leadership stories was a means rather than an end in itself. Asking for stories was a way to get subjects talking and to direct them towards concrete experiences and away from leadership theory. The goal was not only that subjects should tell stories but that they should express, in their own words, the leadership lessons learned in the situations described. To this end, interviewers asked follow-up questions during the course of each interview. Guidelines for follow-up questions were developed by the research team prior to conducting the interviews. These guidelines (included in Appendix A) directed interviewers to ask follow-up questions that stayed with the subject's story line and/or with elements of the story that appeared to be affect-laden for the subjects or particularly salient to

⁵ There was a concern that subjects might make this supposition and thus seek to portray themselves in a positive light during the interviews.

understanding leadership. For example, a subject who described an important leadership failure might be asked "how did you feel," "what happened," and "what were the lessons you learned from this experience?" Similarly, a subject who described his or her response to a leadership challenge might be asked "how did you put that into action?" In general, interviewers attempted to be nondirective with respect to content, eliciting subjects' leadership stories and probing these stories for knowledge that appeared to meet the above-mentioned criteria for classification as tacit knowledge for military leadership.

The data that resulted from the interviews were quite varied. Some subjects told stories in which they felt a leadership lesson had been learned but were unable, even with follow-up questions from interviewers, to articulate the lesson learned. Some subjects told stories and articulated lessons learned, but these lessons did not meet our criteria for classification as tacit knowledge. Thus, we acquired a number of leadership stories without affiliated tacit knowledge. Some subjects told stories and were able, with or without follow-up questions from interviewers, to articulate the lesson learned in the story. When these lessons met our criteria for tacitness, the result was a leadership story with one or more items of affiliated tacit knowledge. Finally, some subjects articulated leadership lessons that were not clearly connected to any story they could recall. Thus, we acquired tacit-knowledge items not affiliated with any leadership story. Note that these differences in the form of interview data were observed within as well as between subjects.

After each interview was concluded, the notetaker for that interview summarized and typed his interview notes according to a format developed by the research team prior to conducting the interviews. Interview summaries attempted to capture, as accurately as possible, a subject's leadership stories, along with any lessons about leadership learned from each story. Summaries also included lessons-learned that were not associated with particular leadership stories. Each interview summary included a subject identifier that designated rank and branch category. Each summary also included subject gender, nature of current duty assignment, and number of months in current job.

Identification and Coding of Tacit Knowledge

After the interviews had been conducted and the interview summaries compiled, the tacit knowledge contained in the interview summaries was identified and coded. Two members of the research team served as raters in the preliminary stages of this identification and coding process. They reexamined the interview summaries and sought to identify knowledge that qualified as tacit knowledge for military leadership according to our above-stated criteria. In order to validate this initial application of the tacit-knowledge criteria to the interview data, degree of interrater agreement was assessed in the following manner.

The two raters independently evaluated 18 of the 81 interview summaries. For each story in each interview summary, the raters separately recorded their judgments of whether or not the story contained tacit knowledge for military

leadership. The degree of agreement between raters was computed by dividing the number of stories on which raters agreed (i.e., where both raters found tacit content in the story or both raters failed to find tacit content in the story) by the total number of stories independently evaluated. Out of a total of 48 stories evaluated, the two raters reached agreement on 35 stories, or 73%.

When instances of disagreement between raters were examined, it was noted that 8 out of the 13 instances were due to disagreement between raters over either the degree to which the knowledge in a story was practically useful for leadership or the degree to which acquisition of the knowledge in question was well-supported within the Army. Because only one of the two raters had military experience, these instances of lack of agreement seem most appropriately attributed to a lack of domain expertise on the part of the civilian rater, rather than to a failure of the two raters to reach a common understanding of how to apply the tacit-knowledge criteria to the interview stories. When instances of disagreement due to the civilian rater's lack of military expertise were removed from the analysis, the degree of agreement between raters was 87%.

When the tacit knowledge within each story had been identified by consensus of the two raters each interview story was annotated with a preliminary coding of the tacit knowledge it contained. That is, each piece of identified knowledge was expressed as a mapping between a set of antecedent conditions and a set of consequent actions. An example of a tacit-knowledge story and the item derived from it is shown below.

Story Summary

The battalion commander noticed that his company commanders were trying so hard to be successful that they would accept missions that their units did not have the capabilities to execute. Thus, the companies and the commanders would expend a great deal of effort and time to accomplish the mission without asking for help from the battalion in order to demonstrate their talents as leaders. The battalion commander gave one of his commanders a mission and the commander worked his unit overtime for two weeks to accomplish it. The battalion commander realized that the same mission could have been accomplished in two days if the commander had requested resources from the battalion. After that incident, the battalion commander made it a point to ask the company commanders to realistically assess their units' resources before taking on a mission. The battalion commander felt that all commanders wanted to succeed and earn the top block ⁶ rating due to the competitive environment in today's Army.

Coded Item

IF your company commanders have a strong desire to be successful and earn top block ratings

⁶ A "top block" rating is a superior evaluation on an annual officer evaluation report (OER).

AND

IF they also have a tendency to take on resource-intensive missions that exceed their capabilities

AND

IF they are reluctant to ask higher headquarters for help when they have missions that tax their units' resources

THEN require commanders to conduct resource assessments before they take on missions

BECAUSE an accurate resource assessment should indicate whether or not the unit has the resources to handle the mission. This assessment may prevent commanders from taking on a mission that would overburden their unit.

As shown above, each item of knowledge was represented by one or more antecedent condition or "IF" statements, by one or more consequent action or "THEN" statements, and by a brief explanation or "BECAUSE" statement. The logical operators "AND" and "OR" were used in the coding to signal relationships of conjunction and disjunction, respectively. The programming construct "ELSE" was employed in the coding to connect sets of condition-action mappings into more complex procedures.

When the two raters had completed the preliminary coding of the tacit knowledge contained in the interview data, the annotated summaries were routed to the three senior military members of the research team. These individuals (two colonels and one lieutenant colonel) have a total of 72 years of military leadership experience among them. They are currently senior members of the Behavioral Sciences and Leadership faculty at the U.S. Military Academy. These individuals served as an expert panel for purposes of the final coding of the tacit knowledge obtained from the interviews. The members of the expert panel independently evaluated the preliminary identification and coding of tacit knowledge. Each member of the panel was free to (a) make amendments to the initial coding of a particular knowledge item, (b) remove a coded item from the interview summaries, and/or (c) add a coded item to the interview summaries.

Once the members of the expert panel had made amendments to the coding, they met as a group to discuss and reach consensus on the final coding of the tacit knowledge contained in the interview summaries. The result of this meeting was a corpus of 174 coded tacit-knowledge items. This coding represented the expert consensus on the tacit-knowledge content of the interview data.

Some items of coded tacit knowledge resembled one another closely. Coding into condition-action mappings provided a measure of data compression such that rather different leadership stories yielded similar tacit-knowledge items. Should such items be treated as a single item? Recall that in this study tacit-knowledge items serve as pointers to mentally represented practice knowledge. When these items are used to assess and develop that knowledge--through the construction of realistic scenarios for training and testing--small differences may prove to be consequential. For this reason, we made no attempt to aggregate or combine similar tacit-knowledge items beyond the sorting and clustering described below.

Each item of tacit knowledge was also labeled with a function identifier. This identifier corresponded to one of two possible functions that tacit knowledge may serve with respect to Army leadership doctrine. Assignment of a function identifier was made by consensus of two members of the expert panel (the second and third authors of this report). The identifier "I" designated an item that was judged to instantiate, or make concrete, prescriptions in the doctrine. The identifier "A" designated an item that was judged to augment the doctrine. That is, it designated knowledge that filled gaps in doctrine or specified boundary conditions for the application of doctrine. For purposes of this study, we used the contents of the following U.S. Army field manuals as a working representation of Army leadership doctrine: FM 22-100, Military leadership (Department of the Army, 1990a); FM 22-101, Leadership counseling (Department of the Army, 1985); FM 22-102, Soldier team development (Department of the Army, 1987); FM 22-103, Leadership and command at senior levels (Department of the Army, 1987).⁷

Analysis of Tacit Knowledge

We began our analysis of the tacit-knowledge content of the interviews by grouping the obtained items into categories. Grouping the items enabled us to provide a summary description of the tacit knowledge we obtained and provided the basis for later qualitative analyses. Members of the expert panel (the same panel that coded the tacit-knowledge items) independently sorted the tacit-knowledge items into categories of their own devising. Note that each individual performed three sortings: one for battalion commanders' tacit knowledge, one for company commanders' tacit knowledge, and one for platoon leaders' tacit knowledge. Individuals were free to form categories of whatever size and according to whatever rules of inclusion they wished. The only requirement was that the categories be nonoverlapping.

The results of the independent sortings were used to form a set of dissimilarity matrices (one for each level). Each dissimilarity matrix is a cases-by-cases or symmetrical data matrix in which cases are individual tacit-knowledge items and values in the matrix are integers representing the number of times a given pair of items was sorted into a single category. Because there were four sorters, the values in the matrix ranged from zero to four. The dissimilarity matrices were cluster analyzed using a joining algorithm. Cluster analysis is a family of techniques for uncovering the natural groupings in a set of data (for a comprehensive review see Hartigan, 1975). The joining algorithm produces hierarchically organized clusters of items in the form of a tree. These clusters are formed by the successive joining or amalgamation of smaller clusters to one another. Joining is based on the computation of Euclidean distances derived from the dissimilarity matrix. Each joining together of clusters produces a branching point in the tree that represents a level of abstraction or description in the hierarchy of clusters.

⁷ Identification and coding of tacit knowledge took approximately 200 person-hours.

The hierarchical tree (three of which are shown in Appendix C) is read from right to left. The right-most horizontal line in the tree is the root node or stem of the tree--it represents the most inclusive cluster (i.e., the cluster consisting of all items in the analysis). Reading from right to left, the tree branches out or differentiates into smaller clusters. The points of branching, which we refer to as "levels," each define a cluster, with the inclusiveness of those clusters decreasing from right to left. The left-most horizontal lines in the tree correspond to individual items--the least inclusive "clusters" in the analysis. Each item is numbered (e.g., ITM33) and these numbers correspond to the numbers that identify individual tacit-knowledge items in Appendix D. The numbers in parentheses next to each item identifier are artifacts of the analysis program and may be ignored. The numbers at the top of the tree are amalgamation distances representing the linear distance between vectors corresponding to a cluster of items and its constituent clusters.

The hierarchical trees that resulted from the cluster analyses were interpreted by members of the expert panel. That is, the high-level subclusters in each tree were labeled, and the labeled clusters were taken to represent categories of tacit knowledge.⁸ Clusters were labeled by two members of the expert panel (the second and third authors of this report). These individuals did not attempt to apply particular categorization schemes to the labeling of clusters. Rather, they read each item in a given cluster, formed an overall impression of the commonality among those items, and agreed between themselves on a label that best summarized that commonality. All portions of each tacit-knowledge item were considered (IF, THEN, and BECAUSE statements). In general, the mapping from clusters to categories was one-to-one, such that all of the items making up a given category were affiliated with one another in the cluster-analysis output. On four occasions, however, judges determined that two discrete clusters of items represented the same category of knowledge. In order that subsequent analyses might reflect this fact, judges applied the same label to the two clusters and treated them as a single category. Thus, as the tree diagrams in Appendix C reflect, four categories were based on a two-to-one mapping of clusters to categories.

We believe that grouping tacit-knowledge items through cluster analyses performed on independent sorts has several advantages over a simple sort performed by consensus of expert raters. Consider that a single sorter may see several alternative ways of sorting the same set of items. A sort performed by a single individual, or by a group of individuals working together, will reflect only one of these alternative ways of sorting the items. By contrast, a number of sorters, working independently, may each sort according to somewhat different criteria. When the results of these independent sorts are aggregated through cluster analysis, those items that are most strongly associated with one another in the cluster analysis output will be those which are grouped together according to multiple sort criteria. Put another way, the method of independent sorting and cluster analysis provides a more adequate sample of the population of possible sort criteria and thus increases our confidence in the validity of the resulting category structures. The cluster

⁸ Analysis of tacit knowledge took approximately 100 person-hours.

analysis method has the additional advantages of being objective and of using all of the information in the data.⁹

Before concluding the discussion of interview methods, we should remark briefly on the relationship between our methods and those employed in a related area of inquiry—the development of computer-based expert systems.

Tacit-Knowledge Acquisition and Expert-System Development

In this section, we note both similarities and differences between our approach and that of contemporary developers of expert systems. First, like developers of expert systems, we worked cooperatively with domain experts to construct a description of what subjects know about the domain in question. Second, like developers of expert systems, we employed an iterative method in which descriptions of knowledge were arrived at and validated by consensus. This process of consensus validation took place both during the interviews (as interview subjects and interviewers agreed on the specification of stories and lessons learned) and after the interviews (as subject-matter experts on the research team agreed on the identification, coding, and analysis of tacit-knowledge items). This process of consensus validation will continue, in the future, as candidate test items based on the interview data are cycled back to outside subject-matter experts for validation. Finally, like developers of expert systems, we took a case-based approach to elicitation of knowledge. In this approach, particular cases or stories become the focal point for knowledge acquisition (Strube, Janetzko, & Knauff, in press).

There are also important differences between our approach to tacit-knowledge acquisition and that typically employed in development of expert systems. A brief summary of the goals of the respective approaches brings these differences into focus. As the term is commonly employed, an expert system is a stand-in or substitute for a human expert—usually for the purposes of supporting human decision makers. Thus, the goal in developing expert systems is to build a usable decision-support tool. This goal is accomplished by modeling a domain of knowledge in terms of a set of formal knowledge representations that can be operated upon by an inference engine. By formal knowledge representation, we mean a common set of primitive elements in terms of which domain knowledge must be expressed.

By contrast, the goal of acquiring tacit knowledge is to understand and optimize the process of experiential learning in a given domain. This goal is accomplished by modeling a subset of domain knowledge (one that corresponds to our definition of tacit knowledge) in a form that will support leader development through case-based teaching and diagnostic testing. This subset of domain knowledge is modeled by eliciting units of procedural knowledge, grouping them into categories, and

⁹ Note that our justification for using category structures based on our own analysis is not that these form the only sensible way of partitioning the tacit knowledge at each level but, rather, that they are illuminating for purposes of understanding, assessing, and teaching tacit knowledge for military leadership.

examining the distribution of those categories across levels of increasing rank and (presumably) expertise.

We can now enumerate the important differences between the two approaches. First, because our goal is to understand and accelerate experiential learning, rather than to build stand-in experts, we do not seek to model knowledge about leadership in its entirety. Rather, we seek to model a subset of knowledge about leadership—knowledge of a sort that previous research has shown to be important to practical success (Wagner & Sternberg, 1985; Williams & Sternberg, in press). Second, because we do not seek to build a computer-based system, we are not constrained by particular knowledge-representation formalisms or by considerations of computational feasibility. That is, we can describe leader knowledge in terms that most closely resemble those the leaders themselves employ. Finally, unlike developers of expert systems, we are interested in representing developmental change in leader knowledge. A representation of developmental change is critical to designing effective teaching and diagnostic-testing materials. In this respect, our project more closely resembles the development of knowledge-based tutoring systems than it does conventional expert systems intended as job aids (Burns & Capps, 1988).

Results and Discussion

In this section we describe the tacit knowledge for military leadership that we obtained in officer interviews. We begin by describing salient differences, across levels, in the quantity and structure of the tacit knowledge we obtained. We next turn to a discussion of the categories that resulted from independent sorting and hierarchical cluster analysis. We describe these categories and explore similarities and differences between levels. Finally, we offer a general characterization of the ways in which the content of tacit knowledge changes as military leaders ascend the organizational hierarchy.

Quantity of Tacit Knowledge

Table 3 shows the average number of tacit-knowledge items obtained per subject for the three levels under consideration. The three levels differed significantly on this measure in a Kruskal-Wallis test on ranks ($H=8.71$, $df=2$, $p=0.01$). The number of items obtained per subject increased significantly from platoon to company level in a Mann-Whitney test on ranks ($U=188$, $df=1$, $p=0.04$) but not from company to battalion level ($U=403$, $df=1$, $p=0.26$). This result is consistent with prior research on tacit knowledge (Wagner & Sternberg, 1985) in that amount of tacit knowledge here appears to increase with experience, at least to company level.

Table 3
Mean Number of Tacit-Knowledge Items Obtained per Subject by Organizational Level
(Standard Deviation Shown in Parentheses).

	Battalion	Company	Platoon
Mean	3.67 (3.03)	2.00 (2.06)	1.37 (1.47)

Table 4 shows the percentage of interviews that yielded at least one item that met the criteria for classification as tacit knowledge. Values are shown separately by level. Table 5 shows the median number of tacit-knowledge items acquired in those interviews that produced at least one item. Values are shown separately by level.

Table 4
Percentage of Interviews that Yielded Tacit Knowledge by Organizational Level.

	Battalion	Company	Platoon
Percentage	89	69	60

Table 5
Median Number of Tacit-Knowledge Items Acquired in Interviews Yielding at Least One Item by Organizational Level (Range Shown in Parentheses).

	Battalion	Company	Platoon
Median	3.0 (9.0)	2.5 (7.0)	2.0 (4.0)

Structure of Tacit Knowledge

Each of the cluster analyses produced a tree diagram with six levels of branching. Branching levels were ordered from zero (the root node or stem of the tree) to five (the terminal branches or individual items). In interpreting the tree diagrams, the expert panel found that branching-level 1 was the most useful for characterizing the natural groupings in the sort data. Thus, the categories of tacit knowledge, described in a later section, are based on clusters of tacit-knowledge items at level 1. Summary statistics for the number of categories generated in

independent sorting (by judge and by level) are attached as Appendix B. The cluster-analysis output is attached as Appendix C.

The tree diagram for each organizational level (i.e., battalion, company, and platoon) represents the structure of the collective tacit knowledge of subjects at that level. We may judge the complexity of that tacit knowledge, roughly, by comparing the differentiation of clusters (e.g., the degree of subclustering within a cluster). Using this metric, we found an atypical level 1 cluster in the battalion commander tree diagram. This cluster was more differentiated than any other level 1 cluster in the analysis. This greater degree of differentiation is reflected in the number of items making up this cluster (3.97 standard-deviation units above the mean for all level 1 clusters). We conclude that battalion commanders' tacit knowledge for military leadership is more complexly structured, at least for the items in question, than that of company commanders and platoon leaders. This finding is consistent with findings in the research literature on expertise (see Chi, Glaser, & Farr, 1988).

Because one of the level 1 clusters for battalion commanders was so large, it presented judges with a problem in labeling. This cluster contained so many items (20) that no reasonably distinctive label seemed to apply. Rather than apply a very general label to this cluster (e.g., "dealing with people") judges decided to label its level 2 clusters (i.e., to divide it into four smaller clusters and to attach labels to these). Clearly, it would have been preferable to equate all tacit-knowledge categories for the branching level at which they were labeled. In the present study, however, it was deemed more important to equate all tacit-knowledge categories for the abstractness of their content, in order to facilitate meaningful comparison. The opportunity for such comparison would be lost, it was felt, if the four, coherent level 2 clusters in the battalion commander data were subsumed under a single, very general label.

Comparisons Among Levels

In this section, we discuss content-related similarities and differences in the tacit knowledge obtained at the three levels under consideration. We base our discussion on the high-level categories, on the nature of the items of which they are composed, and on the relative frequencies of those items. Our goal is to begin to characterize the types of tacit knowledge that are most important to leaders at different levels and, implicitly, to sketch out a developmental progression that reflects the changing character of a leader's tacit knowledge as he or she ascends from platoon to company to battalion leadership. We assume, in all that follows, that the nature of the categories obtained for an organizational level, and the distribution of items across those categories, will support inferences about what is salient and important for leadership practice at that level.

Tables 6 through 8 show the high-level categories of battalion commanders, company commanders, and platoon leaders' tacit knowledge, respectively. Figure 1 shows the categories of tacit knowledge that were common to all three levels, along with the proportion of items obtained in each category and at each level. Figure 2

shows the same information for categories of tacit knowledge that were common to two levels and for categories of tacit knowledge that were unique to one level. As these tables and figures reflect, there are five categories common to all levels, two categories common to two levels, and seven categories unique to a single level. We first consider those categories that are common to all three levels.

Table 6
Categories of Tacit Knowledge for Battalion Commanders

Shared Categories	Unique Categories
Developing subordinates ^a Communicating Managing the self Motivating subordinates Establishing trust Taking care of soldiers	Protecting the organization Managing organizational change Dealing with poor performers

^a Category shared with company commanders only.

Table 7
Categories of Tacit Knowledge for Company Commanders

Shared Categories	Unique Categories
Influencing the boss ^a Developing subordinates ^b Communicating Managing the self Motivating subordinates Establishing trust Taking care of soldiers	Directing and supervising subordinates Cooperating with others Balancing mission and troops

^a Category shared with platoon leaders only.

^b Category shared with battalion commanders only.

Table 8
Categories of Tacit Knowledge for Platoon Leaders

Shared Categories	Unique Categories
Influencing the boss ^a Communicating Managing the self Motivating subordinates Establishing trust Taking care of soldiers	Establishing credibility

^a Category shared with company commanders only.

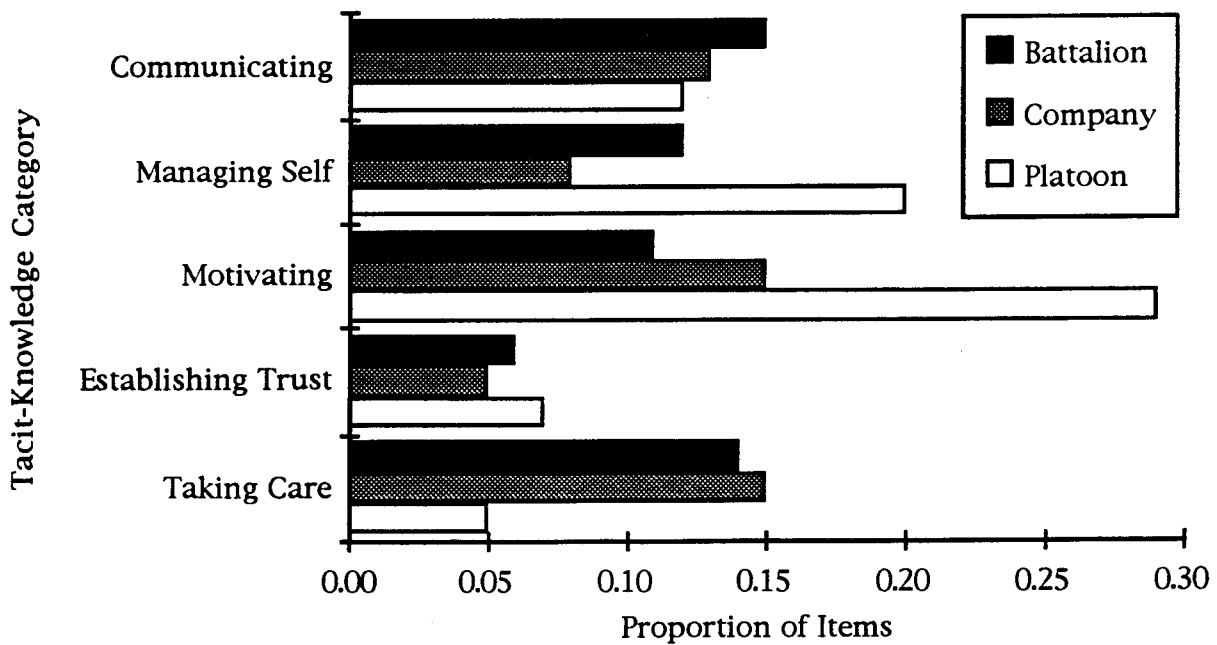


Figure 1
 Proportion of tacit-knowledge items obtained as a function of category and level for categories common to three levels

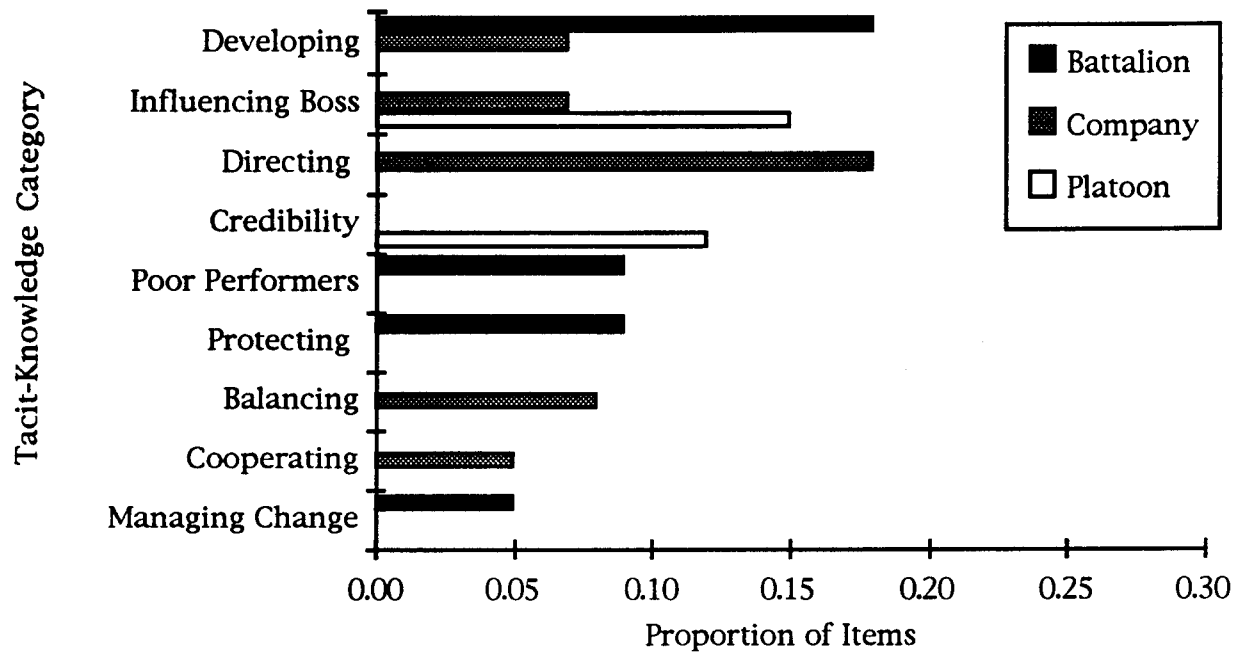


Figure 2
 Proportion of tacit-knowledge items obtained as a function of category and level for categories common to two levels and categories unique to one level

The categories common to all three levels are listed along the y-axis in Figure 1. The common categories are (a) communicating, (b) managing the self, (c) motivating subordinates, (d) establishing trust with subordinates, and (e) taking care of soldiers. The proportion of items classified as taking care of soldiers was greater for battalion and company commanders than for platoon leaders. We obtained very little knowledge in this category from platoon leaders (two items). There appeared also to be differences in the composition of this category between company and battalion commanders. In particular, battalion commanders' tacit knowledge about taking care of soldiers seemed to reflect a broader, systems-level perspective on soldier welfare. For example, we obtained the following item from a battalion commander:

*IF you receive differential treatment at post-support facilities because of your rank
THEN investigate further to determine how your enlisted soldiers are being treated
BECAUSE differential treatment based on your rank may indicate that your soldiers are receiving poor service.*

The proportion of items classified as motivating subordinates was greater for platoon leaders than for company and battalion commanders. Tacit knowledge in this category made up almost a third of all the tacit knowledge obtained from platoon leaders. Again, tacit-knowledge items for battalion commanders seemed to reflect a systems perspective. For example:

*IF you have bypassed the chain of command and brought a problem to your boss's commander
AND
IF officers in your unit start to openly voice criticisms after you have bypassed the chain of command
THEN conduct open sensing sessions with the subordinate leaders in your unit to explain why you had to bypass the chain of command. Also let them know that if they have a problem with the way you are leading the unit, they can bring it to you
BECAUSE in a sensing session you can pass out accurate information. Also, a sensing session reestablishes your communication channels with your subordinate leaders.*

Consider, as a contrasting example, tacit knowledge obtained from a platoon leader.

*IF your soldiers are performing missions that are not meaningful (e.g., raking leaves)
AND
IF your soldiers are working under adverse conditions
THEN tell them what to expect so they can plan ahead, even if the work will not be pleasant. Focus your efforts on providing for their basic needs such as hot food, ice in the field when it's hot, and/or weekends off*

BECAUSE meeting basic needs maintains morale when working under adverse conditions.

The proportion of items classified as managing the self was also greater for platoon leaders than for company and battalion commanders. There appeared to be little difference in the composition of this category across levels.

The proportion of items classified as communicating was roughly comparable across levels, as was the proportion of items classified as establishing trust with subordinates. However, battalion commanders' tacit knowledge about communicating seemed to reflect a systems-perspective. For example:

*IF you want to make sure your guidance is communicated accurately to all levels of the organization
THEN conduct periodic sensing sessions with your soldiers to correct misperceptions, clarify your intent, and locate sources of information loss
BECAUSE you can get distortion of your intentions and guidance just by passing information through a number of nodes.*

By contrast, company commanders' tacit knowledge on this subject is less systems-oriented. For example:

*IF you want to obtain information about problems in the unit
THEN talk to the CQ and CQ runner¹⁰ while they are on duty
BECAUSE company duty provides you with an excellent opportunity to talk to soldiers on an informal basis. This informal context may increase the likelihood that you will receive unbiased feedback.*

Finally, the composition of the establishing-trust category appeared to be comparable across levels.

Two categories were common to two, but not to three, of the levels. These were (a) influencing the boss (common to company and platoon levels), and (b) developing subordinates (common to battalion and company levels). The proportion of items classified as influencing the boss was greater for platoon leaders than for company commanders. Further, platoon leaders' tacit knowledge for influencing the boss tended to involve face-to-face methods of expanding their own seemingly limited discretion. For example, we obtained the following item from a platoon leader:

*IF your commander issues a directive that you do not agree with
THEN approach the commander and ask him or her about the directive in order to determine his or her rationale. After determining the commander's rationale, try to persuade him or her to change the directive, using*

¹⁰ The CQ is the officer in charge of quarters. The CQ runner is the soldier designated to run errands for the CQ.

METT-T¹¹ to support your argument

BECAUSE the persuasiveness of your arguments may increase if you can demonstrate how the commander's directive adversely impacts the unit's mission using the METT-T framework

ELSE

IF your persuasion attempt, using arguments based on METT-T, has failed

AND

IF other key leaders in the unit feel that the commander's directive is wrong THEN discuss the problem with the key leaders and arrange to meet with the commander to discuss the problem as a group

BECAUSE a large group of subordinate leaders, who all hold the same position regarding an issue, may increase the likelihood that the commander will pay attention to the group's ideas.

In contrast with platoon leaders, company commanders' tacit knowledge tended to involve indirect methods for maintaining their current discretion. For example:

IF your commander micro-manages

THEN work through the company staff as much as possible and try to solve problems at your level, only bringing the boss those that you or the staff cannot solve

BECAUSE if you demonstrate that you can handle problems on your own, your commander will come to trust you.

The proportion of items classified as developing subordinates was greater for battalion commanders than for company commanders. The composition of this category also appeared to differ between the two levels. In particular, battalion commanders' tacit knowledge for developing subordinates seemed to reflect a developmental orientation. By contrast, company commanders' tacit knowledge seemed to be more performance oriented. Thus, battalion commanders seem to have learned how and when to trade short-term performance for long-term development. For example:

IF a subordinate leader needs certain experiences to promote his or her development

AND

IF a significant training event is forthcoming that incorporates these experiences

AND

IF the subordinate's lack of experience in a particular area or skill will not cause harm to anyone

THEN conduct developmental counseling after the training event, rather than before or during, in order to allow the subordinate time to process his or her experiences.

¹¹ Mission, Enemy, Troops, Train, Time Available.

BECAUSE your ability to influence the subordinates' thoughts and behavior will increase.

Seven categories were unique to a single level in the interview data. Tacit knowledge about establishing credibility was unique to platoon leaders. Unique to company commanders were directing and supervising subordinates, cooperating with others, and balancing mission and troops. Finally, unique to battalion commanders were tacit knowledge about managing organizational change, about protecting the organization, and about dealing with poor performers. A consideration of these differences leads to a more general characterization of what officers at each level learn from experience about leadership.

Platoon Leaders

In what situation do platoon leaders typically find themselves? First, they have very limited experience in Army leadership, yet they are charged with supervising soldiers with relatively greater time in service. Second, platoon leaders exercise leadership through face-to-face interactions with their subordinates. Third, there is little power inherent in the platoon leader's position (e.g., the authority to reward and punish lies with the company commander). Not surprisingly, what platoon leaders appear to learn from experience is consistent with this characterization of their role.

The tacit knowledge we collected from platoon leaders tells the story of young men and women who are learning how to get subordinates moving on tasks. Tacit knowledge for motivating subordinates accounts for 30% of the tacit knowledge at this level. Subordinates must be motivated primarily by means of direct encounters, and the directness of these encounters, coupled with disparities in Army experience and cultural background between platoon leaders and those they supervise, brings issues of personal credibility into sharp focus. That is, credibility must be established with subordinates in order to get them moving. Similarly, credibility must be established with the boss in order to protect one's limited autonomy and expand one's discretion. Recall that the establishing credibility category was unique to platoon leaders, and that tacit knowledge about influencing the boss differed, between platoon leaders and company commanders, in that platoon leaders seemed more focused on establishing autonomy and credibility.

Establishing credibility and authority over more experienced individuals can be stressful. Likewise, learning the ropes and pleasing the boss in one's first real job can induce self-doubt. Platoon leaders need to know how to manage themselves in such a way as to preserve their confidence, motivation, and self-esteem. Consistent with this idea, tacit knowledge for managing the self was relatively more frequent at the platoon level than at the company or battalion level.

Finally, in light of the face-to-face nature of platoon-level leadership, we were surprised at the relative lack of tacit knowledge about taking care of soldiers. How do we explain this finding? One possibility is that platoon leaders simply lack the

resources and discretion that enable officers at higher levels to take care of soldiers. Note, in the following item obtained from a company commander, the discretion afforded company commanders that is not available to platoon leaders.

IF your soldiers frequently are required to train during what would ordinarily be family time (weekends, holidays, and evenings), THEN give your soldiers numerous three and four-day weekends during the off-training cycle BECAUSE the long weekends during the off-training cycle will show care for your soldiers and their families.

Another possible explanation may lie in the frequent and close contact between platoon leaders and their subordinates. This close contact may render transparent the things that platoon leaders do to care for soldiers.

Finally, because the platoon-leader position entails fewer resources and less discretion than the other levels, platoon leaders don't seem to acquire much tacit knowledge about developing soldiers. Recall that a platoon leader may be among the least-experienced members of the platoon. Similarly, because developing someone presupposes establishing credibility with him or her, platoon leaders may be limited in their capacity to develop others simply because they are still in the process of establishing the requisite credibility.

To summarize, the picture that emerges from the tacit-knowledge data on platoon leaders is that of men and women trying to get a foothold. The interpersonal relationships that this position entails seem to figure prominently in platoon leaders' understanding of their own leadership experiences. That is, platoon leaders see leadership in interpersonal rather than institutional terms, and this is in contrast to leaders at more senior levels.

Company Commanders

What is the typical situation for company commanders? First, they have more experience than platoon leaders—they have led a platoon, completed the officer's advanced course, and have often held a battalion-level staff position as well. Company-level leadership is the first to be classified as command and this terminological distinction is a meaningful one—commanders have a great deal more position power than do leaders at lower levels. Most importantly, commanders have power to administer nonjudicial punishment. They also have more discretion than do platoon leaders in deciding how missions will be carried out. Finally, company commanders lead larger units, and therefore have less direct contact with soldiers than do platoon leaders. A company commander may know the name of every soldier in the company but his or her interaction with each of them will necessarily be much less extensive than is the case for the platoon leader.

The greater degree of experience that commanders enjoy seems to have consequences for the leadership lessons they learn during their command. For

example, tacit knowledge for managing the self is somewhat less prominent in the interview data for company commanders than in the data for platoon leaders, perhaps because those who attain command have begun to master the self-management challenges (e.g., maintaining composure, self-motivation, and self-esteem) that platoon leaders are just learning about.

The tacit knowledge we collected from company commanders also reflects the increased position power they enjoy. First, tacit knowledge about establishing credibility does not express itself as a high-level category in the company-commander data. Apparently, command brings with it its own credibility, along with the power to discipline that makes motivating subordinates less of an issue—at least in face-to-face encounters. Command also seems to bring with it the discretion and resources necessary to take care of soldiers. Notice that the amount of tacit knowledge devoted to taking care of soldiers increases markedly between platoon and company levels.

Finally, the unique position that company commanders occupy within the chain of command brings with it new leadership lessons. Consider that company commanders, like platoon leaders, usually know all of their soldiers individually and still engage in some direct leadership. Unlike platoon leaders, however, company commanders are responsible for coordinating with battalion staff—they are beginning to see that there is a bigger (i.e., battalion and division-level) picture. It is unsurprising, therefore, that company commanders report learning about how to balance mission accomplishment against the interests of their own troops, and about how to cooperate with others. In fact, balancing mission and troops and cooperating with others were unique as tacit-knowledge categories to the company level. An example of tacit knowledge reflecting the company commanders' intermediate position in the chain of command is given below:

IF you receive from a superior a directive that you do not personally agree with or support

AND

IF the directive is not unethical

AND

IF the directive does not relate to the unit's METL¹²

AND

IF the directive does not directly benefit soldiers' welfare,

OR

IF the directive requires behavior that is on the boundaries of your role expectations

OR

IF the directive does not give you some allowance for initiative or ownership

THEN let your subordinate leaders know what you think about the directive.

Outline the pros and cons of supporting and not supporting it, and ask them for their support

¹² Mission Essential Task List.

BECAUSE letting your subordinate leaders know your feelings about a questionable or unpopular directive from higher-up preserves their trust in you. Also, outlining the pros and cons of the directive and then asking for their support increases the likelihood that they will support the directive.

The company commanders we interviewed appeared to be caught between the interpersonal requirements of direct leadership and the emerging need to take an institutional perspective in order to fulfill their responsibilities. From the point of view of leader development, the challenges of company command seem to provide the stimulus for officers to begin to think about leadership at the systems level.

Battalion Commanders

In what situation do battalion commanders typically find themselves? First, they have extensive experience in the Army, having served as platoon leaders and company commanders, attended the command and staff college, and worked in one or more staff assignments. Second, because selection for battalion commander is highly competitive, those selected have been recognized for past success. Third, battalion commanders are vested with considerable position power and discretion by virtue of their legal status as commanders (e.g., rewards and punishments, personnel assignment, and officer evaluations). Fourth, their position in the chain of command makes it impossible for them to lead through face-to-face influence over their soldiers. As a consequence, their influence over their units is more indirect than it is for leaders at lower levels.

The tacit knowledge we obtained from battalion commanders suggests a more fully developed systems perspective on leadership than that reflected in company commanders' tacit knowledge. Tacit knowledge for protecting the organization and for managing organizational change are unique to this level. As mentioned earlier, the composition of battalion commanders' tacit knowledge for communicating differs from that obtained at other levels. It is not so much about face-to-face communications (which is the case for the other two levels) as it is about indirect methods and communications systems. For example:

IF you are a battalion commander

AND

IF you desire to implement change in your battalion

THEN focus your efforts on developing company commanders and lieutenants.

BECAUSE the company commanders and lieutenants are the agents of change in the battalion. The battalion commander commands through his company commanders.

Tacit knowledge about communicating, protecting the organization, and managing organizational change together make up 30% of the tacit knowledge we obtained from battalion commanders. Furthermore, battalion commanders' tacit knowledge for taking care of soldiers reflected the discretion and resources at their disposal, as

well as a broader view of soldier welfare. We take all of these findings to indicate that much of battalion commanders' tacit knowledge reflects a systems-level perspective on leadership.

The tacit knowledge of battalion commanders also manifests a future orientation not seen in the tacit knowledge at the other two levels. This orientation is expressed as a high-level category called developing subordinates, and it represents almost 20% of the tacit knowledge at this level. Battalion commanders' extensive experience and distance from the platoon leader and company-commander roles permit them to take a perspective on developing others that is not observed in more junior leaders. For example:

IF you feel that one of your companies has a problem in a particular area such as maintenance

AND

IF the problem adversely impacts on the achievement of your vision for the battalion

THEN give the company a mission that will highlight the shortcoming and have the commander observe the results. Discuss the shortcoming with the commander in order to identify possible causes and make recommendations to correct the problem. Do not chew out your commander for the shortcoming. Instead, explain to him or her how the shortcoming impacts on the battalion's ability to perform its mission

BECAUSE using a unit's shortcomings as a learning opportunity promotes the professional development of the commander. Also, hands-on exercises or visual examples are very effective in teaching people what the standards are and what they look like.

Finally, tacit knowledge for dealing with poor performers is consistent with the battalion commander's increased responsibility for personnel management. Note that this category is unique to battalion commanders. For most officers, battalion command may be their first experience as a senior rater.¹³ This means that they must learn how to deal with weak performers as well as learn when and how to relieve ineffective subordinate leaders.

In summary, the tacit-knowledge data on battalion commanders suggest that the officers we interviewed at this level have developed a systems-level view of leadership. In general, they seem to see leadership in institutional rather than in strictly interpersonal terms. As described above, this way of viewing leadership contrasts with that of leaders at more junior levels.

¹³ A senior rater is a senior Army officer who is responsible for making a judgment concerning a subordinate officer's future potential. A senior rater is normally two organizational levels above the rated officer.

Comparison With Literature Review

The interview study is one of two methods we used to identify tacit knowledge for military leadership. In order to answer questions raised by the literature review (Horvath et al., in press), and in order to allow our efforts to identify tacit knowledge for military leadership to cumulate, we briefly compare the structure of tacit knowledge obtained from the interview study with the structure of tacit knowledge obtained in our earlier review. Table 9 integrates the categories of tacit knowledge obtained by these two methods.

Table 9

Tacit Knowledge for Military Leadership: Integrated Framework

INTRAPERSONAL TACIT KNOWLEDGE

Managing the self

Managing the self ^{b, c, p}

Seeking challenges and control ^x

INTERPERSONAL TACIT KNOWLEDGE

Influencing and controlling others

Motivating subordinates ^{b, c, p}

Directing and supervising subordinates ^c

Influencing the boss ^{c, p}

Developing subordinates ^c

Communicating ^p

Supporting and cooperating with others

Taking care of soldiers ^{b, c, p}

Establishing trust ^{b, c, p}

Cooperating with others ^c

Learning from others ^x

ORGANIZATIONAL TACIT KNOWLEDGE

Solving organizational problems

Communicating ^{c, p}

Developing subordinates ^b

Dealing with poor performers ^b

Managing organizational change ^b

Protecting the organization ^b

^b Obtained from battalion commanders

^c Obtained from company commanders

^p Obtained from platoon leaders

^x Obtained from literature review only

Table 9 shows how the categories and subcategories of tacit knowledge developed in the literature review are able to accommodate the high-level categories of tacit knowledge obtained in the interview study. Categories developed in the literature review are underlined. Categories developed in the interview study are

labeled with a superscript which identifies the level or levels from which they were obtained. Entries in Table 9 that are labeled with the superscript X reflect categories of tacit knowledge present, to some extent, in the literature review but absent from the interview data.

In general, the categories obtained in the interview study provide a more detailed partitioning of the relatively broad subcategories in the literature review. The knowledge obtained in the interview study was organized around particular goals and, because these goals varied somewhat across levels, the interview data were able to support an analysis by levels that the practitioner literature could not. In addition, the tacit-knowledge categories balancing mission and troops (unique to company commanders) and establishing credibility (unique to platoon leaders) did not fit clearly into any of the tacit-knowledge categories developed from the literature review and so do not appear in Table 9.

Some of the categories developed in the literature review were not replicated in the interview study. For example, interpersonal tacit knowledge about learning from others was not obtained in the interviews. Knowledge about learning from others is apparently distributed across other tacit-knowledge categories and so does not express itself as a distinct category. For example, we found some indication that subjects had knowledge of learning from others but that this knowledge was grouped with that relevant to influencing others. Thus, knowledge about how and when to elicit feedback from subordinates was grouped as knowledge about communicating. It was grouped in this way even though eliciting feedback may be seen as learning from others. Of course, it is also possible that learning from others is not part of some subjects' implicit theories of leadership. That is, they may have knowledge on this subject but may not think of it as part of leadership.

The literature review raised questions about whether knowledge of how to seek challenges and control is important for Army leaders. We found no evidence of this type of tacit knowledge in the interview data. Again, we see several possibilities. First, it may be that challenge and control are inherent in Army leadership positions. That is, these positions offer significant challenge to incumbents and provide them with the discretion they need to do their jobs. A second possibility is that leaders may seek to increase their discretion only when it is withdrawn or usurped. Hence, knowledge about seeking challenge and control may manifest itself as knowledge about influencing the boss. A number of tacit-knowledge items support this idea. For example, we obtained the following item of knowledge from a platoon leader:

*IF your commander has trouble delegating tasks
AND
IF your commander tries to do a lot of things himself or herself
AND
If you want the responsibility and autonomy to carry out your duties
THEN be proactive and anticipate tasks that will need to be accomplished;
then tell the commander you will take responsibility for them. Meet the
commander after staff call and go over the taskings. If you can handle a*

particular tasking, let him know that you will take responsibility for it. In addition, give others a heads-up on taskings, so that they are working on them when the commander gives them the taskings.

BECAUSE your proactive assumption of responsibility saves the commander time and also demonstrates your competence.

Finally, knowledge about seeking control for the purpose of promoting one's own career was excluded from our analysis because it did not fit our working definition of military leadership.

The practitioner literature contained little indication that managing self is an important dimension of tacit knowledge for leadership at the levels under consideration. Yet the interviews revealed extensive tacit knowledge in this category. On balance, therefore, the paucity of tacit knowledge about managing the self observed in the literature review seems to tell us more about the practitioner literature than it does about tacit knowledge for military leadership.

Finally, the practitioner literature gave little indication that envisioning the future was important to military leadership at these levels. Yet the interview data contained knowledge of this sort--at least in so far as envisioning represents a general orientation toward future events. This knowledge was obtained primarily from battalion commanders and was distributed across several categories of tacit knowledge. For example, the following item of battalion commander knowledge was drawn from the communicating category:

*IF you want to communicate your vision to your soldiers
THEN communicate the vision to the soldiers on your first day and re-communicate it daily for your entire time in command. Do this by visiting company areas in garrison and in the field, and by calling attention to both shortcomings and progress made toward the vision.*

BECAUSE daily reinforcement of the vision keeps the unit focused on working to realize the vision.

Still, the interview data revealed no knowledge about how to develop a strategic vision. In this respect, the findings for military leaders at this level diverge from earlier findings for civilian managers (Williams & Sternberg, in press). It may be that the time horizons for officers at battalion level and below are too short to allow for the development of a long-term or strategic vision (Jacobs & Jaques, 1987). Thus, strategic vision may be important to military leadership at higher levels than those we studied.

Relationship to Army Leadership Doctrine

As discussed above, our review of the practice literature indicated that tacit knowledge for military leadership served several identifiable functions with respect to U.S. Army leadership doctrine. Each item of tacit knowledge obtained in the interviews was evaluated according to its apparent function. These two functions were (a) instantiating doctrine and (b) augmenting doctrine. Items classified as instantiating doctrine were those judged to elaborate upon or make concrete knowledge already in the doctrine (e.g., the doctrine says "know yourself" but what does this mean in practice?). Items classified as augmenting doctrine were those judged to fill gaps in or contradict the doctrine (e.g., Army leadership doctrine is silent on how to influence the boss). What did the interview data tell us about the function of tacit knowledge for military leadership?

Table 10 shows the percentage of items judged to serve each of two functions for battalion, company, and platoon levels separately. Note that approximately 75% of all the tacit-knowledge items obtained in the interview study were classified as instantiating doctrine. This percentage suggests that a major function of tacit knowledge for military leadership is to make concrete the general guidelines provided in the doctrine. One of our subjects put it this way: "There are very few aspects of leadership that most of us haven't read; but until you put the knowledge into action and actually try it out, you don't really know it."

Table 10
Percent of Tacit-Knowledge Items by Function Classification and Organizational Level

Level	Function	
	Instantiating	Augmenting
Battalion	82	18
Company	71	29
Platoon	71	29

Consider the following example. Army leadership doctrine tells officers that they need to know themselves yet does not offer concrete knowledge for self-management. Such knowledge is exemplified in the following story (and coded knowledge item) told by a platoon leader.

Story

I had to run the M16¹⁴ range for the battalion. Despite our detailed plan, we had a few problems. The ammo showed up late and the range ran slow--people showed up at the wrong time; preliminary marksmanship instruction and concurrent training were not smooth. As a result, we didn't get as many people qualified as we should have. In fact some people had to record fire more than once to qualify. To make matters worse, because the range ran so slowly, we had to turn in ammo. The battalion commander was upset that we had wasted this training opportunity. My company commander pulled me in to his office and chewed me out. Whenever this happens, I get together with the other lieutenants in the company. We help each other out and act as a support group. In this case, I asked how the range was run in the past and what the commander thought about it then. I tried to get a feeling for whether my experience was normal or if I should have done things differently. We lieutenants talk a lot together, both sharing ideas and supporting one another.

Coded Item

IF you get chewed out by your company commander concerning your performance on a particular mission

AND

IF your commander is not specific about your mistakes

OR

IF your commander does not give you guidance on how to improve your performance with regard to the particular mission

OR

IF your commander does not communicate with you concerning your overall performance or development

THEN use your fellow lieutenants as a social support group to determine if your experience was normal and what you can do to preclude making the same mistakes in the future. Also, use this support group to obtain feedback about how you compare with your peers with regard to professional performance.

BECAUSE your peer group can provide you with developmental counseling and information on your performance if your commander fails to counsel you properly. Also, the use of a support group helps combat stress.

As Table 10 shows, less than one-third of all the tacit-knowledge items in our sample were judged to serve the augmenting function. An examination of the content of these items revealed a number of interesting patterns however. First, at the platoon leader level, of the twelve items classified as augmenting doctrine, five were members of a single category--influencing the boss. We observed a similar pattern at the company level--six of eighteen items concerned the upward exercise of influence. We think that, although the doctrine states that leadership involves the influence of others, influence is generally depicted as flowing downward

¹⁴ The M16 is a standard-issue automatic rifle.

through the chain of command. Yet Army officers apparently learn ways to direct influence upward and see this as part of leadership.

A second pattern was observed at the company level. Of the eighteen items classified as augmenting the doctrine, five were members of the category balancing mission and troops. All of these items included knowledge about when and when not to follow the doctrinal maxim to "pass orders from above as your own." That is, these items addressed the issue of how to communicate a directive, from above, with which you do not agree. It is clear in the doctrine that orders from above are to be passed on as one's own. Yet the leaders we interviewed had learned from experience that this doctrinal rule admits important exceptions. As with knowledge about the upward exercise of influence, this tacit knowledge appeared to set boundary conditions for the application of doctrinal rules.

In summary, we confirmed our initial impression that tacit knowledge serves identifiable functions with respect to doctrine. Specifically, we found that tacit knowledge puts the very general prescriptions of doctrine into a form that leaders can use. Further, in some areas, we found that tacit knowledge augments the doctrine--it fills gaps (e.g., influence upward) and specifies boundary conditions (e.g., passing on orders from above). Military leaders appear to learn from experience that leadership is more than the influence of subordinates to accomplish missions--it is the exercise of influence in multiple directions according to informally agreed-upon conventions. Finally, the interview data suggest that leaders learn that military leadership also involves the exercise of influence over oneself.

Assessment and Teaching of Tacit Knowledge

As described above, the interview study is part of a larger effort to identify, assess, and teach tacit knowledge for military leadership. Having identified the tacit knowledge, what have we learned about how to develop assessment and teaching materials for this domain and setting? In this section, we briefly discuss our anticipated approach to the development phase of the project and review three important lessons that we have learned from the interview study.

What is the goal of the assessment and teaching phases of this project? As we see it, the primary goal is to promote the acquisition of substantive and important tacit knowledge for military leadership by military leaders at the battalion, company and platoon levels. That is, we hope to accelerate the process by which the lessons of leadership experience are learned. A related goal is to educate military leaders about the tacit-knowledge construct and, in so doing, to sensitize them to the lessons of experience. How should we pursue these goals?

First, we can support the acquisition of tacit knowledge for military leadership by teaching it more or less directly to Army officers. This approach, which has been successful in previous tacit-knowledge research, involves the development of a tacit-knowledge curriculum composed of thematically organized lesson plans, leadership

scenarios and cases for study and discussion, and diagnostic testing for assessment of progress towards mastery.

A second and by no means incompatible approach to supporting the acquisition of tacit knowledge for military leadership is to use the identified tacit knowledge to promote more effective leader development through on-the-job experience. According to this approach, those individuals responsible for developing leaders would be acquainted with the major findings of the tacit-knowledge research program. This would give them the opportunity to structure the on-the-job experience of the leaders they develop in such a way as to promote the acquisition of tacit knowledge important for that level (see Forsythe, Prince, Wattendorf, & Watkins, 1988).

We should briefly clarify the role of assessment in the project as a whole. Although there is some precedent for using tests of job knowledge in selection, this kind of use is not a goal of the development phase of the current project. Rather, the goal is to develop tacit-knowledge tests that will support effective teaching and leader development. First, we will use the test-development process to explore the criterion validity of the tacit knowledge to be taught. Second, we will use validated tacit-knowledge tests to assess students' progress in learning and to diagnose, in individuals, particular deficiencies in knowledge and skill.

In summary, our approach to tacit-knowledge assessment will be to develop tests that, as closely as possible, replicate the challenges of leadership practice. In this way, our tacit-knowledge tests will directly promote the development of criterial knowledge and skill. Note that this approach is consistent with currently accepted practice in the field of performance assessment (see Brandt, 1992).

How will the results of the interview study inform our development of tacit-knowledge tests and teaching materials? First, our analysis by level of tacit knowledge for military leadership has provided us with a good indication of what leaders learn from experience at each of the levels under consideration. That is, we have identified categories of tacit knowledge that seem to be of particular importance to leaders at each level. These categories of knowledge may be thought of as milestones of experiential learning for each level. For example, we found evidence that platoon leaders learn a lot about motivating subordinates, establishing their own credibility, and managing themselves effectively. We found that company commanders learn a lot about taking care of soldiers, about buffering their troops from battalion directives, and about cooperating with others outside their own unit (e.g., battalion staff and sister companies). Finally, we found that battalion commanders learn a lot about organizational communications, about protecting the organization and managing change processes, and about taking care of and developing subordinates over the long-term. These milestones of experiential learning will be of great value in deciding what to teach and/or how to structure on-the-job experience at each level.

A second set of lessons comes from our analysis of tacit knowledge for military leadership in terms of its function with respect to Army leadership doctrine. This

analysis highlights areas of leadership knowledge that doctrine has failed to address adequately. Some of this knowledge is only vaguely specified in the doctrine. For example, we found evidence that leaders (junior leaders in particular) must learn from experience how to manage themselves in challenging and stressful situations. Some of the leadership knowledge we obtained is simply missing from the doctrine. For example, we found evidence that leaders learn from experience about how to exercise influence upward. Our subjects report that this knowledge is often essential to increasing or maintaining one's level of discretion. Similarly, we found that leaders learn how to buffer and maintain credibility with the members of their own unit while still remaining responsive to directives from above. Again, this knowledge seems to be absent from Army leadership doctrine, yet officers report that it was crucial to their effectiveness. These observations will be useful in the development of testing instruments and teaching materials.

Finally, and most obviously, the interview study has provided us with a large number of tacit-knowledge items and a large number of leadership stories in which tacit-knowledge items were embedded. These knowledge items (attached as Appendix D) will serve as the raw material out of which scenario-based test questions and training lessons will be constructed.

Conclusion

What did we learn from the interview study about tacit knowledge for military leadership? First, we learned that tacit knowledge for military leadership exists. In other words, we obtained knowledge in this domain and setting that met our criteria for tacitness. In this respect military leadership is like business management, academic psychology, and even primary school scholarship--areas of endeavor that have been found to have a tacit dimension.

Second, we found that tacit knowledge for military leadership seems to "live" in the stories that leaders know and tell about their leadership experience. In general, subjects' theories of leadership sounded more or less alike (e.g., lead by example, power down, and care for soldiers). By contrast, subjects' leadership stories were quite varied and provided a much better window onto leadership practice than did their espoused theories. This finding is consistent with previous tacit-knowledge research (Williams & Sternberg, in press) as well as with more general psychological theories of how people organize their experience (Schank, 1993; Sternberg, in press).

Third, we found evidence that tacit knowledge for military leadership increases with experience. We obtained more knowledge that met our criteria from experienced leaders than from inexperienced leaders. We also found evidence that some leaders learn more from their experience than others (i.e., high rates of variability within each level). Both of these results are consistent with the findings of previous tacit-knowledge studies (see Sternberg, Wagner, & Okagaki, 1993).

Fourth, we found that tacit knowledge varies according to one's level within the organization. That is, we found some indication that battalion commanders' tacit

knowledge is more complexly structured than that of company and platoon-level leaders. And we found considerable evidence that the content of tacit knowledge for military leadership varies by level. Specifically, we noted categories of tacit knowledge for military leadership that were unique to a single level, differences across levels in the relative frequencies of items in a given category, and differences across levels in the composition of a given category. In general, we found that the content of tacit knowledge for military leadership at a given level reflects the salient issues and challenges facing incumbents at that level.

Finally, we learned that tacit knowledge seems to instantiate and, at times, augment the leadership knowledge contained in doctrine. Doctrinal knowledge, like much formal knowledge, is designed to be broadly applicable. Our data suggest that leaders acquire through experience additional knowledge that allows them to put broadly applicable knowledge into practice in specific situations. Further, doctrine conveys values as well as knowledge--those values considered important by the developers of doctrine. Knowledge, however useful, that in some way conflicts with these values will not find its way into doctrine. Our data suggest that acquiring such knowledge is a delicate but necessary undertaking for leaders.

That individuals learn valuable lessons from experience is an uncontroversial proposition. The tacit-knowledge research program has sought to unpack this proposition however. Specifically, it has shown that some lessons are more valuable than others, and that the most valuable lessons tend to share certain properties. We call these lessons tacit knowledge. In this study we looked for and found tacit knowledge in the self-report of military leaders. The knowledge that we found reflected both the challenges facing leaders at each level and the limitations of formal knowledge as a guide to meeting these challenges. These insights will help guide our own practice as we seek to add value to the process of leader development in the military setting.

REFERENCES

- Bass, B. M. (1988). Bass and Stogdill's handbook of leadership: Theory, research, and managerial applications. New York: The Free Press.
- Brandt, R. S. (Ed.). (1992). Performance assessment. Alexandria, VA: Association for Supervision and Curriculum Development.
- Burns, H. L., & Capps, C. G. (1988). Foundations of intelligent tutoring systems. In M. C. Polson & J. J. Richardson (Eds.), Foundations of intelligent tutoring systems. Hillsdale, NJ: Erlbaum.
- Chi, M.T.H., Glaser, R., & Farr, M. J. (1988). The nature of expertise. Hillsdale, NJ: Erlbaum.
- Fiedler, F. E. (1967). A theory of leadership effectiveness. New York: McGraw Hill.
- Forsythe, G. B., Prince, H. T., Wattendorf, J. M., & Watkins, G. L. (1988). A framework for leader development. Military Review, November, 17-27.
- Hartigan, J. A. (1975). Clustering algorithms. New York: Wiley.
- Headquarters, Department of the Army (1985). Leadership counseling (FM-22-101). Washington, DC: U.S. Government Printing Office.
- Headquarters, Department of the Army (1987). Leadership and command at senior levels (FM-22-103). Washington, DC: U.S. Government Printing Office.
- Headquarters, Department of the Army (1987). Soldier team development (FM-22-102). Washington, DC: U.S. Government Printing Office.
- Headquarters, Department of the Army (1990a). Military leadership (FM-22-100). Washington, DC: U.S. Government Printing Office.
- Headquarters, Department of the Army (1990b). Military qualifications standards I: Manual of common tasks (STP 21-1-MQS). Washington, DC: U.S. Government Printing Office.
- Hollander, E. P. (1985). Leadership and power. In Lindzey and Aronson (Eds.), Handbook of social psychology. New York: Random House.
- Horvath, J. A., Williams, W. M., Forsythe, G. B., Sweeney, P. J., Sternberg, R. J., McNally, J. A., & Wattendorf, J. (in preparation). Tacit knowledge in military leadership: A review of the literature (Technical Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

- House, R. J. (1971). A path goal theory of leader effectiveness. Administrative Science Quarterly, 16, 321-338.
- Jacobs, T. O., & Jaques, E. (1987). Leadership in complex systems. In J. Zeidner (Ed.), Human productivity enhancement: Organizations, personnel, and decision making (Vol. 2). New York: Praeger.
- McCall, M. W., & Lombardo, M. M. (1978). Leadership: Where else can we go? Durham, NC: Duke University Press.
- Schank, R. C. (1993). Tell me a story: A new look at real and artificial memory. New York: Simon and Schuster.
- Smith, E. E., & Medin, D. L. (1981). Concepts and categories. Cambridge: Harvard University Press.
- Sternberg, R. J. (1988). The triarchic mind: A new theory of human intelligence. New York: Penguin Books.
- Sternberg, R. J. (in preparation). Love is a story. General Psychologist.
- Sternberg, R. J., & Wagner, R. K. (1993). The g-ocentric view of intelligence and job performance is wrong. Current Directions in Psychological Science, 2, 1-4.
- Sternberg, R. J., Wagner, R. K., & Okagaki, L. (1993). Practical intelligence: The nature and role of tacit knowledge in work and school. In H. W. Resse & J. M. Puckett (Eds.), Mechanisms of everyday cognition. Hillsdale, NJ: Erlbaum.
- Strube, G., Janetzko, D., & Knauff, M. (in preparation). Cooperative construction of expert knowledge: The case of knowledge engineering. In P. Baltes & U. Staudinger (Eds.), Interactive minds: Life-span perspectives on the social foundations of cognition.
- Vroom, V. H., & Yetton, P. W. (1974). Leadership and decision making. New York: Wiley.
- Wagner, R. K. (1987). Tacit knowledge in everyday intelligent behavior. Journal of Personality and Social Psychology, 52, 1236-1247.
- Wagner, R. K., & Sternberg, R. J. (1985). Practical intelligence in real-world pursuits: The role of tacit knowledge. Journal of Personality and Social Psychology, 48, 436-458.
- Williams, W. M., & Sternberg, R. J. (in preparation). Success acts for managers. New York: Harcourt Brace and Company.

Winograd, T. (1975). Frame representation and the declarative-procedural controversy. In D. G. Bobrow & A. Collins (Eds.), Representation and understanding: Studies in cognitive science. New York: Academic Press.

Yukl, G. (1971). Toward a behavioral theory of leadership. Organizational Behavior and Human Performance, 6, 414-440.

Yukl, G. (1989). Managerial leadership: A review of theory and research. Journal of Management, 15, 251-289.

Appendix A

Interview Protocol

Ice Breaker

- Try to relax interviewee. Find out something about him/her. As a minimum, ask about job and number of months of experience at this level of leadership.
- Introduce interview team. Explain interview team roles and partnership with the interviewee.
- State general purpose of the interview: to learn about their leadership experiences.
- Comment on anonymity.
- Comment that this is not an evaluation of them; not a study of West Point. We are simply interested in knowing more about what they have learned about leadership from their experience--their "little green book" stories.

Introduction

As we begin, let us tell you what we're looking for. We want to identify specific examples of informal knowledge about leadership at the _____ (platoon, etc.) level. We want to find examples of things about leadership that aren't written in books or taught in classes. Our hunch is that this knowledge is often not discussed openly, but nevertheless is used by leaders as they meet the demands of their jobs. This knowledge may have been learned because of some challenge or problem you faced. It may have been acquired by watching someone else's successes or failures.

We're not interested in the party line or the doctrine or theory. We're also not interested in the purely technical things you learned from experience--supply procedures, maintenance, gunnery, etc. We have a good idea of the tasks associated with your job. We are really interested the problems and challenges you faced and what you have learned about leadership at your level from these experiences.

First Probe

Let's begin. Tell us a story about a leadership experience you have had as a _____ (platoon leader...) from which you learned a lesson.

Sample Probes

- How did you feel?
- How do you put that into action? What do you do?
- Why did you do that? What were some of your other options?
- What happened? or How might it have worked out?
- Have you had a similar experience (challenge or problem) before? If so, please tell us about that.
- Have you had a similar experience since this one? If so, please tell us about it.

- How will you handle a similar experience if it happens in the future?
- What were the lessons learned from this experience?

Remember

Involve the interviewee as a partner in the TK acquisition. Stay with the story line and the affect. Try to get the TK in their own words. Interviewers work together with interviewee to develop as clear a description of the TK as is possible. Once a story has been mined, if time permits, ask the interviewee to tell another story. Follow same line of conversation until time is up or interviewee is ready to stop.

Sample Criteria

- Learned through direct experience of self or others. May be cumulative--many experiences combined.
- Experiences may be problems, challenges, or failures.
- Procedural rather than declarative. Knowing in action. Probe for HOW.
- Cuts across the grain of conventional wisdom. May be unspoken or taboo.

Appendix B

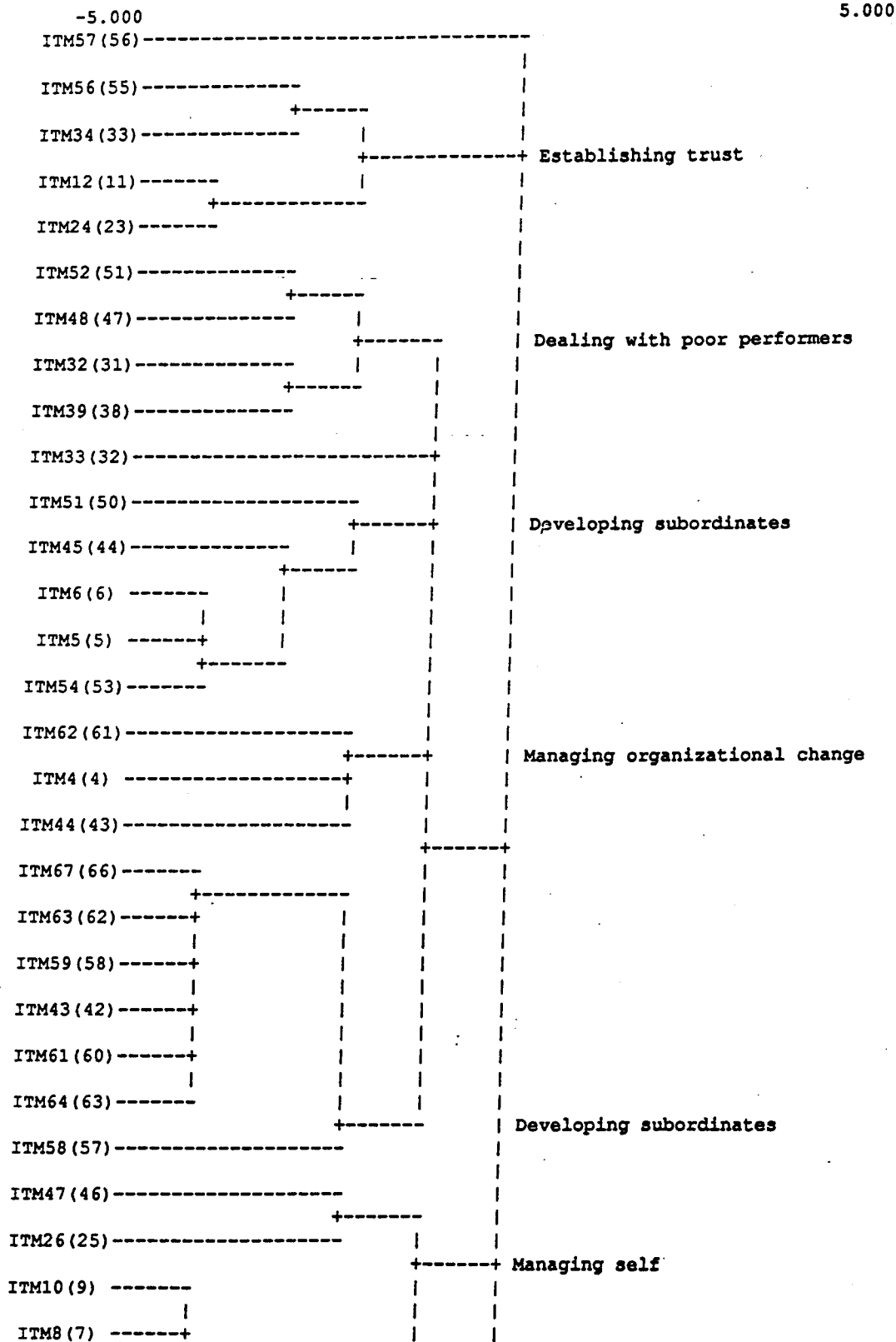
Summary Statistics for Sort Data

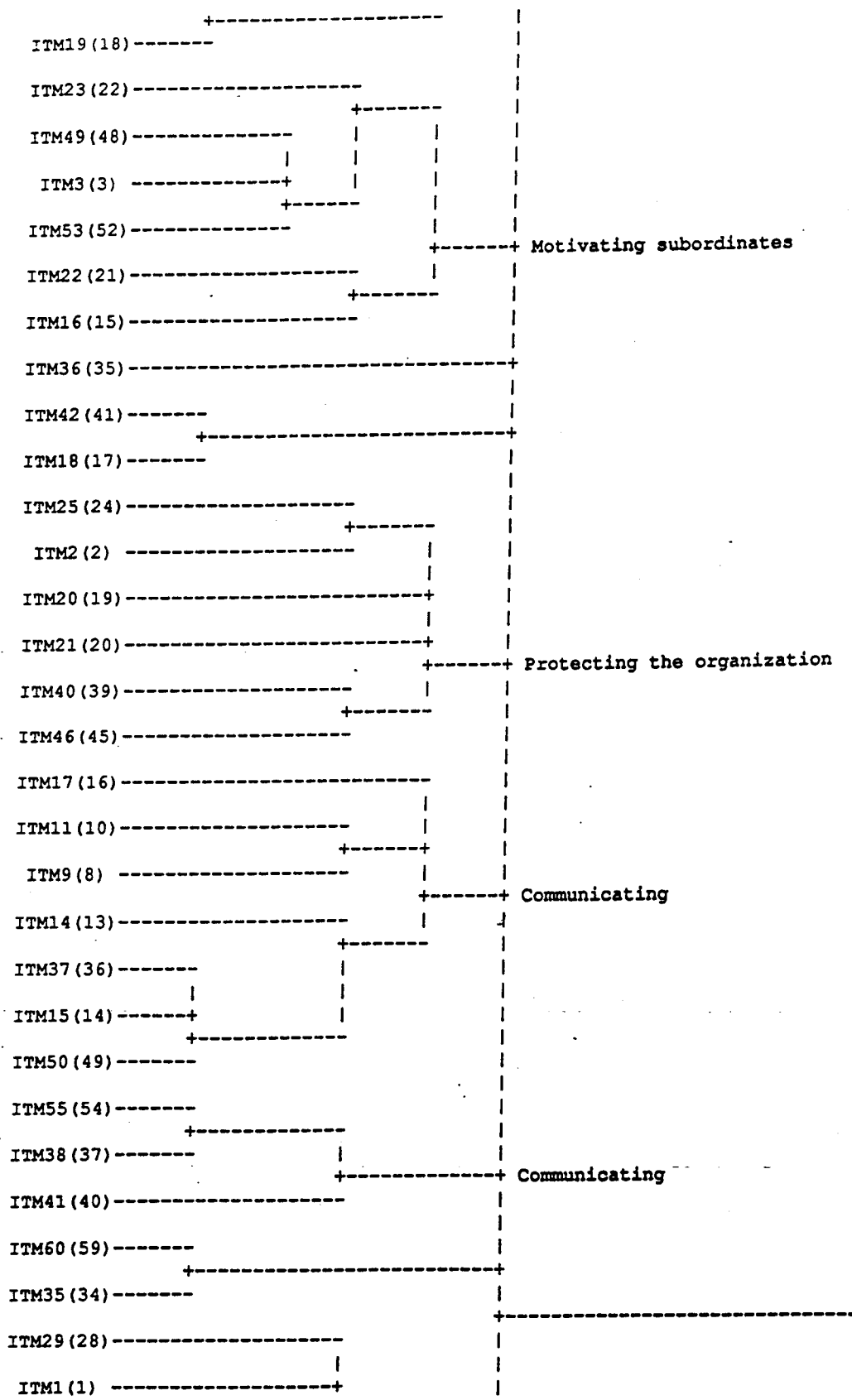
Numbers of Categories Generated in Independent Sorting, by Organizational Level and by Judge

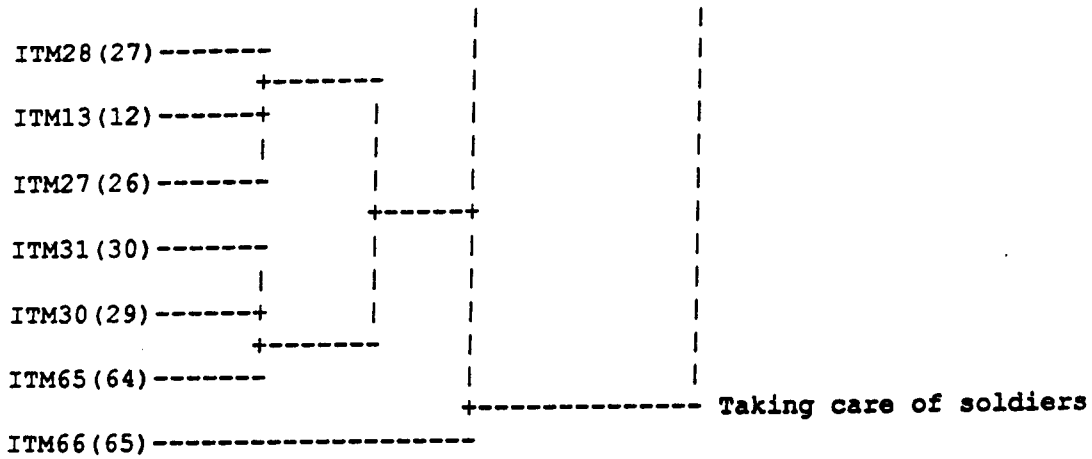
Level	Judge				Mean (sd)
	Judge 1	Judge 2	Judge 3	Judge 4	
Battalion	9	10	6	7	8.00 (1.83)
Company	12	9	8	8	9.25 (1.89)
Platoon	9	8	7	8	8.00 (0.82)
Mean (sd)	10.00 (1.73)	9.00 (1.00)	7.00 (1.00)	7.67 (0.58)	8.42

Appendix C
Cluster Analysis Output

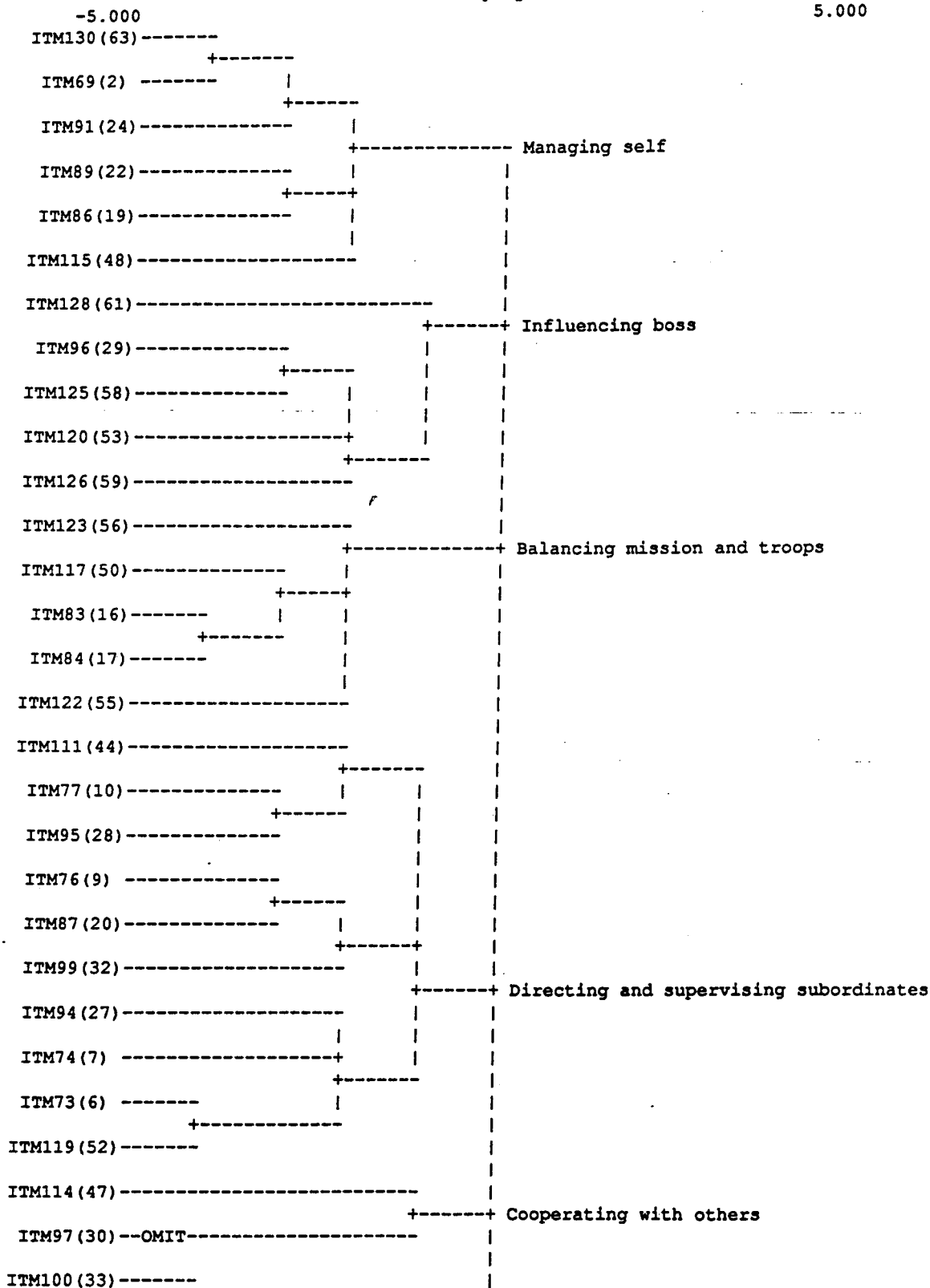
Battalion Commander Clusters

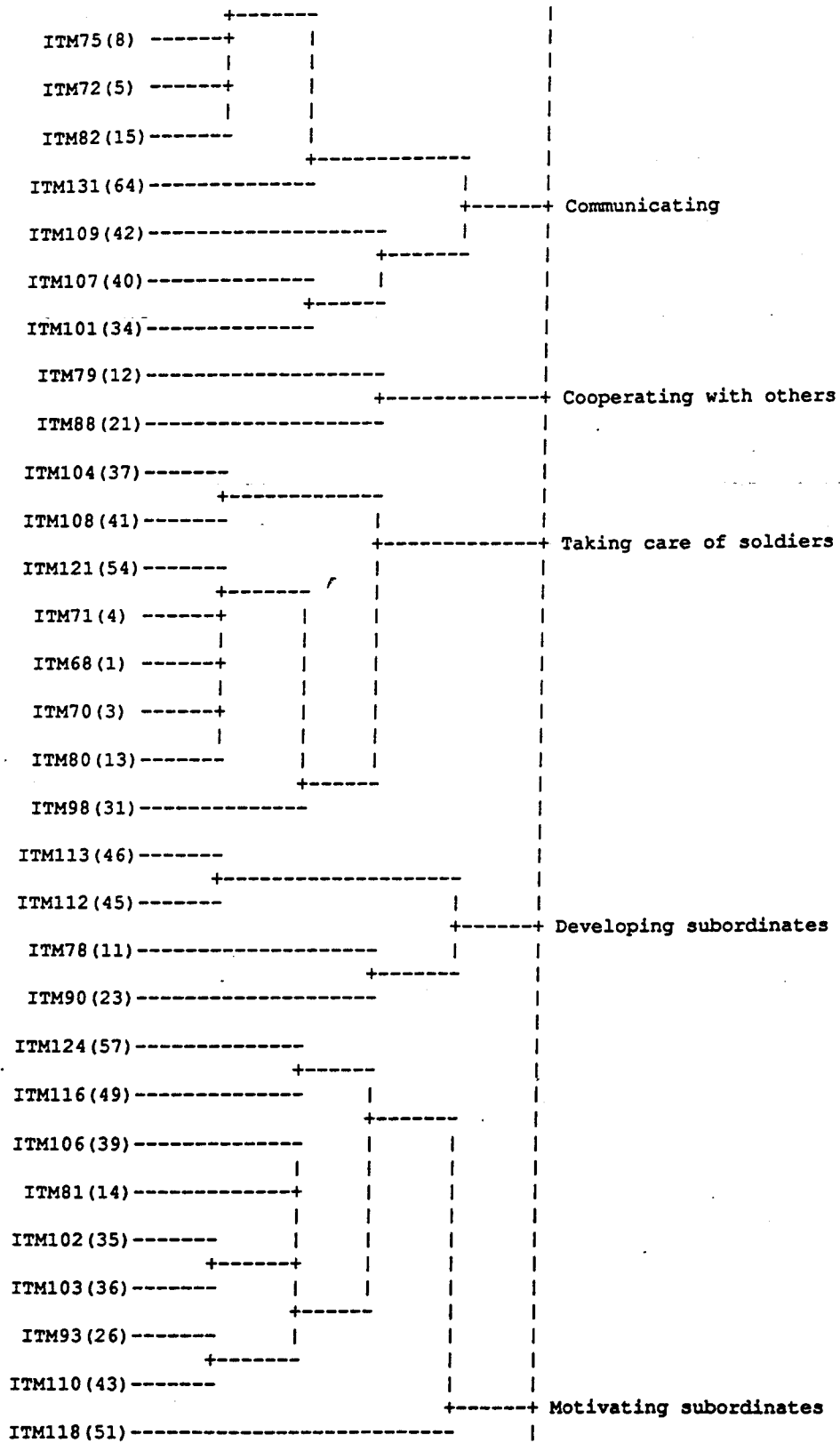






Company Commander Clusters

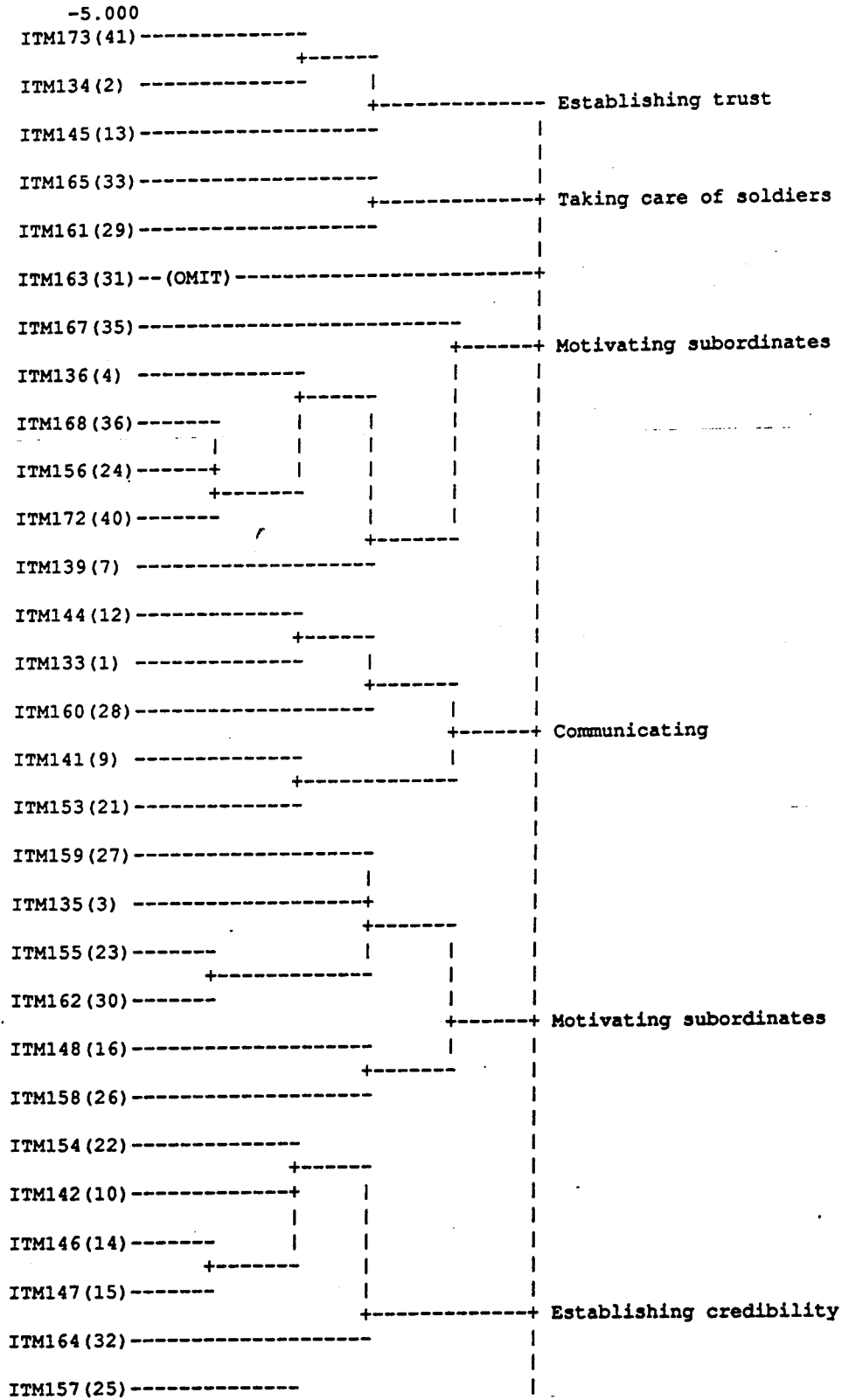


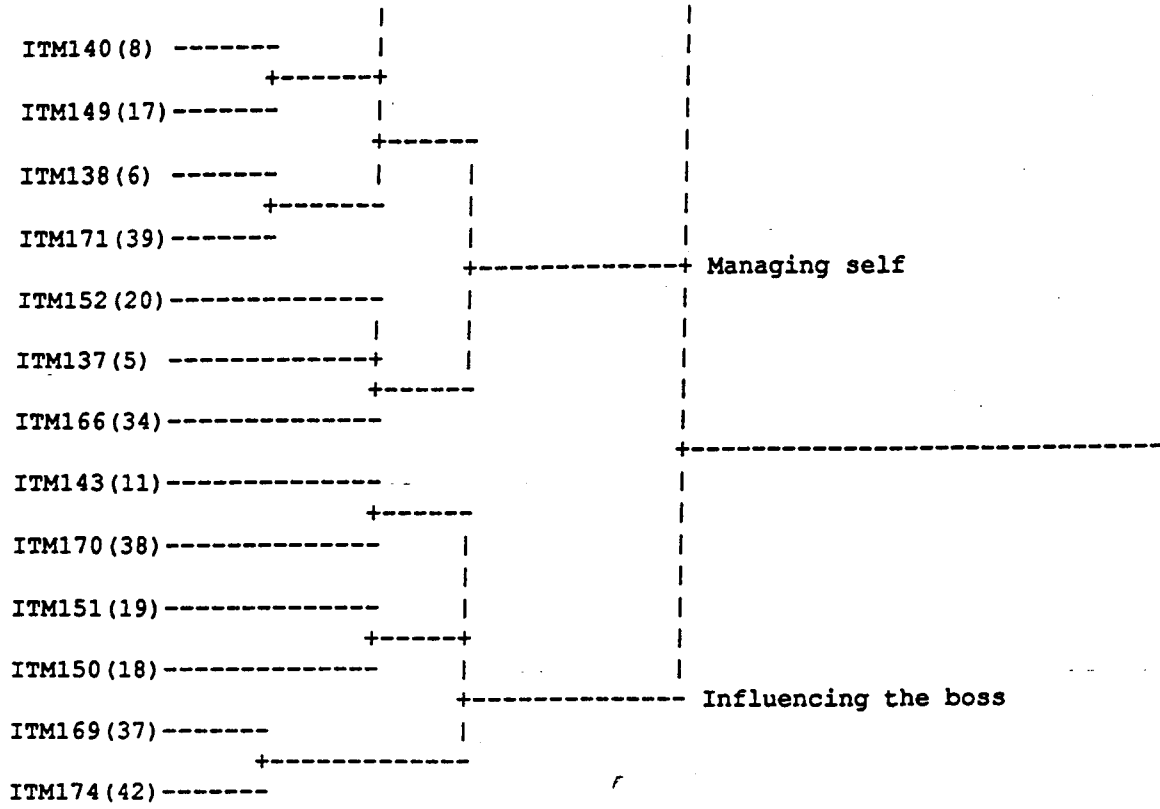


ITM127 (60) -----+
ITM92 (25) -----
ITM85 (18) -----+
ITM129 (62) -----+ Establishing trust
ITM105 (38) -----+
ITM132 (65) -----

Platoon Leader Clusters

5.000





Appendix D

Tacit-Knowledge Items

The tacit-knowledge items acquired in the interview study appear in this appendix. Tacit-knowledge items in this appendix are organized according to the level of the subject from whom they were acquired and, within-levels, according to tacit-knowledge category. Each tacit-knowledge item is labeled with an item number that corresponds to an item number in the cluster-analysis output (Appendix C). Each tacit-knowledge item is labeled with the following subject information: (a) subject number, (b) single digit representing the subject's level (1 = battalion, 2 = company, 3 = platoon), (c) single digit representing the subject's branch category (1 = combat arms, 2 = combat support, 3 = combat service support), (d) number of months in current position, (e) abbreviation representing the type of unit the subject leads (e.g., AR, FA, MI), and (f) abbreviation representing the subject's race and gender (e.g., WM, BM, WF, BF). For example, the item identifier

ITM #84 --Subject 035, 2, 1 (14 months, FA, BM)

Designates tacit-knowledge item number 84, obtained from subject 35, who led a company in the combat arms branch category. This subject had served 14 months in his current position, led a field-artillery unit, and was a black male.

Battalion Commanders

Establishing Trust

ITM# 24--Subject 078, 1, 1 (24 months, IN, WM)

Taking care of soldier requires you to trust them when they tell you that they are hurt or suffering.

IF you are on an important training mission
AND

IF a soldier tells you that he or she is hurt or suffering in some way,
THEN trust his or her judgment and get him or her help
BECAUSE believing soldiers when they tell you that they are hurt allows you to take action to protect their welfare.

ITM# 12--Subject 003, 1, 1 (12 months)

How to build trust with your soldiers.

IF you want to build trust with your soldiers
THEN give your soldiers the responsibility to do their jobs. Be technically and tactically competent. Be consistent in the way you ask questions and react to problems. Do not lose your composure when problems arise. Model your standards. Do not punish people who bring you bad news. Be accessible to your soldiers. Take care of your soldiers' problems. Take risks (e.g., saying no to the DIVARTY CDR) in order to take care of your soldiers
BECAUSE these behaviors help build trust with your subordinates.

ITM #34--Subject 079, 1, 1 (12 months, AR, WM)

Remain calm in the face of a crisis.

IF you are faced with a crisis as a leader involving the death of one of your soldiers
THEN remain calm and let others do their jobs. Provide emotional support to the soldiers and their leaders. Keep your subordinates and superiors informed
BECAUSE this is a way to demonstrate trust in your subordinate leaders, to build trust with your boss, and to show concern for the welfare of your soldiers. Panic and micro-management are not what is needed at the time. It's easy to show trust when the situation is stable, but soldiers really know the battalion commander trusts them when they are permitted to do their jobs in a crisis.

ITM #56--Subject 001, 1, 3 (16 months, WM)

How to relieve an officer.

IF you have to relieve an officer

THEN treat the officer with dignity by counseling him or her on the reasons for relief and by providing a follow-on assignment that will allow the officer to contribute to the Army.

BECAUSE treating all soldiers with dignity preserves your soldiers' trust in you.

ITM #57--Subject 001, 1, 3 (16 months, WM)

How to protect supported units' trust in your organization when you relieve an officer whose job required him or her to work with units outside your organization's boundaries

IF you relieve an officer

AND

IF the officer's job required him or her to work with units outside your organization's boundaries

THEN notify supported units outside of your organization about the relief

BECAUSE notifying supported units preserves their trust in your unit.

Dealing with Poor Performers

ITM #52--Subject 052, 1, 2 (12 months, MI, WM)

How to handle senior NCOs who are using their expertise to undermine the authority of the commander.

IF senior NCOs in highly specialized MOS are using expert power to undermine the authority of a company commander

AND

IF the senior NCOs' expertise is needed to accomplish the unit's mission

THEN use measures such as bars to re-enlistment and denying requests for extensions to get rid of these subversive NCOs through attrition. Also, focus on developing the expertise in junior NCOs, so the unit can accomplish its mission and at the same time erode the senior NCOs' power base

BECAUSE development of the junior NCOs will eliminate the expert power base of the senior NCOs who are undermining your authority and the coercive measures should, over time, suppress the subversive behavior. Also, by holding highly-trained soldiers accountable to the standards, you maintain control of your unit.

ITM #48--Subject 042, 1, 2 (21 months, EN)

Criteria that a battalion commander can use to determine when to relieve a company commander

IF soldiers and their family members in the unit do not trust or have confidence in the commander

AND

IF too many things in the unit do not work

AND
IF the commander demonstrates stupidity
AND
IF the commander does not possess the basic skills (incompetence)
AND
IF a commander fails to show improvement
OR
IF the commander breaches or violates his or her integrity,
THEN relieve the officer of his or her command
BECAUSE the officer is not fit to command and relieving him or her takes care of the organization.

ITM #39--Subject 079, 1, 1 (12 months, AR, WM)

Dealing with weak subordinate commanders.

IF you have weak company commanders who have some potential for development
THEN give them strong subordinate leaders (First Sergeant and platoon leaders).
Never criticize them in front of the brigade commander. Set them up for success and invite the brigade commander to watch them perform
BECAUSE you always want to set your commanders up for success in front of their senior rater if they are trying, but you also have to consider the welfare of your soldiers
BUT
IF you have a company commander who is dishonest, immoral, or mistreats soldiers
THEN relieve him or her immediately
BECAUSE an unethical commander jeopardizes the welfare and morale of your soldiers.

ITM# 32--Subject 078, 1, 1 (24 months, IN, WM)

How to protect the organization when you give an officer about whom you have doubts a chance to command.

IF you have an officer who deserves a chance at command, but you feel that he may not succeed
THEN put the officer in command of a unit with strong subordinate leaders
BECAUSE you take care of the officer by giving him a chance to command and you take care of the organization by surrounding the leader with strong subordinate leaders.

Developing Subordinates (A)

ITM# 5--Subject 002, 1, 1 (10 months)

The most effective counseling does not occur on a preprogrammed basis, but rather following an experience that provides the context for counseling.

IF a subordinate leader has high, unrealistic internal standards

AND

IF the unit is facing a major training event

THEN conduct developmental counseling after the training event rather than before or during in order to allow the subordinate time to process his or her failures

BECAUSE your ability to influence a subordinates' thoughts or behavior increases.

ITM# 6--Subject 002, 1, 1 (10 months)

When to conduct developmental counseling

IF a subordinate leader needs certain experiences to promote his or her development

AND

IF a significant training event is forthcoming that incorporates these developmental experiences

AND

IF the subordinate's lack of experience in a particular area or skill will not cause harm to anyone

THEN

Conduct developmental counseling after the training event rather than before or during in order to allow the subordinate time to process his or her experiences

BECAUSE Your ability to influence a subordinates' thoughts or behavior increases.

ITM #45--Subject 005, 1, 2 (23 months)

Control or influence subordinates who are tasked-organized to maneuver units through responsibilities associated with their roles.

IF the majority of your unit is tasked-organized to maneuver units during combat operations

THEN define and develop role responsibilities as a way of influencing your subordinate commanders and staff during normal operations and training. Rely on these role responsibilities during combat operations

BECAUSE when portions of your organization are placed under operational control of another commander through task organization, you do not have the means to exert direct influence over subordinates, thus you must use indirect means such as roles to influence them.

ITM #51--Subject 052, 1, 2 (12 months, MI)

How to develop subordinate leaders by letting them solve their own problems.

IF your subordinate officers need help with a problem

AND

IF you are interested in developing their problem solving abilities

THEN use problem-solving techniques to help them solve their own problems by talking/guiding them through the procedure

BECAUSE their involvement in developing the solution will increase their confidence and result in feelings of ownership. Also, by walking them through a problem-solving technique, you are teaching them the skills to handle future problems.

ITM #54--Subject 001, 1, 3 (16 months, WM)

Use shortcomings found during a unit's mission performance as an opportunity to develop the commander and at the same time communicate your standards and vision.

IF you feel that one of your companies has a problem in a particular area such as maintenance

AND

IF the problem adversely impacts on your vision

THEN give the subordinate unit a mission that would highlight the shortcoming and have the commander observe the results. Discuss the shortcoming with the commander in order to identify possible causes and make recommendations to correct the problem. Do not chew-out your commander for the shortcoming, instead, explain to him or her how the shortcoming impacts on the battalion's ability to do its mission and the vision

BECAUSE using a unit's shortcomings as a learning opportunity promotes the professional development of the commander. Also, hands-on exercises or visual examples are very effective in teaching people what the standards are and what they look like.

Managing Organizational Change

ITM #62--Subject 001, 1, 3 (16 months, WM)

How to implement change in the battalion.

IF you desire to implement change in the battalion you are in charge of
THEN focus your efforts on changing/developing company commanders and lieutenants

BECAUSE the company commanders and lieutenants are the agents that will implement change in the battalion. The battalion commander commands through his company commanders.

ITM #44 --Subject 080, 1, 1 (25 months, FA, WM)

When to provide a unit feedback for future improvement.

IF one of your units does an outstanding job in accomplishing a mission

AND

IF you observed things that needed to be corrected to improve their future performance

THEN tell them they did a good job and hold the suggestions for improvement for a later time

BECAUSE soldiers need time to enjoy, for little awhile, the positive feelings of accomplishment.

ITM# 4--Subject 002, 1, 1 (10 months)

Empowering leaders.

IF you give responsibility for a task held by leaders to their subordinates
THEN replace that task with one of equal or greater responsibility
BECAUSE this communicates to the leader that you trust him or her and sustains or increases his or her ability to influence the organization.

Developing Subordinates (B)

ITM #43 --Subject 080, 1, 1 (25 months, FA, WM)

How to develop junior officers for battalion command.

IF you are responsible for the development of your lieutenants
AND
IF you have the authority to make commander selections
AND
IF you plan to give a battery executive officer a command
THEN place the former executive officer in command of a battery that he was not "raised" in
BECAUSE this forces him or her to assess a unit and find its strengths and weaknesses.

ITM #58--Subject 001, 1, 3 (16 months, WM)

How to get information about the areas in which your commanders need developmental training.

IF you are seeking information about areas that your subordinate commanders need development in
THEN talk to their soldiers and ask about such things as job description and responsibilities, perception of their training, work hours, and disseminated information. Use the information obtained from these discussions to structure each commander's developmental training
BECAUSE soldiers usually directly experience the consequences of a commander's weaknesses, thus they are a good source of information.

ITM #59--Subject 001, 1, 3 (16 months, WM)

How to deal with mistakes made by your subordinates.

IF a subordinate makes a mistake
AND

IF you are in a public setting
THEN do not embarrass the subordinate in public and do not use coercive means to correct the mistake. Use mistakes as an opportunity to coach and develop your subordinates. Have subordinates recognize their own mistakes and help coach them to think of ways to correct the mistakes. Be sure that you give them positive feedback at the end of this development session, in order to restore their confidence
BECAUSE coercion destroys initiative and does not foster development in a subordinate. Discussing mistakes, in a non-threatening environment, facilitates learning and development.

ITM #61--Subject 001, 1, 3 (16 months, WM)

How to develop your majors and company grade officers.

IF you are responsible for the development of majors, captains, and lieutenants
THEN develop officers on the job and not in the classroom. Develop majors with a "see, this is how you do it" approach. Develop captains with questioning, telling, suggesting, and practicing
BECAUSE "majors get the executive development treatment." You are preparing them to take command of their own battalion.

ITM #63 --Subject 040, 1, 3 (WF)

Using majors on battalion staff to help develop your company grade officers.

IF you want help in developing your company commanders
THEN
Assign the majors on battalion staff to serve as mentors for the company commanders. Ensure that the mentor is the same branch as the company commander
BECAUSE the majors on staff are a neutral source of guidance because they do not rate the company commanders. This non-evaluative relationship may facilitate open communication, which is critical for the developmental process.

ITM #64 --Subject 040, 1, 3 (WF)

Using PT as an informal situation to provide performance and developmental feedback to officers and NCOs.

IF you want an informal situation to provide developmental feedback to your officers and NCOs, either as a group or individually
THEN invite the officers or NCOs to do PT with you, and use this time to provide them with performance and developmental feedback
BECAUSE the officers and NCOs may be more receptive to the feedback due to the relaxed atmosphere of PT. Also, using PT to conduct counseling is an economical use of the battalion commander's time.

ITM #67 --Subject 066, 1, 3 (14 months, OD, WM)

How to develop your company grade officers.

IF you want to develop your company grade officers
THEN focus on developing their thought processes by require them to think about the consequences of their actions. For example, have lieutenants brief you on their range plans. Also, monitor their participation in a professional reading program
BECAUSE your officers' reflection on the consequences of their actions facilitates the acquisition of knowledge.

Managing Self

ITM #47 --Subject 080, 1, 1 (25 months, FA, WM)

When given negative feedback, try to get your superior to focus the criticisms.

IF a superior is giving you negative feedback about your own or your unit's performance
THEN try to get him to focus his or her criticisms on specifics
BECAUSE specific performance feedback provides you with information on what exactly needs to be changed, according to your commander's perspective.

ITM# 26--Subject 078, 1, 1 (24 months, IN, WM)

How to confront your boss concerning the correctness of his or her actions.

IF you are in a public forum

AND

IF the boss says something or does something that you perceive is wrong or inappropriate

AND

IF the boss does not ask for questions or comments

THEN speak directly to the point of contention and do not make evaluative statements about the boss, staff or your peer's character or motives

BECAUSE this saves the boss from embarrassment and preserves your relationship with him.

ITM #19 --Subject 057, 1, 1 (23 months, IN, WM)

When you experience frustration or stress as a commander, seek out social support to help you deal with it.

IF you feel frustrated (stressed) because of communication problems with your boss
THEN seek out peers, family members, or a chaplain with whom you can discuss your frustrations

BECAUSE seeking others to share your frustrations helps combat the effects of stress.

ITM # 10--Subject 003, 1, 1 (12 months)

How to manage the stress of being a commander.

IF you are in a stressful situation for sustained periods of time
THEN be open to and solicit input from a trusted confidant (e.g., CSM) with regard to your response to the stress
BECAUSE if stress is affecting your performance, you may be the last to know.

ITM # 8--Subject 003, 1, 1 (12 months)

How to manage yourself when you are upset.

IF your subordinate's action causes you to become angry to the point where you are about to lose your composure
THEN do something (take a time-out, take deep breaths, sit down) to gain your composure before you act
BECAUSE losing your composure in front of your subordinates may hurt your credibility.

Motivating Subordinates

ITM # 3--Subject 002, 1, 1 (10 months)

Going against the usual way of doing things is sometimes a way to make a statement that you have confidence in someone (or a group). Making people fully responsible for something is a way to demonstrate your confidence in them.

IF you want your NCOs to assume more responsibility
THEN give them responsibility for a visible and significant event (e.g., battalion railhead operation) that officers previously were responsible for. Do not give them small incremental tasks, but bold ones
BECAUSE this gets the person or the group to assume responsibility immediately and demonstrates your trust.

ITM # 16-- Subject 053, 1, 1 (12 months, AV, WM)

How to correct your soldiers' misperceptions about decision processes.

IF you discover that your soldiers perceive that you do not support them
AND
IF you feel that this is a misperception
THEN invite a few soldiers to observe the decision-process for soldier support issues (e.g., award approvals) with you. Encourage them to share what they learned with their peers
BECAUSE the soldiers most likely will share the knowledge about the complexities of the approval process with their peers, thus helping to correct misperceptions.

ITM # 22 --Subject 057, 1, 1 (23 months, IN, WM)

How to re-establish loyalty in a unit after the commander jumps the chain of command to resolve a problem with his/her commander.

IF you have by-passed the chain of command and brought a problem to your boss' commander

AND

IF officers in your unit start to openly voice criticisms after you have by-passed the chain of command

THEN conduct open sensing sessions with the subordinate leaders in your unit to explain why you had to by-pass the chain of command. Also, let them know that if they have problem with the way you are leading the unit, they can bring it to you BECAUSE in a sensing session you can pass out accurate information on why you had to by-pass the chain of command and break loyalty with your commander. Also, a sensing session re-establishes or confirms your communication channels with your subordinate leaders. Rely on the subordinate leaders to teach their subordinates to be loyal and correct disloyal behavior.

ITM # 23--Subject 057, 1, 1 (23 months, IN, WM)

How to re-open communication between you and your subordinate commanders after your actions have closed it down.

IF your defensiveness has cut-off feedback

AND

IF you feel a relationship is strained between you and a subordinate commanders because of the lack of communications

THEN take the first step to re-establish communications by going to the subordinate commander's office to discuss the source of the problem

BECAUSE by going to the subordinate you demonstrate that you are interested in the relationship with them. The willingness to discuss problems clears hindrances to open communications.

ITM #49--Subject 046, 1, 2 (12 months, SC, WM)

Impact awards in the field are part of performance counseling.

IF the chain of command recommends a soldier for an award because of exceptional performance in the field

AND

IF you have the authority to give an award

THEN give the soldier an impact award before the unit re-deploys

BECAUSE impact awards in the field are part of performance counseling and they are great for boosting morale.

ITM #53--Subject 001, 1, 3 (16 months, WM)

Use your executive officer to influence company commanders to support your vision.

IF a company commander is not supporting your vision
THEN have the battalion XO go to the company commander to inform him or her you feel they are not supporting your vision
BECAUSE this indirect approach (e.g., using the battalion XO) to influence the company commander allows the battalion commander to protect the positive relationship between himself and the company commander.

Protecting the Organization

ITM # 25--Subject 078, 1, 1 (24 months, IN, WM)

When a commander should trust to soldiers and give them the benefit of the doubt.

IF it is a person's first time in trouble or the first time a reason has arisen to question a person's trustworthiness

AND

IF the person has earned trust through outstanding performance of duty

AND

IF the person is not in a high visibility job where leniency maybe misperceived as favoritism or preferential treatment

THEN give the benefit of the doubt if they become involved in some kind of trouble

BECAUSE the more you trust soldiers, the better their performance will usually be
ELSE

IF you have soldiers in high visibility jobs (e.g., battalion commander's driver) where leniency maybe misperceived as favoritism or preferential treatment,
THEN tell them up front what incidents would get them relieved and hold to the standard

BECAUSE leniency may be perceived by others as preferential treatment and may hurt the organization's morale.

ITM # 20 --Subject 057, 1, 1 (23 months, IN, WM)

By jumping the chain of command to seek advice on how to solve a problem with your boss, you risk disrupting the loyalty in your own unit because you have modeled disloyalty.

IF you are having problems communicating with your immediate commander

AND

IF you decide to seek advice from your boss' commander (jump the chain of command) on how to solve the problems

THEN be prepared for the possibility of a disruption of loyalty in your own unit.

BECAUSE you have modeled disloyalty and the effects of this may carry over into your own unit.

ITM # 21 --Subject 057, 1, 1 (23 months, IN, WM)

Criteria for deciding when you should jump the chain of command to try to solve a problem you have with your BDE CDR.

IF all attempts to communicate with your commander have failed
AND
IF you feel that several officer's careers have been unjustly destroyed by the commander
AND
IF morale of the unit seems dangerously low
OR
IF not by-passing the chain of command violates your loyalty to your soldiers and yourself
THEN by-pass the chain of command and go talk to your boss' commander
BECAUSE By-passing the chain of command is in the best interest of your soldiers and the unit.

ITM #40 --Subject 080, 1, 1 (25 months, FA, WM)

How to protect your unit for becoming overwhelmed by external demands.

IF you want to ensure that your battalion does not become overwhelmed with external demands
THEN set priorities by selecting three to five up-coming missions to focus your unit's attention on
BECAUSE if a battalion commander tries to focus on more than five missions, his or her unit will become overwhelmed.

ITM #46 --Subject 080, 1, 1 (25 months, FA, WM)

Feedback or directives concerning unit problems should not be acted upon if the short-term solution has a negative impact on the organization's long term effectiveness.

IF an AAR at the NTC identifies problems in your unit
AND
IF the long-term consequences of an immediate fix are detrimental to the organization's effectiveness
THEN do not act on the feedback or comply with the directives during the rotation
BECAUSE a short-term fix may hurt the organization's effectiveness in the future (e.g., cannibalizing parts).

ITM # 2--Subject 002, 1, 1 (10 months)

IF you are considering granting a transfer for personal family problems, anticipate dealing with other requests for transfer (social contagion).

IF you grant a transfer because of a family problem

AND

IF work conditions contribute to the problem

AND

IF you know that other soldiers in your unit can make similar claims

THEN anticipate having to deal with requests for more transfers (social contagion)

BECAUSE other members of the organization may claim to have the same problem in order to escape a unit that spends a lot of time deployed.

Communicating (A)

ITM # 9--Subject 003, 1, 1 (12 months)

How to prevent subordinates from upsetting you.

IF you have "pet peeves" that you know are likely to cause you to become angry and, thereby, less rational

THEN forewarn your subordinates about your "pet peeves"

BECAUSE warning your subordinates about the behaviors that cause you to become extremely upset, may prevent them from performing these behaviors.

ITM # 11--Subject 004, 1, 1 (2 months, FA, WM)

Coercive influence based on statistics may cause subordinate commanders to hide incidents that adversely impact on their statistics

IF you are going to use statistics to manage a unit

THEN use them only as a guide and not as a means to exercise coercive influence

BECAUSE using coercion to maintain standards that are measured by statistics may hinder frank communications from your subordinates and may cause them to engage in unethical practices.

ITM # 14-- Subject 053, 1, 1 (12 months, AV, WM)

How to ensure soldier safety through flexibility in the commander's intent.

IF you are communicating mission type orders

THEN explicitly communicate that subordinates have the flexibility to make changes in the interest of safety

BECAUSE without such flexibility, subordinates may unnecessarily put soldiers in harms way thinking they are following orders.

ITM # 15-- Subject 053, 1, 1 (12 months, AV, WM)

How to control distortion of communications and correct misperceptions.

IF you want to make sure your guidance is communicated accurately to all levels of the organization

THEN conduct periodic sensing sessions with your soldiers to correct misperceptions, clarify your intent, and locate sources of information loss
BECAUSE you can get distortion of your intentions and guidance just by passing information through a number of nodes.

ITM # 17-- Subject 053, 1, 1 (12 months, AV, WM)

How to prevent your commanders from taking on missions that their units' do not have the capabilities to perform (taking care of soldiers / protecting the organization).

IF your company commanders have a strong desire to be successful and earn top block ratings

AND

IF they also have a tendency to take on resource intensive missions that exceed their capabilities

AND

IF the commanders are reluctant to ask higher headquarters for help when they have missions that over tax their units' resources

THEN require commanders to conduct a resource assessment before they take on missions

BECAUSE an accurate resource assessment should indicate whether or not the unit has the resources to handle the mission. This may prevent commanders from taking on a mission that would overly burden their unit.

ITM #37--Subject 079, 1, 1 (12 month, AR, WM)

Communicating your vision.

IF you want people to catch your sense of where you want the unit to go

THEN keep the number of objectives/themes to a minimum. Communicate the themes clearly and repeat them constantly

BECAUSE Goals that are communicated clearly and repeated often increase the likelihood that the soldiers will understand them.

ITM #50--Subject 046, 1, 2 (12 months, SC, WM)

To communicate your command philosophy to all members of the unit, talk to the officers, NCOs, and enlisted soldiers as separate groups and adjust the message to fit the average education level of each group.

IF you have just assumed command

AND

IF you want to communicate your command philosophy to every member of the unit THEN talk to the officers, NCOs, and enlisted soldiers as separate groups and change the wording of the message to fit the general education levels of each group

BECAUSE adjusting the message to the education level of each group increases the likelihood that every member of the unit will understand your command philosophy.

Communicating (B)

ITM #35--Subject 079, 1, 1 (12 months AR, WM)

Show trust for subordinate leaders

IF you have a subordinate leader who has a training accident
THEN make him or her "get back on the horse" and perform the training mission as soon as possible
BECAUSE if it was truly an unpreventable accident, this will show you trust and have confidence in your subordinate leader.

ITM #38--Subject 079, 1, 1 (12 months, AR, WM)

Communicating values and standards.

IF you want to communicate your values and standards
THEN communicate them formally before every mission (e.g., stress the importance of safety before every mission). Inspect to make sure standards are met and values are maintained (e.g., inspect safety of vehicles before convoy, inspect the lieutenant's BOQ to make sure that living conditions were up to the standard that they expected of their soldiers in the barracks). Communicate values and standards informally every time you have a conversation with your subordinate leaders (e.g., in the officers club during conversation at dinner or at the bar). Take a stand on value issues and see it through in order to demonstrate that you mean what you say.

ITM #41--Subject 080, 1, 1 (25 months, FA, WM)

How to communicate with your boss.

IF you are having trouble communicating with your boss because of different backgrounds
AND
IF you and your boss share a similar interest
THEN try to develop analogies, based on your shared interests, to communicate with the boss
BECAUSE the analogies based on a shared interest may provide the common framework to help your boss understand your point of view.

ITM #55--Subject 001, 1, 3 (16 months, WM)

Communication of the vision starts on the first day of command and must be reinforced daily.

IF you want to communicate your vision to your soldiers

THEN communicate the vision to the soldiers on your first day and re-communicate it daily for your entire time in command. Visit company areas in garrison and in the field. Highlight shortcomings and emphasize progress made towards the vision BECAUSE daily reinforcement of the vision keeps the unit focus on working to obtain the vision.

ITM #60--Subject 001, 1, 3 (16 months, WM)

How to deal with the loneliness of being a battalion commander.

IF you are feeling lonely

AND

IF you need somebody to bounce your ideas off of

THEN find somebody who cares about and supports you, to be your "sounding board" BECAUSE having a confidant allows you to get feedback on your ideas and view-points. Also, this social support helps combat stress by boosting your confidence.

Taking Care of Soldiers

ITM # 1--Subject 002, 1, 1 (10 months)

Sometimes taking care of your soldiers requires you to force them to confront their personal problems.

IF a subordinate comes to you requesting a transfer because of a family problem

AND

IF the subordinate believes the problem is caused by the challenges in the unit

AND

IF you feel that work conditions either do not contribute to or do not uniquely create the problem

THEN deny the transfer

BECAUSE you are taking care of soldiers by making them face up to their problems.

ITM # 13--Subject 003, 1, 1 (12 months)

Differential treatment at post-support facilities

IF you receive differential treatment at post-support facilities because of your rank THEN investigate further to determine how your enlisted soldiers are being treated BECAUSE differential treatment based on rank may indicate that your soldiers are receiving poor service.

ITM # 27--Subject 078, 1, 1 (24 months, IF, WM)

Through good training management you can take care of your soldiers and their families.

IF you are in charge of training management in your unit

AND

IF your higher headquarters do not regularly make sudden changes to training schedule six months out

AND

IF you can plan training well in advance (e.g., six months)

THEN provide soldiers and their families with a copy of the six month training schedule and do not make changes

BECAUSE a firm training schedule gives your soldiers and their families a degree of predictability in their lives by allowing them to plan family activities around the unit training.

ITM # 28--Subject 078, 1, 1 (24 months, IN, WM)

Use off-training cycles to compensate soldiers for family time missed.

IF your soldiers frequently are required to train during what would ordinarily be family time (weekends, holidays, and evenings)

THEN give your soldiers numerous three and four-day weekends during the off-training cycle

BECAUSE the numerous long weekends during the off-training cycle will show care for your soldiers and their families by helping to compensate them for missed family time.

ITM # 29--Subject 078, 1, 1 (24 months, IN, WM)

Hard, realistic training is risky for the commander, but it shows soldiers that you care about them.

IF your unit is conducting live fire exercises

THEN accept some risk and have them perform tasks like they would in actual combat; for instance, shifting supporting fires when the soldiers are 10-15 meters from the objective

BECAUSE training soldiers under realistic conditions increases the likelihood that they will survive in combat.

ITM # 30--Subject 078, 1, 1 (24 months, IN, WM)

Take care of single soldiers by making the billets feel more like a home.

IF you have single soldiers living in the billets

AND

IF you have the liberty to make changes to the outside or inside areas of the billets THEN take measures (e.g., planting a garden) that will make the billets and the outside areas feel more like a home to the single soldiers

BECAUSE making single soldiers' living areas feel more like a home demonstrates to them that you care about them and increases their satisfaction with the unit.

ITM # 31--Subject 078, 1, 1 (24 months, IN, WM)

Taking care of soldiers transcends organizational boundaries.

IF you have taken measures to make your soldiers' living areas feel more like a home
AND
IF soldiers from other units express an interest in your efforts
THEN extend access to these soldiers
BECAUSE taking care of soldiers is not limited by your unit's boundaries.

ITM #65 --Subject 048, 1, 3 (12 month, WM)

How to take care of your soldiers and their families when your unit is operating under conditions of training overload.

IF you feel that a busy training schedule is causing your soldiers family problems
AND
IF the mission demands cause some sub-units to carry a greater burden
AND
IF you are striving to seek a balance between being combat-ready and providing soldiers with family time
THEN delegate the responsibility for providing soldiers time-off to the company and platoon levels. Also, refrain from imposing your "bright ideas" on your already overloaded subordinates
BECAUSE de-centralizing the authority for leaves and passes provides the company commanders and platoon leaders with the flexibility and responsiveness to grant their soldiers' family time and still meet mission requirements.

ITM #66 --Subject 065,1,3 (16 months, WM)

How to ensure your work habits do not adversely impact on your subordinate commanders.

IF your work habits extend your work day beyond the regular work day of 1700 hours
THEN let your subordinate commanders know that this is your work habit and that you do not expect them to work until you leave. Tell your subordinate commanders to go home at a reasonable time
BECAUSE Explaining your work habits to your subordinate commanders may prevent them from working long hours for appearance sake.

Unaffiliated Items

ITM # 33--Subject 078, 1, 1 (24 months, IN, WM)

How to jump the chain of command and still maintain your loyalty to the commander.

IF you have a company commander whose lack of organization skills are hurting the unit's effectiveness and causing you problems

AND

IF the only way you can solve the problem with your commander is by going above him or her in the chain of command

THEN when you present the problem to the battalion commander, do not tell him that your commander is screwed-up, but frame the problem as a request for help to improve the organization

BECAUSE you maintain your loyalty to your commander and at the same time bring the problem to the battalion commander's attention.

ITM # 7--Subject 003, 1, 1 (12 months)

How to manage your anger when your unit performs poorly.

IF your unit performs poorly on a task

AND

IF your initial reaction is to get angry

THEN before taking punitive action, cool down by seeking out additional information by talking to soldiers who have been in the unit for awhile

BECAUSE it is a natural bias to attribute others' behavior to internal factors and down play the importance of situational factors. How you attribute the cause of your subordinates' behavior can have an impact on your behavior and effectiveness as a leader.

ITM #42 --Subject 080, 1, 1 (25 months, FA, WM)

How to manage your frustrations as a commander.

IF you receive only negative feedback about your unit's performance

AND

IF the lack of recognition of positive actions causes feelings of frustration

OR

IF you need somebody to share your feelings with

AND

IF you have a good relationship with your CSM

THEN discuss your frustrations and feelings with him or her

BECAUSE talking through your feelings with the CSM may prevent you from venting your feelings on your soldiers.

ITM #36--Subject 079, 1, 1 (12 months, AR, WM)

Managing your emotions in a crisis.

IF a crisis occurs

AND

IF your first response is to rush immediately to the scene and take charge

THEN put your subordinate leaders into action at their jobs and force yourself to wait for accurate information so you can notify your boss before going to the scene
BECAUSE this is a way to regulate and control your own emotions and avoid panic.

ITM 18--Subject 057, 1, 1 (23 months, IN, WM)

How to develop an incompetent staff officer or NCO and also preserve the appropriation of duties and communication channels in the unit.

IF an incumbent to a key position in the chain of command (e.g., S-3) is incompetent
AND

IF the incumbent demonstrates an unwillingness to accept guidance

AND

IF the incumbent is within the first 60 days (officers) or 90 days (NCOs) of his/her tenure

THEN use directive leadership to help him meet the responsibilities of his job and notify senior leaders of the situation

ELSE

IF after 60 days (officers) or 90 days (NCOs) the individual has not improved with your assistance

THEN initiate actions to replace the individual

BECAUSE directive leadership forces the incompetent person to fulfill the responsibilities of his position and preserves the chain of command. Preserving the chain of command is important because once the chain of command has been modified, it is hard to re-establish. However, the best interests of the unit are served by replacing key members who are incompetent and fail to show improvement.

Company Commanders

Managing Self

ITM #69 --Subject 006, 2, 1 (6 months, IN)

How to deal emotionally with giving negative feedback.

IF you have to give a subordinate negative feedback during a performance counseling session

AND

IF you feel emotional or uneasy about giving this feedback

THEN be objective by focusing on how specific behaviors fell short of agreed-upon standards

BECAUSE staying focused on specific behaviors helps keep your own and the subordinate's emotions from interfering with the performance feedback.

ITM #86--Subject 035, 2, 1 (14 months, FA)

How to be a team player and still keep a competitive edge.

IF you are competing with your peers for performance ratings

AND

IF you want all your peers to do well, but you want to do a little better

THEN share information with them in order to make all units better and so that no one fails. However, hold back some information about specific training techniques

BECAUSE withholding some information concerning specific training allows you to maintain a competitive edge over your peers.

ITM #89 --Subject 044, 2, 1 (6 months, AD, WM)

How to set goals to maintain your own motivation.

IF you are a commander

AND

IF you have a large list of goals that you want to accomplish to improve your unit

AND

IF you want to accomplish all the goals at once

THEN pace yourself by setting realistic goals that you can accomplish and work on those

BECAUSE obtaining small successes will give you the feeling of accomplishment and maintain your motivation. Also, trying to take on everything at once may cause you to fail because of outside demands.

ITM #91--Subject 044, 2, 1 (6 months, AD, WM)

How to establish a system for self-monitoring.

IF you want feedback on your progress and actions pertaining to major areas of responsibility (training, maintenance, punishments, counseling, tasking)
THEN maintain separate notebooks for each major area of responsibility that you want feedback on. During the course of the week record observations in the notebooks. Review the notebooks at the end of each week and each quarter
BECAUSE periodic review of these notebooks will give you an indication of the progress your unit and you are making in goal attainment. Also, a review of the information recorded in the notebooks can provide you with insights about your consistency in dealing with people and your style of leadership.

ITM #115 –Subject 056, 2, 3 (13 months, TC, BF)

How to be successful as a female leader in the Army.

IF you are a female leader in the Army
THEN do not try to be one of the guys but be yourself. For example, if you enjoy physical things, fine, but do not fake it
BECAUSE being yourself is psychologically healthy and it enhances your credibility.

ITM #130 –Subject 063, 2, 3 (17 months, WM)

How to handle the stress of continuous operations.

IF you are on deployment
AND
IF your unit is sustaining continuous operations
AND
IF you want to combat stress and sustain mental effectiveness
THEN take time out each day to read or think
BECAUSE this personal time helps combat stress and allows you time to reflect on the day's events.

Influencing the Boss

ITM #128--Subject 063, 2, 3 (17 months, WM)

When to jump the chain of command to bring a problem to higher authority.

IF you have problem with an insubordinate senior NCO
AND
IF the company commander refuses to take action to discipline the insubordinate NCO
OR
IF you feel that the commander refuses to discipline the NCO because of racial reasons
AND
IF you confront the commander and he still refuses to take action
THEN take the matter to the BN XO

BECAUSE bringing the matter to the BN XO ensures that the insubordinate NCO gets disciplined. It also minimizes the impact of going over the commander's head because the BN XO is not in your or the commander's rating chain.

ITM #125--Subject 060, 2, 3 (23 months, WM)

How to use the battalion staff to get the commander to change a directive.

IF you are trying to influence the battalion commander to change a directive

AND

IF you have a good relationship with the major staff principles, such as BN XO and CSM

THEN use the BN XO and CSM to help you influence the commander to change his or her directive

BECAUSE support from the CSM and BN XO might be the influence needed to help change your commander's mind about the directive.

ITM #126 --Subject 060, 2, 3 (23 months, WM)

How to build a good relationship with the BN XO and CSM.

IF you want to establish a good relationship with the BN XO and CSM

AND

IF you want to use them in the future to help you influence the boss

THEN help the BN XO and CSM complete their assigned tasks (such as maintenance or post details)

BECAUSE by providing the BN XO and CSM help, you invoke the norm of reciprocity.

ITM #120 --Subject 058, 2, 3 (24 months, WF)

How to take care of your soldiers when they are assigned to different garrison commands.

IF your unit is dispersed and assigned to different garrison commands

AND

IF the respective garrison commanders have nonjudicial authority over your soldiers

AND

IF the respective garrison commanders have control over resources needed to improve your soldiers' quality of life

THEN build a good relationship with the local garrison commanders by visiting them on a regular basis

BECAUSE a good relationship with these commanders may provide you with a means to exercise indirect influence over your soldiers' affairs.

ITM #96 --Subject 038, 2, 2 (18 months, EN)

How to preserve your autonomy when your boss is a micro-manager.

IF you have a battalion commander who micro-manages
THEN protect your autonomy by working through the staff as much as possible and trying to solve problems at your level--only bringing the boss those that you or the staff cannot solve
BECAUSE if you demonstrate that you can handle problems on your own, this builds trust with the commander.

Balancing Mission and Troops

ITM #83 --Subject 034, 2, 1 (7 weeks, FA)

When not to pass orders on as your own.

IF you receive an order from above that you do not agree with because it does not seem to make sense
THEN let your key subordinates know that you do not agree with the order and that it is not your own. Tell them what you think, and tell them that their opinion about the directive should not be communicated to the soldiers. Then focus on how to "make it work."
BECAUSE letting key subordinates know that a questionable order is not your own and what you think about it preserves your relationship with them.

ITM #84 --Subject 035, 2, 1 (14 months, FA, BM)

When not to pass on a policy from above as your own.

IF you receive a directive from superior that you do not personally agree with or support
AND
IF the directive is not unethical
AND
IF the directive does not relate to the unit's METL
AND
IF the directive does not directly benefit soldiers' welfare
OR
IF the directive requires behavior that is on the boundaries of your role expectations
OR
IF the directive does not give you some allowance for initiative or ownership
THEN let your subordinate leaders know what you think about the directive. Outline the pros and cons of supporting and not supporting it, and ask them for their support
BECAUSE letting your subordinate leaders know your feelings about a questionable or unpopular directive from higher-up preserves their trust in you.

ITM #117 --Subject 058, 2, 3 (24 months, WF)

When to and not to pass directives on as your own.

IF you do not respect your commander
AND
IF you feel that a directive the boss has given you is unreasonable
AND
IF you are not allowed to give input concerning this directive
THEN let your key subordinate leaders know that this is not your directive but the boss's
BECAUSE These actions will maintain rapport and preserve confidence with your immediate subordinate leaders
ELSE
IF you respect your commander
THEN tell your subordinates it is the system's fault for the unreasonable order
BECAUSE blaming the unreasonable order on the system protects the boss' credibility and allows you to model loyalty to your boss.

ITM #122 –Subject 060, 2, 3 (23 months, WM)

How to translate a poor directive, issued by an incompetent battalion commander, into a solid directive.

IF you feel that your battalion commander is incompetent
AND
IF your battalion commander issues a poor directive or intent
THEN infer the underlying intent and figure out a way to accomplish it. Use your 1SG to help develop ways to make the directive work and look good. Communicate the revised intent to your subordinates and ensure it is met. Go back and inform the battalion commander about the revised intent and the steps being taken to carry it out. Continue to bolster BN CDR's credibility with the soldiers
BECAUSE these procedures allow you to take your commander's poor intent and revise it to accomplish the mission and still preserve the battalion commander's credibility.

ITM #123 –Subject 060, 2, 3 (23 months, WM)

When to disobey a directive from your battalion commander

IF you are given a directive that does not make sense
AND
IF you feel that you can accomplish the intent of the directive in a different way
AND
IF you feel that you have most of the information bearing on the problem
AND
IF the disobedience would benefit the soldiers' welfare
AND
IF you know that the disobedience would not hurt anyone else in the long run
AND
IF you know the personality of the commander
THEN disobey the directive

BECAUSE your soldiers' welfare outweighs the risks associated with disobeying the directive.

Directing and Supervising Subordinates

ITM #119 –Subject 058, 2, 3 (24 months, WF)

How to build a team made up of both military and civilian personnel.

IF you are a commander of a unit that has both military and civilian personnel
AND
IF you are having problems with perceptions of unfairness in allocation of the work load and awards between civilian and military personnel
THEN use a sign-out sheet to make visible each member's location during the day.
BECAUSE the sign-out sheet communicates information about each member's whereabouts during the duty day and this may prevent misunderstandings about work allocation.

ITM #111 –Subject 056, 2, 3 (13 months, TC, BF)

How to develop your junior officers.

IF you are on a mission
AND
IF you want to use the mission as an opportunity to develop junior officers
THEN explain the big picture of the mission to your junior officers.

ITM #99--Subject 043, 2, 2 (16 months, SC)

How to combat operators' reliance on an expert to trouble-shoot their equipment.

IF your soldiers' jobs require a high degree of technical expertise (e.g., communication equipment in a signal battalion)
AND
IF you notice that an expert is sent to solve problems instead of a more immediate operator
AND
IF you are concerned that operators are not developing their trouble-shooting skills because they rely on the expert
THEN create a situation during training where the expert is not available and the other operators have to struggle on their own to solve problems. Force operators to do their own trouble-shooting in training, even if this means that the unit will be less efficient in the short run. Have the expert help teach other operators how to trouble-shoot the equipment
BECAUSE these measures help diminish operators' reliance on experts to trouble-shoot problems, which enables the unit to perform more efficiently in the long-

term. Also, these measures would prevent a person from using expert power to exert undue influence.

ITM #94--Subject 017, 2, 2 (5 months, EN, WM)

How to hold section NCOIC accountable when you modify the chain of command.

IF you decide to modify the TO&E chain of command to place an officer in charge of a section

THEN place the officer in the Section NCOIC's rating chain

BECAUSE this gives the officer the power to hold the Section NCOIC accountable for his or her responsibilities.

ITM #95--Subject 017, 2, 2 (5 months, EN, WM)

How to hold your Staff NCOICs accountable for your company policies and standards.

IF your Staff NCOICs are not supporting your company policies and standards

THEN formalize their responsibilities in the unit SOP

BECAUSE once responsibilities are formally established in an SOP, the NCOs are required to uphold them (or risk UCMJ action).

ITM #87 --Subject 035, 2, 1 (14 months, FA, BM)

When not to encourage the sharing of information between subordinate units.

IF the battalion is faced with a problem

AND

IF you want the most innovative and create solutions possible

THEN have each company develop solutions independently and report these solutions to battalion. Once the independent solutions are reported, all can work together to develop the best solution

BECAUSE having each company independently generate a solution to a problem ensures that the problem will be viewed from several perspectives, which increase the likelihood of innovative and creative solutions.

ITM #76 --Subject 12, 2, 1 (16 months, AR, BM)

How to handle cross-attachments.

IF you are required to cross-attach one of your platoons during a major training exercise (e.g., NTC)

AND

IF you have a platoon that you think is ill prepared to fight

AND

IF the platoon will be cross-attached to a unit that is in a different branch of service
THEN keep the ill-prepared platoon with you and cross-attach your best platoon

BECAUSE you preserve trust in the organization by sending to other units, outside of the organization, a well-trained platoon. Also, if the weak tank platoon has trouble, you (e.g., as an Armor commander) are better prepare to deal with problems.

ITM #77--Subject 015, 2, 1 (17 months, FA, BM)

How to encourage initiative and risk taking in your subordinates.

IF in the past soldiers have been punished for making mistakes as a result of taking risks or initiative

AND

IF you want to encourage your subordinates to take the initiative and incur appropriate risks

THEN you must model initiative and risk taking to help soldiers see what you expect
BECAUSE taking the initiative to perform risky actions in order to help the unit, builds trust with your soldiers. If your soldiers trust you, they will also take the initiative and incur risk to improve the unit.

ITM #73--Subject 009, 2, 1 (12.5 months, IN, WM)

How to increase cooperation between your platoon leaders and platoons.

IF you want your platoon leaders to cooperate with each other

AND

IF you want to increase cohesion between platoons

THEN place all your platoon leaders in the same office

BECAUSE sharing the same working area facilitates the sharing of information and interdependence among your platoon leaders. Also, sustained close contact, on an equal basis, between platoon leaders and platoon sergeants helps combat any prejudice among platoons.

ITM #74--Subject 009, 2, 1 (12.5 months, IN, WM)

How to use training management to motivate and take care of soldiers.

IF the training schedule is segmented because of garrison activities

AND

IF you want to add predictability to your soldiers' daily lives

THEN select no more than three tasks and make them the unit's priorities for the day. The tasks should take about two hours each to complete. Release the soldiers when the tasks are completed

BECAUSE this technique helps focus the unit's efforts in maximizing efficiency for the chopped periods of time on a garrison training schedule, and it provides the soldiers with incentives. Soldiers are provided incentives because they know what is expected of them for that day, they gain a sense of accomplishment for completing the tasks, they know they will be released when the tasks are done, and they have predictability in their daily lives.

Cooperating with Others (A)

ITM #97--Subject 038, 2, 2 (18 months, EN)

How to develop cooperation and trust among captains.

IF you have the authority to select company commanders
THEN provide the captains with the criteria and, if possible, the rationale for selecting commanders
BECAUSE information about command selection fights rumors and facilitates the development of cooperation and trust among captains. Accurate information also fights perception of unfairness.

ITM #114--Subject 056, 2, 3 (13 months, TC, BF)

How to build trust with peers.

IF you want to build trust with your peers
THEN use them as a sounding board
BECAUSE sharing your ideas and problems with your peers demonstrates that you trust them.

Communicating

ITM #72--Subject 009, 2, 1 (12.5 months, IN, WM)

How to identify informal leaders in your unit.

IF you want to identify the informal leaders in each squad
THEN determine who the soldiers seek out for advice on how to accomplish the mission
BECAUSE soldiers usually seek out the few people who have actually read the TMs and FMs for advice on how to complete a mission. Soldiers who read the TMs and FMs have expert power to influence others. These informal leaders might be a good source of information about problems in the unit.

ITM #75 --Subject 009, 2, 1 (12.5 months, IN, WM)

How to obtain information about problems in the unit.

IF you want to obtain information about problems in the unit
THEN talk to the CQ and CQ runner while they are on duty
BECAUSE company duty provides you with an excellent opportunity to talk to soldiers on an informal basis. This informal context may increase the likelihood that you will receive unbiased feedback.

ITM #82--Subject 034, 2, 1 (7 weeks, FA)

How to get information from your soldiers.

IF you need feedback or input from your soldiers

THEN talk to them in informal settings, such as while eating lunch in back of a track, or arrange the furniture in your office to facilitate open communication (e.g. put chairs in a circle)

BECAUSE you receive more candid feedback from a discussion with soldiers in an informal setting because they feel relaxed.

ITM #100--Subject 059, 2, 2 (12 months, CM,WM)

How to identify soldiers who might be good sources of information about the unit.

IF you are looking for a soldier in your unit to provide you with accurate information about the affairs of the unit

THEN look for a soldier who: (a) is competent and commands the respect of his or her peers, (b) has the best interest of the unit at heart, and (c) who is willing to express his or her opinions before a group

BECAUSE this person would have the ability to provide you with accurate information about the unit's state of affairs.

ITM #101--Subject 020, 2, 3 (12 months, BF)

How to communicate to your soldiers that you are displeased with them.

IF you want to communicate to your soldiers that you are mad or disappointed without losing your composure

THEN use nonverbal methods such as facial expressions to communicate your displeasure. Become more formal and distant.

BECAUSE nonverbal methods communicate your displeasure more effectively than ranting and raving at the soldiers.

ITM #131--Subject 069, 2, 3 (14 months, WM)

How to monitor your soldiers' understanding of mission information.

IF you are giving an operations order

AND

IF you are concerned about your soldiers' understanding of the mission information

THEN pay attention to the order in which events are recalled during the back-brief
BECAUSE recall order provides you with an indication of how well the information is understood.

ITM #107--Subject 054, 2, 3 (3 months, OD, WF)

How to tell if your persuasion attempts are being successful.

IF you want to find out whether or not your message (e.g., regarding safety precautions) is being understood by your soldiers
THEN select a soldier at random from the unit and have him or her give a spontaneous brief-back on the topic to the other soldiers
BECAUSE a spontaneous brief-back provides a good means to check accuracy and retention of your message. Also, the possibility of being selected to give a brief-back may cause the soldiers to listen more closely to future messages.

ITM #109--Subject 056, 2, 3 (13 months, TC, BF)

How to communicate with your enlisted soldiers.

IF you want to effectively communicate with your soldiers (E-1 through E-4)
THEN bring them in close when you talk to them in formation. Talk to them in specific, concrete terms. Do not use slang or profanity
BECAUSE the informal situation may relax the soldiers, which tends to increase the likelihood that they will pay attention to your message. Talking in concrete terms increases the likelihood that the soldiers will understand you. Finally, being yourself, by not trying to talk like your soldiers, increases your credibility and prevents the possibility of offending them.

Cooperating with Others

ITM #79--Subject 030, 2, 1 (14 months AR, 2 months CAV)

How to build trust with a boss that "shoots the messenger."

IF you want to build trust with your boss
AND
IF you have a boss who does not like to be surprised by bad news
AND
IF your boss tends to take his or her anger out on the person who brought him or her the bad news
THEN keep the boss informed as much as possible about the activities of your unit. Do not ask for advice
BECAUSE keeping the boss informed prevents surprises which may minimize the boss' reaction to any negative news you bring him or her. Also, if you ask for advice the boss may think that you cannot accomplish the mission on your own.

ITM #88--Subject 044, 2,1 (6 months, AD, WM)

How to choose between conflicting training events.

IF a training event scheduled by your battalion commander conflicts with a training event scheduled by your supported unit commander
AND

IF both training events have equal training value and impact on soldiers' quality of life

THEN support the training event scheduled by your battalion commander
BECAUSE supporting your battalion commander's training event preserves and demonstrates your loyalty to him or her

ELSE

IF the training event scheduled by your supported unit commander has the potential for more training value than your battalion commander's training event

THEN take some risk and give priority to the training event scheduled by your supported unit commander

BECAUSE this provides the soldiers with the best training opportunity to improve their combat readiness. Also, by taking risks to provide them with the best training, you build trust with your soldiers.

Taking Care of Soldiers

ITM #68--Subject 000, 2, 1 (24 months)

How to show soldiers that you care about them through prompt handling of problems.

IF a subordinate brings a problem to you

AND

IF the subordinate feels that the problem is important, even though you may not

THEN treat the problem as important and provide the subordinate with the assistance he or she needs to solve the problem

BECAUSE prompt action on your subordinates' problems demonstrates that you care about their welfare.

ITM #70--Subject 006, 2, 1 (6 months, IN)

How to take care of soldiers by handling their problems promptly.

IF a subordinate thinks a problem is important enough to see you after hours

THEN take immediate action on the problem and do not defer it to the next business day

BECAUSE taking immediate action on your soldiers' problems demonstrates that you care about them.

ITM #71--Subject 009, 2, 1 (12.5 months, IN, WM)

How to show soldiers you care for them in a field environment.

IF you are deployed on a FTX

AND

IF you want to demonstrate that you care about your soldiers

THEN inspect the technical and tactical aspects of their performances that are related to their individual survival (e.g., range cards and fighting positions).

BECAUSE inspecting and ensuring that soldiers are trained on the basic procedures that help them survive in combat demonstrates that you care about their welfare.

ITM #80--Subject 030, 2, 1 (12 months AR, 2 months CAV)

How to take care of soldiers by going through your in-box.

IF your in-box has paper-work in it at the end of the day
THEN go through the in-box and act on all time-sensitive and soldier-related actions
BECAUSE prompt action on soldier-related administrative actions takes care of soldiers and demonstrates that you care about their welfare.

ITM #98--Subject 043, 2, 2 (16 months, SC)

How to take care of your soldiers by being proactive.

IF you have soldiers having marital problems
THEN provide them with an opportunity to escape trouble by offering space in the billets to married soldiers.
BECAUSE this proactive measure takes care of soldiers' welfare by providing them with a way to avoid domestic trouble.

ITM # 104--Subject 024, 2, 3 (11 months, F)

When not to listen to NCOs advice.

IF you have a soldier who is manifesting symptoms of severe psychological disorder
THEN refer to psychiatric professionals for an evaluation
BECAUSE you and your NCOs are not trained to make evaluations with regard to psychological disorders. Also, the safety of the soldier with the disorder and other soldiers' safety may be at risk.

ITM #108--Subject 056, 2, 3 (13 months, TC, BF)

When to pass a soldier's problem onto professionals.

IF you have a soldier with marital problems
THEN refer him or her to professional counselors and do not try to solve the problem(s) yourself
BECAUSE you do not have the training or the time to get involved with soldiers' marital problems.

ITM #121--Subject 058, 2, 3 (24 months, WF)

How to take care of your platoon leaders and PSGs when they are dispersed.

IF your unit is dispersed and assigned to different garrison commands
AND

IF you conduct weekly training meeting with the leaders of the dispersed units
AND
IF the location of the meetings requires that the platoon leaders and PSGs drive a good distance to the meetings
THEN Ask a different platoon to host a meeting each month
BECAUSE this saves the host platoon leader and PSG the drive. It also provides an opportunity for the platoon leaders and PSGs to share and observe new ideas for doing business.

Developing Subordinates

ITM #112--Subject 056, 2, 3 (13 months, TC, BF)

IF you have to make a major decision
AND
IF it is appropriate to let your junior officers in on the decision process
THEN bring them in on major decisions and, if possible, share your thought processes with them.

ITM #113--Subject 056, 2, 3 (13 months, TC, BF)

IF you have to conduct administrative matters pertaining to soldiers
THEN bring your junior officers in to watch you deal with soldier matters, (e.g., administering an Article 15), then afterwards engage them in a dialogue to get them thinking about what they learned
BECAUSE exposing them to decision-making, giving them insight into your thought processes, and allowing them to watch you handle administrative duties enriches their schemata concerning the responsibilities of an officer.

ITM #90--Subject 044, 2, 1 (6 months, AD, WM)

How to use participative leadership in solving problems and developing subordinate leaders.

IF you find a problem in the unit
AND
IF the problem pertains to a subordinate leader's area of responsibility
THEN direct the subordinate leader to research the problem and provide you with alternatives to solve it. After you select an alternative, let the subordinate leader execute it.
BECAUSE getting subordinate leaders involved gives them ownership or responsibility for the problem. Also, subordinate participation in the decision-making process tends to increase commitment to the solution and promotes development.

ITM #78 --Subject 030, 2, 1 (12 months AR, 2 months CAV)

How to take care of your lieutenants.

IF you are responsible for the development of lieutenants

AND

IF you are concerned about promoting their career and development

AND

IF you feel that your lieutenants have potential for future growth

THEN do not volunteer negative information about them to the battalion commander

BECAUSE the battalion commander doesn't have many opportunities to see or hear about lieutenants. If you volunteer negative information, that may be the only information the boss gets on your lieutenant.

Motivating Subordinates

ITM #81--Subject 034, 2, 1 (7 weeks, FA)

How to persuade soldiers to protect themselves during off-duty hours.

IF you want to persuade your soldiers to take precautions to avoid safety hazards such as DUIs, drowning, muggings, etc.

THEN use soldiers who have been victims of these hazards to communicate their experiences and steps soldiers should take to avoid these hazards

BECAUSE the actual experience with the hazard will increase the source's credibility and increase the persuasiveness of the message.

ITM #93--Subject 017, 2, 2 (5 months, EN, WM)

How to encourage your soldiers to exercise initiative.

IF you want your soldiers to exercise more initiative in handling the daily activities of the unit

THEN talk to your soldiers and listen to their suggestions. Give your soldiers responsibility for the daily activities and hold them accountable. Publicly praise soldiers who have demonstrated initiative. Base promotions from E-1 to E-4 on the soldier's ability to take initiative

BECAUSE rewarding soldiers through promotions and public recognition for exercising initiative increases the likelihood that this behavior will be repeated in the future. Also, giving them the opportunity to exercise initiative demonstrates that you trust them.

ITM #102 --Subject 023, 2, 3 (16 months, MS, WM)

How to encourage your soldiers to take initiative.

IF you want to encourage your subordinates to exercise initiative

THEN provide subordinates with your intent and give them the responsibility to develop their own plan to accomplish the mission. Involve senior NCOs in major decisions. Recognize soldiers' achievements with awards
BECAUSE giving soldiers the responsibility to plan and execute a mission allows and encourages them to exercise initiative. Also, rewarding soldiers for achievements tends to increase their motivation to take the initiative and earn future awards.

ITM # 103--Subject 024, 2, 3 (11 months, AG, WF)

How to get soldiers to comply with standards by challenging their pride.

IF you have a soldier who refuses to meet a training standard, even though he or she has the ability to meet it

AND

IF you are a female commander

AND

IF the soldier is a young male

THEN challenge his male pride in order to get him to comply with the standards (e.g., saying you, a female, could beat him in a fight and then getting him to do push-ups)

BECAUSE a challenge to his male pride may provide the motivation to get him to meet the standards.

ITM #106--Subject 054, 2, 3 (3 months, OD, WF)

How to persuade your soldiers to protect themselves from safety hazards.

IF you want to persuade your soldiers to take measures to protect themselves from safety hazards (e.g., DUIs)

THEN present them with numerous messages about DUI using various persuasive techniques (fear arousal , strong arguments, and credible sources) Vary the aspect of the problem that is addressed in each message

BECAUSE varying the persuasive techniques increases the likelihood that a given soldier would be attentive to and comprehend your message. Also, by varying the aspect of the problem present in each message, you provide soldiers with a fuller understanding of the hazard.

ITM #110--Subject 056, 2, 3 (13 months, TC, BF)

How to influence male NCOs who do not respect you because you are a woman.

IF you are a female commander

AND

IF you have male NCOs who are uncomfortable taking orders from you

THEN involve them in decision-making

BECAUSE involvement in making decisions establishes these NCOs commitment to a course of action. Thus, they implement the course of action because they help determine it and not because you told them to do it.

ITM #116--Subject 058, 2, 3 (24 months, WF)

How to handle an insubordinate officer.

IF a junior officer is insubordinate

AND

IF the insubordination occurs between the two of you in private

THEN immediately reprimand the officer

BECAUSE you need to correct the insubordination in order to protect your authority and the morale of your unit

ELSE

IF the insubordination occurs in public

AND

IF the insubordination is not severe

THEN shift the focus and avoid humiliating the person in public, but have the person see you one-on-one later on

BECAUSE not correcting the officer in public saves him or her from embarrassment and allows you time to cool off

ELSE

IF the insubordination is severe

THEN dismiss the insubordinate officer from the room and deal with him or her later

BECAUSE dismissing the insubordinate officer preserves your authority and allows you time to think about how to handle it. Also, it may serve to prevent a situation from escalating to the point you may not be able to handle.

ITM #118--Subject 058, 2, 3 (24 months, WF)

How to prepare for difficult counseling sessions.

IF you anticipate difficulties caused by the counselee's response to performance counseling

THEN role play your presentation and rehearse your reactions to counselee's potential responses

BECAUSE rehearsing your presentation and role playing possible reactions helps build your confidence so that you can control the situation.

ITM #124--Subject 060, 2, 3 (23 months, OD, WM)

How to punish good soldiers without using UCMJ.

IF some of your good soldiers violate a policy or directive

AND

IF you do not want to handle the problem using non-judicial punishment or UCMJ

THEN have them write an essay on how to be a good squad leader (soldier) and the importance of obeying a directive

BECAUSE the essay would cause the soldier to elaborate on his or her actions and the consequences of these actions, which may produce a relatively permanent change in their attitudes towards that particular behavior.

Establishing Trust

ITM #85--Subject 035, 2,1 (14 months, FA, BM)

When to hold-off on reporting bad news about a lost sensitive item.

IF waiting to report negative information about a lost sensitive item does not violate ethics, e.g. involve sending in a false report

AND

IF you are confident that you can correct the problem before the next reporting period

AND

IF you trust the soldiers involved in the incident

AND

IF your commander trusts you and allows you a degree of leeway

THEN

Hold-off on reporting the lost sensitive item to battalion until the next scheduled reporting period. Take action to correct the situation and to determine circumstances. Look into SOPs to determine what must be done and how to report the missing item, in case it is not found by the next sensitive item report. To report the incident, notify higher headquarters in person

BECAUSE holding-off on reporting a missing sensitive item gives you time to correct the situation and protects the unit from unnecessary bad publicity.

ITM #92--Subject 017, 2, 2 (5 months, EN, WM)

Building trust by incurring risk to protect soldiers' welfare.

IF you have a soldier who is going to experience negative consequences (e.g. financial) because the chain of command failed to fulfill their responsibilities

AND

IF you want to force the chain of command to fulfill their responsibilities and demonstrate care for soldiers' welfare

AND

IF you have to incur personal risk in order to protect soldiers' welfare

THEN accept the risk and protect your soldiers' welfare

BECAUSE your willingness to assume risk (e.g., defying the battalion commander's advice) to take care of a soldier builds trust. Also, taking a stand to protect your soldiers' welfare may increase morale in your unit.

ITM #105 -Subject 054, 2, 3 (3 months, OD, WF)

How to respond to subordinate failures in high visibility situations.

IF a subordinate leader fails on an important mission

AND

IF you are not physically present during the mission and do not know the details

THEN gather information about the mission failure before taking any action. After you have determined what caused the mission failure, brief your commander on causes and actions to prevent it in the future. BECAUSE gathering information concerning a subordinate leader's failure before taking any action preserves your relationship with the junior leader.

ITM #129--Subject 063, 2, 3 (17 months, WM)

The benefits of keeping soldiers informed.

IF you have established an environment of trust in your unit by sharing information with soldiers

THEN occasionally, you can withhold information

BECAUSE soldiers are willing to accept the commander withholding information because they trust his or her motives.

ITM #132--Subject 069, 2, 3 (14 months, WM)

How to build trust with your soldiers by taking care of those that are leaving the service

IF you have soldiers leaving the service

THEN provide them the time and resources to facilitate a smooth transition to civilian life

BECAUSE how you treat soldiers that are leaving the unit makes a big impression on those that remain. Taking care of soldiers that are leaving helps strengthen the trust that your soldiers have in you.

Platoon Leaders

Establishing Trust

ITM # 173--Subject 071, 3, 3 (18 months, TC, WM)

How to check on soldiers without violating a trusting leadership style.

IF you trust your soldiers

AND

IF you give them the responsibility to do their jobs

AND

IF you do not rely on directive leadership

THEN establish "controls" to verify that your trust is well placed. For example, occasionally walk to the motor pool instead of driving in order to see if people are wandering around and/or goofing off. Take a late lunch at the PX to determine who is stretching out their lunch hour

BECAUSE the above methods allow you to check on your soldiers without appearing to mistrust or "ride" them.

ITM #145 --Subject 014, 3, 1 (18 months, AR)

When not to pass a directive on as your own.

IF your commander issues a directive that you do not agree with

AND

IF your attempts to persuade your commander to change his or her mind concerning the directive have failed

THEN let your NCOs know how you truly feel about the directive. Try to formulate plausible arguments to convince the soldiers to support the directive

BECAUSE talking straight with the NCOs about directives you do not support maintains your credibility.

ITM #134 --Subject 007, 3, 1 (23 months, IN, BM)

How to preserve your subordinate leaders' trust and confidence in you.

IF you provide a subordinate leader with a directive

AND

IF your commander confronts the subordinate leader about the appropriateness of the directive

AND

IF you are aware of this confrontation

THEN let your commander know that you issued the directive to the subordinate leader

BECAUSE if you do not take ownership for the directive, your subordinate leader may lose confidence in you.

Taking Care of Soldiers

ITM #161--Subject 032, 3, 2 (16 months, WF)

How to take care of your soldiers through training management.

IF the battalion's training schedule changes frequently

AND

IF the changes adversely impact on your soldiers' morale

THEN publish your own training schedule, based on the battalion's schedule, that is more short term but specific

BECAUSE the platoon will know what is going on and they will not get jerked around.

ITM # 165--Subject 021, 3, 2 (7 months)

How to deal with your platoon when you have a suicidal soldier.

IF you have a suicidal soldier in your unit

AND

IF you feel that the soldier's safety outweighs his or her right to confidentiality

OR

IF other soldiers in the platoon are aware of the problem

AND

IF you are worried about other soldiers compounding the problem by isolating or teasing the suicidal soldier

THEN hold a meeting with your soldiers, inform them about the problem, and ask them help take care of a fellow soldier in need by watching and not making fun of the suicidal soldier

BECAUSE enlisting the platoon to help with the suicidal soldier may prevent the suicidal soldier's problems from being compounded due to being isolated and teased. Also, the suicidal soldier receives an extra measure of protection by having the platoon members watching him or her.

Motivating Subordinates (A)

ITM # 172--Subject 068, 3, 3 (9 months, MS, WM)

How to combat your soldiers' stress.

IF your soldiers are deployed to a hostile theater where the living conditions and threat of danger contribute to stress

AND

IF your unit is not actively engaged with an enemy

THEN continue to perform "garrison-like" routines. Enforce standards (e.g., requiring your soldiers to have all their gear under their bunks, their poncho liners folded neatly, their boots shined). Enforce stand-to procedures.

BECAUSE This allows soldiers to retain some normalcy in their lives. Troops in garrison have to keep their rooms neat and shine their boots and leaders inspect them. So I decided to do the same thing when on deployment.

ITM # 167–Subject 021, 3, 2 (7 months)

How to protect your unit from meaningless details.

IF you want to limit the number of meaningless details your unit receives
THEN take care of the company's common areas (grass cutting, raking leaves, and shoveling snow) without being asked
BECAUSE the PSG lets the 1SG know that he takes care of him and that he hopes the 1SG will take care of his platoon when details come down.

ITM #168 –Subject 073,3,2 (10 months, CM, WM)

How to combat boredom on long, remote deployments.

IF your unit is deployed to a remote area
AND
IF the deployment has the potential to last for more than a couple of weeks
AND
IF the deployment does not require your unit to perform its combat mission
AND
IF you are concerned about your soldiers becoming bored
THEN conduct regular physical fitness training on a daily basis. Cross-train your personnel on internal skills and skills from other branches. Take advantage of training offered by other units, (e.g., flame field expedients with EOD units).
BECAUSE these measures keep soldiers gainfully employed which helps combat boredom.

ITM #156 –Subject 018, 3, 2 (18 months, EN)

How to determine when your soldiers have reached their limits.

IF you have good soldiers
AND
IF they start to back-talk their leaders
OR
IF soldiers start to make negative comments about their leaders
AND
IF their joking turns to rebellion
OR
IF their joking turns to laziness
AND
IF your soldiers start to ignore orders
THEN you should not assign them another mission until they have time to rest

BECAUSE they have reached their limits. A leader can use the above indicators to tell when his or her soldiers need to rest in order to maintain the unit's combat effectiveness.

ITM #139 –Subject 010, 3, 1 (17 months, AR)

How to maintain your soldiers' confidence in themselves after a failure.

IF your unit fails a mission

AND

IF the feedback in the AAR exposes weaknesses in your unit

AND

IF you are concerned about your soldiers thinking of themselves as losers

THEN discuss the unit's weaknesses with your soldiers. Always conclude by emphasizing the positive aspects of their performance

BECAUSE emphasizing positive aspects of their performance maintains your soldiers' morale and confidence in themselves.

ITM #136--Subject 008, 3, 1 (12 months)

When to stop training even though your soldiers have not met standards.

IF your soldiers have not trained to the standards by the end of a field exercise

AND

IF your soldiers morale is low

AND

IF you soldiers are sleep deprived

AND

IF your soldiers have had a lot of field time prior to this FTX

AND

IF your soldiers have a lot of field time coming in the near future

THEN bring them back to garrison even though they have not met the training standards

BECAUSE situational factors, such as prior field time, sleep deprivation, upcoming field time, have degraded the effectiveness of your soldiers' performance to the point where more field time will only cause their performance to drop further (diminishing returns).

Communicating

ITM #133--Subject 007, 3, 1 (23 months, IN, BM)

How to get to know your soldiers

IF you really want to get to know and understand your soldiers

THEN try to understand the music they listen to by reading Rolling Stone magazine and watching MTV. Read autobiographies of your soldiers' cultural heroes

BECAUSE an understanding of the music your soldiers listen to may give you some insight into their values and beliefs, and it may also give you a means to encourage interaction beyond job-related matters. Furthermore, knowledge of your soldiers' cultural heroes can provide you with an appreciation for their diversity, insight into their motives, and the means to discuss subjects that are not work related.

ITM #141--Subject 010, 3, 1 (17 months, AR)

How to effectively communicate with your soldiers.

IF you want to effectively communicate with your soldiers
THEN tailor your message to fit their average educational level and look them in the eye when you deliver it. Do not use a lot of profanity or soldier slang in your message

BECAUSE tailoring the complexity of the message to fit the general education level of the soldiers increases the likelihood that they will understand it. Also, by not using profanity and slang in your message, you maintain your leader-subordinate social distance and also reduce the risk of offending your soldiers.

ITM #144 --Subject 013, 3, 1 (22 months)

How to prevent a soldier from taking advantage of your willingness to help with a personal problem.

IF a soldier approaches you about a personal problem
AND

IF you have doubts about his or her honesty
THEN let the soldier know that you are going to contact the parties involved in order to get all sides of the story

BECAUSE letting the soldier know that you plan to contact the parties involved in the problem provides a disincentive for lying. Also, verification of the soldier's story may prevent you from being taken advantage of.

ITM #153--Subject 036, 3, 1 (12 months, AR)

When officers should communicate directly with soldiers.

IF your duty position requires you to pass out information to the whole unit (e.g., weekend safety briefs)

OR

IF you observe soldiers performing inappropriate behavior (e.g., not saluting or honoring retreat)

OR

IF a soldier has a problem that needs an officer to get involved (e.g., going to finance to solve a pay problem)

THEN communicate directly with the soldier or soldiers

ELSE go through the NCO chain of command

BECAUSE communicating through the NCOs preserves the chain of command.

ITM #160--Subject 032, 3, 2 (16 months).

What to do when your NCOs tell you they cannot perform a mission.

IF you lack technical expertise in the MOSs in your platoon

AND

IF the NCOs in the platoon tell you they cannot do a mission

THEN ask the NCOs probing questions about their rationale, (e.g., why they cannot do the mission or how they would do it differently). Also, go to technical manuals to verify information

BECAUSE by eliciting the NCOs' reasons for arguing that a mission cannot be done, you are better able to make a judgment on whether it is an accurate assessment or not.

Motivating Subordinates (B)

ITM # 162--Subject 051, 3, 2 (4 months, EN, WF)

How to motivate your soldiers when the mission is not meaningful or the work conditions are adverse.

IF your soldiers are performing missions that are not meaningful (e.g., raking leaves)

OR

IF your soldiers are working under adverse conditions

THEN tell them what to expect so they can plan ahead, even if the work will not be pleasant. Focus your efforts on providing for their basic needs, such as hot food, ice in the field when it is hot, and/or weekends off. Reward the soldiers for good work.

BECAUSE meeting basic needs provides the motivation or incentives necessary to maintain soldier morale when working in adverse conditions or performing non-meaningful tasks.

ITM #158 --Subject 029, 3, 2 (10 months)

How to get a supported unit to accept your support.

IF your job requires you to provide support to another unit

AND

IF the supported unit personnel are not fulfilling their role obligations

THEN take the initiative to perform behaviors outside of your role in order to make it easy as possible for the supported unit to accept your support, (e.g., go check on radios, teach operators PMCS, and pick-up broken ones instead of waiting for the supported unit to bring them to you)

BECAUSE the easier it is for the supported unit to receive support, the more likely they will accept your ideas concerning support in your area of expertise. Also, by

demonstrating your willingness to exceed your role to help the supported unit, you may invoke the norm of reciprocity.

ITM #159 –Subject 029, 3, 2 (10 months)

When to use directive leadership.

IF you are operating under extreme urgency because of time or priorities

OR

IF your soldiers challenge your authority as a leader

OR

IF the situation you are operating in is chaotic

OR

IF you feel that your soldiers' priorities of work are not correct

THEN use directive leadership to influence your soldiers

BECAUSE directive leadership seems to work best under the above conditions.

ITM #155 –Subject 018, 3, 2 (18 months, EN)

How to keep your soldiers morale up when operating under unfavorable conditions.

IF your soldiers are miserable

THEN share the hardship with them. Make jokes about the adverse conditions. Talk to soldiers about their families. Play on their pride (e.g., "We are the only platoon that can do this mission to standard, as we demonstrated on the ARTEP")

BECAUSE the above behaviors help keep a unit's morale up when performing missions under adverse conditions, (e.g., sleep deprivation).

ITM #148 –Subject 031, 3, 1 (18 months, WM)

How to help the in-coming leader establish his or her credibility.

IF you are the leader of a unit and are about to depart

AND

IF you want to help the new leader establish his or her credibility

AND

IF you feel the new leader is competent

AND

IF you have good credibility with your soldiers

THEN provide him or her with your endorsement prior to leaving the unit

BECAUSE an endorsement from you, a credible leader, will increase the likelihood that the soldiers will give the endorsed leader more influence than a leader that they did not know anything about.

ITM #135 –Subject 007, 3, 1 (23 months, IN, BM)

When not to try to change a person.

IF you have a NCO or soldier who is around 40 years old and does certain things that bother you

AND

IF the behaviors that bother you do not interfere with the unit's effectiveness
THEN do not waste your energy trying to get them to stop performing the behavior that bothers you

BECAUSE a person who is around 40 years old is pretty set in his or her ways and is unlikely to change.

Establishing Credibility

ITM #142--Subject 013, 3, 1 (22 months)

How to establish rapport and credibility with combat veterans.

IF you are taking over a unit that has combat veterans in it

AND

IF you do not have combat experience

AND

IF you are worried about being able to establish credibility with the veterans

THEN seek out and listen to your veterans' suggestions and advice

BECAUSE listening to your combat veterans' suggestions and advice demonstrates that you respect them and are willing to learn from them.

ITM #146--Subject 014, 3, 1 (18 months, AR)

How to establish your credibility in a new unit.

IF you are taking charge of a new unit

THEN present an image that you know what you are doing, even if you don't. Sound off--state what you do know with authority. Don't pretend to know things, instead state what you do know with conviction. Also, study to get yourself up to speed.

BECAUSE a sense of confidence builds trust with superiors and subordinates, which opens the flow of communications.

ITM #147--Subject 031, 3, 1 (18 months, WM)

How to establish your credibility when taking over a unit with combat veterans

IF you are taking over a unit that has combat veterans in it

AND

IF you do not have combat experience

AND

IF you are worried about establishing credibility with the veterans in your platoon

THEN work hard to get into top physical shape so you can excel in PT. Increase your technical and tactical competence by reading Field Manuals and military history.

Present good military bearing by having your boots highly shined, uniforms pressed, and ensuring that you have erect posture. When you speak to your soldiers, use a tone of voice that conveys respect. Do not change procedures that worked. Listen to your soldiers comments and suggestions.
BECAUSE the above activities build the skills and image necessary to establish credibility with your soldiers.

ITM #154--Subject 039, 3, 1 (3 months, WM)

How to handle an insubordinate NCO or soldier.

IF a junior NCO or soldier openly defies a directive you issued
AND
IF the junior NCO or soldier starts a verbal confrontation
THEN do not argue with the insubordinate NCO or soldier in front of others. Use the NCO chain of command to correct the problem
BECAUSE avoiding confrontation with the insubordinate NCO or soldier prevents possible escalation of the situation. Also, avoidance of a confrontation preserves your credibility due to the fact you did not lose your composure.

ITM # 164--Subject 051, 3, 2 (4 months, EN, WF)

How to survive as a female leader.

IF you are a female Army Officer
AND
IF you want to increase your effectiveness
THEN be yourself. Don't try to be someone you are not. Don't be a screamer if that isn't your style; don't try to act like a man. Try not to act like a stereotypical female, but also don't overcompensate by being just one of the guys. Do not waste your energy trying to get all of the male soldiers in your platoon to respect you. Work hard on your physical conditioning
BECAUSE First, if you try to be somebody that you are not, you may lose credibility with your soldiers. Second, you save aggravation by realizing that some of the male soldiers will not respect you because of your gender. Third, excellent physical conditioning helps you earn the soldiers' respect. Finally, some of the soldiers may never respect you because you are a female-- they will PCS eventually.

Managing Self

ITM #137--Subject 010, 3, 1 (17 months, AR)

How to handle an insubordinate soldier

IF a soldier is insubordinate in front of the rest of the platoon
THEN do not get into a confrontation with him or her. Notify the PSG about the problem as soon as possible

BECAUSE an officer can lose his or her credibility by getting into a verbal confrontation with a soldier.

ITM #138--Subject 010, 3, 1 (17 months, AR)

How to deal with your failures as a leader.

IF your unit fails because of mistakes you made
AND

IF you receive feedback about your mistakes in a public AAR
THEN reflect on the mistakes and determine what you should have done, in order to derive the lessons learned. Once you have determined the lessons learned, put the mistake behind you by telling yourself that "you" will do better on the next mission"
BECAUSE reflecting on your mistakes helps you acquire knowledge that may prevent similar errors in the future. Also, you can maintain your morale and self-esteem by not dwelling on mistakes.

ITM #140--Subject 010, 3, 1 (17 months, AR)

How to maintain your morale and motivation as a leader.

IF you are an officer and you perform your duties successfully
AND

IF you feel no one recognizes your good performance
AND

IF you feel demoralized
THEN deliberately reflect on your success in order to derive satisfaction from your good performance
BECAUSE an officer has to rely on internal rewards to maintain his or her motivation and morale.

ITM #149--Subject 031, 3, 1 (18 months, WM)

How to manage stress.

IF you are working in a stressful environment
THEN find a person you can talk to about your frustrations and problems--one who will give you positive reinforcement. Try to find a balance between your work and home life. Do not take problems home from work. When taking work home, ask yourself if the work is really critical or if it can wait until tomorrow
BECAUSE the above measures help you combat stress.

ITM #152--Subject 036, 3, 1 (12 months, AR)

How to manage yourself when you are sleep deprived.

IF you are performing sustained combat operations
AND

IF you are sleep deprived
THEN have someone check your work for mistakes. Also, use checklists or color-coded charts to catch and focus your attention
BECAUSE these measures may reduce the possibility of mistakes when you are sleep deprived.

ITM #157--Subject 018, 3, 2 (18 months, EN)

How to obtain performance feedback and developmental counseling if your commander fails to provide it.

IF you get chewed-out by your company commander concerning your performance on a particular mission
AND
IF your commander is not specific about your mistakes
OR
IF your commander does not give you guidance on how to improve your performance with regard to the particular mission
OR
IF your commander does not communicate with you concerning your overall performance or development
THEN use your fellow lieutenants as a social support group to determine if your experience was normal and what you can do to preclude making the same mistakes in the future. Also, use this support group to obtain feedback about how you compare with your peers with regard to professional performance
BECAUSE your peer social support group can provide you with developmental counseling and information on your performance if your commander fails to properly counsel you. Also, the use of a support group helps combat stress.

ITM # 166--Subject 021, 3, 2 (7 months)

How to assert your authority with higher ranking officers.

IF you are a new lieutenant assigned to a staff position
AND
IF you feel a little intimidated about asserting your authority with people who outrank you, especially your boss (battalion executive officer)
THEN before you take a stand on your position, talk to fellow lieutenants and/or captains to get their input on its correctness. When you present your position to higher ranking officers, do not worry about upsetting them. Phrase your message respectfully
BECAUSE by having others verify your position you gain confidence that it is the correct position to hold. Furthermore, you can more accurately present the facts of an issue if you are not overly concerned about upsetting the higher ranking officer. Also, respectfully wording your message may prevent the higher-ranking officer from becoming offended or threatened.

ITM # 171--Subject 064, 3, 3 (27 months, MS, WM)

How to manage a change in your own leader behavior

IF you are trying to change your own behavior in order to become a more effective leader, (e.g., controlling your temper)

THEN put visible reminders in places where you will see them throughout the day (e.g., your notebook)

BECAUSE these notes can remind you to monitor the behavior that you are trying to change.

Influencing the Boss

ITM #143 –Subject 014, 3, 1 (18 months, AR)

How to persuade your commander to change a directive you do not agree with.

IF your commander issues a directive that you do not agree with

THEN approach the commander, ask him or her about the directive in order to determine his or her rationale. After determining the commander's rationale for the directive, try to persuade him or her to change the directive by using METT-T to structure your arguments

BECAUSE the persuasiveness of your arguments may increase if you can demonstrate how the commander's directive adversely impacts on the unit's mission using the METT-T framework

ELSE

IF your persuasion attempt, using arguments based on METT-T, failed

AND

IF other key leaders in the unit feel that the commander's directive is wrong

THEN discuss the problem with the key leaders and arrange to meet with the commander to discuss the problem as a group

BECAUSE a large group of subordinate leaders, who all hold the same position regarding an issue, increases the likelihood that the commander will conform to the group.

ITM #150--Subject 036, 3, 1 (12 months, AR)

How to manage a commander who has trouble delegating responsibility.

IF your commander has trouble delegating tasks

AND

IF your commander tries to do a lot of things himself or herself

AND

IF you want the responsibility and autonomy to carry out your duties

THEN be proactive and anticipate tasks that will need to be accomplished. Then tell the commander you will take responsibility for them. Meet the commander after staff call and go over the tasking. If you can handle a particular tasking, let him

know that you will take responsibility for it. Also, give others a heads-up on tasking, so that they are working on them when the commander gives them the tasking BECAUSE your proactive assumption of responsibility saves the commander time and also makes you look competent.

ITM #151--Subject 036, 3, 1 (12 months, AR)

How to exercise initiative without overextending yourself.

IF you are going over a task listing with your commander
AND

IF a task comes up that you can handle yourself
THEN take responsibility for the task

BECAUSE this demonstrates initiative and may expand your responsibilities and degree of influence

ELSE

IF a task comes up that you are not sure that you can handle yourself

THEN do not take responsibility for the task, but take the initiative to give the person who has the capability to perform the task a warning order

BECAUSE this saves the commander's time and it makes you look squared away.

ITM # 169--Subject 049, 3, 3 (12 months, AR)

How to clarify role expectations for lieutenants with the company commander.

IF you have a problem with the way your commander defines your role as a lieutenant

AND

IF other lieutenants in the unit have the same problem with the commander
THEN discuss the problem with your peers and arrange a meeting with the commander to discuss the problem as a group

BECAUSE the group of lieutenants can provide support for each other.

ITM # 170--Subject 064, 3, 3 (27 months, MS, WM)

How to influence higher ranking officers to comply with your requests.

IF you are attempting to influence a higher ranking officer

THEN state your points of view as proposals

BECAUSE a request framed as a proposal may prevent any threats to his or her authority.

ITM # 174--Subject 071, 3, 3 (18 months, TC, WM)

How to confront your boss.

IF your commander has made a decision that you do not agree with

AND

IF you feel a need to confront your boss about it
THEN frame your input as an approach for guidance instead of a protest. When confronting the boss, do not make evaluative statements about the decision. Instead, communicate how the decision impacted on you (e.g., discuss your feelings) or the unit

BECAUSE if you approach the commander in a more confrontational manner, you might cause him to become defensive and "close the loop" (e.g., close off communication with the CO).

Unaffiliated Items

ITM # 163-Subject 051, 3, 2 (4 months, EN, WF)

How to take care of your new lieutenants.

IF you are responsible for the development of lieutenants
THEN assign each of them two senior NCOs who are not in the same chain of command as the lieutenants to act as "guardian angels." Ensure that the NCOs understand that they are responsible for helping the lieutenant succeed
BECAUSE this gives the LT someone outside the chain of command to go to for advice.